

Emotional and social value of organizations

Edited by

Virginia Barba-Sánchez, Jose Luis Retolaza, Leire San-Jose and Adrian Zicari

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Emotional and social value of organizations

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Editorial: Emotional and social value of organizations

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Editorial on the Research Topic

Emotional and social value of organizations

Introduction

Financial and economic indicators have traditionally been used to measure organizational value. In recent years, however, there has been increasing interest in corporate social responsibility and in integrating both economic and social responsibilities into organizational value. The fostering of the social and solidarity economy (SSE) (Calderón-Milán et al., 2020), the economy based on the common good (Sanchis et al., 2021) and sustainability has exposed the shortcomings of this traditional methodology when it comes to calculating the organizational social value. Due to the fact that financial-economic indicators are still recognized as the main means of determining value, there is often a lack of integration between economic and social aspects, and while there are well-established measurements for corporate economic status, there is currently no standardized method for measuring organizational social value. Although previous initiatives such as the Global Reporting Initiative (GRI) or the Social Return on Investment (SROI) have attempted to go further than merely financial aspects, these do not permit a full comparison between companies and do not efficiently analyse corporate social return (Retolaza et al., 2015). A new business narrative is, therefore, needed to incorporate this social value (Retolaza Ávalos et al., 2021).

A number of Research Topics are worthy of mention. In 2011, the authors Retolaza and San-José published the paper “Social Economy and Stakeholder Theory, an Integrative Framework for the Socialization of Capitalism” in CIRIEC-España, in which they outlined the basis of their future model. In 2016, San-José and Retolaza in collaboration with Springer published a social accounting manual for stakeholders which systematized the process to monetise the total social value generated by an organization and broke it down for each stakeholder. In 2020, a special issue entitled “Social Accounting: Monetising the Social Impact of Companies and Organizations” was

published in CIRIEC-España, and in 2021, another special issue entitled “Applying Social Value to Organizations” was also published in the Bulletin of Economic Studies. While previous studies have improved the understanding of the social value of organizations, gaps remain and further research is needed given the complexity and extent that such calculation requires. One clear example of these gaps are the attempts to quantify emotional value and these are extremely limited and incomplete. Affective events theory focuses on the role of emotion and the reaction to an event is based on the attainment of an individual’s personal goals and values (Stylos et al., 2022). People are growing increasingly concerned about the impact of economic activity on the environment and society. In this context, although organizations seek to publicly legitimize their activity, accounting is often inadequate to identify the organizational distributed value for its different stakeholders in monetary terms (Retolaza Ávalos et al., 2021). Further research is, therefore, needed in order to understand the social value, in general, and the emotional value, in particular, which is generated by organizations, especially by identifying the social value perceived by the various stakeholders.

The aim of our research is to achieve an integrated way of representing organizational value to include both the generated value aspects and the financial ones. In particular, one of the most innovative aspects addressed in this special issue is that of emotional value. Given its computational complexity, emotional value has always been relegated to future research. This issue includes 15 papers which focus on various holistic paradigms, for example, the Social Accounting for Stakeholders or Stakeholder Accounting (SAS) model. Rather than focusing purely on factors relating to economic activity, we aim to explore the processes that engage stakeholders. Furthermore, contributors apply the idea of social value to a variety of settings: universities, science and technology parks, disability organizations, food markets and the sports industry.

By applying the SAS model, we can enable a quantitative and monetised comparison of integrated value between companies. The inclusion of the emotional value would allow not only more efficient decision-making based on symmetry but also more comprehensive information (private organizations), more efficient consumption or investment decisions (private individuals) and efficient indicators for establishing public policies (public administration). This social value could well prove to be a basic, valuable corporate reputation component since it represents a way of visualizing their social contribution and their level of corporate social responsibility. The editorial team has, therefore, announced a call for research into innovative ways of measuring the organization’s social value according to its social and economic contribution but without overlooking the generation of emotional value. The researchers have presented 15 original research contributions to this special

issue to exemplify the contribution of different aspects including the financial aspect to the value generated by an organization.

Economic and social value

The monetised social accounting model provides constant feedback. It is necessary to strengthen and consolidate the model with further case studies in order to validate and standardize its principles in different economic and social sectors and types of organizations. In this regard, this special issue includes a number of practical applications to enrich the existing knowledge base and which endorse model validity. In their paper, Torres-Pruñonosa, Raya et al. outline a system to measure the economic and social value of TecnoCampus, a Science and Technology Park in the city of Mataró in the Maresme region of Catalonia in Spain, which is based on the input-output model combined with the social accounting matrix. Areiza-Padilla and Puertas, meanwhile, analyse the case of Starbucks in Colombia as a global and sustainable brand that positively contributes to sustainability in emerging markets and is beneficial both for the environment and society in general. The authors Guzmán-Pérez et al. focus their analysis on the social value and urban sustainability of food markets using the integrated social value model and obtain new, relevant and understandable social sustainability indicators for stakeholders. In another article, Cearra et al. highlight the creation of social value through cooperation and co-creation in the context of an ecosystem supporting entrepreneurship based on a technological platform and an ad hoc methodology seeking the involvement and collaboration of all stakeholders. Finally, Gutiérrez-Goiria et al. apply the Global Reporting Initiative (GRI) model to measure the social value generated by European universities for their stakeholders and identify various examples of good practices that could be used to improve reporting standards in order to better reflect social value.

It is also important, however, to emphasize the progress that has already been made by authors such as Torres-Pruñonosa, Plaza-Navas et al. in their application of a bibliometric analysis which maps the intellectual structure of scholarship on economic and social value in the sports industry. Correspondingly, in a similar way to the recent analysis of other industries, both the creation of social value indicators for sports entities and the empirical analysis of social efficiency in sports institutions are identified and outlined as future areas of research. In turn, Pascucci et al. conduct a systematic review of the research that reconciles organizational profits and social functions. Using the PRISMA method, they find that certain records mention the socio-emotional value relating to organizational and employee suffering, while other articles consider this to be a positive factor that improves performance and prevents problems in organizations.

Emotional value of organizations

The subject of the emotional value of organizations is covered in four papers which seek to quantify the emotional value generated by organizations. The authors Retolaza and San-José propose a mechanism to measure stakeholder satisfaction and its fair value using the Net Promoter Score (NPS), which the authors claim is a simpler tool for measuring satisfaction and loyalty than the earlier SERVQUAL model proposed by Ruiz-Roqueñi (2020). In turn, Ruiz-Roqueñi proposes an alternative way to monetise the emotional value dimension in this special issue through a correction factor which is applied to the value variables identified. More specifically, they also propose that reputation be considered as a correction factor, given its impact on the link between financial/economic performance and social performance. Additionally, their findings show that most of the emotional value created in a social organization arises from its interactions with its members.

In their paper, Hong et al. introduce the positive effect of emotions in the sphere of the information and communication technology industry by relating it with teleworking during the COVID-19 pandemic, while Zhang et al. consider the specific aspects of emotional regulation in Chinese culture, otherwise known as guanxi harmony. In both cases, the results suggest that if human resource managers wish to enhance workers' remote engagement or promote employee motivation, they should apply appropriate emotion regulation strategies.

The psycho-emotional aspect of social value creation is also analyzed in the paper by Margaça et al. based on establishing social companies aligned with the 2030 Agenda to achieve the Sustainable Development Goals (SDGs). By comparing Portugal and Spain using the dimensions of the Theory of Planned Behavior (TPB), they measure spirituality and optimism as sources of emotional value in the process to create a company in the social economy.

Social value of disability organizations

Finally, three papers focus on disability organizations as social value generators. The first paper by Ortiz García and Olaz Capitán researches value generation by entrepreneurship for people with disabilities (PwDs), a particularly vulnerable group with high rates of unemployment, and this is based on a sample of 224 entrepreneurs with disabilities (EwDs). In the second paper, Barba-Sánchez et al. explore the subject in greater depth by analyzing a specific case of entrepreneurship by people with intellectual disabilities (PwIDs), Abono Café, and how it has contributed to improving their job integration and their network

of social relations by generating social value in their immediate surroundings, and this confirms the results presented by Barba-Sánchez et al. (2021). In the third paper, Tirado-Valencia et al., examine how third-sector organizations working in the disability sector account for the emotional value they create for their stakeholders. These disability organizations, which are either created by EwDs or which hire PwDs, generate social value not only for this vulnerable group of people but also for all other stakeholders, given that employment contributes to the psycho-social and economic development of individuals while increasing the social well-being of the community (Wiklund et al., 2019).

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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The Economic and Social Value of Science and Technology Parks. The Case of Tecnocampus

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This article aims to measure both the economic and social value of Tecnocampus, a Science and Technology Park in its region of influence (Mataró city in the Maresme region of Catalonia, Spain). Our results show that the impact of Tecnocampus has a socioeconomic cost–benefit ratio of 2.39. Measuring the impact of this multifaceted centre requires a diverse approach. Although the methods used are not new, the combination of them presents a novel approach to measure the impact of an institution of this nature. We have measured the economic value with the Input–Output model, including the Social Accounting Matrix. On the other hand, for social value calculations, we have used cost–benefit analysis adding measurements of firm localisation to estimate externality effects. Our main results present an economic value of more than 0.054% of the Catalan GDP, whereas the employment impact represents almost 0.37% of total employment in the region. The total economic multiplier of Tecnocampus activity is estimated to be 1.89. Social value generates an additional 0.50 euros to the multiplier according with our analysis. This additional social value represents an increase of productivity estimated in 20 million euros of operational income for Catalan firms and the creation of seven additional firms in the Maresme region as a result of knowledge spillovers. The social value also includes reduction of over-education caused by a better matching between graduates and enterprises, a more direct application of research, and an increase in consumer surplus. Finally, we discuss the policy implications of our findings to promote investments in this kind of infrastructures.

Keywords: economic value, social value, science and technology parks, input–output model, social accounting matrix, cost benefit analysis, Catalonia, Spain

INTRODUCTION

Over the last 30 years, the majority of Europe's industrial areas, and Catalonia [Nomenclature des Unités Territoriales Statistiques II (NUTS-II)] in particular, have witnessed a transition from an economy with strong links with industry to a service-oriented economy based on innovation. Without question, the weight of industry as a proportion of GDP has diminished conspicuously in many industrial regions, while economic growth depends to an increasing extent on an economy driven by innovation. It is well known that political and economic institutions play a decisive role in the creation of a favourable environment for development, insofar as they establish incentive structures (North, 1990; Williamson, 2000; Acemoglu, 2002). Thus, governments in developed

countries strive to promote innovative and entrepreneurial activity (Kuratko, 2005; Baumol and Strom, 2007; Acs et al., 2011; Estrin et al., 2013). In particular, the European Commission regards innovation as a policy that favours quality employment (European Commission, 2009, 2013) in this context. The practical implementation of this strategy has led to the development of numerous public initiatives: incubators, accelerators, investor networks, active networking spaces, technology transfer centres, spin-off facilities, and Science Technology Parks (STPs). STPs (Hobbs et al., 2017) are initiatives commonly implemented by public authorities or universities to create a space for activities based on innovation, under optimal conditions in terms of premises and facilities for R&D, knowledge transfer, and entrepreneurship. The aim of these initiatives is to aid in the transition of so-called industrial districts to so-called innovation clusters. Indeed, the combination of a high degree of industrial clustering, typical of traditionally industrial areas, with a hub based on a high degree of innovation appears to be a factor that facilitates the transition towards an economy based on innovation (APTE, 2007).

Among these initiatives designed to promote innovative activities, we would highlight the promotion and development of a specific STP in Spain. This is the case with Tecnocampus Mataró-Maresme Science Park (hereinafter, Tecnocampus), a non-profit foundation linked to the public university system by an affiliation agreement, a special type of relationship that grants autonomy to create a unique project under the tutelage of the university system.

In this regard, Tecnocampus is affiliated to Pompeu Fabra University, one of the most prestigious universities in Spain. As a matter of fact, Pompeu Fabra University is ranked as the first Spanish university according to the Times Higher Education World University Ranking (2020), the Times Higher Education Young University Ranking (2020), the Ranking, 2019 of research in *Spanish public Universities* (Buela-Casal et al., 2019), and *U-Ranking* (Pérez et al., 2019). It is ranked as the second Spanish university according to the U-Multirank (2019-2020) and the third one according to the *U.S. News & World Report* (Clarivate, 2019) and the Ranking CYD (2019). Finally, according to CWTS Leiden Ranking (2019), it occupies also the second or the third position, depending on the items measured.

Companies have been mainly considered as generators of economic value, which has placed their social value into a second role (Groth et al., 1996; Retolaza et al., 2015). Nonetheless, some scholars joined both values into a more integrated perspective (Nelson and Winter, 1982; Williamson and Winter, 1993; Torres-Pruñonosa et al., 2012; San-José et al., 2012, 2014; Retolaza et al., 2018). In fact, some methodologies have emerged over the last years to quantify social value of organisations (Lingane and Olsen, 2004; Olsen and Galimidi, 2008; Tuan, 2008; Mulgan, 2010; Retolaza et al., 2016, 2020; Lazcano et al., 2019).

As far as STPs are concerned, most articles deal with their economic impact without measuring their social value creation (Lyra and Almeyda, 2018; Albahari et al., 2019). Fulgencio (2017) establishes the conceptual framework for social value of Bioscience Parks. Lecluyse et al. (2019) critically review both the methods and the theoretical deficiencies of STPs contribution

using the Input–Mediator–Outcome framework and suggest future research upon social and human capital theory. Blázquez et al. (2020) propose the use of social accounting to assess the social value of STPs. In this regard, secondary data available in open databases are used instead of primary data.

With regard to higher education industry, most literature focuses on the assessment of the economic value generated by universities (Bonner, 1968; Brownrigg, 1973; Boot and Jarret, 1976; Bramwell and Wolfe, 2008). Drucker and Goldstein (2007) review four approaches taken when assessing the economic regional impacts of universities, namely, “impact studies of individual universities, surveys, production–function estimations, and cross-sectional or quasi-experimental designs” and conclude that their economic impact on the region is considerable. For instance, Garrido-Yserte and Gallo-Rivera (2010) assess the economic value of a Spanish university, University of Alcalá. In actual fact, few are the articles that assess the social value created for society, and most articles deal with the theoretical framework (Vila, 2000; DeClou, 2014). In this regard, Ayuso et al. (2020) quantify the social value generated by Pompeu Fabra University by means of an integrated social value analysis, considering both the economic and the social value that has been created by this university for its stakeholders, using the polyhedral model based on the social accounting methodology (Retolaza et al., 2016). Albahari et al. (2017) analyse the involvement of universities in STPs and conclude that higher involvement is positively related to the number of patents, but negatively related to tenant's innovation sales.

The aim of this study is to design and estimate the economic and social value of Tecnocampus, an STP, in its region of influence, mainly the city of Mataró (NUTS-V) and Maresme (NUTS-IV) county or region. In methodological terms, the European Commission (2014) guidelines for the economic assessment of investment projects will be followed, as well as the notes for the assessment of STPs (Florio et al., 2008, 2016). Likewise, similar analysis carried out in other STPs and universities will be reviewed, such as Arizona Tech Park (Pavlovich-Kochi and Vp Research Consulting, 2015), University of Wisconsin-Madison (North Star Consulting Group, 2015), Princeton University (Appleseed, 2016), and other research infrastructures (Raya and García-Montalvo, 2016).

The analysis of the economic value of Tecnocampus' activity includes the direct economic benefits and indirect and induced effects, which are computed using the Input–Output (IO) model with a Social Accounting Matrix (SAM) for the indirect and induced economic effects. Not only economic sheets, but also surveys administered to entrepreneurs and students are used to calculate the direct economic impact. The calculation of the social value uses the cost–benefit analyses (CBAs) and takes into account a multidimensional perspective, considering the benefits for companies, researchers, students, and the region. We take into account externalities, not only for benefits, but also for costs.

This article is structured as follows: section “Context of the Analysis: The Case of Tecnocampus” will analyse the antecedents and the activities of Tecnocampus. Section “Methodology” will

consider the methodology used. The fourth and fifth sections are the “Results” and “Conclusion,” respectively, of the article.

CONTEXT OF THE ANALYSIS: THE CASE OF TECNOCAMPUS

Tecnocampus is a non-profit foundation created in 2010 that joins together a university campus, an industrial high-tech cluster and a start-up incubator system. The Tecnocampus foundation is promoted by the local government to function as a public-private innovation centre with the objective of fostering the economic and social value of all the implicated agents creating a spillover effect over the region. Therefore, Tecnocampus has a triple-helix formed by local government, industry, and university (Etzkowitz and Zhou, 2018).

Tecnocampus is linked to the public university system by an affiliation agreement, a special type of relationship that grants autonomy to create a unique project under the tutelage of the University system (in Tecnocampus' case, it is affiliated to Pompeu Fabra University). As a foundation, it is governed by a board in which social and economic actors of the region are represented. These regional ties are essential to view Tecnocampus as a driver of growth through higher education, innovation, and entrepreneurship. It is a regional initiative with a local character within an area with a strong industrial heritage – the city of Mataró and the Maresme region, on the north coast of Barcelona – that has been hit hard by the various economic crises of recent years (Raya et al., 2017; San-José et al., 2020). Mataró is a city where actually industry represents 19% of the GDP, and while standing out in Catalonia as a whole as an industrial area, nowadays it no longer appears to be the great industrial city it was in the 1970s and 1980s when industry represented 50% of the Catalan GDP. In the 19th century, Mataró city and Maresme region were one of the most important industrial cities and regions in Spain and hosted the location of the first railway on the Iberian Peninsula, and the first steam-powered textile factories. During the 20th century, the industrial sector not only has expanded, but also has diversified from textiles into other related industries: industrial machinery, metallurgy and chemicals, and, many years later, information technology. Since its inception, the project was led from within the region, with the influence of the City Council (historically closely involved in education, Mataró being one of the cities in the country in which the City Council's influence in education is most marked) and the backing of businesses, which became partners in an educational model always focussed on preparation for professional practice and grounded in the importance of work placements in their production plants. Business organisations were represented in its governing body from the outset and had an influence on study programmes and on a dual educational system in which training in entrepreneurship was considered a core subject in study programmes for future engineers.

To explain the impact of Tecnocampus on the region, it is relevant to take into account these antecedents of entrepreneurship and early industrialisation in the region, which over the years gave rise to a culture of entrepreneurship, which is

a special characteristic of the local society. There is no doubt that to explain Tecnocampus' success, it is necessary to understand its historical links with the local manufacturing industry and to the Catalan entrepreneurial culture and the Catalan government, which has its own heritage and identity within the Spanish State. This culture of industry and entrepreneurship permeates society, acting as an informal institution. In other words, it creates a set of informal rules, ways of acting, and perceiving that come together to forge a natural attitude towards the decisions involved in creating individual initiatives (Audretsch, 2007).

The Tecnocampus project involved the development of a built area of 50,000 m² and a total investment of 50 million euros, and today, 10 years after it began operating, it can be considered a success. The explanation for the success of the model may be attributed to the interaction between business and their surroundings, a true ecosystem in which university and business go hand-in-hand. This success has been quantified in this study on the basis of the initiative's impact on the area, which is evident in the growth data presented.

Tecnocampus has three university centres: School of Business and Social Science, School of Engineering and Technology, and School of Health Sciences with 293 professional teachers. There were 3,535 students who have been enrolled from 2010 to 2019, in 12 official undergraduate and 11 graduate degrees. Ninety-one percent students chose Tecnocampus as the first option when selecting their university to enrol. Tecnocampus has bilateral agreements with 86 universities in the Erasmus framework, 25 universities in the rest of the world, and 802 company collaboration agreements. The incubator has provided a location for 21 start-ups, and the consultancy service for business creation has created 60 companies in 2019 and has provided support to 524 entrepreneurs. Currently, the STP is complete, within the region of 120 innovation-based businesses that employ approximately 823 employees, and with an enlargement of the complex underway to accommodate a level of growth that has surpassed the initial expectations.

All in all, Tecnocampus is an institution whose mission is focussed on the social and economic development of the region (Maresme, Barcelona north coast) based on two approaches that are organised within a holistic model that aims to blend them into a whole: (1) higher education strongly oriented towards preparation for professional practice and (2) the activities of an STP that include the accommodation of innovative businesses and the incubation of start-ups.

METHODOLOGY

As we have already mentioned, Tecnocampus is the combination of three university centres affiliated to the Pompeu Fabra University and a Technology Park, managed jointly in order to achieve an actual virtuous circle between university and business. STPs, besides fostering the regional economic development, contribute to the improvement of the region's quality of life by improving its human capital, creating jobs with an added value as well as research an innovation. These three aspects are highly related to long-term growth in a region.

All these activities have significant effects on the geographic area under the STP's influence in terms of economic development, both with regard to the generation of economic activity and in the creation of employments. Not only the expenses necessary for the STP's functioning must be taken into account, but also the expenses of the STP's firms and the students coming from outside the area of influence, all of which result in an injection of revenue and the generation of local production and occupation.

Measuring the impact of this multifaceted centre requires a diverse approach. For this reason, this article combines different methodologies to measure the economic impact of this institution. Despite the fact that the methods used are not new, the combination of them presents a wider picture of the impact of an institution of this nature.

In economic literature (Fletcher, 1989; Meng et al., 2013; Chang et al., 2014; Stadler et al., 2014; Artal-Tur et al., 2016), the tool most commonly used to estimate the economic value or profit of an infrastructure is the study of the economic impact by means of the IO charts, which allows measuring the effect of the interdependence among the different production sectors, distinguishing between direct, indirect, and induced impact.

The attractiveness of the economic impact studies based on the use of multipliers by means of IO charts is their limited needs of information, in comparison to the demands in terms of modelling and information of other methodologies.

Nevertheless, some studies (Lee and Taylor, 2005; Bonfiglio and Chelli, 2008; Flegg and Tohmo, 2013; Gretton, 2013) defend that in these works on economic impact, net profits are overestimated, and they suggest that other economic assessment techniques, such as the CBA, should be used in the economic and social assessment of these events.

The studies on economic impact and CBA (Brent, 2006; Mishan and Quah, 2007; Raya-Vilchez and Moreno-Torres, 2013; Sartori et al., 2014; Boardman et al., 2017) are effective to convey to the society, in a quantified way, the economic and social effect of a particular infrastructure or public policy. To such an extent that when dealing with supranational entities financing jointly an investment, this kind of studies is usually required for them to be discussed and potentially approved. Thus, studies on the economic impact of big science infrastructures and their updating, either periodical or with the current data, instead of previsions, are usual economic exercises. Many a time, the updating of the original studies refines models and allows working with actually made investment instead of with previsions.

The methodology used to assess the overall impact (both economic and social) of Tecnocampus is based on different types of analyses. We have measured the *economic value* based on the IO model, including the SAM. On the other hand, as far as the *social value* is concerned, two methodologies are used. First, a CBA to capture all the possible non-economic costs and social returns from Tecnocampus activity has been used. Second, a regional analysis based on different measurements of firm localisation to estimate the externality effect of Tecnocampus in its region and the spillover effects has been applied.

The data for the analysis were obtained from internal records of the institution, surveys to other stakeholders, and SABI¹ database. The financial records of Tecnocampus were used to value the direct expenditure of the institution. Surveys were applied to firms and students to capture other economic activity inside of the STP that is not assessed by the financial reports of Tecnocampus. SABI was used to monitor the creation and impact of new firms in the region since the inception of Tecnocampus so as to assess the external effects.

Economic value was divided into three main categories: (1) direct impact, (2) indirect economic impact, and (3) induced effects.

First, the direct economic impact of the Tecnocampus has been split into four categories: operating expenses, investments, start-up expenses, and expenses of visiting students.

Second, for the IO analysis, an IO matrix of the economy and relationship between economic sectors is needed to estimate the indirect economic impact of expenses. Therefore, the latest Catalan IO matrix available published by the Catalan statistical office (Idescat), was used. Additionally, an aggregated expenditure for Tecnocampus was needed.

Third, induced effects are estimated, and in this regard, macroeconomic accounts are necessary. The link between the R&D industry and macroeconomy is obtained by inserting the Catalan IO matrix into a SAM, which presents a snapshot of the economy for a given year by means of a double-entry table that synthesises and describes the structure of an economy in terms of the links between production, income distribution, and demand. Thus, the revenue and expenditure of all agents and institutions in an economy are included. As a square matrix that records flow of all transactions (by equalising total expenditures/leakages to total incomes/injections), it provides a balanced macroeconomic position.

Social value was divided into three main categories: (1) for companies, (2) for researchers and students, and (3) for the region.

First, the social value created for companies can be assessed by the number of spin-offs and start-ups, the development of new products and processes, and the provision of special services and knowledge spillovers to non-user businesses, which prefer to be located close to the STP. Both the social value of the jobs created and the R&D investment were monetised by means of CBA.

Second, social value created for researchers and students considers four items, and also CBA was used: (I) the value of scientific publications. In this regard, both the Tecnocampus researchers' wages and the time they spent in research were used. (II) The reduction of over-education for both researchers and students. (III) Social value for students is captured by the reduction of the future rate of unemployment and by a higher future salary (approximately 7.15%, according to de La Fuente and Jimeno, 2011). However, this benefit cannot be attributed to all students but only to those who without the Tecnocampus

¹SABI is the acronym for Iberian Balance Analysis System. It is a private database that reflects the status of more than one million companies in Spain and Portugal done by Bureau Van Dijk.

would not have continued their studies. (IV) The consumer surplus for some students has been monetised.

Third, the social benefits for the region have been calculated on the basis of the seminal work by Rosenthal and Strange (2003), which states that the firm's location decision is based on the maximisation of profits. The local characteristics displace the production function, so firms will decide to be located in regions that foster their productivity. Based on this model, we conducted a regression analysis using as dependent variables the number of new firms in the region and, as a second step, an ordinary least squares (OLS) of the profit generated by the firms in the region to capture also external effect to the existing firms. Using data before and after the creation of Tecnocampus, we can measure the external effect on the location of start-ups (number of new firms) and productivity (profits) of firms in different regional setups.

Economic Impact of the Tecnocampus STP: Direct Impact and Input–Output and SAM Analysis

This subheading deals with the analysis of the economic impact originating by Tecnocampus activity. The amount of the money spent by the STP, students, or start-ups in their daily activity generates economic impact. Besides the direct impact, indirect and induced impacts are calculated. To assess both indirect and induced effects, the IO model, including the SAM, is the most used methodology. As a matter of fact, IO models take into account interindustry IO relations and final demand (i.e., exports and imports, investment, consumption, and so forth) simultaneously (Pyatt and Round, 1979). Thus, the impact of an external demand shock on the economy (for instance expenses from start-ups or students) can be estimated. The Tecnocampus activity demands services from several sectors or subindustries, and therefore, any demand or/and supply-side shock given to the industry involves industrial and interindustry impacts. The main input used to calculate the economic impact by means of the IO analysis is the current spending by students and start-ups, which is usually determined by means of surveys. Furthermore, the economic sheet of the foundation is important to calculate the impact of operating expenses and investments. The multiplier effect that the spending of one category has on the host economy is a usual result. Therefore, the multiplier effect is the increase in final income due to knock-on effects within the local economy from new extra spending in this category. In actual fact, it comprises the direct, indirect, and induced multipliers. First, direct effects are the increase in sales revenues of firms' or students' spending. Firms, in turn, need to purchase inputs from other firms located in the region, which, in turn, will have to purchase inputs from other ones and so forth. These are the indirect effects we refer to, which are generally distributed among various economic sectors, in contrast with only those that are most directly associated with Tecnocampus' activity, which is the case of direct effects from firms' expenses. Finally, induced effects are generated when the receipts (increased incomes, such as employees' wages) of direct and indirect expenditure are spent. This generates further consumption, input spending by firms, and so on, ultimately generating an increase in output,

added value, and employment in the host economy. Hence, the final increase in income in the host economy is generally higher than the initial increase generated by firms and students' spending. SAM models that include IO models are commonly used to obtain income multipliers of induced effects. The spatial dimension of these effects has restricted the area to Catalonia.

Despite the fact that the limitations of the traditional IO economic impact model are well known (Czarnanski and Malizia, 1969), it is still commonly used in many sectors. Criticisms of traditional IO models include the fact that relative prices are fixed, and consequently, input substitution is not possible, factor inputs are infinitely available, and there is a linear relationship between direct and indirect effects. Because of all these limitations, a positive increase in the demand of a region will always cause an expansion of its economic activity, as well as positive multiplier effects. Hence, economic impacts may be overestimated. Nonetheless, other kinds of models (such as general equilibrium models) require a large amount of information that, as in our case, is not always available. Consequently, we have employed a traditional IO model to analyse the economic impact (direct plus indirect effects) of investing in STPs and a SAM for calculating induced effects.

The total multiplier from previous studies on STPs and higher education institutions (Moretti and Thulin, 2013; Hermannsson et al., 2014; Zhang et al., 2017) generally ranges between 1.51 and 2.03. Therefore, it is expected that the multiplier obtained in our case will be within that range.

Questionnaire Data

In order to estimate the direct economic impact, a survey was carried out to all students from outside of Catalonia and all start-ups, during May 2017. With regard to students, 118 students came every year from outside of Catalonia to take their undergraduate and graduate courses (93 are undergraduate and 25 graduate). We collect 56 valid responses from an online survey. Therefore, using a 95% of confidence, the margin of error was 5.35%. The questionnaire mainly included questions regarding expenses and their composition (accommodation, shopping, transport, etc.). The expenses of the Tecnocampus students from outside of Catalonia in 2016 were almost 0.9 million euros. The main recipient was the trade, transportation, and hospitality sector.

As mentioned before, 120 start-ups are set in the Tecnocampus STP. Through a questionnaire, each company was asked about the number of employees, salaries, investment in R&D, number of patents requested and granted, and their main financial figures (turnover, expenses, etc.). Finally, 59 valid responses were obtained, and the margin of error was 5.8%. The expenses of the start-ups in 2016 amounted to more than 61 million euros. The main recipient was the industry sector.

Cost–Benefit Analysis

In a CBA, economic benefits and other social benefits of investing in STPs, as well as economic and non-economic costs, are taken into account. Therefore, this methodology makes it possible going one step further and evaluating some social variables and

effects that are not taken into account by other methodologies such as IO outcomes.

The costs and benefits included in a CBA are social in nature (i.e., social costs and social benefits) and included monetary and non-monetary, as well as tangible and intangible, costs and benefits. CBA measures all benefits and costs in monetary terms, so that a single measure of “social profitability,” the “net benefit” (net present social value), can be obtained. If this figure is positive, net benefits are positive; i.e., social benefits exceed costs, and hence the investment is socially profitable. This way of proceeding also allows the comparison of alternative uses of resources or funds and therefore allows the decision-maker to make investment decisions by comparing the net social value of alternative investments. CBA is commonly used in public sector investment decisions; in fact, in many cases, public projects have to pass a CBA before being implemented, to show and quantify their net social value.

In order to obtain a single figure of net social value, CBA needs to value all costs and benefits (present time equivalent) in monetary terms, including those that do not have a market price (intangibles; Florio et al., 2008). The estimation of the economic benefits obtained from students' spending and the economic impacts in the previous section was easier because things such as board and lodging or ports equipment, to mention just a few examples, have market prices. The valuation given by individuals to goods or services as a measure of their willingness to pay for them is captured by these market prices under some assumptions (such as perfectly competitive markets). With regard to intangibles, there is no market price, and consequently, there is no observable monetary figure for individuals' valuations. Several methodologies can be used to value intangibles. The basic methods are revealed preference methods (indirect methods) and stated preference methods, such as contingent valuation methods (direct methods). The revealed preference methods are based on an individual's market decisions (individuals paying or accepting compensation by buying or selling, for example), which can be used to “reveal” how individuals value the intangible. Among the most commonly used methods, it is worth mentioning the travel cost method, hedonic prices, human capital models, and productivity models. Below, a first approach to a CBA of public investment in STPs is presented.

Regional Impact Analysis

The objective of the location exercise is to evaluate how local conditions affect the decision of new companies to locate within the territory. Therefore, starting from the classical theoretical basis, a variable that measures the presence of Tecnocampus was added. The aim is to quantify the effect within the territory and compare the main differences in order to draw conclusions about it.

The theoretical model is based on the work of Rosenthal and Strange (2003). It is based on the fact that each firm will make its own decision on location through a profit maximisation condition where the price of production is normalised to 1.

$$\pi(y) = a(y)f(x) - c(x) \quad (1)$$

where $a(y)$ displaces the production function $f(x)$, y is a vector of local characteristics, and x is a vector of inputs that have a cost $c(x)$. The inputs are chosen to maximise benefits in the traditional way. Thus, for example, the company maximises on the optimal number of inputs x in such a way that:

$$a(y)df(x)/dx - dc(x)/dx = 0 \quad (2)$$

The birth of an establishment occurs if it can obtain positive benefits when its inputs are at maximisation levels. At the same time, as businesses are heterogeneous in their potential to generate profits, Equation (1) can be rewritten as follows:

$$\pi(y, \varepsilon) = \max_x a(y)f(x)(1 + \varepsilon) - c(x) \quad (3)$$

where ε is independently and identically distributed through all possible locations according to a cumulative probability function $\Phi(\varepsilon)$. In this way, for each value of y , there is a $\varepsilon^*(y)$ for which $\pi(y, \varepsilon^*(y)) = 0$, so for a $\pi(y, \varepsilon) > (<) 0$, there is a value of $\varepsilon(y) > (<) \varepsilon^*(y)$. Therefore, the probability that an establishment is created will be equal to $\Phi(\varepsilon^*(y))$. Assuming that the presence of Tecnocampus in the region is a local characteristic found in the vector, it would be expected to increase the probability that a business would be established in the region.

Although this model was developed to be the basis for the theory of location in urban areas to account the advantages of agglomeration economies, it can be assumed that the Maresme region can be accounted as an urban entity formed by several municipalities with Mataró as the urban centroid.

To capture empirically these regional effects, panel data with fixed effects regression model have been used. The dependent variable, the number of new firms, is explained by a series of local characteristics of the municipality. Therefore, the model to be estimated would have the following form:

$$N_{it} = \beta^1 N_{it-1} + \beta^2 TCM_{it} + \beta X_{it} + \eta_i + \varphi_t + \varepsilon_{it} \quad (4)$$

where N_{it} is the number of new firms in municipality i and in period t , that is, the dependent variable that we seek to predict. The independent variables are made up of a lagged value of new firms N_{it-1} in order to measure the persistence of births and capture how new companies follow other entrepreneurs also known as location economies. The variable TCM_{it} is the one used to measure the presence of Tecnocampus by means of a dummy variable. The matrix includes another series of regressors that measure local conditions X_{it} , such as population, municipal public spending, presence of credit institutions, and population density, among other relevant variables. The variables η_i and φ_t are municipal and temporal fixed effects, which try to capture the unobserved heterogeneity resulting from other factors that are common to a territory (municipality) or to a specific year within the study period. Finally, ε_{it} is the error term that captures the part of the dependent variable that cannot be explained by the model.

A second version of the model previously presented is calculated in order to account for the productivity effect of Tecnocampus on existing firms.

$$Income_{it} = \beta^1 Income_{it-1} + \beta^2 TCM_{it} + \beta X_{it} + \eta_i + \varphi_t + \varepsilon_{it} \quad (5)$$

The variable $Income_{it}$ captures the total operation income of the firms located in Maresme, so we can account for additional productivity not only in the new firms created but also the spillovers in existing firms.

To estimate the model, data from the period 2002–2011 have been used, as more current data are not available for some of the relevant variables. This period focussed on the effect of Tecnocampus in its first 2 years of existence, which is expected at least to be maintained over time. The data on new firms and total operation income of existing companies are obtained from SABI database, although it is not a census of companies, it allows to obtain data at the municipal level that is not available in public datasets. The Ministry of Finance database has also been used to approximate local public spending, and the statistical database of the largest Spanish savings banks (La Caixa, 2013) is used to obtain municipal activity data. A total of 280 observations are obtained over 28² municipalities and 10-year period.

RESULTS

Economic Value: IO Analysis

We have divided the direct impact of the Tecnocampus into four parts: operating expenses, investment expenses, expenses of the start-ups, and expenses of the students from outside of Catalonia. To carry out the IO analysis, and consequently to calculate the indirect economic impact from the expenses, it is necessary to have an IO table of the Catalan economy, as well as the relationship between economic sectors. We have used the latest Catalan IO table that was available when the analysis was carried out, generated by the Catalan statistical office, Idescat, for 2011. Although we present the information for the grouping of 10 sectors, we have used the grouping of 82 sectors for calculations. An aggregated expenditure for the Tecnocampus was needed.³ As stated above, this figure was obtained from the information given in the surveys collected, as well as economic sheet of the company. Thus, indirect effects of the Tecnocampus were calculated using the well-known IO table multipliers (Tables 1–3). Direct plus indirect effects were 96,924,866 euros in terms of output; 33,517,817 euros in terms of added value and 1,349 jobs in terms of employment.

The standard IO model is useful in the estimation of the indirect economic impact resulting from Tecnocampus' expenditure, as it includes interdependence among production industries in an economy and provides information about intermediate and final demand. However, it is not enough to calculate induced effects. Induced effects are created when employees and anyone whose income increases in general spend the new income generated in the region by Tecnocampus' spending. Consequently, there is an additional effect on final

demand. Macroeconomic accounts are required to calculate induced effects. The link between the R&D industry and the macroeconomy is obtained by inserting the Catalan IO table into a SAM. A SAM presents a snapshot of the economy for a given year. It is a double-entry table that synthesises and describes the structure of an economy in terms of the links between production, income distribution, and demand. The revenue and expenditure of all agents and institutions in an economy are included (Thorbecke, 1998). As a square matrix that records flows of all transactions (by equalising total expenditures/leakages to total incomes/injections), it provides a balanced macroeconomic position.

The SAM built by Llop (2012) has been used to calculate induced economic effects. It covers consumption–income relations in the Catalan economy. Table 1 shows that including induced effects in the computations increases the previous economic impact figures, which only included direct and indirect effects. As can be seen in Tables 1, 2, total impact is 118,526,800 euros in terms of output; 45,811,776 euros in terms of added value, and 1,836 jobs in terms of employment. These figures are significant in relative terms. The output impact represents more than 0.054% of the GDP⁴ whereas the employment impact represents almost 0.37% of total unemployment. Finally, the total multiplier generated by Tecnocampus activity is 1.89 (Table 3), in line with those previously found in the literature, which range from 1.51 to 2.03 (Moretti and Thulin, 2013; Hermannsson et al., 2014; Zhang et al., 2017).

Social Value: CBA of Tecnocampus Activity

One mischievous procedure of economic impact calculation by using IO tables has to do with the fact that it considers only economic impacts and, in consequence, only economic benefits, ignoring the increase of non-monetary costs that can also be generated by Tecnocampus' activity. A CBA allows the inclusion of these as well as other social costs and benefits. This subsection presents a CBA of public investment in Tecnocampus. In this analysis, the costs carried out by the local community and opportunity costs (benefits if resources were redirected to other activities) are included. Furthermore, the non-monetary benefits that cannot be included in an economic impact analysis are also included. In particular, this research includes benefits for companies, researchers, and students and benefits for the region (Florio et al., 2008; Florio, 2014).

The first aspect to consider when carrying out a CBA is the establishment of a time horizon. The time horizon is particularly relevant for investment projects where the costs and benefits streams are generated in different moments (usually, costs first and benefits later). In our case, the initial investment in Tecnocampus was made from 2003 to 2010. In this respect, we are interested in social net value of Tecnocampus yearly activity rather than the whole expected flows during the investment

² Maresme region is formed by 30 municipalities, two of which are excluded (Òrrius and Sant Iscle de Vallalta) because they have fewer than 1,000 inhabitants. So, not all the relevant variables for the analysis can be obtained.

³ Following Jeong et al. (2015), mischievous practices in economic impact analyses are avoided. These mischievous practices are related to population considered and technical issues (apart of not considering increase in monetary and non-monetary costs and benefits than can also be generated by Tecnocampus' activity).

⁴ Catalan GDP in 2016 was 223,629 million euros and total unemployment at the end of 2016 was above 497,400 (according to the Idescat, the Catalan Statistical Office).

TABLE 1 | Total impact of Tecnocampus activity.

	Direct	Indirect	Induced	Total
Output	78,264,517.46	18,660,348.72	21,601,933.68	118,526,799.86
Value added	24,051,765.97	9,466,050.89	12,293,958.76	45,811,775.62
Employment	950.72	398.68	486.71	1,836.11

TABLE 2 | Total impact of Tecnocampus activity by sectors. Output in euros.

	Direct	Indirect	Induced	Total
Primary sector	0.00	0.00	0.00	0.00
Industry	29,326,487.50	11,624,476.56	13,495,752.14	54,446,716.20
Construction	245,479.07	210,838.42	110,472.14	5,663,789.63
Commerce, transport, and hospitality	2,184,830.97	1,059,934.23	1,137,411.85	4,382,177.05
Information and communication	1,536,306.96	316,757.49	546,845.94	2,399,910.39
Financial activities	1,993,468.31	1,047,874.95	719,734.34	3,761,077.60
Real estate activities	0.00	0.00	0.00	0.00
Professional activities	5,506,375.47	3,016,746.65	2,389,228.85	10,912,350.97
Health, education, and public sector	4,019,695.34	1,252,829.71	3,075,304.05	8,347,829.10
Entertainment activities	344,994.55	130,890.71	127,184.37	603,069.63
Total (without domestic economies)	45,157,638.17	18,660,348.72	21,601,933.68	85,419,920.57
Domestic economies	33,106,879.29			
Total	78,264,517.46			118,526,799.86

TABLE 3 | Tecnocampus economic multipliers.

	Type I	Type II
Agriculture	0.00	0.00
Manufacturing	1.40	1.86
Construction	0.00	0.00
Commerce, transport and hospitality	1.49	2.01
Information and communications	1.21	1.56
Finance and insurance	1.53	1.89
Real state	0.00	0.00
Professional activities	1.55	1.98
Public sector, education, and health	1.31	2.08
Culture, entertainment, and others	1.38	1.75
Total	1.41	1.89

period. Accordingly, the analysis presented below corresponds to 1 year, 2016, and no net present value calculations are necessary.

A further issue is which benefits and costs should be considered in a CBA. In this article, they have been chosen according to the literature on investment in STPs and higher education (Florio, 2014) and the possibilities of estimating them using available information. The benefits for the population of Catalonia are as follows: Tecnocampus' economic revenues, benefits for companies (start-ups creation, innovation, and location), and benefits for researchers and students (research, reduction of over-education, consumer surplus, and access to innovation programmes). Finally, although not valued, we will offer some discussion about region benefits. With regard to costs, tangible costs have been included (operating and investment costs of Tecnocampus activity), as well as local students' costs. In all cases, the spatial dimension considered is the Catalanian

area.⁵ The selection criteria for the chosen benefits and costs are data availability and expected value of the figure. An example could help to illustrate this point. Ignored costs could be either negative externalities (in terms of a higher traffic)⁶ or positive externalities (an increase in housing prices). In this case, it is not only difficult to know the exact figure, but also the relative decrease in figures. That is, concepts that we have not taken into account are negligible.

Social Benefits

Social benefits for companies

Concerning social benefits for companies, these benefits can be in the form of the establishment of spin-offs and start-ups, the development of new products and processes, and the provision of special services and knowledge spillovers to non-user businesses, which prefer to locate close to the STP facilities. With respect to the creation of new businesses, they should be valued as the expected shadow profit gained by the business during its lifetime, as compared to the counterfactual situation (either by a higher survival rate or by the fact that this is a business that had not been created). Because of lack of data to implement this calculation, we use a traditional valuation based on the economic value of the jobs created. Within this framework, we can value the companies of the STP in 3,719,237 euros. This valuation of start-up creation can be regarded as conservative for several reasons. First, the salaries we are using are below the market price due to the high unemployment in the area. Second, given the high innovative

⁵As in the case of the economic impact, we have calculated CBA for Mataró city, which is available by request.

⁶In fact, this negative effect is not clear because people who come to Tecnocampus tend to use less congested routes, in particular those coming from Barcelona.

profile of start-ups, it can be considered that the value they have in this initial phase is under their average lifetime value.

Benefits can be in the form of new products. Thus, when patents are registered at national, European, or other patent offices, their benefit can be estimated by their economic value. Two patents were registered in 2016 at Tecnocampus, 1 for every 68 researchers.⁷ However, since it has been recently registered, it is difficult to value this figure. Finally, an alternative way of valuing innovation is to use the spending on innovation of the STP's companies. According to data from the survey conducted to the start-ups, its average investment in R&D has already been 3,601,591 euros; this figure is more than five times its turnover. This is usual if a high percentage of the companies have been recently created. If we assume this figure as a long-term investment made and set a standard maturity period of 20 years, the average annual investment of the companies of the STP would be 180,080 euros per year. This figure represents more than 25% of the current turnover of these companies. Therefore, investment in R&D of all the companies in the STP amounts to 2,160,955 euros. Bornmann (2013) indicates that the social return rate of private R&D is approximately 50%, which would indicate that the economic value of this investment in R&D is 3,241,432 euros; that is, 1,080,488 euros of this value is a benefit.

Finally, benefits to locate close to the STP are valued. External businesses are incentivised to locate in the STP because they have the opportunity of acquiring new knowledge and technological skills spilling over as externalities from the RDI facilities. Additionally, external businesses can benefit from the network of knowledge and contacts that involves locating close to the Tecnocampus. The localisation effects estimated by Eq (5) are presented in **Table 4**. The first column (M1) presents the effect of local determinants in the operating income of all firms in the region, whereas the second column (M4) adds the Tecnocampus effect on the productivity of firms. We can observe that the presence of the STP in the region has an average positive effect per year of 53.1 million euros on the total operating income for companies in the region of Maresme. The above figure in percentage terms represents 0.85% of the total income of companies in the Maresme region in our sample. This will suggest that the presence of Tecnocampus in the region helps fostering the local productivity in 85 cents for each 100 euros in sales. An analogous exercise can be carried out for the whole of Catalonia. The presence of Tecnocampus in the region has an average positive effect of 20.5 million euros. This figure represents 0.01% of Catalan companies' total income. Extending the regional scope of the STP reduces the overall impact on existing companies; this suggests that the social value can be better captured in more local settings.

Social benefits for researchers and students

For scientists and researchers, one of the main benefits of working within a research infrastructure, either for applied or fundamental research, is the opportunity to access new experimental data, to contribute to the creation of new knowledge, and, ultimately, to publish scientific papers in

TABLE 4 | Tecnocampus productivity localisation effects.

	M (1)	M (2)
	Base (productivity) Coef. (s.d.)	TCM effect (productivity) Coef. (s.d.)
Dependent variable (t-1)	0.30453*** (0.04873)	0.30453*** (0.04873)
TCM effect		5.31e + 07*** (1.85e + 07)
Local public expenditure	-0.49441 (0.73027)	-0.49441 (0.73027)
Population	2.40e + 04*** (5.00e + 03)	2.40e + 04*** (5.00e + 03)
Unemployment rate	-5.91e + 06* (3.09e + 06)	-5.91e + 06* (3.09e + 06)
Telephones	-2.34e + 04*** (5.68e + 03)	-2.34e + 04*** (5.68e + 03)
Automobiles	-1.02e + 02 (1.15e + 04)	-1.02e + 02 (1.15e + 04)
Trucks and cargo vehicles	-1.86e + 04 (4.77e + 04)	-1.86e + 04 (4.77e + 04)
Other vehicles	-1.77e + 04*** (6.03e + 03)	-1.77e + 04*** (6.03e + 03)
Banks	-3.89e + 06 (3.83e + 06)	-3.89e + 06 (3.83e + 06)
Savings banks	3.94e + 06 (2.56e + 06)	3.94e + 06 (2.56e + 06)
Credit unions	1.61e + 07 (2.64e + 07)	1.61e + 07 (2.64e + 07)
Retail commerce	1.18e + 05*** (4.19e + 04)	1.18e + 05*** (4.19e + 04)
Shopping centres, sq. m.	4.79e + 03 (2.27e + 04)	4.79e + 03 (2.27e + 04)
Population density	-5.00e + 04** (2.38e + 04)	-5.00e + 04** (2.38e + 04)
Constant	5.89e + 07 (1.03e + 08)	5.89e + 07 (1.03e + 08)
Municipality fixed effects	Yes	Yes
Time fixed effects	Yes	Yes
N	280	280
r2_w	0.770	0.770
r2_b	0.940	0.940
r2_o	0.937	0.937
N groups	28	28

scholarly journals. Thus, the unit benefit is the marginal social value of scientific publications. Following this method, we need information about total wage of researchers in Tecnocampus (5,557,174 euros) and the time devoted to research (26,4%).⁸

⁸33% according to "The use of the time by the Spanish university lecturers" (Ministry of Health Social Services and Equality, 2016). In the case of Tecnocampus, given the characteristics of the centre (greater time devoted to teaching and management tasks by lecturers) it is reasonable to think that this percentage is lower. On average, we will consider that it is 20% lower (26.4%).

⁷ A higher rate. In Catalonia, this rate was of 1 every 535.

According to these data, the value of the research at Tecnocampus is 1,467,094 euros.⁹

A second benefit is the reduction of over-education. Some of the Tecnocampus employees obtain benefit from a job that corresponds to their skills and educational level, thanks to Tecnocampus activity. Tecnocampus employs 484 full-time employees (adding researchers, staff, and people from the start-ups) with university studies. This figure increases to 729 workers if we consider indirect and induced impact. Although there is no official statistics on over-education in Spain, Martínez García (2013) calculates this over-education among the active population with university studies, and depending on the definition used, this figure ranges from 25.7 to 38.4%. We use 30.96%, which is within this range and which is obtained using data from the subsample of the Continuous Sample of Labour Force. To evaluate this improvement economically, it is necessary to multiply the number of workers (225,64) for which Tecnocampus has deleted over-education for a price. The price is the sum of two values: first, the amount of money from the training costs for a university student, which have now been used correctly by the society (23,494 euros). In addition, it is necessary to add the opportunity cost. According to the salary structure survey (INE), the average salary of a non-graduate worker is 21,267 euros per year, which, for 4 years, amounts to 85,068 euros. Therefore, the cost of overeducation per person is 108,562 euros. If we multiply this by the number of workers who are no longer over-educated for their work, thanks to the existence of Tecnocampus, we obtain the social benefit for the reduction of over-education: 25,696,443 euros. It is also important to notice that this estimation may be undermining the total social value of reducing over-education in terms of job satisfaction or the increase in performance due to better organisation support (Addimando, 2019).

A third benefit is the graduates' benefit, which is calculated by the reduction of the future rate of unemployment and by a higher future salary. However, this benefit cannot be attributed to all the students of Tecnocampus, but only to those who would not have continued their studies without Tecnocampus. These students can be of two types: those who study a university degree that does not exist in the rest of the Catalan university offer or those who study because the university is close to their place of residence and have other obligations throughout the week (labour, relatives, etc.). In the first case, Tecnocampus offers a degree that is not offered in any other Catalan university: the degree of Logistics and Maritime Business. It is reasonable to think, especially taking into account the profile of students (many of which have come from higher school specialisation in this subject), who would not have undertaken university studies in the absence of this offer. In the second case, in order to limit these individuals to the maximum, we limit the amount to those Mataró students who declare that they work half-day. In both cases, we only use the fraction of students who considered Tecnocampus as their first option. We will also include students who enjoy a Tecnocampus

social scholarship (18 students). In total, we have 160 students. The social return of 1 year of university studies is approximately 7.15% (de La Fuente and Jimeno, 2011). Therefore, all these 160 students will see how, upon finishing their undergraduate studies, their average annual salary as graduated student (35,494 euros) will grow by 7.15%, that is, 2,537.80 euros, thus the total graduates' benefit of 406,051.36 euros.¹⁰

Finally, the last benefit is the consumer surplus. It is possible to assume that a part of the students that study in the Tecnocampus would be prepared to pay a greater amount for enrollment. These students would value aspects, such as the innovative offer of some degrees, its focus, or the fact of studying in an STP. This greater value is due to the fact that these features can bring students higher expectations in their future salaries. This benefit has been applied only to the students who choose the Tecnocampus in first preference for a degree with a very restrictive or non-existent offer and the students in first preference, who are from Mataró. These students are 133 and 162, respectively. Properly measuring this consumer surplus implies carrying out a survey exercise on a representative sample of local students asking for their availability to pay above the price actually paid. In this case, we do not have this data. Falconieri et al. (2004) and Kesenne (2005) show that under certain reasonable assumptions regarding the demand curve and price setting, consumer surplus can be approximated by 50% of the enrollment expenses of these local students (which they are in an amount slightly more than 5,000 euros in most cases). The amount of the consumer surplus is 735,500 euros.

Social benefits for the region

Although Tecnocampus provides some benefits for Mataró city as a destination, the benefits for Catalonia are negligible. In this section, some quantitative data of the effect of new firm localisation in the territory are presented. Next, we support our analysis with some qualitative data to bring an idea of the benefits for Mataró and Maresme region.

In the model M1 of Table 5, we can observe a significant and positive effect of the lagged dependent variable showing a persistence of localisation effects, which suggests that new companies follow other companies as an evidence of the existence of localisation economies. Public spending at the municipality has a negative, significant, and low-magnitude effect at Maresme, a result that suggests that public spending possibly supports the consolidation of existing companies. The effect of population on firm births is insignificant, although this result contradicts other studies carried out for Catalonia (Arauzo and Manjón, 2004; Arauzo, 2005), and the main reason is that our study includes other variables that measure more specifically the effects of population in new firms' birth, such as the number of vehicles or the retails commerce measurement. We can see that commercial vehicles represent the positive effect of urbanisation economies, whereas the more traditional vehicles seem to capture an extent of diseconomies of scale resulting from the increase in population density. The presence of different types of banking institutions in the region has no effect on firm creation. Retail commerce measured as the number of shops seems to capture

⁹Despite the consistency with the principles of the CBA of evaluating the impact of research on the marginal cost of production, it can be considered that this method undervalues research because it does not incorporate the social return that has the public financing of research.

¹⁰This figure can be higher if we consider that Tecnocampus offer some extra programmes for graduates, especially in entrepreneurship.

TABLE 5 | Tecnocampus new firms localisation effects.

	M (1)	M (2)
	Base (new firms) Coef. (s.d.)	TCM effect (new firms) Coef. (s.d.)
Dependent variable ($t-1$)	0.23691*** (0.06725)	0.23691*** (0.06725)
TCM effect		7.01241** (3.14640)
Local public expenditure	-0.00000*** (0.00000)	-0.00000*** (0.00000)
Population	0.00010 (0.00089)	0.00010 (0.00089)
Unemployment rate	-0.69734 (0.53190)	-0.69734 (0.53190)
Telephones	0.00142 (0.00098)	0.00142 (0.00098)
Automobiles	-0.00538*** (0.00205)	-0.00538*** (0.00205)
Trucks and cargo vehicles	0.02371*** (0.00860)	0.02371*** (0.00860)
Other vehicles	-0.00560*** (0.00117)	-0.00560*** (0.00117)
Banks	-0.40692 (0.68712)	-0.40692 (0.68712)
Savings banks	-0.22582 (0.44758)	-0.22582 (0.44758)
Credit unions	6.18973 (4.61280)	6.18973 (4.61280)
Retail commerce	0.02734*** (0.00773)	0.02734*** (0.00773)
Shopping centres, sq. m.	-0.00818** (0.00402)	-0.00818** (0.00402)
Population density	-0.00525 (0.00416)	-0.00525 (0.00416)
Constant	50.69598*** (18.36093)	50.69598*** (18.36093)
Municipality fixed effects	Yes	Yes
Time fixed effects	Yes	Yes
N	280	280
r ² _w	0.856	0.856
r ² _b	0.835	0.835
r ² _o	0.642	0.642
N groups	28	28

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

also the positive effect of urbanisation economies, whereas the square metres of shopping centres measures the negative effect of diseconomies of scale resulting from the increase in density.

As part of the effect formerly calculated in *Social Benefits for Companies*, Model M2 of **Table 5** adds Tecnocampus' effect on the territory. The first thing to note is that adding this variable does not change the location results commented before; hence, our controls are effective to capture other local characteristics. It should be noted that the effect is positive and significant at the 5% level in the Maresme region, which confirms the positive social

value for the territory of this institution. The result shows that the presence of Tecnocampus has created approximately seven new companies during the period analysed over expectation of the local characteristics. Noticing that the average sales of the companies in our sample during the period of analysis is 603,386 euros, the total annual impact of Tecnocampus in the region can be valued at 4,223,702 euros, considering only the new firm creation. This extra opportunity for firm creation also has some desirable characteristics not measured in our analysis such as the more innovative nature of new firms near entrepreneurial education hubs (Wei et al., 2019).

Second, we have used Google Trends to make an approximation to the destination effect. **Figure 1** (see **Supplementary Material** for quantitative data) shows the evolution of the recognition of the term Tecnocampus in the field "jobs and education" related to the term Mataró during the period 2010–2017. It can be seen that, while Mataró's visibility in this area has been reduced (values around 50 to values around 40 out of 100), the visibility of Tecnocampus has maintained a clearly increasing evolution from 0 to 10. Furthermore, using a search algorithm of the R programme, we have collected tweets using either the word "Tecnocampus" or the hashtag #Tecnocampus. Throughout the period 2010–2016, Tecnocampus has been mentioned 17,991 times. Likewise, while the hashtag #Mataró has been used 140,672 times the hashtag #Tecnocampus has been used only 3,644 times. More interesting are the interactions between Mataró and Tecnocampus. For example, throughout the period, 4,611 times Mataró and Tecnocampus have been mentioned in the same tweet. These mentions have grown more than 100% from 2010 (307) to 2016 (672). The hashtag #Mataró has been used 1,873 times when the Tecnocampus has been mentioned. The growth in this case has been spectacular: from 22 times in 2010 to 280 times in 2016. When the hashtag #Tecnocampus has been used, Mataró has been mentioned 735 times. In this case, the growth between 2010 and 2016 has been more modest (from 53 to 66 times). Finally, 1,668 times the account @TecnoCampus has been mentioned as well as Mataró. This figure has evolved 22 times in 2010 to 314 times in 2016. Again, growth is very high. We can conclude that the impact of Tecnocampus on social networks has also been growing throughout the period as well as its presence linked to that of the city of Mataró.

Other benefits that have not been considered (and are of small consideration) are in terms of social capital, intangible value, benefits from visitors, and other externalities.

Cost

The part of costs included the amount of operating and investment expenses of the Tecnocampus used in the part of economic impact (16,078,921 euros). Additionally, we have to add the cost of enrolment of local students (13,304,074). Therefore, costs amount to 29,082,995 euros.

Cost–Benefit Ratio

To sum up, **Table 6** shows the results obtained from the analysis. As benefits (69,528,592 euros) outweigh total costs (29,082,995

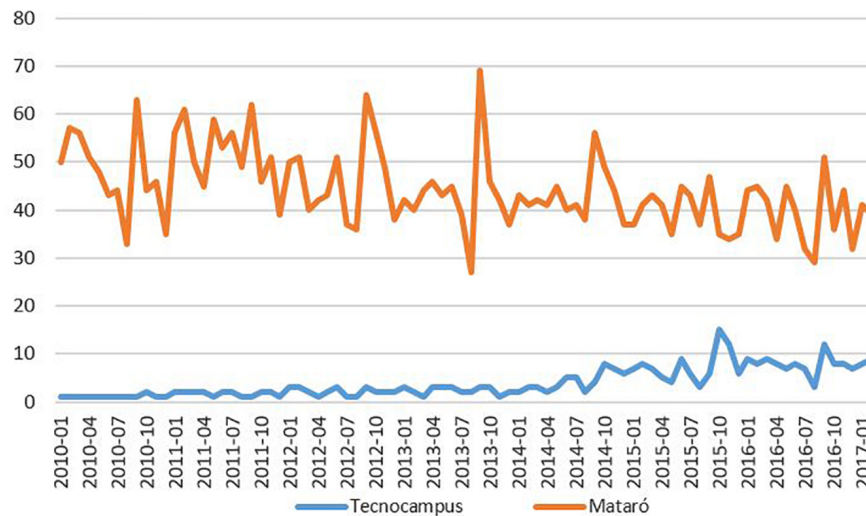


FIGURE 1 | Relevance of Tecnocampus in Mataró.

TABLE 6 | Social value: summary of benefits and costs (euros).

Benefits	In euros	Costs	In euros
Net revenues	13,762,835	Operating expenses and investment	16,078,921
Social benefit (SB)	55,765,757	Local students	13,304,074
(1) SB for companies	27,460,669		
(I) Start-up creation	3,719,237		
(II) New products	3,241,432		
(III) Location	20,500,000		
(2) SB for researchers and students	28,305,088		
(I) Research	1,467,094		
(II) Over-education	25,696,443		
(III) Benefits for graduates	406,051		
(IV) Consumer surplus	735,500		
(3) SB for the region*			
Total	69,528,592	Total	29,082,995
Cost–benefit ratio	2.39		

*The amount that has to do with the formation of seven new enterprises in Maresme region (4,223,702 euros) is already included as part of the social benefits for companies due to location (20,500,000 euros). For this reason, the 4,223,702 euros are not included in this table so as to avoid double accounting.

euros), it can be concluded that the net social benefit from Tecnocampus activity is positive and high (40,445,597 euros). This is a cost–benefit ratio of 2.39, meaning that every euro invested in Tecnocampus activity generates 2.39 euros of social value for their stakeholders, namely, the population of Catalonia. This is high social profitability for the area and its residents.

CONCLUSION

In this article, the economic and social impact of an STP on the region has been analysed: Tecnocampus Mataró–Maresme. Rather than adopting a point of view solely based on the traditional impact study carried out on the basis of the effect of investment on local economy, in this work, additionally, a study on the CBA has been incorporated.

As this kind of analyses requires more information, they are less frequently used, but they are more appropriate for a detailed and precise analysis in which aspects with an indisputable social value, such as research, start-up creation, or over-occupancy reduction, are monitored. In this study, the different elements composing benefits and costs have been described. Both benefits and costs include social components. Therefore, this article can be regarded as a pioneer, considering that it carries out a social valuation of a public infrastructure that combines research, university education, and entrepreneurship.

The current lack of a standardised and generally accepted procedure for the calculation of the investment's social profitability (basic indicator of the CBA) in STP requires an eclectic approach in the sense of using a mixed methodology using what has been done in other areas, which are more

developed in the analysis of scientific infrastructures [for instance, the infrastructure light Synchrotron (Raya and García-Montalvo, 2016) or super-computers] and the specialties of STPs. Either way, in the study, there are clearly identified and justified the assumptions that have been used.

Hence, the benefits obtained are approximately 2.4 times the incurred costs. Stewart et al. (2019) state that in view of the increase of the pressure upon the public budgets, it is necessary to justify “what do we get for this money” invested in cyberinfrastructures. The aforementioned results clearly justify the profitability of the investment in Tecnocampus. This rate is sufficiently high to resist any sensibleness analysis, particularly if we take into account that the majority of the assumptions adopted in this article have been conservative.

All things considered, economic value represents more than 0.054% of the Catalan GDP, whereas the employment impact represents almost 0.37% of total unemployment in the region. Finally, the total multiplier generated by Tecnocampus activity is 1.89, in line with those previously found in the literature, which range from 1.51 to 2.03 (Moretti and Thulin, 2013; Hermannsson et al., 2014; Zhang et al., 2017). As far as social value is concerned, we conclude that Tecnocampus has a positive and significant impact both on new firm creation and on the productivity effect in profits in Maresme region.

The policy implications of this article are threefold. First, they provide methodology to test the impact of STPs as a heterogeneous and difficult to measure phenomenon. It combines several direct, indirect and induced economic effects, as well as other social effects that should be accounted for to determine the actual value of these initiatives by local governments. Second, the results of this analysis show a positive and significant effect of the presence of an STP in a region in terms of economic and social value. The existence of an external social value represented by spillover benefits for the actual firms is particularly important, as well as a pull effect for new firms within the region, education, and communication effects that favour the region. Finally, the case of Tecnocampus can be seen as success history for other regions that want to incentivise changes in their industrial composition toward a technological and more service-oriented economy.

Future lines of research should focus on capture social value externalities of Tecnocampus and STPs in general at the industry, firm, and individual levels. The strategy in this article has followed a more generalist approach to try to capture all the benefits for specific agents (enterprises, researchers, students, and entrepreneurs) and at the aggregated level (Catalonia, Maresme, and Mataró). The effect of STPs can be decomposed by the specific industrial sectors so that we can gain a better understanding of the main beneficiaries of this type of institutions and understand if crowding-out effects exist. Additionally, we can measure directly the spillover effects at the firm level in terms of productivity and employment generated. If a positive and significant effect of an STP is presented in average in all firms, then the financing of these parks by the private sector can be more easily promoted. Also a natural experiment can be run identifying all the new enterprises in a period

of time. The idea will be distinguishing between new firms inside and outside the STP and also identifying firms that have applied and not obtained their inclusion in the STP to have full identification of the effects of the STP in the survival and success of these enterprises. Finally, understanding the effect of STP at an individual level can help to understand the effects on extra years of education, higher incomes, and more stable job offerings. One example can be analysing the fostering of entrepreneurship spirit among students. The idea is measuring the difference with more traditional universities in terms of creating an enterprise after graduation explained in the base of different and more applied curriculum and internship opportunities during the undergraduate years. Also the effect of the STP in the productivity of academic researchers is interesting as more articles can be produced by the easiest access to real information and the more straightforward application of the produced research.

All in all, the main strength of this article is that a combination of different methodologies has been used in order to obtain the social value of an STP. On the other hand, the lack of a standardised methodology for doing so seems to be its main weakness. For this reason, it has been a must to analyse and meditate on the validity of every single attempt made to monetise the social value creation of Tecnocampus. As a matter of fact, another weakness of the article is the difficulty in obtaining appropriate data in order to use it in the framework of the proposed methodology. All things considered, future research activities – along with the future lines of research suggested in the former paragraph – should address these limitations, particularly in regard to the creation of a standardised methodology to assess social value of STP. Developing this standardised methodology, which will include the data necessary to conduct it, would facilitate the successive measurement of social value creation of STPs, allowing the creation of key performance indicators to manage this kind of institution under a proper multistakeholders’ approach.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

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SUPPLEMENTARY MATERIAL

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The Sources of Knowledge of the Economic and Social Value in Sport Industry Research: A Co-citation Analysis

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The aim of this article is to map the intellectual structure of scholarship on economic and social value in the sport industry. Given that bibliometric techniques are specially appropriate for identifying the intellectual structures of a field of knowledge and complement traditional literature reviews, a co-citation bibliometric analysis has been applied. This kind of analysis identifies networks of interconnections. Therefore, we aim to detect both the most and the least active research areas in this field, as well as their sub-disciplinary composition. There is an abundance of literature on sport efficiency and economic efficiency in the sport industry, our main conclusion is the identification of a literature gap in regard to social value in sport organisations, which is expected to be a research opportunity for scholars. This is in line with the lack of standardisation in the measurement for social value in sport organisations. In fact, similar to analysis undertaken in the past few decades of other industries with contributions to stakeholders and the multi-fiduciary theory of stakeholders, both the creation of social value indicators for sport entities and the empirical analysis of social efficiency in sport institutions, are identified and outlined as future areas of research. Therefore, this bibliometric analysis will contribute to determine the future challenges that this area of research will face in the following years so as to fill the literature gap identified.

Keywords: economic value, social value, sports, intellectual structure, bibliometric, trends, co-citation, multi-fiduciary theory of stakeholders

INTRODUCTION

Companies have been considered, since the inception of the industrial age, as entities that generate economic value (Groth et al., 1996). Therefore, their social role has been forgotten or relegated to a second stage (Anunciação et al., 2011; Retolaza et al., 2015). For this reason, many sophisticated quantitative methodologies have been developed to assess the economic value and, consequently, reflect the faithful image of a company by means of financial reports (Gassenheimer et al., 1998).

Nonetheless, over the last few decades, some scholars (Jensen, 2001; Argandoña, 2011) have proposed an integrated paradigm, given that companies are not only generators of economic value,

but also of social value. In spite of the fact that initially the approach was taken under a subtractive viewpoint (by means of negative externalities), thereafter, a more positive perspective was taken by means of the development of concepts like corporate citizenship (Maignan et al., 1999; Maignan and Ferrell, 2001; Néron and Norman, 2008) and Corporate Social Responsibility (Carroll, 1999). Nevertheless, only a small amount of research initially incorporated this evolved perspective in regard to economic and social value generation (Nelson and Winter, 1982; Williamson and Winter, 1993). It is true that different methodologies (Olsen and Galimidi, 2008; Tuan, 2008; Mulgan, 2010), such as Social Return on Investment (SROI) (Lingane and Olsen, 2004), social accounting (Lazcano et al., 2019; Retolaza et al., 2020) or social value monetisation (Retolaza et al., 2016) have emerged in order to provide quantitative methodologies. Nonetheless, even though there has been an increasing concern among scholars to assess the social value of companies, there is still the need to cover the gap relative to quantitative methodologies that will allow for the measurement of the social value that enterprises generate.

This is the case with the sport industry, where theoretical and qualitative studies on Corporate Social Responsibility and emotional value are common (i.e., Smith and Westerbeek, 2007; Godfrey, 2009; Lock et al., 2012), but quantitative studies are few. This does not mean that this field of knowledge is decreasing. In fact, only 3.4 papers were published per year during the period 2001–2005 in the field of economic and social value in the sport industry. This amount has dramatically increased over the last few years: 15 papers per year during 2006–2010, 25 in 2011–2015, and 55.2 in 2016–2020. In fact, this increasing number of publications on economic and social value in the sport industry makes it complicated to track this developing research area.

As a matter of fact, when knowledge increases in any field, it must somehow be analysed. Take the example of the shared value concept developed by Porter and Kramer (2011) which takes into account both the economic and social advancing effects of policies and operating practices that enhance the competitiveness of companies. Many literature reviews have been recently developed upon this concept under different perspectives and with both qualitative (Voltan et al., 2017; Laudal, 2018) and quantitative approaches (Uribe et al., 2018; Maestre-Matos et al., 2020). Nonetheless, no one makes a segmentation using sports as a criterion.

The main objective of this article is to determine and provide a vision of the intellectual structure and dynamics of economic and social value in the sport industry field. This implies delimiting the scientific domain's research traditions, their disciplinary composition, and influential research topics (Shafique, 2013). As opposed to classical reviews that only increase the conceptual understanding of a field of knowledge, this article contributes to the field by showing its intellectual structure. Additionally, we provide researchers with a basis for the future development of this field of study by means of the identification of the main areas of research, the main contributions that have led to its circulation, which have captivated the special attention of researchers, the trends that have taken place, and the proposal of future lines of research.

When it comes to sport industry literature reviews that deal with economic and social value, the majority of papers have taken a qualitative approach. Bayle (2016) reviews Olympic social responsibility literature. Bjärsholm (2017) reviews social entrepreneurship in sports. Giulianotti (2015) critically reviews CSR in sports. With regard to valuation methods, whereas Orłowski and Wicker (2019) perform a critical analysis of monetary valuation research in sports, Keane et al. (2019) critically analyse the methods used to quantify the social and economic value of active recreation and sports. Walzel et al. (2018) critically review the literature on professional team sports organisations' CSR and conclude that the approach is mostly qualitative. Reviews that deal with economic and social value in the sport industry take either a quantitative approach or undertake a systematic review. For instance, Kim (2017) performs a quantitative meta-analytic review of Korean sport literature with regard to CSR practices, whereas Mallen et al. (2011) perform a content analysis of environmental sustainability research published in sport-related journals.

The most important contribution of these reviews is that they set the theoretical and conceptual framework. Consequently, they are essential for developing the research field. Nonetheless, some items have not been identified in spite of being key aspects in comprehending how the research field has evolved as well as its current situation. These following questions remain, therefore, unanswered: What are the main current areas of research on economic and social value in the sport industry? What papers have allowed the dissemination of the field of knowledge? What papers have set the research trends, producing a larger attraction of scholars, and when did that happen? In other words, the intellectual structure of this field of research needs to be defined. This would help scholars to detect the objectives of future research, to carry out research that contributes to current research areas and to include new research areas into this field of knowledge.

Methodological bibliometric analysis allows for the evaluation of huge amounts of data from thousands of academic publications. It offers an evaluation of quantitative data and infers qualitative aspects. Nonetheless, citation or co-citation analysis must be supported by good knowledge of the field of study (Wallin, 2005). Nevertheless, if bibliometric analysis is carried out properly, it is possible to achieve a good view of the subject studied, its clustering and their importance, intellectual turning points, the detection of bursts in influential papers, and research gaps to cover, and so forth.

All things considered, there are two main ways to evaluate academic research: qualitative and quantitative. The qualitative approach, among other aspects, refers to peer-review and the quantitative one, to bibliometric analysis. Currently, due to their great degree of subjectivity, qualitative methodologies are not the best for the recognition of the intellectual structure of a field of knowledge. In this regard, an excess of new, but relevant papers can easily saturate researchers' information-processing capabilities. Furthermore, the results could be intrinsically biased because authors tend to mirror their subjective viewpoints (Ramos-Rodríguez and Ruiz-Navarro, 2004; Ball, 2018). Therefore, we have opted for a quantitative approach and

we apply a citation-based bibliometric methodology to build approximations of research activity. Despite this and other limitations, it is true that bibliometric analysis attempts have been made in order to infer qualitative aspects (Ball, 2018).

This article has the following structure. The methodology is analysed in section 'Methodology'. The results of the bibliometric analysis are shown in section 'Results', namely the cluster definitions, the intellectual turning points, and the most active areas of research. Finally, both the discussion of the implications of these findings and futures lines of research are suggested in section 'Discussion and Conclusion'.

METHODOLOGY

A bibliometric study of papers on economic and financial value in the sport industry has been carried out so as to obtain insight into its intellectual structure. As a matter of fact, bibliometric methods help academia to comprehend the inception and growth of a field of knowledge. Additionally, bibliometrics are a good complement to traditional literature review (Ramos-Rodríguez and Ruiz-Navarro, 2004). Bibliometric methodology aims to examine the publication performance of researchers and to disclose the structure and dynamics of science (Zupic and Èater, 2015), assisting in the discovery of old and current fields of research, as well as intuiting new ones and possible gaps (Zhao and Strotmann, 2015). Many bibliometric methods have been used in regard to sports research. A search in the Social Science Citation Index (SSCI) shows in the region of 130 papers that deal with bibliometrics in sports. These are some examples: emotions and sport management (Baier-Fuentes et al., 2020), biomechanics (Knudson, 2020), handball (Pardo Ibáñez et al., 2020), sport publications (Phillips, 2020), sexual marginalization in schools (Sáenz-Macana and Devís-Devís, 2020), sustainable entrepreneurship (Calabuig-Moreno et al., 2020; Escamilla-Fajardo et al., 2020; González-Serrano et al., 2020; Pellegrini et al., 2020), talent evaluation (Zheng and Liu, 2020), sports tourism (Jiménez-García et al., 2020), collaboration and productivity patterns (Pérez-Gutiérrez and Cobo-Corrales, 2020), motivation measures (Clancy et al., 2017) and brain injury (Sharma and Lawrence, 2014), among others.

Having said that, among the possible types of bibliometric and citation analysis, co-citation analysis techniques have been used in this article, given that this kind of analysis is one of the most highly validated and used (Zhao and Strotmann, 2015; Zupic and Èater, 2015). As is well-known, citation analysis is based on the fact that a citation represents some kind of interest in the cited reference from the author who makes the citation; and, a citation shows some relation between cited works and the citing work. Small (1973) defines co-citation as the frequency that two works are cited together. Therefore, two papers are co-cited if they are included in the same work. In actual fact, similarity in publications is assessed depending on the amount of overlap in their bibliographic references, assuming that co-cited papers will have related content. Furthermore, co-citation analyses offer a method for sorting the outstanding papers in a scientific area. In spite of the fact that the recount of cites

measures the relative influence of a document, co-cites analysis detects interconnections among papers, identifies networks, and reveals changes in paradigms and lines of thought (Zupic and Èater, 2015). Therefore, the analysis of co-cites is able to map the intellectual structure of a field of research, detect research area trends, discover front-line studies, and highlight discoveries with high impact (Zhao and Strotmann, 2015).

The use of bibliometric maps to represent how different kinds of objects of study (authors, papers, journals, organisations, etc.) are related to one another are considered a useful way to help its visualisation and its comprehension (Cobo et al., 2011). Many software programs are currently used (Moral-Muñoz et al., 2020) in order to perform citation and co-citation analyses via bibliometric mapping, namely: CiteSpace, VOSviewer (van Eck and Waltman, 2010), SciMAT (Cobo et al., 2012), CitNetExplorer (van Eck and Waltman, 2014), BibExcel (Persson et al., 2009), Sci2Tool (Sci2 Team, 2009) and Bibliometrix (Aria and Cuccurullo, 2017), among others. Each software programme has its advantages and disadvantages (Cobo et al., 2011). For instance, Bibliometrix is written in the R language which allows for the interconnection of multivariate analysis packages written in the same language, such as FactoMineR (Lê et al., 2008). Different kinds of analysis can be performed from mapping similar networks, temporal geospatial analysis or burst detection (Cobo et al., 2011), or a combination of all or part of them to obtain not only quantitative measures but also to infer qualitative results.

In this regard, CiteSpace (Chen et al., 2010) has been used in this article, given that it has previously been applied in the business research field in order to analyse the intellectual structure of different areas (e.g., Seyedghorban et al., 2016; Díez-Martín et al., 2020) and because it has some advantages in comparison with the other software options, such as burst detection to identify the main incipient research trends in a field of knowledge, the identification of the foremost turning points and growing topics, and so forth.

Data

Many bibliographic databases focus on business or economics (ABI/Inform Global, EconLit, Business Source Complete, etc.) and on sports (SportDiscus, Rehabilitation & Sports Medicine Source, Sports Market Analytics, etc.). But given that the SSCI is one of the most frequently used databases to conduct bibliometric analysis in both business (Zupic and Èater, 2015) and sports¹, all the scientific journals included in the SSCI database have been selected in order to conduct the study. The following Boolean search of terms in the title, abstract, or keywords (TS) have been used: TS = sport* AND (TS = 'soci* valu*' OR TS = 'soci* effi*' OR TS = 'soci* performanc*' OR TS = 'soci* responsib*' OR TS = 'soci* accounting' OR TS = 'economic* valu*' OR TS = 'economic* effi*' OR TS = 'economic* performanc*' OR TS = 'financ* valu*' OR TS = 'financ* effi*' OR TS = 'financ* performanc*'). In other words, a combination of economic*, soci*, or finance* with valu*, effi*, or performanc* has been

¹We focus on the social sciences view of sports, not on medical, psychological, or engineering approaches which are included in the Science Citation Index (SCI) database.

TABLE 1 | Top 26 journals that have published research citing articles related to economic and social value in the sport industry.

Journals	No. articles	Journal impact factor*	5 years impact factor*	Quartile*
European Sport Management Quarterly	39	1.889	2.436	Q3
Journal of Sport Management	34	2.359	2.877	Q2
Sport Management Review	29	3.337	3.761	Q2
Journal of Teaching in Physical Education	18	1.845	2.490	Q2
International Journal of Sports Marketing Sponsorship	17	1.075	1.217	Q4
Sport in Society	16	0.939	n/a	Q3
Journal of Business Ethics	11	4.141	5.453	Q1
Sustainability	10	2.576	2.798	Q2
Journal of Management Organization	9	1.935	1.808	Q3
Physical Education and Sport Pedagogy	9	2.618	3.091	Q1
Movimento	8	0.365	0.465	Q4
Journal of Business Research	7	4.874	5.484	Q1
Sport Education and Society	7	2.649	2.892	Q1
Sport Marketing Quarterly	7	0.744	1.226	Q4
International Journal of the History of Sport	6	0.277	0.503	Q4
Journal of Sport Social Issues	6	1.939	1.953	Q2
European Physical Education Review	5	2.393	2.748	Q1
International Journal of Environmental Research and Public Health	5	2.849	3.127	Q1
Management Decision	5	2.723	2.886	Q2
Public Relations Review	5	2.321	2.232	Q2
Quest	5	2.844	2.560	Q1
Revista de Psicología del Deporte	5	0.677	1.042	Q4
International Review for the Sociology of Sport	4	2.019	1.972	Q2
Leisure Studies	4	1.566	2.349	Q3
PLOS One	4	2.740	3.227	Q2
Urban Forestry Urban Greening	4	4.021	4.468	Q1

*According to key indicator 2019 of journal citation reports.

used along with ‘soci* accounting’ and ‘soci* responsib*’ for sport literature. As a matter of fact, 90 more articles were found when the same research terms were entered including both the SSCI and Science Citation Index Expanded (SCI-Expanded) databases. Nonetheless, only 10 of them are included in the Sport Sciences Research Area and the Web of Science (WOS) Category. Therefore, it was decided that the SCI-Expanded database would not be included in the analysis given that 80 papers did not deal directly with sports.

The time frame for the study (2000– November 2, 2020) and the thematic category parameters produced 494 citing papers containing 22,607 different cited references, which comprised the data sample of the analysis. The 494 citing publications are included in 201 journals related to these areas. Of those, some are multidisciplinary while others are highly specialised. **Table 1** displays the number of articles on economic and social value in the sport industry published by the journals that have four or more published papers, as well as some variables of the Key Indicator 2019 of Journal Citation Reports, namely Journal Impact Factor, 5 Year Impact Factor, and the highest quartile of any of WOS categories in SSCI.

From the first overview of the 494 citing publications, it is observed that more than 94.13% of the documents retrieved are articles and that 4.45% are reviews with a minimum presence of editorial material, book reviews, and meeting abstracts. Among

the 34 institutions with seven or more publications in this area, there are 20 from United States universities, three from Australia and Spain, two from Canada and England and one from Germany, South Korea, Norway and Belgium. **Table 2** shows

TABLE 2 | Top countries with authors that have published citing papers related to economic and social value in the sport industry in comparison with SSCI.

Countries	Sport papers	% sport	% SSCI
United States	188	33.75	40.35
England	55	9.87	10.91
Canada	42	7.54	5.78
Australia	59	10.59	5.77
Germany	19	3.41	5.08
People's Republic of China	16	2.87	4.17
Spain	48	8.62	2.92
Italy	12	2.15	2.45
France	22	3.95	2.44
Sweden	10	1.80	1.86
Scotland	10	1.80	1.34
Belgium	14	2.51	1.29
South Korea	18	3.23	1.19
Taiwan	13	2.33	1.12
Norway	16	2.87	1.10
New Zealand	15	2.69	0.91

TABLE 3 | Language of citing papers related to economic and social value in the sport industry in comparison with SSCI.

Languages	Sport papers	% sport	% SSCI
English	472	95.55	95.81
German	1	0.20	1.43
Spanish	13	2.63	0.99
French	1	0.20	0.59
Portuguese	4	0.81	0.35
Russian	1	0.20	0.23
Turkish	1	0.20	0.07
Lithuanian	1	0.20	0.01

the countries that publish more in this field. The United States is the country with the highest number of publications (188) which represents in the region of 33.75% of the total amount of citing papers published in the sport field. This is less than the percentage of papers written by United States authors in SSCI (40.25%) from 2000 to 2020 (which corresponds to the timespan of the analysis). On the other hand, countries that publish more on economic and social value in the sport industry in comparison with the total amount of papers published in SSCI are Spain (8.62 against 2.92%) and Australia (10.59 against 5.77%). The most prolific authors are P.M. Wright with 13 publications, K. Babiak with 11 and C. Anagnostopoulos, Y. Inoue, and A. Willem with 10 publications each one. **Table 3** shows the language used to write the citing papers included in the database. The most used language to publish in this area is English (472 publications), followed at a long distance by Spanish (13), Portuguese (4), French, German, Lithuanian, Russian, and Turkish with 1 publication each. Whereas the percentage of citing papers is similar in English in comparison with the percentage of papers published in this language in SSCI from 2000 to 2020, there are some differences in some languages. For instance, German represents 1.43% of all the published material in SSCI but only 0.20% of the papers of the database analysed have been written in this language. On the contrary, Spanish which represents 0.99% of SSCI publications, represents 2.63% of the published citing papers on economic and social value in the sport industry. To end this descriptive quantitative overview of WOS, the categories with more publications are: hospitality, leisure, sport & tourism (197), management (108), sport sciences (75), business (68), education & educational research (67), sociology (38), environmental studies (29), environmental

sciences (23), social sciences interdisciplinary (22), economics (18) and psychology applied (18). Had we used WOS areas of research, the top positions would include: social sciences other topics (235), business economics (172), sport sciences (75), education & educational research (68), psychology (41), environmental sciences ecology (40) and sociology (38).

The bibliometric analysis carried out has included all the 22,607 cited references of the 494 citing documents, in other words, the sources of knowledge of economic and social value in the sport industry. This is not to say that only articles of journals have been analysed. As a matter of fact, non-journal articles, (i.e., books) have also been included, given that the analysis is focussed on the co-cited references of the 494 citing papers. In other words, the clustering is conducted with the 22,607 cited papers.

Table 4 shows the selected parameters used to run the analysis through CiteSpace (Timelice, Term source, Node type, Pruning and Selection criteria). The identification of clusters in this mapping software needs to be guided by a careful definition of which source of terms must be used. In order to obtain a source of terms as complete as possible, we opted, in our study, for the broadest option in SSCI with the inclusion of title, abstract, and keywords. Although this option allows us to obtain a good range of terms to be analysed from the 494 citing papers located in SSCI, CiteSpace can improve and complete the analysis by also including the terms that appear in the 22,607 references cited in them [named in the program: 'keywords plus (all)']. It is evident that this procedure guarantees a fairly broad source of terms which are well related to the field of study to be analysed.

The node selection criteria are an important decision in order to achieve a well cohesive network where clusters are different from each other, while containing similar papers within them. CiteSpace offers several node selection criteria: g-index, Top N, Top N%, and Threshold Interpolation. We based our choice of the g-index as a node selection criteria which enables the generation of a network with the least number of small clusters and, therefore, a better visualisation of nodes and links (Chen and Song, 2019). The g-index measures the global citation performance of a set of articles (Egghe, 2006) and improves the limitations of the h-index because it gives more weight to the highly cited articles and there is no influence due to the total number of considered works (Costas and Bordons, 2008). A scaling factor k to the g-index is introduced in CiteSpace in order to regulate the overall size of the obtained network. To develop the most appropriate network for our set of analysed terms we opted for $k = 25$. The obtained structural network

TABLE 4 | Parameters for the analysis.

Parameter	Description	Choice
(1) Timeslice	Timespan of the analysis	From 2000 to 2020
(2) Term source	Textual fields processed	Title/abstract/author keywords/keywords plus (all)
(3) Node type	The type of network selected for the analysis	Cited reference (the networks are made up of co-cited references)
(4) Pruning	It is the process to remove excessive links systematically	None
(5) Selection criteria	The way to sample records to form the final networks	g-index ($k = 25$). The g index is the largest number that equals the average number of citations of the most highly cited g publications. It solves some of the weaknesses of the h-index. k is a scaling factor introduced in CiteSpace to control the overall size and clarity of the resultant network

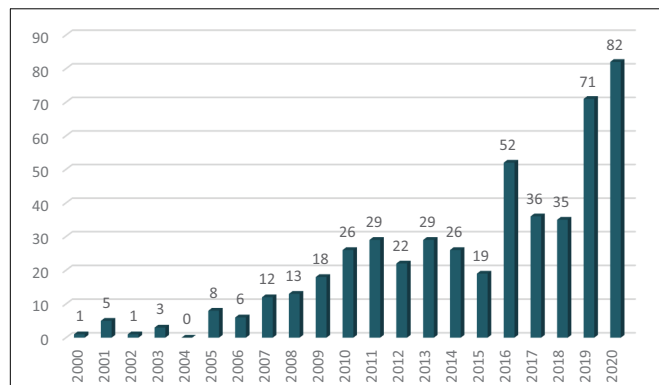


FIGURE 1 | Growth of citing publications on economic and social value in sport industry research (2000–2020).

quality following the silhouette and modularity measurements are shown in section ‘Results’.

RESULTS

Research in the field of economic and social value in the sport industry has had, as a whole, a clear growth in the last two decades, with a pronounced increase over the last 2 or 3 years (**Figure 1**). The growth was slight between 2000 and 2006 (from one to six publications per year), with a slight increase between 2007 and 2015 (with an average of around 20 publications per year) and a clear upswing from 2016 to the present (between 35 and 82 publications per year). This research production has been mainly published in ‘hospitality, leisure, sport & tourism,’ ‘management,’ ‘sport sciences,’ ‘business,’ ‘sociology,’ ‘environmental studies & sciences,’ ‘social sciences’ and ‘economic’ journals. If the total of 494 citing articles published in

the study period (2000–2020) is taken into account, an average of 23.5 articles per year is obtained, which is not a very high figure. However, the fact that, the articles in this field of study have been included in high-impact journals is an indication that a certain field of knowledge has been developing in the field of social and economic value in the sport industry. Up to what point? This is what we intend to identify in this section.

Main Research Areas in Economic and Social Value in the Sport Industry

Table 5 shows the main research areas of economic and social value in the sport industry. The network is split into 10 main co-citation clusters (from #1 to #10), where each one of them corresponds to a different thematic structure. The results (see **Supplementary Material**) obtained in the form of clustering show the impact of subsequent research co-citing. Take the example of cluster #1, that is formed of 69 cited papers. This means that many subsequent researchers have used several of these 69 cited papers together as a source of knowledge. Therefore, cluster #1 is considered as a thematic structure. Despite the fact that former researchers might have thought that their papers were a contribution to one thematic structure, their research has eventually been used in alternative ways, which may create new research avenues and, consequently, new clusters. All in all, every single cluster relates to a thematic structure or line of research.

The criterion used to select the 10 clusters was the cluster silhouette value, which must be between the range of 0.7 and 1.0 according to Chen et al. (2010). This value assesses the quality of a clustering configuration by means of cohesion and separation. Cohesion refers to how similar an object is compared to its cluster. Separation has to do with how similar an object is to its own cluster in comparison with other clusters.

Additionally, modularity Q assesses the quality of the overall network division. According to Newman’s method, the value

TABLE 5 | Main research areas in economic and social value in the sport industry.

Cluster	Size	Silhouette	Mean (year)	Label	Description
1	69	0.958	2009	CSR theoretical framework	The concept of CSR in the sport industry is defined and its determinants, drivers, and influential factors are explored
2	54	0.947	2014	CSR case studies	Implementation and decision-making of CSR in the sport industry are analysed by means of case studies
3	45	1.000	2016	Teaching, personal, and social responsibility (TPSR)	The TPSR model is analysed
4	40	0.925	2007	Strategic CSR	Both the general strategic approach of CSR and for the football industry are established
5	37	0.988	2016	Sponsorship	The effectiveness factors of sponsorship, its function as a communication strategy, and the roles of sponsors on recipients are analysed
6	36	0.909	2012	Emotional value	Contributions to social identity theory applied in the sport industry in regard to brand identity, team identification, and attachment
7	19	0.991	2012	Educative programs	Social impact of sport-based programs is analysed
8	18	0.963	2007	Consumer ethical perception	The effect of CSR efforts according to the ethical motives perceived by customers is analysed
9	9	0.983	2008	Environmental issues	Different issues regarding environment are analysed
10	6	0.996	2009	Corporate citizenship	It deals with the specific activities that a sport organisation engages in to meet their social obligations

Silhouette: quality of a clustering configuration (Rousseeuw, 1987), suggested parameters between 0.7 and 1 (Chen et al., 2010).

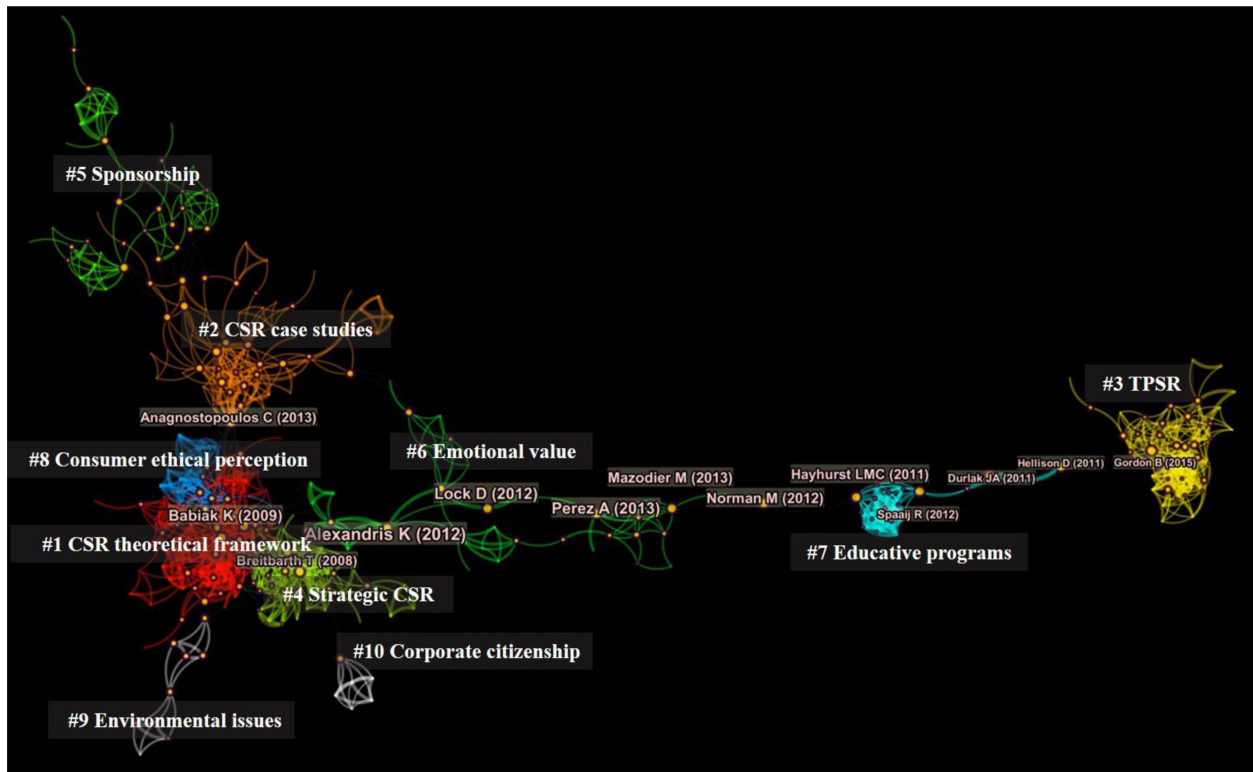


FIGURE 2 | Economic and social value in the sport industry network.

ranges from 0 to 1 (Newman, 2006). High values imply that the clusters created have clear boundaries. Conversely, low modularity values suggest a bad-structured network (Chen et al., 2009).

All 10 major clusters that have been created have silhouette values higher than 0.9 which mean that there is good homogeneity between clusters. On the other hand, the modularity Q value is 0.8734, which means that the network that has been created is divided reasonably into loosely coupled clusters. **Figure 2** shows the economic and social value in the sport industry network.

Nonetheless, the main limitation of co-citation analysis techniques is that both the interpretation of clusters and the identification of the core thematic structure is based on the domain knowledge and experience of the analysts. Therefore, evidence-based findings are difficult to be distinguished from heuristics and speculations (Zupic and Žatler, 2015). In order to both allow for the summation of the essence of each cluster and enhance the robustness of the co-citation cluster labelling process, the common links between the researchers of each cluster as well as citations have been analysed.

Cluster #1 has the biggest number of papers. Therefore, this is the largest research area. This cluster encapsulates the **CSR Theoretical Framework** in the sport industry. This research area introduces and defines the concept of CSR in the sport industry (Godfrey, 2009; Sheth and Babiak, 2010), explores its social role (Smith and Westerbeek, 2007; Walker and Kent, 2009),

and identifies its determinants, drivers and influential factors (Babiak and Wolfe, 2009; Sheth and Babiak, 2010; Babiak and Trendafilova, 2011).

The second largest cluster (#2) includes **CSR Case Studies** in the sport industry in regard to the decision making process (Anagnostopoulos and Shilbury, 2013; Anagnostopoulos et al., 2014) and its implementation (Anagnostopoulos and Shilbury, 2013; Heinze et al., 2014). Some of the cases analysed are the Foundations of English football clubs (Anagnostopoulos and Shilbury, 2013; Anagnostopoulos et al., 2014), London 2012 Olympic Games (Dowling et al., 2013) and the Detroit Lions (Heinze et al., 2014).

Cluster #3 has the highest possible silhouette value (1), meaning that their papers have both cohesion among them and separation in comparison with the rest of the clusters. This cluster, along with #5, is among the most rapidly advancing given that their mean publication year is the latest. The **Teaching, Personal and Social Responsibility (TPSR)** model (Hellison, 2003, 2011) constitutes the main research topic of this cluster which is the third largest. This model is based on the concept that teachers can promote personal and social responsibility by means of sport and physical activity. TPSR has five goals or levels of progression in regard to personal and social responsibility: (1) self-control, (2) participation, (3) self-direction, (4) caring, and (5) transfer of responsibility to other settings (Gordon and Doyle, 2015; Hemphill et al., 2015; Gordon et al., 2016; Pozo et al., 2018).

The fourth largest cluster is the one investigating **Strategic CSR** (cluster #4). In this regard, whereas Porter and Kramer (2006) approach CSR strategically without segmenting by kinds of business, Breitbarth and Harris (2008) develop a conceptual model to apply CSR in the football industry in order to achieve better strategic direction.

The fifth most important cluster is **Sponsorship** (#5). Chronologically, whereas Kim et al. (2015) analyse the influential factors to make sponsorship effective, Pappu and Cornwell (2014) consider the roles of both sponsors and recipients. Bason and Anagnostopoulos (2015) conclude that, to all intents and purposes, sport sponsorship represents a business transaction instead of a philanthropic action. For this reason, the former have not been affected during recession years whereas the latter have decreased. Bergkvist and Taylor (2016) consider sponsorship to be one out of five different leverage marketing communications strategies and analyse its effect on the brand. Woisetschlager et al. (2017) examine how sport sponsorship affects consumers' attitudes and intentions. Finally, according to Zeimers et al. (2019), sponsors in sports are considered as established external stakeholders that are essential sources of organisational learning.

Cluster #6 deals with **Emotional Value**, encapsulating brand identity and loyalty (Pérez et al., 2013) with different contributions to social identity theory (Tajfel and Turner, 1986) applied in the sport industry. Lock et al. (2012) integrate this theory in order to explore how team identification develops in relation to a new sport team. Alexandris and Tsiotsou (2012) segment football spectators according to their degree of attachment to the team, using self-expression and team involvement variables.

Cluster #7 covers **Educative Programs** as its area of research. Mainly, sport-based programs (Hayhurst, 2011; Hellison, 2011; Spaaij, 2012) are the focus of analysis, as well as their contribution to social wellbeing and development among youngsters in the form of gender equality, academic performance, and the improvement of social, emotional and leadership skills, among others. Some papers analyse more general education programs though (Durlak et al., 2011).

Cluster #8 gathers papers that look into **Consumer Ethical Perception** (Newell and Frynas, 2007). As a matter of fact, 27.8% of the articles belonging to this cluster were published in marketing journals. In spite of the fact that the power of social initiatives may differentiate socially responsible firms (Simmons and Becker-Olsen, 2006), the motives perceived by consumers of corporate social responsibility efforts may have either positive or negative effects (Vlachos et al., 2009). Real corporate philanthropy (Sen, 2006) perceived by customers as proactive initiatives (Becker-Olsen et al., 2006) creates customer gratitude (Palmatier et al., 2009) which will lead to long-lasting customer relationships and better financial performance (Brammer and Millington, 2008). On the contrary, the perception and awareness of insincere and reactive social initiatives will be punished (Becker-Olsen et al., 2006).

Cluster #9 analyses different **Environmental Issues** (Ambec and Lanoie, 2008; Pivato et al., 2008; Adema and Roehl, 2010). Take the example of Collins et al. (2009) which deals with the environmental impacts of mega sport events.

Finally, cluster #10 is the smallest one and deals with **Corporate Citizenship**, specifying the activities that a sport organisation engages in to meet their social obligations (Walters and Chadwick, 2009).

The mean publication year of the papers in each cluster is also shown in **Table 5**. On the one hand, clusters #3, #5 (2016), and #2 (2014) are the clusters with a later mean publication year, which means that they are advancing at a quicker pace than the rest of them. On the other hand, clusters #4, #8 (2007), #9 (2008), #1, and #10 (2009) have an older mean. It does not seem to suggest any pattern between the size of the cluster and the mean publication for larger clusters, given that some of them are older (#1) or more recent (#2 and #3). Conversely, in our sample, the smallest clusters are among the older clusters (#8, #9 and #10).

Intellectual Turning Points in Economic and Social Value in the Sport Industry

Co-citation clusters are common thematic research structures. Every single paper is represented in the graphic by means of a node or dot. In this regard, those that connect different clusters can be considered intellectual turning points (Chen and Song, 2019). The importance of a node or dot when connecting other nodes is measured by means of betweenness centrality which quantifies the number of times a node behaves as if it were a bridge along the shortest path between two other nodes. Therefore, a node with high levels of betweenness centrality can be considered as an essential connector between two or more nodes (Chen and Song, 2019). According to a bibliometric perspective, betweenness centrality is correlated with long-term future citations of the paper (Shibata et al., 2007).

Those nodes whose betweenness centrality is higher than 0.10 can be considered, according to social network theory, as high betweenness centrality nodes. These usually tend to find themselves on the paths that connect different clusters (Chen and Song, 2019). **Table 6** shows 13 papers whose betweenness centrality is higher than 0.10 on economic and social value in the sport industry. These publications can be considered the intellectual backbone of the field. **Table 6** shows the economic and social value in the sport industry network. The average number of papers with high betweenness centrality (>0.10) per cluster is 1.3 per cluster. The research areas that spread the most knowledge and have the most intellectual turning points are clusters #6 and #7 (with 5 and 4 publications respectively with betweenness centrality higher than 0.10). Clusters #1, #2, #3 and #4 have only one turning point among their notes. Finally, the least connected research areas are clusters #5, #8, #9 and #10 with no intellectual turning point.

The four highest betweenness centrality (>0.15) papers are shown in **Table 7**. These publications act as bridges between different clusters, they are the ones that have helped the most to propagate the field of research on economic and financial value in the sport industry. These papers are connected to a great number of research articles in the field. This is to say that a large number of researchers consider these articles to be an intellectual resource.

Out of the four papers with the highest betweenness centrality, three belong to cluster #6 (Alexandris and Tsiotsou, 2012;

TABLE 6 | Intellectual turning point cited articles in economic and social value in the sport industry.

Centrality	Cluster	Author	Title	Year	Source
0.18	6	Alexandris and Tsiotsou	Segmenting soccer spectators by attachment levels: a psychographic profile based on team self-expression and involvement	2012	Eur Sport Manag Q
0.17	6	Lock, Taylor, Funk and Darcy	Exploring the development of team identification	2012	J Sport Manage
0.17	6	Pérez, García de los Salmones and Rodríguez del Bosque	The effect of corporate associations on consumer behaviour	2013	Eur J Marketing
0.16	1	Babiak and Wolfe	Determinants of corporate social responsibility in professional sport: internal and external factors	2009	J Sport Manage
0.15	2	Anagnostopoulos and Shillbury	Implementing corporate social responsibility in English football: towards multi-theoretical integration	2013	Sport Bus Manag
0.15	6	Mazodier and Rezaee	Are sponsorship announcements good news for the shareholders? Evidence from international stock exchanges	2013	J Acad Market Sci
0.15	6	Norman	Saturday night's alright for tweeting: cultural citizenship, collective discussion, and the new media consumption/production of Hockey Day in Canada	2012	Sociol Sport J
0.15	7	Hayhurst	Corporatising sport, gender and development: postcolonial IR feminisms, transnational private governance and global corporate social engagement	2011	Third World Q
0.14	4	Breitbarth and Harris	The role of corporate social responsibility in the football business: towards the development of a conceptual model	2008	Eur Sport Manag Q
0.12	7	Durlak, Weissberg, Dymnicki, Taylor and Schellinger	The impact of enhancing students' social and emotional learning: a meta-analysis of school-based universal interventions	2011	Child Dev
0.12	7	Spaaij	Building social and cultural capital among young people in disadvantaged communities: lessons from a Brazilian sport-based intervention program	2012	Sport Educ Soc
0.11	3	Gordon and Doyle	Teaching personal and social responsibility and transfer of learning: opportunities and challenges for teachers and coaches	2015	J Teach Phys Educ
0.11	7	Hellison	Teaching personal and social responsibility through physical activity	2011	Book

Lock et al., 2012; Pérez et al., 2013). As a matter of fact, they are also the three publications with the highest betweenness centrality. This makes sense given that emotional value is a key feature in sports which leads to high levels of team identification, attachment, and loyalty.

The highest publication in terms of betweenness centrality is a paper by Alexandris and Tsiotsou (2012). This article provides empirical evidence for the application of the sport attachment construct as a criterion to segment football spectators. By means of a cluster analysis and a discriminant analysis, and the use of self-expression and team involvement variables, Greek football spectators are segmented into two psychographic profiles: low and high fan attached spectators. The latter has also high scores in their self-expression and team involvement. Therefore, these individuals can be described as people who feel that their team can help them to build their self-identity, given that they are both cognitively and emotionally involved. They consider their team as part of their everyday life. This profile is more likely to be men rather than women, with a university degree and between 22 and 26 years old. The authors conclude that symbolic meaning is placed on sports, that fans should share values with their team so as to feel identified and that sport performance is not the only outcome that affects fan enjoyment.

Secondly, Lock et al. (2012) integrate both social identity theory and the Psychological Continuum Model (PCM) to explore how team identification develops in relation to Sydney Football club, a new entity created in 2004 playing the brand new A-League, the Australian football competition. Their main research items have to do with the processes that lead to developments in team identification and the manifestations

of developed team identification. They conclude that the development of identification transitioned from an external to an internal state, that the internal meaning transitioned from a group of players to a set of public developed personas, that searching in the media is a team directed outcome of developed identification and that developed identification was manifested when members promote the club to other people.

Thirdly, Pérez et al. (2013) study the relationship between corporate associations and loyalty by means of the analysis of the role of satisfaction and the consumer identification in the financial services industry. They conclude that CSR contributes to building the identification with the company and satisfaction.

Finally, the fourth paper with a higher betweenness centrality value is by Babiak and Wolfe (2009), which belongs to cluster #1 and deals with the CSR theoretical framework. Belonging to this cluster and, at the same time, being an intellectual turning point makes sense, given that this cluster is part of the setting of the conceptual model of CSR in sports. In actual fact, this article identifies internal and external determinants of CSR in professional sport, with the latter being more important than the former. Particularly, key constituents, the interconnectedness of the field, and pressures from the league are shown as the more important external determinants. This qualitative research focuses on four professional teams, each one of them playing in the National Football League (NFL), Major League Baseball (MLB), National Hockey League (NHL) and National Basket Association (NBA); and located in one Midwestern American city. All in all, a framework of CSB in sports is proposed which considers both external pressures and internal resources.

TABLE 7 | Top four intellectual turning point cited articles in economic and social value in the sport industry.

Centrality	Cluster	Author	Title	Year	Source	Study type	Country	Sport	Methodology
0.18	6	Alexandris and Tsiotsou	Segmenting soccer spectators by attachment levels: a psychographic profile based on team self-expression and involvement	2012	Eur Sport Manag Q	Theoretical and empirical	Greece	Football	Quantitative
0.17	6	Lock, Taylor, Funk and Darcy	Exploring the development of team identification	2012	J Sport Manage	Theoretical and empirical	Australia	Football	Qualitative
0.17	6	Pérez, García de los Salmones and Rodríguez del Bosque	The effect of corporate associations on consumer behaviour	2013	Eur J Marketing	Theoretical and empirical	Spain	*Financial services	Quantitative
0.16	1	Babiak and Wolfe,	Determinants of corporate social responsibility in professional sport: internal and external factors	2009	J Sport Manage	Theoretical and empirical	United States	NFL, MLB, NHL and NBA	Qualitative

*It does not deal with sport industry.

Burst Detection in Economic and Social Value in the Sport Industry

The number of publications and number of citations are relevant indicators to infer the impact of a discipline on the scientific academia but we cannot measure its influence or density, as well as its evolution over time. A deep analysis of the obtained clusters about publishing relations is necessary. Citation burst is a more relevant indicator to identify the most active research area or areas during a period of time. Running the specific burst algorithm introduced by Kleinberg (2003), CiteSpace detects changes in a variable relative to others in the same population during time periods. If the number of citations received by a publication increases considerably during a specific period of time, it can be said that a citation burst has occurred. In a brief space of time this publication has attracted great attention from other academic colleagues. For this reason, a cluster that has several nodes with strong citation bursts indicates that it is an emergent and active research area (Chen et al., 2009).

Table 8 shows the results of the burst detection analysis and identifies the 14 papers with the largest citation bursts within the economic and social value in the sport industry field between 2000 and 2020. The 14 papers were found to have citation bursts by the Kleinberg (2003) algorithm. The rest of the papers did not show enough bursts. We should note that the analysis is right censoring for burst periods in 2020, therefore, we do not know the end date of the burst periods for these publications. The area with the most burst papers is the CSR theoretical framework (cluster #1). Seven publications in this area show strong citation bursts. After these, the next cluster with four citation burst papers is #2, related to CSR case studies. Cluster #4 deals with Strategic CSR and has three burst papers. The average number of burst papers per cluster is 1.4. Nonetheless, only three clusters out of 10 have burst papers.

All the burst papers are dated between 2006 and 2015, in spite of the fact that the database includes publications from 2000 to 2020. Between 2006 and 2010, the average number of burst papers per year is 1.80. From 2011 to 2015, the average is 1.0. The most prolific year with regard to burst papers is 2009 with 4. There has been an absence of burst papers since 2015. This is a paradox, given that the pace of citing publications has greatly increased since 2015 (**Figure 1**). The average interval between the publication of burst papers and its maximum interest is 2.21 years. One paper burst the very same year in which it was published (Sheth and Babiak, 2010) and two publications just the next year after its publication (Breitbarth and Harris, 2008; Babiak and Wolfe, 2009). These three papers along with Anagnostopoulos et al. (2014) have the longest period time (4 years) that a publication has been burst.

According to Hou et al. (2018) burst paper detection reveals research trends in a field of knowledge. In this regard, there have been three trends in the field of economic and social value in sport industry research. **Table 9** shows the three trends classified by cluster and indicates the number of burst papers, the year when this trend started [Min (year)] and finished [Max (year)], the mean year, the mean strength value, the year when

TABLE 8 | Burst cited papers in the economic and social value in the sport industry field.

Cluster	References	Year	Strength*	Begin	End	2000–2020**
4	Porter ME, 2006, Harvard Bus Rev, V84, P78	2006	4.03	2009	2011	
4	Breitbarth T, 2008, Eur Sport Manag Q, V8, P179	2008	6.19	2009	2013	
4	Babiak K, 2006, Sport Market Q, V15, P214	2006	7.62	2009	2011	
1	Sheth H, 2010, J Bus Ethics, V91, P433	2010	5.57	2010	2014	
1	SMITH A, 2007, J Corporate Citizens, V25, P43	2007	7.75	2010	2012	
1	Babiak K, 2009, J Sport Manage, V23, P717	2009	8.61	2010	2014	
1	Thibault L, 2009, J Sport Manage, V23, P1	2009	3.42	2011	2012	
1	Walker M, 2009, J Sport Manage, V23, P743	2009	6.95	2011	2014	
1	Godfrey PC, 2009, J Sport Manage, V23, P698	2009	6.95	2011	2014	
1	Babiak K, 2011, Corp Soc Resp Env MA, V18, P11	2011	3.23	2013	2016	
2	Dowling M, 2013, Eur Sport Manag Q, V13, P269	2013	3.55	2016	2018	
2	Anagnostopoulos C, 2014, Eur Sport Manag Q, V14, P259	2014	4.6	2016	2020	
2	Breitbarth T, 2015, Corp Gov-Int J Bus S, V15, P254	2015	3.84	2018	2020	
2	Heinze KL, 2014, J Sport Manage, V28, P672	2014	4.45	2018	2020	

*Strength of the burst of a document (citation burst in a certain period) based on the Kleinberg (2003) algorithm. **Red line segment represents the time period of time in which a reference was found to have a burst, indicating the beginning year and the ending year of the duration of the burst.

TABLE 9 | Burst cited papers per cluster in the economic and social value in the sport industry field.

Cluster	Cluster label	No. papers	Min (year)	Max (year)	Mean (year)	Mean (strength*)	Min (begin)	Max (end)	2000–2020**
4	Strategic CSR	3	2006	2008	2007	5.95	2009	2013	
1	CSR theoretical framework	7	2007	2011	2009	6.07	2010	2016	
2	CSR case studies	4	2013	2015	2014	4.3	2016	2020	

*Mean strength of the burst of a document of the cluster (citation burst in a certain period) based on the Kleinberg (2003) algorithm. **Red line segment represents the mean period of time in which a cluster was found to have a burst, indicating the minimum beginning year and the maximum ending year of the duration of the burst in a cluster.

that trend started [Min (begin)] and the year that the trend finished [Max (end)].

The analysis of **Table 9** shows that the first trend is compound by three papers of cluster #4, which deals with strategic CSR. The publication of burst papers started in 2006 and finished in 2008. Nonetheless, they burst from 2009 through to 2013. Just one year after the inception in the writing of the first trend, the writing of the second one started within cluster #1. This second trend comprises seven papers that were written from 2007 to 2011 and develops the theoretical framework of CSR in sports. These papers burst from 2010 to 2016. Just when the second trend vanished, in 2016, the third trend burst within cluster #2. This last trend deals with CSR case studies that were written from 2013 (2 years after the end of the writing of the second trend) through to 2015.

All things considered, the first two trends, that overlap partly in time, show that academics initially found great interest in achieving eminently theoretical understanding, namely, setting the conceptual framework and the foundation of CSR in the sport industry as a strategic feature. Once theory and strategy were well-established, researchers showed great interest in the implementation of CSR by means of the analysis of sport entities cases, which compounded the third and last trend. For the time being, this third trend is still alive

given that three out of the four papers that burst, are still so in 2020.

DISCUSSION AND CONCLUSION

In this article, we have carried out a co-citation bibliometric analysis with the aim of mapping the intellectual structure of the economic and social value in the sport industry field. Our findings include quantitative rigour and contribute to further development of the field in the following ways.

Firstly, we have delineated the principal research areas within the field of economic and social value in sport industry research: CSR theoretical framework; CSR case studies; TPSR; strategic CSR; sponsorship; emotional value; educative programs; consumer ethical perception; environmental issue; and corporate citizenship.

In comparison with Maestre-Matos et al. (2020) who perform a bibliometric analysis about shared value (defined as the integration of the generation of economic and social value) but without segmenting by sport industry, some more general principal research areas are some how shared, namely CSR theoretical framework, CSR case studies, strategic CSR, and environmental issue. Nonetheless, given that our research focuses on the sport industry, specific research

areas have been pinpointed: TPSR; sponsorship; emotional value; educative programs; consumer ethical perception; and corporate citizenship. This makes sense, given that, for instance, sponsorship is a key feature of the sport industry and many papers deal with this topic. On the other hand, emotional value is also a relevant idiosyncrasy of sport which is related to the emotional attachment that supporters have to a sport institution.

Secondly, the papers that form the intellectual backbone of economic and social value in sport industry research have been identified. Mapping these papers reveals the paths and connections through which economic and social value in the sport industry has disseminated. The turning points represent the bases of the knowledge of the field of research. Their identification allows academia to obtain a quicker understanding of the field, from where to begin the research process. For instance, emotional value researchers who want to know about brand identity, team identification and attachment as well as economic and social value in the sport industry, should begin their literature review by means of reading Alexandris and Tsiotsou (2012) and Lock et al. (2012). Therefore, these papers are the main source of knowledge in this specific field. As a consequence, they should also be the starting point on which to base the knowledge of future research in this area. In a similar way, future research on CSR in the sports industry should establish its knowledge based on the Babiak and Wolfe (2009). This way of proceeding is a remarkable time saving strategy for researchers, primarily during the early stages of developing the conceptual framework of research given that the engines of knowledge of the field are taken as references.

The fact that one of the four papers that are considered intellectual turning point articles in economic and social value in the sport industry (Pérez et al., 2013) does not deal with the sport industry, confirms the main conclusion of this article: the existence of a literature gap in regard to quantitative methodology to assess social value in the sport industry. As a matter of fact, Pérez et al. (2013) is a quantitative analysis. Due to this lack of quantitative methodological literature in the sport industry, authors that research this issue feel forced to consult other sources of knowledge to be nourished with quantitative studies and not only qualitative (which abound in regard to social value in the sport industry). Therefore, scholars that research this field have applied quantitative methodologies used in other industries, due to the lack of a standardised methodology in the sport industry so as to assess social value.

Thirdly, burst papers, in other words, articles that have attracted extraordinary attention from the scientific community during a discrete time period, have been identified. Detecting burst papers provides an image of the changing situation of the literature on economic and social value in the sport industry. This image is essential because it provides the guidance needed so as to allow academics to, on the one hand, design new research that advances the identified trends and, on the other hand, open new research fields based on these trends.

Two trends overlapped from 2009 to 2016 which set the conceptual framework of CSR and analyse CSR as a strategy. The writing process of these two initial trends took place between 2006 and 2011. Once the theory and the strategic feature of CSR

were well-established, researchers showed great interest in the implementation of CSR by means of the analysis of sport entities cases. Therefore, a new trend, the third and last one, emerged: papers written in 2013, 2014, and 2015, dealing with CSR case studies, burst from 2016 onwards. For the time being, this third trend is still bursting or alive given that three out of the four papers that burst, are still so in 2020.

This means that there has been no new burst paper over the last 5 years (since 2015), in spite of the fact that the mean time from publication to maximum interest for a burst paper is 2.21 years. This is a paradox because the number of citing papers on economic and social value in the sport industry field (**Figure 1**) written from 2016 to 2020 is higher (276 citing papers) than those written from 2000 to 2015 (218 documents). How is that possible? The methodology used in burst papers provides insight in this regard.

Out of the 14 burst papers, only three use qualitative analysis; but never alone, always accompanied by qualitative methodologies (Walker and Kent, 2009; Sheth and Babiak, 2010; Babiak and Trendafilova, 2011). All these papers belong to cluster #1, that deals with the theoretical framework, and the period that these remained burst is longer than the mean period of the 14 papers. The rest of the burst papers use either theoretical or qualitative approaches, which have indeed limitations. In actual fact, CSR case studies are the thematic topic of cluster (#4), with some papers that are still bursting.

The analysis of these trends suggests future lines of research which should cover the gap in regard to the measurement of social value in sports. This would allow the increase of quantitative research in the field of economic and social value in the sport industry. This has been the case with some other industries, where over the last few years some quantitative indicators have been established so as to assess social value, integrating it along with economic performance indicators. Take the example of the banking industry, where literature has been written in this regard, proposing quantitative models and developing standardised measurements to integrate both the economic and social value of financial institutions (San-José et al., 2012, 2014; Torres-Pruñonosa et al., 2012). The existence of this quantitative theoretical framework has allowed researchers to quantitatively analyse the social efficiency of various financial intermediaries (Gutiérrez-Goiria et al., 2017; Bachiller and García-Lacalle, 2018; San-José et al., 2018, 2020).

Therefore, given that financial and economic indicators are easily recognisable when reviewing the existing literature, the development of measurements for social value of sport entities is a research opportunity that may be turned into the next burst paper in this field of knowledge. This quantitative methodology will be cited by many scholars that are researching this increasing field of knowledge. To all intents and purposes, this new methodological approach would consist of adapting either the monetisation of social value or social accounting models to the sports framework (Retolaza et al., 2016).

In actual fact, if these quantitative indicators were established, similar quantitative and not only qualitative research (Mendizábal et al., 2020) that has been done within

stakeholders theory (Freeman, 1984; Freeman et al., 2010) could be developed in the sport industry. In this regard, the multi-fiduciary theory of stakeholders (Goodpaster, 1991; Boatright, 2008) establishes the relationship between various stakeholders (that are not only shareholders) that are the principals and the agents (those who have fiduciary responsibility behind the group of stakeholders). Therefore, the agent will be legitimately obligated to respond to the stakeholders' interest. Nonetheless, Jensen (2002) argues that it is impossible to manage the interest of all stakeholders given that there is not a person with enough legitimacy to monitor the decision-making agent, because those that are the controllers (several stakeholders with autonomy) have dispersed and incompatible interests. This is what is commonly called among scholars Jensen's 'governance problem'.

Savings banks can be considered both a prototypic case of the multi-stakeholders governance² and a paradigmatic case of Jensen's 'governance problem'. According to this approach, they were supposed to collapse within a very short period of time. Nonetheless, they have survived over the last two centuries. According to this paradigm, organisation with a large diversity of interests and complexity in their control, such as savings banks, were expected to be significantly less efficient than commercial banks, given than the later have a shareholder based model. As a matter of fact, San-José et al. (2014) analyse the economic, social, and overall efficiency of savings banks against commercial banks. By means of a quantitative and integrated model, results refute Jensen's 'problem of governance', given that there is not significantly less efficiency in savings banks in comparison to commercial banks during both the housing boom (Raya et al., 2017) and recession years. Savings banks seem to be a case of auto-regulation in the governance of the common pool resources (Ostrom et al., 1999; Ostrom, 2015).

Similarly, Spanish football clubs (namely, Futbol Club Barcelona, Real Madrid Club de Fútbol, Athletic Club and Club Atlético Osasuna) are also prototypic cases of the non-shareholders governance and could be paradigmatic cases of Jensen's 'governance problem'. Are they less efficient than shareholder governed football companies? To this aim, it is necessary to cover the lack of standardised indicators in order to analyse the overall (including not only economic but also social) efficiency of football clubs against Sport Stock Corporations [what is called 'Sociedades Anónimas Deportivas' (SAD) according to the Spanish legislation]. As a matter of fact, this analysis would be very noteworthy given that non-shareholder governed clubs encapsulate the two most laureate teams in Spain (FC Barcelona and Real Madrid CF), a historic team (Athletic Club, the only football team along with FC Barcelona and Real Madrid CF that has never been relegated to the Spanish second division) and a club who has had several relegations and promotions over the last few years (CA Osasuna). Therefore, these entities have different sizes and profiles and,

consequently, they could be a good sample to see if Jensen's 'problem of governance' is again refuted (such as it happened in the case of savings banks) in comparison with Spanish Sport Stock Corporations. In actual fact, given that FC Barcelona and Real Madrid CF usually play in the UEFA Champions League and Athletic Club usually play in European football competitions, the comparison with European shareholder governed football companies could also be carried out.

Fourthly, we have also examined the scientific journals that have contributed the most to this field of knowledge. Actually, the 494 citing papers were published in 201 different academic journals. The journals that have published 10 citing papers or more (Table 1) in regard to the field of economic and social value in the sport industry are: *European Sport Management Quarterly* (39), *Journal of Sport Management* (34), *Sport Management Review* (29), *Journal of Teaching in Physical Education* (18), *International Journal of Sports Marketing Sponsorship* (17), *Sport in Society* (16), *Journal of Business Ethics* (11) and *Sustainability* (10). Out of these eight journals, one is currently included in the first quartile according to the Impact Factor of Journal Citation Reports, four in the second quartile, two in the third quartile, and one in the fourth quartile. The results obtained in regard to centrality (Table 6), allow us to identify which journals have published the most relevant or influential articles in this field, given that they are considered intellectual turning points: *European Sport Management Quarterly* (2), *Journal of Sport Management* (2), *European Journal of Marketing* (1), *Sport Business Management* (1), *Journal of the Academy of Marketing Science* (1), *Sociology of Sport Journal* (1), *Third World Quarterly* (1), *Child Development* (1), *Sport Education and Society* (1), and *Journal of Teaching in Physical Education* (1). In the regards to burst papers (Table 8), the journals that have published some of them are: *Journal of Sport Management* (5), *European Sport Management Quarterly* (3), *Harvard Business Review* (1), *Sport Marketing Quarterly* (1), *Journal of Business Ethics* (1), *Journal of Corporate Citizenship* (1), *Corporate Social Responsibility and Environmental Management* (1) and *Corporate Governance International Journal of Business in Society* (1). Therefore, there is evidence that the papers that contain more intellectual turning points and burst papers are two specialised sports journals: *European Sport Management Quarterly* and *Journal of Sport Management*. Knowing where the most influential research papers in economic and social value in the sport industry have been published will be useful for future researchers, given that it will save time when conducting the literature review.

Fifthly, bibliometric analysis has the advantage of giving order to an immense amount of data; a meaningful order, in fact, from which good quantitative and approximate qualitative evaluations can be extracted. Nevertheless, it also has some limitations that have been recurring for decades (Smith, 1981). A high level of involvement and, therefore, subjective participation of those who carry out the analysis, is necessary to interpret the results obtained. Thus, bibliometric techniques must be accompanied by the intellectual refinement that requires, for example, an extensive bibliographic review on the subject, its synthesis, and/or discussion among scholars (van Raan, 2004;

²Savings banks are based on a multi-fiduciary model that takes into account work, human resources, or society decision legitimacy, among others, as items to determine the governance of the institution (Boatright, 2008; García-Cestona and Surroca, 2008; Retolaza et al., 2018). Conversely, commercial banks are based on the property right model which establishes capital as the key to governance.

Bergstrom et al., 2008; Zupic and Èater, 2015). In order to achieve a consistent set of indicators that allows researchers to reach a reasonable conclusion, the researcher needs to make some technical decisions in the parameters of the chosen database and the analytical software (e.g., restrictions of language, journals, time period, normalisation of cluster labelling, verification of final data to debug errors, etc.) (van Raan, 2004). There is also the problem that older publications will have more presence than newer ones simply because of the delay in which citations are entered (Vogel and Güttel, 2013) or the consideration or not of self-citations (Glänzel et al., 2006; Peroni et al., 2020).

Limitations

Finally, we recognise that the use of a single database (SSCI) limits the research. It is impossible to cover the entire field of knowledge of the subject that is going to be analysed without taking into consideration other recognised databases (Scopus, Dimensions, etc.) (Meho and Yang, 2007); or, without the data offered by techniques applied to the analysis of scientific publications and activity on the internet such as Webometrics or Altmetrics (Thelwall, 2009, 2018; Brigham, 2014; Roemer and Borchardt, 2015). Nevertheless, in this case, the value that SSCI has in social sciences bibliometric analysis is well recognised and, therefore, the results offered are well supported. Logically these limitations must be taken into account when considering the results obtained in this research.

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DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/**Supplementary Material**, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

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Impact of the Optimistic Perspective on the Intention to Create Social Enterprises: A Comparative Study Between Portugal and Spain

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Social entrepreneurship (SE) enables business consolidation, combined with the production of positive impact and improvements in society. Aligned with 2030 Agenda for the achievement of the United Nations Sustainable Development Goals, it is important to clarify the role of social entrepreneurs, as they are making visible the impact of their creative ideas in several areas, from civic engagement to the environment, health and learning. The main purpose of this study is to specify a model of social entrepreneurial intention (SEI) and explore it by country, based on the dimensions of the Theory of Planned Behavior and how these are mediated by spirituality and optimism. With a convenience sample of 1476 Portuguese and Spanish students, Structural Equation Modeling (SEM) was used. For a deeply understanding, variables within the model were compared by country using *t*-test, and multivariate analysis was done by each one separately. The mean comparison between countries, demonstrated that there are differences only between perceived behavioral control (PBC), Spirituality, Optimism and SEI, with Portuguese students scoring the highest values, in all variables except Optimism. A mediation path was carried out, and Spirituality mediate a significant effect between the three TPB dimensions in Portuguese students, but not in students from Spain. Finally, after discussing the results, theoretical and practical contributions are analyzed, with regard to the field of SE in Portugal and Spain, and alternatives are pointed out for a more social and sustainable entrepreneurial future.

Keywords: optimism, spirituality, Spain, Portugal, intention, social entrepreneurship

INTRODUCTION

The phenomenon of social entrepreneurship (SE) emerges in the context of crisis and social, economic, and environmental challenges that contemporary societies have been facing. The relationship between SE and the generation of social value has as a central figure the individuals/actors, and their actions are responsible for reconstructing and transforming society (Sastre-Castillo et al., 2015; Muñoz and Kibler, 2016). The great difference of social entrepreneurs lies in the reach of the social impact they manage to generate, as well as in the multiplicity of approaches that are applied to solve social problems (Nicholls, 2006). Over the years, the

literature has provided insights into the complex process underlying entrepreneurial activity, through studies on cognitive factors (e.g., motives to undertake) and intention (Krueger et al., 2000; Autio et al., 2001; Peterman and Kennedy, 2003). This cognitive perspective is invaluable because, as important as studying the economic impact of entrepreneurship on societies, is to understand, at the individual level, the formation of new ventures and their structures (Grégoire et al., 2011; Sánchez et al., 2011). According to Bornstein (2004) and Bornstein and Davis (2010), SE started out as an activity promoted by individuals who combined their ability to idealize a better society with their ability to act, transforming ideas into concrete initiatives. Thus, it is also important to deepen the understanding of the factors that guide and influence social entrepreneurial intentions (SEI).

Currently, according to data from the Global Entrepreneurship Monitor (GEM), SE involves between 2.5 and 5% of the European population, and is an important driver for increasing inclusion, justice, and prosperity (GEM, 2020). In Portugal, for example, SE lives with the scenarios of economic crisis and, consequently, of high unemployment rates (Casaqui, 2014). In this country, the social sector represents 3% of the Gross Value Added, however, there is still a lack of a legal framework for the concept of social enterprise, which allows them to maximize their eligibility for certain financing opportunities (Nova SBE, 2020). The latest GEM Special Report on Social Entrepreneurship reported that, in Spain, the number of companies with social objectives has increased (0.9%), but the indices continue well below the Portuguese (2.7%) and the European (2.98%) (Bosma et al., 2016).

Previous research reports that entrepreneurial intention is the result of individual and contextual factors (Giacomin et al., 2016). In other words, culture can shape individual dispositions and, therefore, the intention to have a business of their own (Thornton et al., 2011; Shinnar et al., 2012). In a society where it is possible to enjoy respect, there is an environment more favorable to the entrepreneur potential (Giacomin et al., 2016). Swail et al. (2014) acknowledge that “the degree to which individuals feel motivated to seek entrepreneurial opportunities will be reflected in the belief that entrepreneurship is socially acceptable and that entrepreneurs themselves are respected members of the community” (p. 864). That is, the differences in entrepreneurial intention are explained by the valuation of entrepreneurship in society (Liñán et al., 2011). All societies have a unique set of values, which was built through its history and must be understood, that is, each society has its own culture. Thus, it is possible that factors that influence the social entrepreneur’s intentions may vary from culture to culture or from region to region. A study by Liñán and Chen (2009) highlighted that the beliefs, attitudes and perceived behavioral control (PBC) associated with entrepreneurship vary between Spain and Taiwan, for instance. When comparing two regions in Spain, Liñán et al. (2011) revealed that entrepreneurs are more valued in the most economically developed region. The perception of barriers to entrepreneurship was also different in three different countries (Shinnar et al., 2012). Liñán et al. (2013), they also pointed out differences in the entrepreneurial intention between Spain and Great Britain. Several studies (e.g., Monllor, 2010; Patzelt

and Shepherd, 2011; Lough and McBride, 2013) analyzed the process of creating a social enterprise, focusing on components such as the recognition of opportunities and motivations, but few evaluated the intentions (e.g., Krueger et al., 2007; Nga and Shamuganathan, 2010). In addition, the latter were confined to the North American or Chinese context (Yang et al., 2015). The purpose of this article is to identify more deeply the factors that influence SE and, in a specific way, to examine how these factors may differ in the cultural contexts of Portugal and Spain.

The need to study the influence of different cultures on SEI becomes clear. One of the objectives of this article is to fill this gap by using a sample from the Iberian Peninsula. The geographical, historical or even linguistic proximity does not make the Iberian Peninsula a culturally homogeneous territory; however, we can find some similarities in several aspects. After being severely punished by the global crisis of 2008, unemployment in Portugal was 16.8%, the public deficit exceeded 3% and the debt reached 132% of GDP in 2013. After the years of the presence of the troika and the austerity of the IMF, the country returned to breathe and reap the rewards of previous investments. Investment rose 9%, largely with resources from private and foreign sources, and unemployment fell to 8.9% (PORDATA, 2014). As the same way as Portugal, Spain also approves an Austerity Plan for 2011–2013, after the 2008 housing bubble. In 2010, according to National Institute of Statistic (INE) from Spain, the economic downturn is confirmed, with the country losing 3.6% of its wealth and the rate of unemployment reaches 20% (Instituto Nacional de Estadística [INE], 2013). Several authors acknowledge that the creation of new businesses could be particularly important during periods of economic recession because, when successful, it helps generating new jobs, spreading innovation and providing support to economy (Dana and Wright, 2004; Ahmed et al., 2010).

The economic crisis and the resulting austerity policies have had a profound impact on the structure and patterns of the labor market. In Portugal, in 2011, for example, the Strategic Program + E + I (More Entrepreneurship, More Innovation) was created and, in 5 months, registered more than 4000 applications. This adhesion mirrors the Portuguese people’s growing desire to undertake; however, for experts it was also the direct result of a country in crisis, where employment opportunities have suffered a significant drop. In Spain, entrepreneurial activity continues to increase (e.g., from 5.2% in 2016 to 6.4% in 2019) and remains on the path to recovery toward pre-crisis figures (7.6% in 2007).

The literature says that crisis scenarios lead to entrepreneurial behaviors (Bullough et al., 2014; Devece et al., 2016). The current moment, triggered by the pandemic, has created (and will continue to create) many social challenges for which we are not prepared; thus, it will be necessary to develop innovative solutions. Despite having different characteristics, the presence of COVID-19, in these two countries, has proven that the worsening of social problems opens the door to social entrepreneurs and to the creation of powerful and innovative solutions, particularly in affected areas. In Portugal, for instance, to fill social isolation, the SOS Vizinho project was quickly set up, which helps to signal and support groups at risk in the neighborhood with the purpose of distributing essential goods, consequently they do not need to leave their homes frequently. The social response to

the coronavirus crisis was shown in Spain, for example, through Farmidable, which allows access to local products, giving the purchase free of charge to the most vulnerable people, mainly the elderly and high-risk groups.

Currently, the study on entrepreneurship has revealed another type of interest; not only the study of the economic aspect, but also that this is not the main reason for starting an entrepreneurial activity (Katz, 1992; Amit et al., 2001). These new outputs develop a new and greater understanding of the motivations of entrepreneurs, as well as their personal values and belief structures, which influence their entrepreneurial decision (Bird and Schjoedt, 2009; Krueger, 2009; Smith et al., 2019). The entrepreneurship process begins long before any economic gain. When studying entrepreneurship, it is also important to consider the idiosyncrasies of the main actor in the process – the individual's internal and personal values, motivational needs, beliefs and desires. The individual's spiritual orientation positively influences the decision-making process of becoming an entrepreneur, through resilient coping mechanisms. These people who attach importance to spirituality have better levels of health, productivity, happiness and a better ability to deal with stress and adversity (Balog et al., 2014; Riaz et al., 2017). Spirituality comes to be seen as an emerging theme in the field of social sciences and administration. For instance, several authors (e.g., Balog et al., 2014; Nandram, 2016; Smith et al., 2019) recognized that it is plausible to study the influence of spirituality on management when it is defined in terms of attitudes, behaviors and practices.

THEORETICAL BACKGROUND AND CONCEPTUAL MODEL

Social Cause as Intention

Entrepreneurial intention is recognized as an individual's conscious conviction to direct attention toward a certain goal and achieve it in the future (Bird, 1988; Thompson, 2009) and also as the result of conscious thinking and complex cognitive processes (Krueger et al., 2000). It is consensual for several authors (e.g., Kolvereid and Isaksen, 2006; Krueger and Brazeal, 2017) that the entrepreneurial intention is perceived as a prerequisite to carry out a general entrepreneurial activity and for SE in particular (Mair and Noboa, 2006). Similarly, the SEI can be understood as mental orientation, such as a belief, desire, hope and determination of a person to set up a new social enterprise (Tran and Von Korflesch, 2016). There are two dominant models that explain the SEI: Model of Social Intention Formation (Mair and Noboa, 2006) and the Theory of Planned Behavior (TPB) (Ajzen, 1991). Based on the Entrepreneurial Event Model by Shapero and Sokol (1982), the Model of Social Intention Formation was developed specifically to predict SEIs (Mair and Noboa, 2006). This model suggests that the intention to create a social activity is influenced by a person's perceived ability to start a social enterprise and their perceived convenience. On the one hand, the perceived viability consists in the belief that the individual has all the necessary cognitive and motivational capacities (self-efficacy) and social capital to create a social enterprise (Wood

and Bandura, 1989). On the other hand, perceived convenience is made up of the ability to detect and understand other people's emotional and affective states and to react accordingly – empathy (Mehrabian and Epstein, 1972) and the motivation to help other people achieve a common goal – moral judgment (Mair and Noboa, 2006). The Theory of Planned Behavior (TPB) has been applied, exhaustively, as a framework for many studies that seek to explain the complex cognitive processes that lead to the creation of the company (Krueger et al., 2000; Liñán, 2008) and, consequently, of entrepreneurial intention and behavior (Maes et al., 2014). Several studies (e.g., Mair and Noboa, 2005, 2006) have proven their application to the prediction of entrepreneurial intention, and others studies have also demonstrated that the TPB model is applicable as a theoretical framework for SEI (Ernst, 2011; Forster and Grichnik, 2013; Hockerts, 2017; Tiwari et al., 2017). A complete review of the literature on factors that affect the social entrepreneur's intentions elaborated by Ahuja et al. (2019) reveals that many of the factors studied could be grouped under a broad construct of personality, for example, empathy (Mair and Noboa, 2006), proactive personality (Prieto, 2010), or ability to take risks (Irengün and Arikboga, 2015).

The TPB (Ajzen, 1991) suggests that the formation of an intention is influenced by three different constructs: (i) attitude toward behavior (AT) – based on behavioral beliefs of a person who evaluate whether the consequences of an action are judged negatively or positive; (ii) subjective norms (SN) – measured the social pressure of other important people in a person's life can influence personal decisions and; (iii) PBC – on the one hand, the perceived ease of performing this action (self-efficacy) and, on the other hand, the necessary resources and control over the execution of these actions (controllability).

The main motivation of the social entrepreneur is to find the right opportunity to help and solve problems in society (Mair and Noboa, 2006), driven by their belief system and values and their skills. An individual with a SEI has “self-acknowledged conviction by a person that they intend to become a social entrepreneur and consciously plan to do so at some point in the future” (Thompson, 2009, p. 676). The societies have their own characteristics and, therefore, a person's individual history and exposure to certain social problems, their attitudes and perceptions about it (Mair and Noboa, 2006) can have an influence on their values. This can make them more receptive and aware the others' issues, which may trigger their interest in creating a social activity (Monllor, 2010; Patzelt and Shepherd, 2011; Miller et al., 2012) and produce social change. Regarding to SEI, Kruse et al. (2020) acknowledge that TPB suggests that people who judge a career as a social entrepreneur positively (attitude), have social support from other important people (subjective norms) and the belief that they are capable of creating a social enterprise (PBC) have a high intention of creating a social entrepreneurial activity. Therefore, the first set of hypotheses is:

- H1: For both countries– PBC has a significant and positive effect on SEI, which is not significantly different from each other.
- H2: For both countries – AT has a significant and positive effect on SEI, which is not significantly different from each other.

H3: For both countries – SN has a significant and positive effect on SEI, which is not significantly different from each other.

As far as SE is concerned, Portugal presents important examples, such as Color Add in the inclusion of people with color blindness or Speak in the integration of refugees and immigrants, among many others. These innovative ideas inspired a new public policy and made the country as an international reference in supporting social innovation. For its part, Spain has a very similar path relatively to the concern in suppressing social needs. Change Dyslexia is a platform that democratizes access to detection and support of dyslexia to overcome the barrier of economic resources. Or the Reticare that produces the world's only eye shield designed and patented to absorb high-energy light from digital devices, once this is the world's leading cause of blindness. In the Iberian Peninsula, this sector is gaining a new role, particularly in the current economic situation, presenting entrepreneurial and innovative solutions to respond to the pressing needs of the populations, namely of an economic, social and environmental nature. Thus, although the two countries have cultural heterogeneity, both meet requirements for comparative research.

BEING OPTIMISTIC: TRUE OR FALSE EXPECTATIONS?

Social entrepreneurship (SE) is broadly understood as a practice that aims to create and sustain social change, an innovative, social value creating activity that can occur within or across the non-profit, business, and public sectors (Austin et al., 2006). SE is a phenomenon of complex approach, since it refers to a specific work and social orientation, focused on the development of labor and social projects that cannot be classified only as traditional entrepreneurship. It involves developing, executing and sustaining initiatives aimed at overcoming a social difficulty, and the achievement of a common benefit for a human group, either through business or social-community activities (Pomerantz, 2003). The main difference proposed between entrepreneurship and SE is about the preponderance of social objectives over economic ones (Cohen et al., 2008), as well as about the most diverse sustainability mechanisms in the case of SE (Tracey and Phillips, 2007).

Several researchers have acknowledged that optimism can play a significant role in entrepreneurship (Trevelyan, 2008; Storey, 2011; Madari et al., 2019) and is considered as a requirement for someone to become an entrepreneur (Dushnitsky, 2010). However, the relationship between optimism and SEIs has been neglected. Thus, another objective of this study is to evaluate whether optimism has the same applicability in SEIs in these two cultural contexts. According to Collins (2007), optimism involves positive expectations and results, it is associated with the ability to make positive cognitive assessments and, then, to make active and engaged coping efforts to deal with stress, highlighting positive aspects of what happened. Peterson (2000) acknowledge that, in general, the research highlights that optimism is connected to positive results. In addition, optimism is also associated with a

positive mood, as well as with high levels of confidence in an individual's projections (Scheier and Carver, 1992). Intentions reflect the motivational factors that influence behavior (Krueger, 2009), and individuals with high levels of optimism and the belief that they are able to influence results indicate how much they are willing to try to perform the behavior (Urban, 2010).

Some authors have found optimism to be a driver for venture creation, as it taps into the perception that their projects will have success (e.g., Ozaralli and Rivenburgh, 2016); however, a study with Spanish students (Ward et al., 2019) revealed that optimism was not significant for intentions, despite the positive effect. Optimism is regarded as a personality trait and is linked to positive outcomes in stress and coping (Chapman and Chi, 2017). Peterson (2000) demonstrated that optimism increase persistence, commitment and creativity (Li and Wu, 2011). Given its characteristics, optimism is beneficial and decisive to decision-making to become a social entrepreneur; in order that, an optimistic entrepreneur is more likely to successfully carry out an activity and persist in the face of obstacles (Trevelyan, 2008). This leads us to the second set of hypotheses:

H4: Optimism mediate the positive effect of PBC on SEI, which is stronger in students from Portugal.

H5: For both countries – Optimism mediate the positive effect of AT on SEI, which is not significantly different from each other.

H6: Optimism mediates the positive effect of SN on SEI, and the effect is significantly stronger in students from Portugal.

THE SPIRITUAL SIDE

Entrepreneurship is an experience guided by personal values (Morris and Schindehutte, 2005; Zsolnai, 2014), through which the individuals places a deep level of personal meaning, driven mainly by their internal values (Kinjerski and Skrypnik, 2004), such as spirituality. According to Strack and Fottler (2002, p. 6), "spirituality is a fundamental dimension of human existence, being as real as any other concept." It is independent of any religion or belief system, considered as a complex, multi-cultural and multi-dimensional concept (Zsolnai and Illes, 2017), and possess a social basis and a social dimension (Oman, 2015). Spirituality is considered as a set of capabilities and abilities that make individuals capable of solving problems and reaching goals in life (Rust and Gabriels, 2011), and it is a search for the sacred (Zinnbauer and Pargament, 2005). It refers to an inner experience of an individual who discovered the meaning and purpose in life, and can also be understood as the capacity to find and construct meaning about life and existence and to move toward personal growth, responsibility, and relationship with others (Myers and Williard, 2003). Spirituality came to be seen as an emerging theme in the field of social sciences and administration. Several authors (e.g., Balog et al., 2014; Nandram, 2016; Smith et al., 2019) recognized that it is crucial to study its influence on management when it is defined in terms of attitudes, behaviors and practices. Understanding entrepreneurship in the light of spirituality has been gaining increasingly interest in the academic

field (Candland, 2000; Fernando, 2007; Dana, 2010; Smith et al., 2019). Studying the influence of spirituality allows a new understanding of how an individual's personal values and beliefs can impact the decision to become an entrepreneur, as well as the crucial characteristics of the entrepreneurial process, such as the recognition of opportunities and the ability to resist obstacles (Smith et al., 2019). The entrepreneurship process begins long before any economic gain. When studying entrepreneurship, it is also important to consider the idiosyncrasies of the main actor in the process – the individual's internal and personal values, motivational needs, beliefs and desires. The individual's spiritual orientation positively influences the decision-making process of becoming an entrepreneur, through resilient coping mechanisms. These individuals who attach importance to spirituality have better levels of health, productivity, happiness and a better ability to deal with stress and adversity (Balog et al., 2014; Riaz et al., 2017).

Entrepreneurs have the opportunity to contribute to a better functioning of society, integrating their personal values to work (Kauanui et al., 2010). The same authors distinguish entrepreneurs in two types: (1) “make me whole”: they have a passion for their work and express concern for others and the environment, moved spiritually; and (2) “money is king”: obsession with efficiency, production and accumulation of capital (and the resulting idolatry of money). Based on their empirical findings, Kauanui et al. (2010) conclude that spiritually oriented entrepreneurs, in comparison to financially oriented ones, benefit from a sense of joy, which provides important insights into the importance of spirituality.

By examining the connection between spirituality and entrepreneurship, we are on the path to understanding, in more depth, the role of personal values and beliefs and their influence in the process of creating an entrepreneurial activity (Balog et al., 2014). Waddock and Steckler (2012) concluded that a set of social entrepreneurs was guided by a diverse sense of hope and purpose to make a difference in society. These characteristics are covered by the concept of spirituality. In order to explain and provide support for the spiritual side of human motivation, another objective of this article is to explain if spirituality can act as a trigger in the decision-making to become a social entrepreneur.

H7: For both countries – Spirituality has a significant positive effect on SEI, which is not significantly different from each other.

H8: Spirituality mediates the positive effect between PBC and SEI, which effect is significantly stronger in Portuguese students.

H9: For both countries – Spirituality mediates the positive effect between AT and SEI, and is not significantly different from each other.

H10: For both countries – Spirituality mediates the positive effect between SN and SEI, and is not significantly different from each other.

For both countries – PBC (H11) and AT (H12) positively increase Optimism, and one of the reasons is this makes individuals more motivated to deal with the undertake process,

having a positive effect on their SEI. **Figure 1** represents the proposed structural model.

MATERIALS AND METHODS

Sample and Procedure Sampling

Study participants were selected by stratified sampling, because, despite their geographical, proximity Portugal and Spain have profound political, social and cultural variations, and also because a specific area of study (namely the business area) was not specifically focused. Hence, one of the first objectives was to achieve the largest possible geographical cover of the two countries and academic areas. Data collection was carried out from December 2018 to February 2019, through the collaboration of public relations or communication offices of the various universities in both countries. At first, the students agreed to an informed consent, with the guaranteed of the protection of their data, which includes anonymity and confidentiality. The students received the questionnaire by e-mail and responded using an online platform. Before the questions, information was given about the purpose of the study and how they should respond. Although there is no time limit for completing the questionnaire, the estimated time for completing it was 15 min.

Participants

The resulting sample comprised 1476 university students from both countries. For the Portuguese sample, data was collected from students at twenty-one universities and seven polytechnic institutes in the continent and islands. It comprised 644 respondents engaged in courses in different areas (31.2% health-related students, 18.3% business/management-related students, and 14.6% law and social-related students). Of these respondents, 68.9% were female and 31.1% were male, with an average age of 25 years.

The Spanish sample comes from 34 universities, also from the continent and the islands, with a total of 832 participants. Spanish students were mostly engaged in law and social sciences-related area (27.8%), health-related area (26.3%), and technologies-related area (10.2%). Of these 832 students, 72.2% were female and 27.8% were male, with an average age of 23 years old. **Table 1** presents the sociodemographic results of the two countries.

Instruments

This research uses the Entrepreneurial Orientation Questionnaire (Sánchez-García, 2010), which presents statements that must be answered in range metrics; that is, a Likert scale from 1 to 5. The scale has the specific objective of measuring entrepreneurial skills and related attitudes: PBC (6 items), Attitude toward Entrepreneurship (10 items), Subjective Norm (4 items), Social Entrepreneurship Intention (25 items), and Optimism (10 items).

Perceived behavioral control (PBC $\alpha = 0.77$) is defined as the perception of the ease or difficulty of becoming an entrepreneur; the feeling of confidence and ability to control and carry out a behavior to create a company. There are some examples

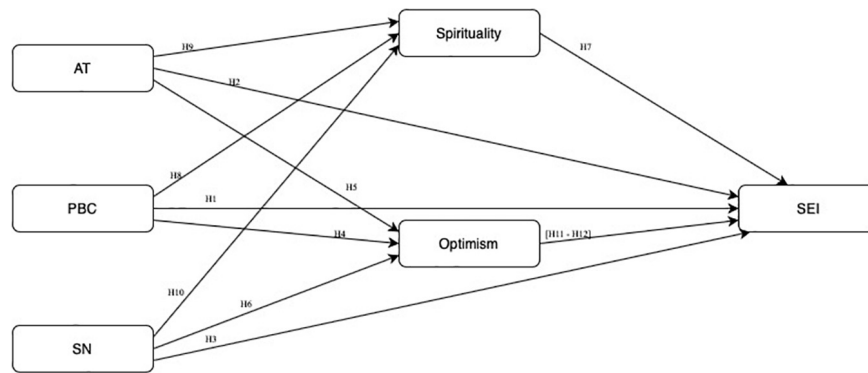


FIGURE 1 | Structural model.

of the items: starting a business would be easy for me; or I know how to develop an entrepreneurial process. Both are examples of self-efficacy and controllability, respectively. Attitude toward entrepreneurship (AT $\alpha = 0.93$) is deeply connected to intentional and volitional behavior, beliefs, attitudes (Elfving, 2008) and a set of skills. ATE refers to “the degree to which a person has a favorable or unfavorable appraisal of the behavior under scrutiny” (Fini et al., 2012, p. 390). As an example, we highlight one of the items; I feel very competent and confident that I could identify market opportunities for a new business. Subjective Norm (SN $\alpha = 0.75$) refers to the perceived social pressure to perform or not a behavior and the perception of what the important people in the life of an individual might think about the decision to become an entrepreneur. This variable is commonly measured by asking participants to what extent they think their closest ones would support them in engaging in entrepreneurial activities (Ajzen, 2002; Liñán and Chen, 2009).

The Social Entrepreneurial Intention (SEI $\alpha = 0.77$) reveals that an individual consciously plans to create a social enterprise at some point in the future. An item example is: “When I think of socially disadvantaged people, I try to put myself in their place.”

TABLE 1 | Sociodemographic characterization.

		Portugal		Spain		Total	
		N	%	N	%	N	%
Gender	Female	444	68.9	608	73.1	1476	100
	Male	200	31.1	224	26.9		
Work experience		310	48.1	421	50.6	731	49.5
Indep. work experience		187	29.0	54	6.5	241	16.3
Health		201	31.2	219	26.3	420	28.5
Technologies		60	9.3	85	10.2	145	9.8
Agriculture and natural resources		33	5.1	27	3.2	60	4.1
Architecture, plastic arts, and design		31	4.8	61	7.3	92	6.2
Education		41	6.4	65	7.8	106	7.2
Law and social sciences		94	14.6	231	27.8	325	22.0
Business/Mang		118	18.3	71	8.5	189	12.8
Humanities		45	7.0	51	6.1	96	6.5
Sports and performative arts		21	3.3	22	2.6	43	2.9

Optimism (Opt $\alpha = 0.71$) frames the level of agreement in which a person believes that their future holds positive outcomes, or that there is a positive side of every experience. An item example is: “No matter how bad things can go, I always find something positive.”

And to operationalized Spirituality (Spirit $\alpha = 0.98$) we used modified six-item Intrinsic Spirituality Scale (Hodge, 2003) that measure the degree to which spirituality functions as an individual’s master motive, for theistic and non-theistic populations, both within and outside of religious frameworks. The scale uses a sentence completion format to measure various attributes associated with spirituality, that is, an incomplete sentence fragment is provided, followed directly below by two phrases that are linked to a scale ranging from 0 to 10. The range provides with a continuum on which to reply, with 0 corresponding to absence or zero amount of the attribute, while 10 corresponds to the maximum amount of the attribute (e.g., In terms of the questions I have about life, my spirituality answers; 0 – no questions and 10 – absolutely all my questions). This instrument was translated and adapted for the Portuguese and Spanish languages. This scale measures the degree to which spirituality functions as an individual’s master motive, for theistic and non-theistic populations, both within and outside of religious frameworks. It uses a sentence completion format to measure various attributes associated with spirituality; that is, an incomplete sentence fragment is provided, followed directly below by two phrases that are linked to a scale ranging from 0 to 10. The range provides with a continuum on which to reply, with 0 corresponding to absence or zero amount of the attribute, while 10 corresponds to the maximum amount of the attribute (Hodge, 2003).

In this research were used three control variables: Psychological Resilience (PsyResil $\alpha = 0.73$), Previous Work experience (PW, no = 0, yes = 1), and Independent Work experience (IW, no = 0, yes = 1), the last two being dichotomous. Resilience has been seen as a crucial, decisive and the trigger factor for the entrepreneurs’ success (e.g., Hedner et al., 2011). According to Rutter (2012), Psychological Resilience is considered an interactive process between the person and the social environment, which allow to renew themselves and

TABLE 2 | Correlations analysis.

	1	2	3	4	5	6	7	8	9
(1) PBC	1								
(2) AT	0.711**	1							
(3) SN	0.522**	0.509**	1						
(4) Spirit	0.417**	0.148**	0.281**	1					
(5) Opt	0.327**	0.139**	0.126**	0.256**	1				
(6) PsyResil	0.352*	0.507**	0.605**	0.267**	0.116**	1			
(7) PW	0.004	0.184**	0.079*	0.082*	0.083**	0.121*	1		
(8) IW	0.032	0.199**	0.087**	0.117**	0.087**	0.024	0.116*	1	
(9) SEI	0.634**	0.673**	0.143**	0.294**	0.334**	0.250**	0.156*	0.122**	1

**Correlation is significant at the 0.01 level (two-tailed).

*Correlation is significant at the 0.05 level (two-tailed), Pearson correlation.

dedicate themselves to success. In addition to being an important quality, it is a predictor of business success at all stages of the entrepreneurial process (Bullough and Renko, 2013; Cheng et al., 2020). Considering the last two variables, the literature points out that one of the factors that promote entrepreneurial intention is previous work experience (Carvalho and González, 2006).

Statistical Procedure

To analyze the proposed model and to measure causal relationships, Structural Equation Modeling was used. For that, we used IBM SPSS Amos 23 and IBM SPSS 23 for the remaining analyzes (correlations, descriptive, and mean comparison).

According to Kline (2011), when the sample is greater than 200, the following indices are used: the Comparative Fit Index (CFI > 0.90), the Adjusted Goodness of Fit (GFI > 0.95) (Hair et al., 2010); the Root Square Error of Approximation (RMSEA < 0.05), the Tucker–Lewis Index (TLI > 0.90) (Awang, 2012), and the Expected Cross Validation Index (ECVI). This last index does not have specific threshold indexes, it is assumed that the lower the index, the better the fit and the better the model can predict the future covariance of the sample (Browne and Cudeck, 1992). Lastly, multiple squared correlations (R²) were made to demonstrate how much of the variation in the independent variables is explained by the predictors.

To calculate the coefficient and significance of the direct effects, the maximum likelihood estimate was used. To estimate mediation effects and group differences, it was Bootstrap with 2,000 interactions and 0.95 bias correction (Davidson and Hinkley, 1997). It was considered the product or the difference between the unstandardized regression weights, on the mediation or moderation path, to test whether the effect between the variables is statistically significant, at a 95% confidence level. The alpha was $p < 0.05$ for statistical significance.

The t -test statistic was used to calculate and compare the mean difference between both countries. In order to observe the homogeneity of the variables (>0.05), we used the Levene test.

RESULTS

Model Fit

In this study we found the following model adjustment indexes for SEM: CFI = 0.992; TLI = 0.922; GFI = 0.976; RSME = 0.032

; ECVI = 0.455. These results reveal a good fit of the model and above the common standards (Browne and Cudeck, 1992; Hair et al., 2010; Awang, 2012). Regarding the variance of the dependent variable, the R² explains in the group of Spanish students 52% and in the group of Portuguese students 76%, which reveals that the values are adequate. In **Table 2**, it is possible to identify Pearson's correlations, of which we highlight a strong and significant correlation between PBC and SEI. In this way, the results achieved allow us to recognize the necessary theoretical coherence, so we proceed to test the remaining hypotheses. Hence, we proceed with the analysis of the remaining hypotheses.

Regression Weights

To understand how each variable interacts it is important to highlight the weight of each regression, before elaborating the path model. **Table 3** shows the values for both countries. The dimensions of the Theory of Planned Behavior (AT, PBC, and SN), the exogenous variables of the proposed model, significantly predict the SEI of university students. The PBC, for instance, has a stronger regression value, for both countries.

There is a significant difference between coefficients from the other exogenous variables: for the Spanish student's group, $p = 0.016$ when compared to AT, and $p = 0.001$ when compared to SN. Regarding the group of Portuguese students, $p = 0.001$ when compared to AT, and $p = 0.001$ when compared to SN. However, Spanish students reach higher coefficients on PBC, and AT; and students from Portugal reach higher on SN. That is, the perception of these variables by students from both countries affects their intentions, although not significantly different from each other. For Spanish students, AT and PBC have a statistically significant regression to Optimism. However, neither impact significantly the Spirituality. Regarding students from Portugal, PBC has not a significant regression in the Optimism, and in the case of Spirituality both (PBC and AT) have a significant regression. SN has a significant impact in students from Portugal for Optimism, but the same is not verified in the group of Spanish students.

Spirituality impacts significantly SEIs in Portuguese students, but not in students from Spain. Similarly, Optimism effect is drastically stronger and significant on SEI in students from Portugal, but not Spanish students.

TABLE 3 | Regression weights by country.

	Spain			Portugal		
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>
Opt ← PW	0.147	0.262	0.429	0.364	0.389	0.278
Opt ← IW	0.044	0.149	0.533	0.124	0.066	0.254
Opt ← AT	0.251	0.063	0.004**	0.169	0.043	***
Opt ← PBC	0.199	0.054	0.002**	0.078	0.031	0.066
Opt ← SN	-0.019	0.056	0.754	0.174	0.039	0.021*
Spirit ← PBC	0.059	0.069	0.627	0.189	0.038	***
Spirit ← AT	0.211	0.065	0.198	0.149	0.041	***
Spirit ← SN	0.322	0.074	0.148	0.152	0.042	0.021*
Spirit ← PsyResil	0.362	0.075	***	0.154	0.042	***
Spirit ← Opt	0.169	0.058	0.021*	0.229	0.071	***
Spirit ← IWE	0.051	0.312	0.891	-0.244	0.497	0.359
SEI ← PBC	0.642	0.068	***	0.528	0.052	***
SEI ← AT	0.421	0.082	***	0.126	0.038	0.004**
SEI ← SN	0.172	0.089	0.032*	0.328	0.054	***
SEI ← PW	-0.146	0.225	0.211	-0.072	0.054	0.608
SEI ← IW	0.082	0.394	0.630	-0.189	0.552	0.644
SEI ← PsyResil	0.378	0.072	0.022*	0.114	0.041	0.036*
SEI ← Opt	0.148	0.081	0.112	0.287	0.046	***
SEI ← Spirit	0.388	0.040	0.239	0.071	0.089	***

B: unstandardized estimates; ****p* = 0.001 or less; is significant at the <0.05 value, ***p* < 0.01; **p* < 0.05. Maximum likelihood estimation.

Regarding the other control variables, PsyResil effect is positive and significant on SEIs and on Spirituality in both countries. Interactions with PW and IW presented non-significant and/or negative effects. Both PW and IW impact negatively in Portuguese students' SEI; in the case of students from Spain, only PW has a negative effect on SEI.

Path Model Effects

Table 4 presents the results obtained from our path model by Spanish and Portuguese students. When students with a favorable and elevated perception to achieve an entrepreneurial behavior of a social nature, this increases their Optimism and the intention to create a social entrepreneurial activity. Hence, the Optimism mediates a very positive and significant effect between PBC and SEI in Portuguese students. The relationship between SN and SEI is also positively and significantly mediated by Optimism, but only in Spanish students.

Spirituality mediates a significant effect between PBC and SEI in Portuguese students, but not in students from Spain. This variable also mediates a significant effect between AT and SEI, and between SN and SEI in students from Portugal, but not in Spanish students. Finally, in this study we ran a serial mediation path and found that AT positively affects Optimism, which affects Spirituality and that in turn affects SEI, only in students from Portugal. These findings highlighted that AT is a determining factor for Portuguese students to achieve their entrepreneurial activities, here in particular, those of a social nature.

Mean Comparison Between Countries

The biggest responses' difference we highlighted concerns Optimism, with a mean difference of 0.313 (significant,

$p < 0.001$); and the smallest differences concerns Subjective Norm, with a value of mean difference of 0.034 (not significant, $p < 0.156$). As countries in southern Europe, and classified as peripheral countries, Portugal and Spain faced similar challenges and difficulties during the economic crisis (Fernandes et al., 2013). However, regardless of the nationality and cultural background of university students, it is possible to conclude that the fact there is no difference between them and this is due to easy access to resources and also to government programs. These resources can concern several areas, such as financial support, the promotion and improvement of skills and competences, both essential for a young adult to be able to take the first steps as an entrepreneur.

Table 5 demonstrates the mean of each variable by country, and the results obtained in *t*-test analysis.

DISCUSSION OF RESULTS

The first social group of the individual, the family, is identified as the most determinant for the development of entrepreneurial behavior (Bohnenberger et al., 2007; GEM, 2020). Other authors (e.g., Colette, 2013; Boldureanu et al., 2020) make it clear that entrepreneurial behavior can be learned and entrepreneurship education programs can positively influence students' entrepreneurial intention. Hence, it is important to highlight the relevance of academic institutions for improving the perception of the social benefits of entrepreneurship (Barba-Sánchez and Atienza-Sahuquillo, 2017; Boldureanu et al., 2020). Moreover, youth entrepreneurship support organizations play a leading role in promoting these behaviors among the younger strata. In Portugal, it is possible to highlight the National

TABLE 4 | Effects for path model by country.

	Spain				Portugal			
	Effects		CI		Effects		CI	
	B	p	Lower	Upper	B	p	Lower	Upper
	0.598	***	–	–	0.497	***	–	–
AT → SEI	0.229	0.006**	–	–	0.111	0.004*	–	–
SN → SEI	0.143	0.042*	–	–	0.178	***	–	–
PBC → Spirit → SEI	0.003	0.625	–0.012	0.026	0.106	0.003**	0.011	0.059
AT → Spirit → SEI	0.008	0.373	–0.012	0.063	0.017	0.027*	0.004	0.038
SN → Spirit → SEI	0.011	0.278	–0.014	0.076	0.145	0.003**	0.012	0.098
PBC → Opt → SEI	0.031	0.048*	0.000	0.086	0.055	***	0.012	0.069
AT → Opt → Spirit	0.055	0.077	–0.003	0.099	0.028	0.022	0.001	0.046
SN → Opt → SEI	0.018	0.015*	0.005	0.041	–0.004	0.0719	–0.018	0.024
PBC → Opt → Spirit	0.036	0.021*	0.007	0.098	0.014	0.056	0.002	0.036
AT → Opt → Spirit	0.041	0.037*	0.005	0.111	0.035	***	0.013	0.059
Opt → Spirit → SEI	0.011	0.358	–0.018	0.060	0.021	0.026*	0.005	0.051
PBC → Opt → Spirit → SEI	0.005	0.275	–0.003	0.014	0.003	0.052	0.000	0.004
AT → Opt → Spirit → SEI	0.005	0.332	–0.006	0.019	0.005	0.016*	0.001	0.011

B: standardized estimates; ***p = 0.001 or less; p is significant at the <0.05 value. **p < 0.01; *p < 0.05. Indirect effects: Bootstrapping: 2000 iterations and 0.95 bias-corrected; Direct effects: Maximum Likelihood Estimation.

TABLE 5 | Country means and t-test.

Variable	Mean by country				t-test for Equality of means		
	Country	Mean	SD	SE	t	p	Mean dif.
PBC	Spain	3.816	0.802	0.026	–2.329	0.018	–0.180
	Portugal	3.996	0.753	0.032			
AT	Spain	3.579	0.736	0.025	–0.889	0.517	–0.38
	Portugal	3.959	0.867	0.034			
SN	Spain	3.712	0.725	0.025	2.781	0.156	0.034
	Portugal	3.678	0.915	0.036			
Spirit	Spain	4.608	3.036	0.105	–3.161	0.001	–0.272
	Portugal	4.880	2.859	0.113			
Optimism	Spain	3.704	0.463	0.016	0.489	0.001	0.313
	Portugal	3.391	0.496	0.019			
SEI	Spain	3.174	0.387	0.013	–2.448	0.001	–0.283
	Portugal	3.457	0.544	0.021			

Mean difference positive value means males score higher, negative value means females score higher. For t-test = Equality of variance is assumed in all variables: Levene's Test = p > 0.05; 95% Confidence Interval for lower and upper values.

Association of Young Entrepreneurs, which works to promote incentive systems, business advice to young entrepreneurs, incubate start-ups and support the internationalization of companies. In Spain, Junior Achievement works with schools, business organizations and governments to provide young people with experiences that help them develop the skills and competencies needed to succeed in a global economy through entrepreneurial activities.

As a result of European, Portuguese, and Spanish directives, entrepreneurial activity has increasingly proved to be one of the privileged channels for 'making the leap' into the labor market (European Commission, 2013; Marques, 2015; Hervas-Oliver et al., 2017). Several studies indicate that are the students

of business and economics who are more likely to start their own company, once they have higher levels of entrepreneurial intention (e.g., Sieger et al., 2014). However, Portuguese (Santos et al., 2013) and Spanish students (Ward et al., 2019) of Social Sciences are the ones who expressed the most intention to undertake. Another study referring to students from Portugal reveals that are the Pharmacy students who reveal to have more entrepreneurial characteristics (Teixeira, 2008). Therefore, it is important to reflect on the University's role as a means of promotion and education for entrepreneurship among students. The student's field of studies has proved to be as one of the least relevant when evaluating their intentions. In the educational university environment, learning for entrepreneurship aims to

help building the spirit, skills and entrepreneurial culture of students (Hasan et al., 2017). According to Ward et al. (2019), it is evident that business students are not the only holders of entrepreneurial skills. According to another study, it is possible to identify that entrepreneurship skills are supported by appropriate learning programs within the educational institution (Hasan et al., 2017).

Spanish students' perceived social pressure to perform or not a behavior is higher than students from Portugal. However, this variable presents as a predictor of SEI, which is not significantly different between both countries. Contrary to what is pointed out in the study with students from Spain by Miranda et al. (2017), which states that there was not enough empirical evidence to establish a significant relationship between SN and intentions to undertake. Many other studies contrast with the previous idea (e.g., Huyghe and Knockaert, 2015; Obschonka et al., 2015). The subjective norm is the most social component and, in turn, implies a person's belief about the presence of social pressure to perform an action or not, and the motivation to satisfy this pressure. A positive relationship was found between subjective norms and SEI, which reflects the desirability of promoting the development of SE projects in the educational field, especially in university education, as in these ages the promotion of social motivation may have greater impact (Barba-Sánchez and Atienza-Sahuquillo, 2017; Ruiz-Rosa et al., 2020).

Optimism mediates the effect between subjective norm and intentions in students from Spain, but not in Portuguese students. This may suggest that optimistic students, with positive relationships with others and personal mastery will be more realistic and flexible, once it is a strong learning in terms of self-discipline, analysis of past mistakes, and planning to prevent the occurrence of negative events. This idea could be relevant under determining intentions and it may be a potential explanation for the influence (or lack thereof) in the intentions of both countries.

Portugal is presented as a country where the decision-making to start an entrepreneurial activity is stimulated by the social environment and positions 39 in a range of 190 economies with regard to the ease of setting up a company (Ease of Doing Business Index, 2020). The same source reveals that Spain appears better positioned with regard to 'doing business', in the 30th position, and seeks to be a country that protects minority investors. Social recognition is a stronger indicator of SEI in Spain than in Portugal. In other words, despite the perception of the existence of support programs, the avoidance of uncertainties and taking risks in Portugal suggests that starting an entrepreneurial activity is considered an uncertain working path. Therefore, the decision-making to become an entrepreneur in Portugal is culturally less likely and acceptable. This result is in line with data from the António Sérgio Cooperative for Social Economy. Between March and June 2020, there was a decrease -60% in applications due to the pandemic crisis. Whereas in Spain, six out of ten entrepreneurs created a new company during the Covid-19 Crisis. The Observatory of Entrepreneurship of Spain also points out that 61% of the initiatives to create its own business continued its development process, during and after the pandemic crisis (GEM, 2020). These data allow us to conclude that the ability to identify new opportunities combined with

resilience and innovation, in times of pandemic and uncertainty, are the reflection of an optimistic future that can prosper. In this sense, the pandemic is bringing more and more training and support programs to the entrepreneurial ecosystem. For instance, the School of Industrial Organization (EOI) in collaboration with Cisco Spain, co-financed by the European Social Fund and the Spanish Ministry of Industry, Commerce and Tourism promotes online courses for 100 unemployed women (European Commission, 2020).

The outcomes of this study revealed that PBC predicts significantly stronger than subjective norms on SEIs in both countries. And it did not have a significantly different effect between Spanish and Portuguese students. The PBC has shown a volatility in the empirical results related to its influence on the intention and also to a certain lack of agreement regarding the concept and operationalization (Yap et al., 2013). It is a concept that is associated with high self-efficacy and effectiveness (Zhao et al., 2010). The difference in the mean between both countries is statistically significant, however, the values reached are not high. It is important to mention that PBC concerns the self-assessment of the abilities/skills and knowledge of individuals regarding to the intention to start an enterprise (Heidemann et al., 2012; Fragoso et al., 2020). Hence, the importance of the university in setting up innovation environments and ensuring training spaces to enhance entrepreneurship (Carvalho et al., 2017; Fragoso et al., 2020).

The results for Spanish students revealed that the greater the level of agreement in which an individual perceives that business activities are favored in their different social circles, the greater will be their ability to resist an adverse situation, which would also affect their entrepreneurial social intention. Something similar happens with Optimism. This may mean that when individuals believe that their future holds positive outcomes, or that there is a positive side of every experience, allows them to define more clearly a path toward entrepreneurship. This is an interesting fact, because the study by Giacomini et al. (2016) found that the optimism was not significant for the intentions in Spanish students. The optimism (or pessimism) of the social entrepreneur's network of important people can be a guideline for the future development of the idea of creating a social enterprise (Vasakarla, 2008). However, according to the same source, this network is not relevant to the final decision to create the social activity. It is important to mention that a highly optimistic individuals are persistent and tends to exhibit diffuse confidence, which allows them to face challenges with enthusiasm (Carver and Scheier, 2003). However, other research points out that high optimism can lead to false expectations and, therefore, to negative results (Gibson and Sanbonmatsu, 2004). And it can also have detrimental effects on judgment and decision-making.

According to Muscat and Whitty (2009), SE requires leadership based on ethics and spirituality, with the purpose of finding the common good, through sustainability. Yitshaki and Kropp (2016) go further and, in addition to the prosocial, family and life experience reasons, they link personal values and spiritual guidance as triggers of SE. Our findings indicate that spirituality mediates the relationship between PBC and SEI, and between attitude toward a behavior and intentions to

undertake in a social way in Portuguese students. The way in which spirituality influences the individual to have a behavior that creates a positive effect on society and his/her perceived ability to overcome obstacles, makes them more resilient and persevering (Margaça et al., 2021). In addition, spirituality also empowers people to face the adversities of daily life, in a personal and unique way (Benavent, 2014). That is, the dynamics of values intrinsic to spirituality, such as compassion, empathy, dignity and solidarity (Ghandi and Raina, 2018) can encourage social entrepreneurial activity (Chandra and Shang, 2017). Social entrepreneurs are seen as the catalysts of society, through opportunities that change society for the better. Roundy et al. (2016) pointed to the union of their religious and/or spiritual beliefs and work as one of the drivers to create an entrepreneurial activity of a social nature.

This article has implications for educators, policy makers, researchers, university students and potential entrepreneurs. It will also act as a comparison across two different cultures, allowing for robust testing of a model that can help explain SEIs. The results can be useful for policy makers to understand not only the pattern of antecedents of intention, but also their implications for their interventions, namely in terms of financial support.

THEORETICAL CONTRIBUTIONS

This research contributed to the literature on (social) entrepreneurial intention by developing and testing a model in two countries, considering the role of culture and psychological variables. The literature points to a path where SE began to be explored at various levels, such as reaching investors (e.g., Roundy, 2017) or innovating in their business model (e.g., Mair and Shoen, 2007). However, very little is known about the true motives that lead the individual to undertake for a social cause. In general, this study contributes to the literature on entrepreneurship and, in particular, to SE, by creating causal relationships between two psychological resources.

This study also made it possible to understand how soft skills, such as optimism, and spirituality as a core value influence the decision-making process to create a social entrepreneurial activity. The inclusion of spirituality concept in a model of SEI provides a deeper understanding of this process and the variations between two different societies culturally different. This fact also highlights possible factors and personal values to be considered in the development of more comprehensive models regarding the social aspect of entrepreneurship. From social causes come the desire to serve the common good, for instance, authors like Gjorevska (2019) presents examples of entrepreneurship driven by spirituality and how spirituality can be one of the pro-social reasons.

As several studies on entrepreneurial intentions point out (e.g., Ward et al., 2019; Margaça et al., 2021), also when we study the intention to engage in SE, the individuals' training/academic area is not limited to the area of management and business. Few studies have been done on the relationship between variables such as spirituality and its intrinsic values and SEI. Hence, we believe that, on the one hand, studies on the intention to

undertake socially should encompass all academic areas and, on the other hand, start to attribute more meaning to personal values and beliefs, in order to complement entrepreneurship education programs.

PRACTICAL IMPLICATIONS

Nowadays, SE is a concept that enables business consolidation, combined with the production of positive impact and improvements in society. This finding reinforces the importance of the role of universities in improving the offer of programs that foster entrepreneurship. It is important to mention that universities that lead rankings such Times Higher Education, offer courses in SE (aimed at those who intend to develop or improve projects), or courses in management of non-governmental and non-profit organizations. Thus, policy makers and institutions responsible for creating entrepreneurship training programs, should pay more attention and bring values and methods of SE to traditional training and education. It would also be interesting, as highlighted by Huyghe and Knockaert (2015), to incorporate new incentive systems for academics. That is, changing the individual's perspective in the sense of not only looking at his teaching and research performance, but also encouraging the transfer of results, for example, through patent licensing, creation of spin-offs.

Social enterprises play an important role in tackling societal challenges (Misuraca et al., 2016). Given the profile of the social entrepreneur (Sastre-Castillo et al., 2015), it is important to consider the emotional aspects and personal values. Through testimonials, career planning workshops and, through design thinking method, it is possible to equip the individual with skills to deal with resulting difficulties, allowing them to develop their self-efficacy (González-López et al., 2019). The longitudinal monitoring of these programs is crucial, ensuring a real evaluation of the results. In addition, it is important to generate new solutions to social problems, boosting the social investment market, creating more adequate financing instruments and, above all, training the actors of the social innovation and entrepreneurship system. Fortunately, there are several entities in Portugal and Spain that offer support and financing solutions to social projects. Portugal Social Innovation is a public initiative that aims to promote social innovation and boost the social investment market in the country. Creas is a hands-on investor that, in addition to financing, provides active support to the management team of its investees and access to a network of top-level professionals. Pioneers in Spain in using impact investing, Creas fosters a business model that creates social value and transforms reality toward a world where the human being and the planet are at the center of decision-making.

From a practical and professional point of view, our results can be particularly useful in the design of SE courses and in the respective selection of participants. We consider it to be a positive implication, as the selection of candidates based on psychological criteria can contribute to a better career suitability and, thus, increase the number of social entrepreneurs (Kruse et al., 2020; Nakao and Nishide, 2020).

Finally, due to the 2030 Agenda for the achievement of the United Nations Sustainable Development Goals, a new era of collaborative SE with a focus on promoting large-scale systemic change is emerging. It is important to clarify the role of social entrepreneurs, as they are making visible the impact of their creative ideas in several areas, from civic engagement to the environment, health and learning. Thus, from global perspective, our findings bring new insights into the need for synergy between governments, civil society and social entrepreneurs to pay close attention to the enormous social changes we are facing.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The present study has some limitations that should be addressed in future studies. The variables used in the study allowed us to assess students' perception and intentionality regarding SE. Although we believe that the outputs are positive and promising, it is important to introduce other variables and theories that allow us to draw a more consistent social entrepreneur profile. A methodological limitation is related to the fact that the PBC construct is better evaluated through the variables perceived controllability and perceived self-efficacy (Vamvaka et al., 2020). In order to access more trusted results, these two variables must be used in the future.

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DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

AUTHOR CONTRIBUTIONS

CM: writing, sampling, statistics and discussion. BH-S: writing and discussion. GC: discussion. JS-G: discussion. All authors: contributed to the article and approved the submitted version.

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Social Value and Urban Sustainability in Food Markets

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Urban food markets can promote sustainable development through the generation of social value in the spaces where they are located and contribute to sustainability on a global scale. To measure this, indicators are required to evaluate and monitor these markets. Studies in this regard are scarce and often developed according to top-down schemes. This study seeks to remedy this relative deficiency and aims to design specific social sustainability metrics for these organizations from a bottom-up perspective. The Integrated Social Value model is used. This social accounting system is considered appropriate in this study due to the phenomenological approach on which it is based and is applied to a service cooperative located in the Canary Islands. The main contribution of this work is that new social sustainability indicators are obtained and applied to the analysis of an entity, and they are relevant and understandable to stakeholders. This would provide, in future developments, a system of sustainability indicators for similar organizations in Spain.

Keywords: social sustainability, urban food markets, cooperatives, integrated social value, Canary Islands

INTRODUCTION

The Brundtland Commission's conceptual approach to sustainable development (Brundtland et al., 1987) is interpreted by the United Nations from an integral perspective, gravitating around the person and involving the provision of material well-being and freedom for present and future generations (United Nations Environment Programme, 2005). This institutional vision of development is considered relevant because, currently, it is guiding the efforts of countries and the international community to achieve a more sustainable world by 2030 (United Nations, 2015). To do this, decisive action is required at the local scale, due to the strategic capacities on which the paradigm of the new development model is based (Tomás-Carpi, 2008b).

Social Economy entities have been recognized as key agents in the action plan to achieve sustainability, both at the institutional level (United Nations, 2015) and the academic one (Chaves and Monzón, 2019) for two main reasons. Firstly, the principles of Social Economy entities are aligned with the values that guide sustainable development (Utting, 2015), so they can promote the human and integral development model that is intended (United Nations Inter-Agency Task Force on Social and Solidarity Economy, 2016). Secondly, they carry out their activity essentially at the local level, favoring human, and inclusive development at this territorial level (Mozas and Bernal, 2006).

Among the diversity of spaces, urban ones receive special attention, as they are territories that concentrate approximately two-thirds of the world's population. Thus, the effective scope of a more sustainable planet will depend, to a large extent, on their development models and behavior patterns. The promotion of sustainability in these urban areas is specifically addressed in the United Nations New Urban Agenda (United Nations, 2017). This is an action plan that guides the European Union and its Member States, and in which the Third Sector is explicitly recognized as a strategic vector for the achievement of an inclusive and integrative development.

In the words of the Belgian historian Henri Pirenne (1862–1935) “*cities are the daughters of commerce*” (Casares and Rebollo, 1997, 91), and such commercial exchanges, today, continue to play a relevant role in these spaces. In particular, urban food markets, traditionally owned by the municipality, are reference points for the supply of basic products in cities (Casares, 1999). In addition to a clear orientation toward proximity, which is an element of value in sustainable urban development, they have been recognized for their ability to regulate prices, as well as to revitalize neighborhoods and historic centers (Costa et al., 2015). These are strategic aspects in the New Urban Agenda, to which the positive externalities of rural territories derived from the particular urban food system that urban markets promote could be added (Pothukuchi and Kaufman, 1999; Winter, 2003).

The functions of municipal food markets go beyond the sale of goods for human consumption and their impact on the local economy of proximity. Additionally, there is an intangible impact on the network of immaterial relationships in the social sphere that usually occur around these successors to the ancient Roman forums. It is the relationships between people and the social perceptions of the market that links them to the Social Economy. They are, without doubt, places of exceptional exchange, and sociability (Cantero, 2007).

However, recent trends in privatization, touristification, or exclusion that have occurred in these commercial spaces have come to question these socioeconomic functions and, consequently, their positive effect on sustainability (Crespi-Vallbona and Domínguez-Pérez, 2016). The research that has dealt with analyzing urban food markets is scarce with only that of Crespi-Vallbona et al. (2017) for Spain, applied to the Boquería Market in Barcelona and managed by its merchants themselves under an associative form of the Social Economy. The sustainability metrics proposed in their study are designed following a top-down approach, and the research method is programming by objectives (Schniederjans, 1994).

Our research seeks to reduce this relative scarcity in the literature, establishing as the main objective a system of indicators of social sustainability specific for these markets. This is carried out following a bottom-up approach, and from the perspective of measuring the social value urban food markets generate. The Integrated Social Value model is used (Retolaza et al., 2016), and it is applied to the case study of the *Mercado de Nuestra Señora de África* (Market of Our Lady of Africa), located in the city of Santa Cruz de Tenerife (Canary Islands), and managed by a cooperative company. The main contribution of this research is that it provides a system for monitoring

the contribution to the social sustainability of an urban public space managed under a Social Economy framework. Therefore, it reinforces the integration of its agents within the Spanish Urban Agenda (Ministerio de Fomento, 2019).

THEORETICAL FRAMEWORK

Urban Sustainable Development and the Social Economy

Sustainable development has become the accepted cornerstone of most political and social agendas since the oft-cited Brundtland Commission established the first universally accepted definition of the concept. This acceptance has not been without criticism, which is usually based on the abstractness of the concept. The vagueness and indeterminacy present in it (Daly, 1996) has given rise to multiple interpretations and, consequently, to diametrically opposed proposals to achieve sustainable development. It has sparked intense discussions, at least, around two questions. First, what needs are there to be covered or satisfied, only material ones, related to the standard of living and the consumption of basic goods and services (Solow, 1974), or if there are also ones concerning the expansion of decision-making capacity (Anand and Sen, 2000). Second, what type of capital conditions growth (United Nations Development Programme, 2011), is it technological capital (Solow, 1995) or natural capital (Barbier et al., 1990; Ross, 2009).

Beyond the conceptual debate, recent years have seen the consolidation of cities as a central element to achieve a sustainable development model. According to data from the World Bank, 55.74% of the population lived in cities in 2019 (The World Bank, 2021) and the United Nations forecasts that this number will reach 70% by 2050 (United Nations Department of Economic Social Affairs Population Division, 2019). This massive displacement from rural to urban areas puts more pressure on effective city planning of these environments. Sustainable urban development has been defined as “a result of the drive for cities to be more responsive to citizens’ needs, offer conditions that promote high quality of life and sustain and enhance competitiveness in an increasingly globalized environment” (Angelidou et al., 2018, 1).

Urban development policies affect key components of the environmental dimension of sustainable development, such as GHG emissions (Pan et al., 2020), water availability and its management (Mikovits et al., 2018). They can also shape social aspects like partnership relationships between different stakeholders (Xue et al., 2020) and even citizens’ engagement in decision-making processes (Falco and Kleinhans, 2018).

The importance of sustainable urban development in the global agenda is confirmed by the Sustainable Development Goals (SDGs) established by the United Nations in 2017, which specifically included one devoted to this goal. Goal 11 can be found under the heading: *Make cities and human settlements inclusive, safe, resilient, and sustainable*. This goal includes a series of targets that address key issues that have been studied in the field of urban development such as affordable housing

(Immergluck and Balan, 2018), cultural heritage (Guzmán et al., 2017), or waste management (Serge Kubanza and Simatele, 2020).

Social inclusion is also mentioned among the targets of the United Nations. Social aspects are gaining more importance as key components of sustainable urban development, especially those related to the transformation of traditionally deprived areas (Križnik, 2018). In this context, the Social Economy has been considered a necessary partner to enrich governance processes leading to sustainable cities (Kaufmann and Sidney, 2020). Despite being recognized as a key contributor to sustainable development at both institutional (United Nations, 2015, 2017) and academic levels (Falcón and Fuentes, 2017; Chaves and Monzón, 2019), it still plays a minor role in the definition of urban policies. However, starting from the definition of Social Economy entities as being “organizations with explicit social or environmental objectives guided by principles and practices of cooperation, solidarity, ethics, and democratic self-management” (United Nations Inter-Institutional Working Group on Social and Solidarity Economy, 2014), there are several arguments that support a greater implication of the Social Economy in this area.

First, its operating principles are aligned with the values that guide action toward a more sustainable planet, so they promote the human and integral development (UNTFSSSE, 2016). In this regard, the defining features of Third Sector entities could expand the freedoms of present and future generations (Monzón Campos, 2013). Such principles and values would affect social utility (Gadrey, 2005) and sustainable development (Connelly et al., 2011; Chaves and Monzón, 2012; Rahdari et al., 2016; Kim and Lim, 2017). Moreover, the social purpose or democratic governance that characterizes it would allow organizations to exercise social, economic, and political functions in an economic system that would contribute to sustainable and socially inclusive growth (Chaves and Monzón, 2012; Mozas, 2019).

Second, the production, finance and exchange patterns of Social Economy entities prioritize not only people, but also respect for the natural environment. Hence, it is estimated that its action would holistically and synergistically reinforce the different dimensions of sustainability, constituting an alternative to the unbalanced and exclusive development based economic model (Bono, 2012).

A third reason why these entities are considered critical for meeting the sustainable development challenge is related to the space in which they operate. In this sense, their roots in the local economy and the community in which they operate would favor sustainable development at this territorial level (Mozas Moral and Bernal Jurado, 2006; Poyatos and Gámez, 2009; Connelly et al., 2011). Consideration of local demands and needs and achieving them in practice is of the utmost importance in effective people-centered development. These characteristics can be useful to tackle one of the problems encountered during the application of the Millennium Development Goals, predecessors to the current SDGs, which was their global and national definition, thus ignoring local demands and, therefore, the level of achievement of the goals at this level.

Lastly, the potential of the Social Economy for deployment toward the SDGs can also be explained on the basis that it acts not only through the entities that constitute it, but also through

the civil society, which has been urged to collaborate to achieve these objectives (Chaves and Monzón, 2018; Mozas, 2019).

Socio-Economic Functions of Food Markets in the Twenty-First Century

Commercial exchanges have been one of the main driving forces of the structural and economic development of Western European cities, even since the classical civilizations of the Mediterranean (Cameron, 1992, 56–68). Public spaces or squares in which markets took place have evolved to this day. Current urban food markets are a modern expression of the ancient Greek agoras or Roman forums (Casares and Rebollo, 1997, 91). In Spain, they are conceived as “a set of retail establishments, grouped in a building, which have a common operation management controlled by a city council or another entity by concession of the latter” (Casares and Rebollo, 1997, 91).

From the different “families” inside the Social Economy, food markets that adopt a cooperative structure are probably the ones that have been most related to urban development due to their characteristics and influence on the environment. The original function of food markets was the supply of fresh products of basic foodstuffs to the urban population, with guarantees of quality and at relatively favorable prices. This has been maintained until today, although other forms of commercial distribution have also taken on this role. This supply value of basic goods by the markets manages to project itself into the future (Rebollo and Casares, 2006, 26) thanks to a series of social and economic aspects (Casares, 1999). Specifically, the promotion of agglomeration economies and the consequent facilitation of purchasing by users, the zonal regulation of prices and competition, or the production of services such as the storage and preparation of products. These aspects have allowed the “iron markets” from the nineteenth century to respond to the needs of customers of the twenty-first century, adapting to the new conditions of demand.

Moreover, the competitive orientation regarding the proximity that characterizes food markets (Casares, 2003) has a positive impact on the quality of life of their users, as well as being beneficial for the cities in which they are located. In this sense, they promote a particular urban food system (Pothukuchi and Kaufman, 1999; Winter, 2003; Costa et al., 2015) characterized by enabling regional rural development and co-urbanization (Casares, 2003), contributing to preserving the environment and local uses and customs, as they are often settings for local gastronomy and autochthonous social relationships (Crespi-Vallbona and Domínguez-Pérez, 2016, 4; Alsadaty et al., 2020). Indeed, they are public spaces for socialization, intercultural exchange (Crespi-Vallbona and Dimitrovski, 2017) that can favor social integration and inclusion (Hiebert et al., 2015).

The proper functioning of these markets also generates positive externalities on adjacent areas, promoting outsourcing and economic dynamization (Casares, 1999, 26), revitalizing neighborhoods and historic centers (Martín-Rojas, 1999; Costa et al., 2015; Dimitrovski and Crespi-Vallbona, 2017). Despite their relative importance, traditionally, only internal aspects have been analyzed, such as the profile of merchants (Arocutipá et al.,

2018), workers' conditions (Pita, 2019), or sanitary conditions (Calizaya Limaco et al., 2010).

Moreover, in recent years, there has been a growing interest in the role of these entities as tourist attractions in cities. According to Henche (2017) traditional food markets are becoming a cultural attraction, specially related to gastronomy and local life-style promotion that can help to promote minoritarian types of tourism, like gastrotourism and experiential tourism, that can be an alternative to the exhausted and predominant mass tourism. Fusté Forné et al. (2020) highlight that fresh food is an attractor for both locals and tourists, who can appreciate the authenticity and particular features of the area. Therefore, urban food markets are places appreciated by those who travel for cultural and gastronomic reasons (Crespi-Vallbona and Domínguez-Pérez, 2016; Crespi-Vallbona and Dimitrovski, 2017). This aspect can lead, however, to the implementation of initiatives aimed at attracting and encouraging the visit of travelers and tourists, or touristification. Those initiatives, instead of promoting the conservation of local uses and customs, could consist of offering gourmet products, or holding events that are not a reflection of local culture. This attempt to convert urban food markets into focal points of tourist attraction is sometimes accompanied by the renovation of the surrounding spaces and neighborhoods. A spatial regeneration that would lead to higher prices for shops and homes and, ultimately, to gentrification, or replacement of traditional neighbors, generally belonging to the popular classes, by others from more affluent classes (Crespi-Vallbona and Domínguez-Pérez, 2016). Both processes, touristification and gentrification, therefore, promote dynamics that would counteract some of the beneficial effects previously described (Crespi-Vallbona et al., 2017).

Measuring Social Sustainability in Social Economy

Although the development of indicators for measuring sustainability has constantly evolved in the last 25 years, research carried out on their social aspect seems to be at a more incipient stage of development than the economic and environmental dimensions. The measurement of the social dimension of sustainability is particularly concerned with the organization's impacts on the social systems in which it operates, as well as the organization's relationship with its various stakeholders (Labuschagne et al., 2005). For the indicators of organizational social sustainability to be relevant, that is, "measure the phenomena intended to be measured" (Miller, 2001, 352), they must refer to the activities or outputs of the organization and linked to outcomes or social impacts on the environment (Milman and Short, 2008; Searcy, 2012).

Obtaining relevant social sustainability metrics involves a certain complexity, mainly due to the fact that many of the social outcomes and impacts are outside of corporate control, are difficult to characterize and, with some frequency, are based on value judgments (Keeble et al., 2003). Hence, on many occasions, the selection of the indicator is guided more by what can be measured than by what should be measured (Milman and Short, 2008). The indicator therefore ceases to fulfill its fundamental objective, linking cause and effect, which is problematic, as it does

not guide decision-making toward the end pursued (Milman and Short, 2008).

For measuring the social impact of organizations, dialogue with stakeholders and understanding what is relevant to them is considered a particularly appropriate approach (Costa and Menichini, 2013; Costa and Pesci, 2016). Likewise, an in-depth understanding of stakeholder values and interests through a phenomenological perspective is recommended (Deery et al., 2012).

Among the proposals to determine the social impact at an organizational level the following can be highlighted: Balance of the Common Good (Felber, 2012), B Impact Assessment (Honeyman, 2014), Capacity Index (Garriga, 2014), Analysis of the Integrated Social Value (Retolaza et al., 2014), or the Social Return on Investment. The metrics that these systems propose refer to different links in the impact value chain, as well as requiring different degrees of participation from the entity's interest groups (Ayuso, 2018).

A breakthrough that has facilitated impact assessment for organizations and guides their activities toward the SDGs is the alliance between the United Nations Global Compact, Global Reporting Initiative (GRI), and the World Business Council for Sustainable Development (WBCSD) which has established an inventory of indicators allowing entities to directly select those that are considered most relevant to them or to use it as a source of inspiration to define their own indicators (UN GLOBAL COMPACT, GRI, and WBCSD, 2015). This inventory links the SDGs and their targets with a series of business themes to which it then adds indicators extracted from different sources. This first (and laudable) effort to determine a more extended system for measuring sustainability is, however, incomplete, and needs further development in the future both to complete all aspects and to adapt it to different sectors.

In the specific case of the Social Economy, the Interdisciplinary Group of the United Nations in Social and Solidarity Economy (UNTSSE) and the Group of Experts Social Economy and Social Enterprises of the European Union (GECES) have, among their purposes, to make visible the contribution of the entities that integrate this sector to sustainability (UNTSSE, 2016, 2017). This task is being tackled not only by adapting the existing frameworks at different aggregation scales to the reality of the sector, but also by developing, in parallel, specific models that reflect the peculiarities of the agents that comprise it.

From the point of view of generic systems, sector accounting has been applied to the Third Sector (Barea and Monzón, 2006). This framework measures the contribution of the Social Economy to economic sustainability. At the academic level, the impact in terms of employment or contribution to GDP of certain branches of productive activity or families of the Social Economy, mostly cooperatives, has also been addressed (Fonca and Servós, 2010; Mozas, 2019).

At an organizational analytical level, Social Economy entities have used systems to quantify their social impact such as the Integrated Social Value (Retolaza et al., 2014, 2015; Etxezarreta et al., 2018; Lazkano et al., 2019; Ayuso et al., 2020a; Guzmán-Pérez et al., 2020; Román-Cervantes et al., 2020; Ruiz-Roqueñi, 2020), or the Social Return on Investment (Rotheroe and

Richards, 2007; Ariza et al., 2018). At the organizational level, Bassi and Vincenti (2015) have also developed the Social Added Value Evaluation, S.A.V.E, applying it to three Italian social cooperatives. Monzón Campos (2013) also develop a table of key performance indicators based on key areas, consistent with the characteristics of social enterprises. Bagnoli and Megali (2011) and Arena et al. (2015) propose specific performance measurement systems for social enterprises, applying them to Italian entities. Moreover, Bull (2007) adapts a balanced scorecard (Kaplan and Norton, 1996) to the reality of social enterprises, applying it to a sample of 30 companies in the United Kingdom.

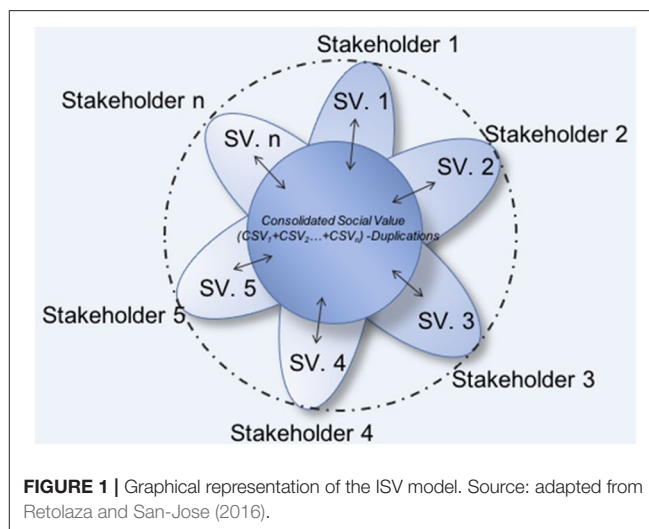
Within this general framework, studies that have dealt with measuring the sustainability of the urban food markets are scarce. Casares and Rebollo (1997) offer an approximation of the economic dimension of the sustainability of urban food markets in Spain, providing data on commercialization volumes, market share, or sources of supply. Crespi-Vallbona et al. (2017) propose the analysis of sustainability for the Boquería Market (Barcelona) using programming by objectives (Schniederjans, 1994) by designing a system of 42 indicators, based on the Sustainable Tourism Attitude Scale (Choi and Sirakaya, 2006), European Commission (2013) and the academic literature on measuring the sustainability of tourism. Finally, outside of Spain, Alsady et al. (2020) point out the qualitative factors that, from the point of view of sustainable development, must be considered in the socio-spatial regeneration of the historical Attaba market in Cairo.

There is a certain lack of studies that propose social sustainability metrics for urban food markets in which dialogue with stakeholders is used. This study tries to answer this research gap using the generic ISV model. This system has been chosen mainly for the following two reasons. In the first place, because for the measurement of social value a dialogue is opened with the stakeholders to understand in depth what their interests are, through the phenomenological perspective (Ayuso et al., 2020b). Secondly, because the indicators that are raised refer to the organization's outputs linked to such interests. Additionally, with this system the indicators or outputs are re-expressed in monetary units, a unit of measurement that has the advantage of facilitating the understanding of the information provided to various stakeholders for their decision-making.

THE INTEGRATED SOCIAL VALUE MODEL

The ISV model (Retolaza et al., 2014, 2016) is a social accounting system, or “accounting that goes beyond economic-financial aspects” (Gray, 2002). It is characterized by combining qualitative and quantitative analysis to express in a single monetary measure the value that an organization generates, and its stakeholders perceive as such (Ayuso et al., 2020b).

This model is based on the perspective of stakeholder theory (Freeman, 1984; Freeman et al., 2010; Retolaza and San-Jose, 2011), and it conceives the value created by an organization in a broad way. It considers both the value generated to the owners of the capital and the value distributed to the stakeholders, as well



as the value traded in the market, including the value transferred outside the price system (Freeman et al., 2020). This broad value, called ISV can be considered similar to blended value (Emerson et al., 2003) or shared value (Porter and Kramer, 2011).

The ISV model starts from the premise that an entity's results are transformed into value only when someone else values them (Retolaza et al., 2014, 2016). This analytical method is the phenomenological approach (Moustakas, 1994), which implies understanding the meaning for people who are related to or are affected by an entity, which implies the experience of interaction with it or what results from it. This perspective involves approaching social value through stakeholders' perceptions, without having previously established the dimensions in which this value is materialized (Retolaza et al., 2016). These perceptions of social value are considered from the perspective of fuzzy logic (Zadeh, 1965; Kaufmann and Gil-Aluja, 1986), which makes it possible to quantify in monetary terms the social value created by the organization and perceived by its stakeholders.

ISV according to this system is not unique or common for all stakeholders, as their perceptions are different. The graphic representation of ISV is shown in **Figure 1** and can be considered as being like a flower. The area of the inner circle reflects the social value shared by the stakeholders, and the area of each petal reflects the value generated by the entity and perceived by a particular group, without converging with the rest.

To objectify and quantify the ISV in monetary terms, a standardized process is followed consisting of the following four stages: (1) identification of interest groups; (2) identification of value variables; (3) monetization of the indicators; and (4) calculation and visualization of the ISV (Retolaza et al., 2016). Qualitative analysis is used in the first two phases, and quantitative analysis in the last two (Ayuso et al., 2020b).

The objective of the first stage is to identify the stakeholders for whom the entity creates value. Although there are different criteria to categorize and prioritize interest groups (Savage et al., 1991; Clarkson, 1995; Mitchell et al., 1997), the ISV system seeks to specify the groups that receive some type of created

value by the entity, whether or not it is monetary (Freeman et al., 2020). In the second stage, the aim is to identify the variables or dimensions of value perceived by stakeholders. This identification is carried out through a dialogue with stakeholders in which they openly express the value they perceive from the entity, using in-depth interviews as the data collection technique. The analytical structuring of the qualitative information collected is carried out following the process of the phenomenological approach: the set of perceived values is grouped into thematic areas, the value variable in the different areas is identified, and the content of the value variables is described in technical or scientific language (Giorgi and Giorgi, 2003).

In the third stage of the ISV analysis, the dimensions of perceived social value are quantified in monetary units, identifying measurable indicators or outputs of the organization linked to the value variables, and monetizing them according to the accounting criteria of fair value. The process ends with the consolidation and visualization of the different ecosystems of the ISV.

The research method in the ISV model is action research; an approach that seeks to solve a problem while creating knowledge or theory from action (Lewin, 1946). One of its distinctive elements is that the professionals under study actively participate in research. Therefore, the AR team is made up of the researchers themselves and professionals, who interact continuously throughout the entire process (Coughlan and Coughlan, 2002). In the particular case of the ISV model, the research is carried out in collaboration with the stakeholders that are affected.

ISV is a system for measuring social value that is considered especially appropriate for this kind of study, given its main objectives. Firstly, because it is based on the phenomenological approach, a qualitative research method of outstanding convenience for determining social impact (Deery et al., 2012). Secondly, because it allows the design of relevant corporate social sustainability indicators (Ayuso et al., 2020b), as the quantification of social value through fuzzy logic is carried out through the search for measurable outputs of the organization and is linked to outcomes or impacts. Finally, because the monetary quantification of the indicators is understandable for stakeholders, as well as being useful and relevant for business decision-makers (Aguado et al., 2015; Freeman et al., 2020).

This system has been empirically applied to more than 80 organizations of different sizes and industries, both commercial and from the Social Economy (Lazkano et al., 2020). In this last area, it has been used to quantify the social value generated by diverse types of organizations, such as cooperatives (Etchezarreta et al., 2018; Lazkano et al., 2019; Ruiz-Roqueñi, 2020), foundations (Retolaza et al., 2015), non-profit organizations (Retolaza and San-Jose, 2016), Agrarian Transformation Societies (Román-Cervantes et al., 2020), fishers' associations (Guzmán-Pérez et al., 2020) and Special Centers of Employment (Ayuso et al., 2020a).

The model is still in the development stage, and there are some methodological issues that lack standardization (Ayuso et al., 2020b; Freeman et al., 2020). Progress in standardization will facilitate comparability between similar organizations, as well as

reducing the discretion and subjectivity present in the attribution of outputs and proxies (Ayuso et al., 2020b).

ANALYSIS OF THE SOCIAL INTEGRATED VALUE OF THE FOOD MARKET NUESTRA SEÑORA DE ÁFRICA

Case Study

The Mercado Nuestra Señora de África (MNSA), popularly known as La Recova, is one of the food markets of the Canary Islands, located in the city of Santa Cruz de Tenerife (Canary Islands). It is the successor to the Old Recova of 1852. It was built by General Ricardo Serrador Santés of the headquarters of the Economic Command in the post-war period and inaugurated in early 1944. This Market takes its name from the Virgin of Africa, Patron Saint of Ceuta.

The aesthetic design of the emblematic building in which this municipal market is located presents a neoclassical colonial air with a modern architectural and urban sense. Its main features are a large arch, 8 m in radius, a central patio, which resembles a classic Spanish-style plaza, and a Mudejar-style tower. It was declared an Asset of Cultural Interest in 2004.

In its beginnings, it was an important food sales space, both in the city itself and throughout the island, in which wholesale marketing of such goods was also conducted. This wholesale business was transferred in 1974 to Mercatenerife, created specifically for this distribution channel in Santa Cruz de Tenerife. This inevitably led to a reduction in MNSA's wholesale business. However, retail sales were maintained there, although in 1985 many of its retail stalls began to be abandoned as a result of changes in customer purchasing trends (Casares and Rebollo, 1997).

In 1992, the MNSA space, under municipal ownership, began to self-manage through a Cooperative formed by La Recova merchants, which looks after the interests of its members and studies new ways of making the space profitable. This associationism formula continues today, comprising 149 partners. In 2018, it was recognized with awards such as the Gold medal of the Government of the Canary Islands and the Gold medal of the city of Santa Cruz de Tenerife. In 2019, it was recognized internationally by the British newspaper *The Guardian*, placing it among the top ten in the world, along with the Fez market in Morocco, the Mahane Yehuda market in Jerusalem or the Lau Pa Sat market in Singapore.

Today, it combines an offer of fresh food products, such as fruits, vegetables, meat, and fish, with preserves, charcuterie, and salted fish. It has an attached shopping area where it is possible to buy handicraft goods, books, and bazaar objects. In addition to shopping, it is possible to enjoy Canary Island gastronomy or attend conferences or events such as "The nights of La Recova" (recreational and tasting activities) and "Los sabores de La Recova" (a cooking show) there.

This urban market could be classified as a food market that is a tourist attraction. This type of market is considered of balanced sustainable social use, since it serves the traditional local population as well as tourists. The urban food market offers

authentic experiences, typical of the local society and is visited by these new audiences. In this sense, these urban food markets are one of the promoted resources in which locals and tourists can go hand in hand, at least theoretically (Crespi-Vallbona and Domínguez-Pérez, 2016). Therefore, the MNSA promotes sustainable development in the space in which it is located and contributes to the achievement of comprehensive sustainability on a wider scale.

At the beginning of 2019, the management team of the MNSA Cooperative wanted to assess the socioeconomic impact the market was generating on society and go beyond its traditional accounting figures. The fundamental motivation of the organization to carry out the study was to conduct an exercise in transparency and accountability to citizens. In accordance with the participatory research approach of the project, a mixed work team (Action Research) was formed in October 2019, made up of academic researchers and members of the management team of the MNSA Cooperative. The creation of this AR team marks the beginning of the monetization process of the social value of the Cooperative, a process which culminates in December 2020. The sanitary context in which it takes place is that of the COVID-19 pandemic.

Process of Analysis of the Integrated Social Value

This section presents the results obtained in the different stages of the standardized process that, in the ISV system, must be followed for the monetary quantification of the social value of the entity under study. The metrics established will enable the evaluation and monitoring of the contribution of this entity to social sustainability.

The analysis of the organization's internal documents and the meetings with its management team have made it possible to delimit and identify the interest groups of the Cooperative on a map. After an initial documentary review, groups such as partners, suppliers, customers, workers, or the city council were identified. Subsequent discussions made it possible to expand the initial list of interest groups, and neighborhood organizations, institutions, sponsors, and other markets were also considered. **Table 1** contains a synthetic description of the interest groups and the type of relationship that the MNSA Cooperative maintains with each of them.

To identify the variables of perceived value, the representatives of the MNSA Cooperative and members of the mixed team prepared a list of people considered representative of the different interest groups. The analysis of the interests of the different stakeholders was carried out through 27 in-depth, personal, and semi-structured interviews with representatives of the different stakeholder groups, according to the list proposed by the management team of the Cooperative. **Table 2** shows a description of the interviews carried out.

The representatives of the customer group could not be interviewed due to the difficulties to access them, related to the health context in which the field work was carried out (the COVID-19 pandemic). According to estimates by the Cooperative, the number of visitors in 2019 has been 1,060,000

TABLE 1 | Stakeholders description and relationship with the Cooperative of the Market Nuestra Señora de África.

Stakeholder	Description
Partners	Owners of the commercial stalls located in the Market managed by the Cooperative
Personnel	Staff of the Cooperative that performs the functions of management, administration, counseling, janitorial, maintenance, and cleaning
Customers	They send suggestions for improvement, online opinions, and complaints to the Cooperative
Suppliers	Entities that provide telecommunications services, promotion and advertising, maintenance, and cleaning material
Sponsors–collaborators	Entities that sponsor events organized by the Cooperative
Other markets	Regional and national market federations with which the Cooperative shares experiences, technical, and legal information
City council	Assigns by administrative concession the provision of a municipal public service
Local organizations	Social economy entities, associations and neighborhood entities that the Cooperative supports
Institutions	They provide grants or develop projects in which the Cooperative collaborates

Source: Prepared by authors.

people, with the months from October to March being the ones with the highest influx (120,000 monthly customers on average) and the month of August, the least crowded (40,000 visitors). It is estimated that of this total of clients, 7% are tourists¹ (73,770 people), and the remaining 93% are local consumers.

The purpose of these interviews is to understand, for the people who are related to or are affected by the Cooperative, what the experience of interaction with the entity involves and the results from it, for the organization they represent or for them individually. The script or protocol for the interview from Retolaza et al. (2016) was adapted to the reality of the Cooperative and its stakeholders.

Interviews were conducted between July and November 2020. Most of them could be carried out in person (18 interviews), although some had to be carried out by telephone (9 interviews), as a preventive measure due to COVID-19 infections. The telephone channel was used to interview 100% of the representatives of the municipal groups and institutions, 75% of the interlocutors of local entities and 80% of those of the supplier group. The average duration of the telephone interviews was 14.2 and 19 min for the face-to-face interviews. In relation

¹To estimate the number of MNSA clients who are tourists, it has been assumed that the main reason for the trip of those who visit the island of Tenerife is not gastronomic, and that tourists who stay overnight in the city visit the Market. Taking into account that 32.61% of general tourists include among their activities the visit to gastronomic markets (Dinamiza Asesores, 2017, 43), and that in 2019 226,221 travelers stayed in the city of Santa Cruz de Tenerife (Canarian Statistics Institute), it can be estimated that 73,770 tourists visited the Market. This figure represents 7% of the customers that the Market had in 2019, according to internal data from the Cooperative.

TABLE 2 | Interviews with representatives of the Cooperative's stakeholders.

Stakeholder	Description
Partners	7 holders of positions of diverse commercial activities, with different seniority as partners, gender, and cultural diversity
Personnel	5 representatives: 2 administrators, 2 janitors, and 1 cleaning person
Suppliers	6 representatives of entities that provide different services (IT, digital development, maintenance of electrical equipment, maintenance of water equipment, fire safety, and maintenance of stairs and elevators)
Sponsors–collaborators	1 representative of the sponsoring entity of the event “Las Noches de la Recova”
Other markets	1 representative of the Federation of Supply Markets of the Canary Islands (president of an insular supply market)
City council	1 representative (Mayor of the city)
Local organizations	3 representatives of Third Sector entities, 1 representative of a religious entity in the neighborhood, 1 representative of a university cultural organization
Institutions	1 representative of the institution with the highest frequency of relationship

Source: Prepared by authors.

to the latter, differences were observed based on the structural characteristics of the spaces in which they were developed: 28.4 min those that took place in open spaces or large rooms (11 interviews) compared to 9.5 min those carried out in offices of smaller dimensions. The groups interviewed in this type of space, closed and small, were staff (60% of their representatives) and partners (43%).

The verbal information collected was recorded in the form of annotations, and then was transcribed. To ensure robustness in this qualitative research phase (Steinke, 2004), the information collected in the interviews was triangulated with the internal documents of the Cooperative and with the information obtained by the academic members of the AR team through direct observation.

Following the recommendations of the literature on qualitative methods (Gioia et al., 2013), the authors independently analyzed the interviews, identifying the thematic areas related to the different dimensions of social value perceived by stakeholders. Initially, 26 first-order variables were identified, which were designated using terms close to those used by the interviewees themselves, such as “one of the best in the world,” “maintenance of the autochthonous,” or “shopping center.” Next, this list of first-order variables was discussed jointly by the academic researchers of the mixed team and reformulated into a consensual list of second-order value variables. For this, technical or scientific language was used that would allow, in the next stage, to link it with measurable outputs generated by the entity and on which it was considered possible to obtain external proxies, such as “collaboration,” “way of life” or “support services. All steps in the data collection and analysis have been

TABLE 3 | Description of the value variables.

Value variable	Description
Customer attraction	Helps and facilitates suppliers to attract new customers and diversify products
Supporting services	Services provided by the Cooperative, such as legal advice or security, appreciated by the members
Way of life	Allows partners with fewer socioeconomic opportunities to have a livelihood
Social relationships	It favors the emergence of social relations between workers and members of the local community. It encourages the creation of sectoral networks.
Facilitates healthy shopping	It simplifies having the daily purchase of fresh products in the fridge.
Work satisfaction	Reception, labor flexibility, job recognition
Historical heritage	Maintenance of the traditional, the autochthonous. It is part of the history of the city, it is an emblematic place that has a strategic location. It is a tourist attraction
Leadership	Close, cordial, understanding and trustworthy relationship of the management team. Excellence in management
Collaboration	Assignment of spaces, favors the collection of food, predisposition to collaborate
Local consumption	It favors the consumption of regional food products

Source: Prepared by authors.

documented and can be requested by interested researchers. **Table 3** shows the identified value variables and their description.

To objectify the values subjectively perceived by the stakeholders, the indicators or outputs of the MNSA Cooperative linked to them have been identified through an intersubjective reflection process. This process has been co-participated by the researchers of the AR team, making decisions on the transformation of variables in a consensual way. For the selection of proxies, or external items that allow an approximation to the monetary value that the outputs could have, the similarity and consideration of the social and temporal context in which the outputs are generated has been taken into account. Since in the ISV model, the choice of proxies is made by applying the fair value criterion (Retolaza and San-Jose, 2018), the market price of an identical output, or one considered similar by the researchers, has been taken as an approximation. The outputs and proxies proposed to monetize the value variables are shown in **Table 4**.

For example, for the outputs of the value variables “support services” and “collaboration,” there are identical outputs exchanged in the market, while those of “customer attraction” and “social relations” have been equated to a sponsored ad on Facebook and the membership of a social club, respectively. The criteria followed for the selection of proxies have been those of the ISV model (Retolaza et al., 2016): the costs or savings for the Administration, the territorial unit in which the MNSA Cooperative is located, and the specific period for which data is reported, 2019.

For example, for “aid for the conservation of buildings of cultural value,” “the subsidies granted by the Cabildo de Tenerife” have been taken as a proxy, and for “price of home transport of a box of fruit,” that of companies that provide the same service,

TABLE 4 | Indicators and proxies of value variables.

Value variable	Indicator	Proxy	Source of the proxy
Customer attraction	Number of suppliers and collaborators who value it	Price of a sponsored ad on Facebook 5 days, to reach an audience of 15,000 people	Facebook
Supporting services	Number of partners who value it	Difference between the annual cost of advisory, cleaning and security services, and the annual membership fee to the Cooperative	Consultation of prices of companies of advisory services, cleaning and security of the municipality. Cooperative
Way of life	Number of partners with fewer socioeconomic opportunities	Difference between the median annual salary in the province and the Minimum Living Income	Instituto Nacional de Estadística. Salary Structure Survey (Canary Islands). Royal Decree-Law 20/2020, of May 29, which establishes the Minimum Living Income
Social relationships	Number of partners and workers who value it	Annual fee for a social club in the municipality	Consultation of prices of social clubs of the municipality
	Number of groups that value it	Annual fee for a national professional association	Price consultation of regional and national professional associations
Facilitates healthy shopping	Number of partners and workers who value it	Annual amount of weekly home transport of a box of fresh fruit and vegetables	Consultation of prices of island companies that deliver fresh, organic fruit and vegetables
Work satisfaction	Worker surplus	–	Workers
Historical heritage	Amount of competitive municipal grant collection	–	Subsidies for the maintenance, restoration and/or conservation of properties of cultural value during the 2020 financial year—Cabildo de Tenerife. Official Gazette of the Province of Santa Cruz de Tenerife no. 87, Monday 20 July 2020
	Number of tourist visits	Entrance fee to the municipal museum	Price consultation of the Museum Tenerife Espacio de las Artes (TEA)
	Competitive national grant collection amount	–	Aid for projects for the conservation, protection, and dissemination of properties declared World Heritage. 2019. Aid granted to dissemination projects. Resolution 06/06/2019. Undersecretary Ministry of Culture and Sports
Leadership	Producer surplus	–	Suppliers
	Number of individuals who value it	Cost of certification in ISO 9001	Price consultation of ISO 9001 certified companies
Collaboration	Amount of donated resources	–	Cooperative
	Amount of donated resources	Commercial credit interest rate	Maximum APR of the ICO Commercial Credit line effective from 11/30/2020 to 12/06/2020
Local consumption	Savings in the carbon footprint of transporting fruit and vegetables purchased by customers	Social cost of carbon	García-Pérez (2019)

Source: Prepared by authors.

located on the island of Tenerife. Regarding choices of proxy values, in the cases in which the variability of said value was high, the centroid score has been taken, in order to optimize the centrality of the membership function (Retolaza et al., 2016). This has been the criterion followed for the choice of the value of “support services” or “social relations.” Finally, for the monetary determination of the value variables, the relational algorithms between outputs and proxies are identified (Retolaza et al., 2016), adopting a form of multiplication in most cases.

Results of the Analysis of the Integrated Social Value

The information collected in the first three stages of the ISV analysis process and the Cooperative’s accounting data allow to calculate the two ecosystems of social value that conform the ISV: (1) the Socio-Economic Value (SEV), or social welfare generated with the performance of economic-productive activity, directly and indirectly (through purchases from local suppliers);

and (2) the Specific Social Value (SSV), or non-market social value distributed among the stakeholders, obtained by adding the monetary value of the previously identified value variables.

The SEV is the value generated and distributed by the MNSA Cooperative to its stakeholders, derived from the provision of services to members and transferred in the market in exchange for a price. Salaries paid to workers, taxes to the Public Administration, interest on financial loans, amortizations, and operating income are part of the SEV. These values can be extracted from the financial accounting of the entity. Likewise, the added value mobilized by the Cooperative through purchases from local suppliers is considered within the SEV. To quantify this mobilized value, the structure of the value distribution of local suppliers is analyzed, consulting their commercial data in the Sistema de Análisis de Balances Ibéricos and obtaining the ratios in relation to the annual turnover (Retolaza et al., 2015).

The SSV is obtained by adding the monetary value of the set of value variables. **Figure 2** graphically represents the results

for the Cooperative of both ecosystems of social value, as well as the consolidated ISV. This consolidated ISV is similar to the equivalent accounting concept, and represents the value created after eliminating duplicates of shared value, created simultaneously by several stakeholders or several types of value.

The consolidated ISV created by the MNSA Cooperative in 2019 is € 2,996,649. The non-market value or SSV for that year (€ 2,252,924) far exceeds the value resulting from the economic activity of the SEV entity (€ 743,725). The amount of SEV that is distributed to Public Administrations is € 257,130. However, taking into account that the Cooperative manages a municipally owned market through an administrative concession, the social value to the Administrations would include, in addition to the SEV, the SSV that the entity generates through its management. This value is included in the variables “leadership” (€ 106,972), “equity” (€ 542,491), “social relations” (€ 76,118), and “local consumption” (€ 69,192). These variables are not exclusive to the City Council and its agencies, but are shared by partners, suppliers, workers and sponsors. This indicates that, in the event that the Cooperative would not assume the management of the MNSA, an alternative directive and management structure would be necessary that is capable of maintaining the emblematic character of the public building, promoting socialization, and becoming a center for the purchase of reference of local products in the city, and carry out this management with excellence.

Dividing the consolidated ISV by the amount of business volume (Lazkano et al., 2019), a ratio of social return on income of 2.31 is obtained. In other words, for every € 1 that the entity produces, it generates a value for society of € 2.31. Another ratio that could be interesting to monitor can be calculated by relating the figures obtained with the Cooperative’s budget (Ayuso et al., 2020a). Specifically, dividing the consolidated ISV by the budget, a ratio of social performance of the Cooperative is obtained and amounts 2.08. In other words, the entity manages to generate a social value of € 2.08 for each € 1 of expenditure.

Figure 2 also shows the social value generated by the Cooperative for each stakeholder. To facilitate the understanding of representation, groups with similar interests have been put together, such as the city council, institutions, sponsors, and other markets into “institutions and companies.” The group that presented difficulties in being interviewed (customers) was not included, as no specific value variable was derived for it. In relation to the distribution of SSV to stakeholders, it is observed that the group that receives the highest value is that of partners, followed by personnel and institutions and companies. Likewise, ratios could be obtained for specific stakeholders, for example partners. Dividing the SSV received by the members of the Cooperative between their fees to the entity, a ratio of 6.72 is obtained. In other words, members receive a value of € 6.72 for every € 1 they contribute to the Cooperative.

DISCUSSIONS AND CONCLUSIONS

Specific Study Achievements

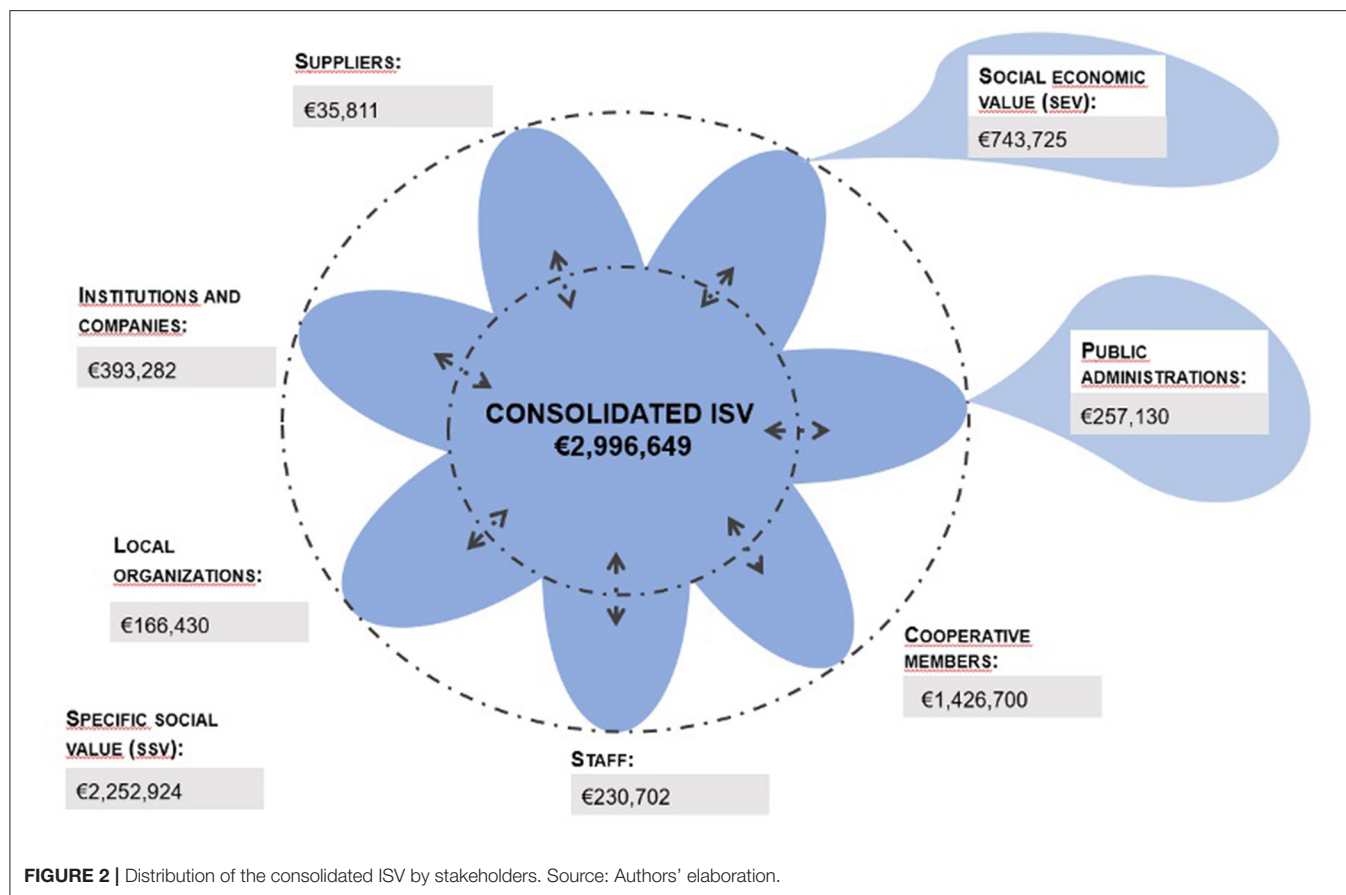
This research adds to the empirical literature focused on evaluation and orientation to social sustainability of Social Economy entities (Bull, 2007; Rotheroe and Richards, 2007;

Bagnoli and Megali, 2011; Retolaza et al., 2014, 2015; Arena et al., 2015; Bassi and Vincenti, 2015; Etxezarreta et al., 2018; Lazkano et al., 2019; Ayuso et al., 2020a; Guzmán-Pérez et al., 2020; Román-Cervantes et al., 2020; Ruiz-Roqueñi, 2020). Specifically, this study focuses on the monitoring of social sustainability from the perspective of the measurement of social value, of urban food markets (Crespi-Vallbona et al., 2017; Alsadaty et al., 2020) self-managed through a cooperative associative formula. The ISV model (Retolaza et al., 2014, 2016) is used to derive the system of social sustainability indicators, and it is applied to a case study, the MNSA Cooperative, located on the island of Tenerife.

The measurement of the social value generated by the Cooperative and perceived by its stakeholders has made it possible to obtain a list of quantitative indicators referring to the organization’s outputs valued by the stakeholders and reformulated in monetary units using financial approximations. The proposed metrics quantify different dimensions of the value perceived by the interest groups. These value variables can be regrouped into three categories, depending on whether they are considered to reflect the socio-economic functions of the supply markets, the behavioral traits of the SE or the practices of management and governance of the entity.

First, the variables “historical heritage,” “social relations,” “facilitates healthy shopping,” and “local consumption” include cultural and social aspects derived from the economic activity analyzed. These are manifestations of the sociocultural value promoted by urban food markets, identified from a theoretical point of view by the specialized literature on this topic. There are the historical and artistic importance of the buildings in which the marketing activity takes place and its potential to become a tourist attraction (Crespi-Vallbona and Domínguez-Pérez, 2016; Crespi-Vallbona et al., 2017), being public spaces for socialization and cultural interaction (Hiebert et al., 2014; Crespi-Vallbona and Dimitrovski, 2017; Alsadaty et al., 2020), the health benefits derived from the consumption of fresh products sold at their stalls (Rebollo and Casares, 2006; Costa et al., 2015) and the social and environmental utility of the locally-based urban food system that they promote (Pothukuchi and Kaufman, 1999; Casares, 2003; Connelly et al., 2011). These are aspects recognized as value by stakeholders and result from their experience of interaction with the cooperative.

Second, the dimensions “support services,” “way of life,” and “cooperation” are a direct reflection of two of the guiding principles of the Social Economy, the social purpose and solidarity or cooperation with the community (Mozas and Bernal, 2006; Chaves and Monzón, 2019). Specifically, “support services” implies recognition by the partners of the benefits that the mission of the entity brings them. In addition to the utility of the Cooperative for responding in a satisfactory way to the needs and problems of its members (Chaves and Monzón, 2018), the entity favors the integration of groups with fewer socioeconomic opportunities. This implies the foster of social cohesion that theoretically it is attributed to Social Economy entities (Bouchard, 2009; Chaves and Monzón, 2012). In this regard, it has been identified that members perceive the Cooperative as an instrument of economic support, enabling them to generate income and maintain the family



unit (“livelihood”). Likewise, Third Sector entities and the local community value the entity’s proactive support to the social mission that characterizes them or to the social projects they develop (“collaboration”). On the other hand, the subdimension “promotion of sectoral networks” of the variable “social relations” can be seen as a manifestation of the relational assets that emanate from the principle of cooperation inherent to these entities, and which would act as a catalyst for local and regional sustainability (Kim and Lim, 2017).

A final category of variables is made up of “customer attraction,” “leadership,” and “job satisfaction,” expressions of social value that come from the governance practices of the management team, and that *a priori* are not unique to the entities of the Social Economy. Although a lack of management capacity is a frequent problem among the Social Economy entities (Tomás-Carpi, 2008a), the identification of excellence in management as a dimension of the social value perceived shows the professionalization and ability of its management to face changes in commercial distribution and purchasing trends in Spanish cities (Casares and Rebollo, 1997), effectively providing a public service (Tomás-Carpi, 2008a).

The value variables relating to the functions of the urban food markets obtained in this study can be compared with the categories and fields evaluated by Crespi-Vallbona et al. (2017), taking into account differences between the two studies

in terms of study design of the indicator system, as well as the methods used to measure sustainability. Thus, there is a coincidence between the variable “historical heritage” and the category “heritage under cultural protection,” and similarities between “local consumption” and “food market protection and integration in the city environment.” Analogies are also perceived in the indicators used to measure the variable “local consumption” and the subdimension “tourist attraction” of this study, with those of “air pollution” and “tourist volume demand” in Crespi-Vallbona et al. (2017), respectively. Failure to interview customers of the urban food markets managed by the Tenerife cooperative may explain the absence of more analogies in the results between the two works.

The phenomenological approach in the identification of the value variables and the fuzziness of the fair value do not allow a direct comparison of the results obtained between organizations, unless they have very similar characteristics or are from the same activity sector (Ayuso et al., 2020b; Freeman et al., 2020). However, the results of this study can be connected with those obtained by academic works that have applied the ISV model to other Social Economy entities, to determine possible parallels between the dimensions of perceived social value, or between the indicators and the proxies used.

The usefulness for the members of the MNSA Cooperative included in “support services” is also identified in the fishers’

guild in Guzmán-Pérez et al. (2020), and can be considered analogous to the “cooperative return” of the consumer cooperative in Lazkano et al. (2019). The outputs and proxies used for the measurement in this work are the same as in the case of the guild, with certain differences with the consumer cooperative Lazkano et al. (2020) have internal data of the monetary value of discounts to members.

Secondly, the variable “collaboration” is similar to “volunteer activities” identified by Ayuso et al. (2020a) in a Special Employment Center, “participation of volunteers” in labor insertion enterprise in Retolaza et al. (2015), and “social response” in the Agrarian Transformation Society in Román-Cervantes et al. (2020). The indicators and proxies used are the same as those used by the rest of the jobs: the monetary value of the resources provided.

In addition, the variable “customer attraction” is similar to “brand strength” in Guzmán-Pérez et al. (2020) and “reputation and market expansion” in Román-Cervantes et al. (2020). The monetary quantification of the perceived social value in the MNSA Cooperative has been carried out using the same type of indicators and proxies.

The value variable “job satisfaction” is also identified in Guzmán-Pérez et al. (2020), estimating that it includes a social utility analogous to those of the set of value dimensions perceived by workers in Lazkano et al. (2020) and in Román-Cervantes et al. (2020). The approach to assessing this variable in the case here differs with respect to those studies, having chosen to approximate it through the monetary estimate of workers’ surplus instead of using data on the number of partners or workers and using proxies referring to the Public Administration or commercial companies (Lazkano et al., 2019; Román-Cervantes et al., 2020).

A fifth similarity is observed between the “heritage” dimension of this study and that of “cultural promotion” of the Catalan Public Universities in Ayuso et al. (2020b), although there are differences in its measurement. “Heritage” has been quantified using data from competitive grants from the Public Administration, regional and national, while Ayuso et al. (2020b) have chosen not to express “cultural promotion” in monetary terms.

Finally, the value that reflects “local consumption” can be considered analogous to that of “reduction of CO₂ emissions by recycling textile waste” in Retolaza et al. (2015), that of “promotion of social and environmental improvements” in Ayuso (2020), and to certain dimensions of “sustainability” in Román-Cervantes et al. (2020). However, the measurement perspective in this work has been different. Following Ayuso (2020), the value for people of the services provided by ecosystems to society has been quantified in monetary terms. For this, the social cost of carbon has been used as a proxy for estimating the savings in the carbon footprint derived from the transport of fruits and vegetables sold in the market stalls.

A result not related to the objectives of this study has been obtained, referring to the positioning of the different ecosystems of social value. Specifically, an SSV (non-market value) has been quantified for the MNSA Cooperative higher than the SEV (market value). This relative importance of the typologies of

social value is similar to that obtained for the fishers’ guild in Guzmán-Pérez et al. (2020) and for the grouping of agri-food cooperatives in Ruiz-Roqueñi (2020), although inverse to that of the consumer cooperative in Lazkano et al. (2020) and that of the social initiative cooperative in Etxezarreta et al. (2018). In order to explain the parallels and discrepancies between these cases, it would be necessary to take into account, in addition to the specific legal formulas, aspects such as the size of the entity, its age or the very dynamism of the market activity carried out. Ultimately, it would be necessary to extend the analysis to other organizations in this family of the Social Economy in order to determine whether there is an underlying pattern regarding the importance of the different categories of social value that they generate.

Implications for Research and for the Industry

This study contributes to the scientific literature on measuring the social sustainability of Social Economy entities from the perspective of determining the social value generated. Its main contribution is derived from having focused the analysis on a service cooperative of an urban food market located in an island tourist destination, considered an ultra-peripheral region of the European Union, using the ISV system. The conjunction of these aspects has implications for the literature on the sustainability of urban supply markets and their measurement, Social Economy entities and the ISV model.

This work expands the research topic on the sustainability metrics for urban supply markets. It adds to the only existing system of indicators for urban supply markets, proposed by Crespi-Vallbona et al. (2017) following a top-down approach. The bottom-up orientation followed in this study, furthermore, has allowed to verify that the elements identified from a theoretical point of view on the potentiality of urban food markets to facilitate progress toward sustainable development (Casares, 2003; Costa et al., 2015; Crespi-Vallbona et al., 2017; Alsadaty et al., 2020) are perceived as value by stakeholders. This study also expands the existing evidence about the contribution of urban food markets to sustainability (Crespi-Vallbona et al., 2017; Alsadaty et al., 2020), through a case study for a market located in a geographic territory for which evidence was not available.

This research also supports theoretical works that identify Social Economy entities as levers of sustainable development (Connelly et al., 2011; Chaves and Monzón, 2012; Rahdari et al., 2016; Kim and Lim, 2017). The results obtained shows recognition as a source of value for stakeholders of the guiding principles of social aim and solidarity (Mozas and Bernal, 2006; Chaves and Monzón, 2018), as well as of the relational assets promoted by the principle of cooperation (Kim and Lim, 2017).

The results obtained contribute in two aspects to the progress of the ISV model toward the desired normalization (Retolaza et al., 2016; Ayuso et al., 2020b; Freeman et al., 2020). They allow advance in the identification of the interests that are common to the Social Economy (Lazkano et al., 2019; Guzmán-Pérez et al., 2020). They also reinforce the understanding of those interests

that are shared by different forms of the Third Sector located in different territories of Spain. Likewise, this work has broadened the range of metrics for the quantification of certain dimensions of perceived social value. This last aspect, however, introduces greater variability in the system indicators.

The results obtained have three main implications for professionals in the sector. First, they provide relevant indicators of social sustainability (Aguado et al., 2015; Ayuso et al., 2020a) that can be integrated into management for an effective orientation of the strategy toward sustainability (Echanove, 2020; Freeman et al., 2020). Second, the financial expression of the social sustainability indicators favors the usefulness of these metrics as investment management and decision-making tools, since monetary measurement facilitates the integration and comparability of the indicators obtained with conventional financial and economic indicators (Aguado et al., 2015; Freeman et al., 2020). Finally, this measurement in monetary terms also facilitates communication and understanding by all stakeholders of the entity's non-financial information.

Limitations and Future Research

This study has essentially three limitations, which are opportunities for the development of future research. The first two limitations are derived from the health context in which the analysis was carried out, the pandemic of COVID-19. Specifically, the interviews that were conducted by telephone or in small, enclosed spaces had a shorter average duration. This aspect could have had an impact on the degree of involvement of these interlocutors when expressing openly the perceived value in their relationship with the Cooperative. In the following process of analysis of the ISV of the entity that is opened, it would be convenient to carry out a greater number of face-to-face interviews with the groups that have been interviewed by telephone or in small spaces -workers, local entities, suppliers, city council, and institutions.

A second limitation of this analysis is that it does not include the interests of the group "customers." The difficulties that arose in interviewing this group have meant that, in the analysis of the social value of the MNSA Cooperative, the specific dimensions of the social value that "customers" perceive have not been considered. Personal dialogue and the identification of possible specific value variables of this group would be necessary in subsequent analytical processes of the Cooperative's ISV. In this dialogue that is to be opened, it would also be necessary to have interlocutors who were local consumers and tourists, in order to analyze if there are differences in their interests and in their shopping experience in the MNSA positions.

A third limitation of this work derives from the phenomenological approach on which the ISV model is based. The results obtained could not be applied directly to another similar entity. For this, it would be necessary to have a set of cases, organizations of a similar nature and sector of activity, which would make it possible to specify shared interests and agree on outputs linked to the identified value variables. For their part, the proxies proposed for monetary quantification would have to take into account the different spatial-temporal realities

in which the outputs were generated, although intervals of proxy values could be established that contemplate this diversity.

In any case, it would be necessary to analyze whether certain characteristics of the city in which this Market is located could limit the extrapolation of some of the value variables obtained here and their quantification to other supply markets in Spain. Specifically, Santa Cruz de Tenerife is located in an archipelago considered an outermost region of the EU. This feature could enhance the perception of the consumption of local products as a source of value (Barlagne et al., 2015), and its quantification is also likely to be higher in the case of the MNSA—due to the savings in carbon footprint derived from the transport of products from abroad.

A second aspect is related to the size and type of city in which the MNSA is located, a medium-size provincial capital. These features could affect the characterization of the dimension of perceived social value referring to the socialization that is promoted in the Market spaces (Tonkiss, 2005). Specifically, some of the attributes that define the variable "social relations" are those of closeness, cordiality or the promotion of values, traits that could differ from those that characterize socialization in the food markets of large cities such as Madrid or Barcelona. Consequently, it would be necessary to review the convenience of using the proxies used here for its quantification—annual membership fees for a social club in the city.

A final element to take into account when extrapolating to food markets in other cities is the importance of the city as a preferred destination for gastronomic tourists. In this case, Santa Cruz de Tenerife is mainly a destination for general tourists. Although these travelers include visits to gastronomic markets among their leisure activities, they do so to a lesser extent and their perceptions and interests are different from those of gastronomic tourists (Crespi-Vallobona, Dimitrovski and Crespi-Vallbona, 2017). This aspect should be considered in the extrapolation of the value variables identified in future dialogues with MNSA clients. Likewise, this element has partially influenced the quantification of the "heritage" variable in this study, so it should be considered when applying it to food markets in other cities.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/**Supplementary Material**, further inquiries can be directed to the corresponding author.

ETHICS STATEMENT

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this

study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

BG-P, MP-M, and JM-J organized the data extracted from the interviews and wrote the first draft of the manuscript. All authors wrote sections of the manuscript, contributed to conception and

design of the study, manuscript revision, read, and approved the submitted version.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.689390/full#supplementary-material>

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Entrepreneurship for People With Disabilities: From Skills to Social Value

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Entrepreneurship has undoubted social value as it contributes to socio-economic development of the context where entrepreneurship takes place. When the entrepreneurial activity is undertaken among especially vulnerable groups in the labor market, the multiplying effect of this value is made explicit in society, in general, and in the collective of people with disabilities (PWDs), in particular. The objective of this research study is to explore under which conditions this happens through the analysis not only of the relationship between the competencies that PWDs attribute to themselves and their development of the entrepreneurial activity but also of that between entrepreneurship and certain conditions that potentially create value by increasing the autonomy among this collective. A quantitative methodology based on the analysis of the survey carried out on a sample of 224 entrepreneurs with physical, sensory, or organic disabilities throughout Spain has been used. According to the results, entrepreneurs with disabilities (EWDs) have a higher self-evaluation competency. Furthermore, significant results concerning the link between the form of autonomous cohabitation of this collective and entrepreneurship have been obtained.

Keywords: disability, competencies, entrepreneurship, social value, autonomy

INTRODUCTION

Since 1997 (the year of the Luxembourg Summit where agreements on the reduction in unemployment at the European level were adopted), the European Employment Strategy (EES) has played an important role in guiding the employment policies of the member states. Currently, this initiative is part of the Europe 2020 growth strategy. Within the implementation of this program, in the case of Spain, various initiatives, which are based on strategies that combine the flexibility required by the current production system with the security of a quality job, have been undertaken to combat unemployment and/or promote employment. This is especially important for vulnerable groups in the labor market, such as people with disabilities (hereinafter, PWDs). However, such policies have not been exempt from some criticism. Authors such as Crespo and Serrano (2013) have analyzed the latent function of European policies, whose aim is to construct a “common orientation” about employment based on the notions of employability, entrepreneurship, activation, and other synonyms that place the responsibility for success in the labor market on the individual. This strategy leaves in a situation of vulnerability collectives such as PWDs, who have special difficulties in finding employment, either as employees or as employers due to their peculiarities, if they are constructed by society (Berger and Luckmann, 1966) or determined by their physical or mental conditions.

The coronavirus disease 2019 (COVID-19) crisis occurred after suffering the last economic crisis (2008–2014) deteriorating even more the already precarious employment situation of this collective (Manzanera and Ortiz, 2017). In this context, the entrepreneurship of PWDs may represent an opportunity for labor and social inclusion in line with inclusive public policies that promote their autonomy (Jones and Latreille, 2011; Toboso and Rogero, 2012; Moreno, 2019). Fostering the autonomy that entrepreneurship requires, in the case of PWDs, not only mitigates the disadvantages they face, namely their type of disability and the degree to which it manifests itself but also taking into account the other sociodemographic factors that limit the aforementioned autonomy, such as age, level of education, or geographic location (Lindsay et al., 2015).

Until now, the study of entrepreneurship in PWDs in terms of competencies is unusual in the field of entities and organizations of the social sector, both in collective and associative manifestations of entrepreneurship, so it is necessary to resort to the competencies that they are self-attributed and that can encourage the group of PWDs.

It is statistically evident that entrepreneurship is lower among PWDs than among people without disabilities. According to the latest data provided by the Statistics National Institute of Spain (INE, 2020: 1–3), in 2019 there were 20,191,876,900 PWDs of working age (16–64 years old), representing 6.2% of the total working-age population. Regarding the collective, it stands out that, among other aspects regarding them, their activity rate is 34.0%, which is more than 43 points below that of the people without disabilities. Furthermore, their employment rate is 25.9% (a difference of 41 points above that of the people without disabilities). Moreover, their unemployment rate was 23.9%, while the indicator among the people without disabilities is 13.9%. These data not only show that the labor activity among PWDs is significantly lower than that among the people without disabilities but also that, in line with it, their entrepreneurship is lower than that among the people without disabilities. Furthermore, data of Observatorio sobre Discapacidad y Mercado de Trabajo en España (ODISMET) (ODISMET, 2016, 2018, 2020) indicate that there are 54,900 self-employed PWDs, of whom 28.6% are employers, 67.9% are entrepreneurs without employees, and 3.5% have other professional situations, so that the registered self-employment rates were 3.2, 7.6, and 0.4%, respectively, being those figures similar to those among the collective of the population without disabilities (4.8, 10.4, and 0.4%).

The entrepreneurial capacity of the collective of PWDs can be highly valuable for the society for two reasons: on one hand, because it involves the recognition of the rights of such collective and the increase of the possibilities that enable PWDs to benefit both from social inclusion and the consequent rehabilitative, therapeutic, and dignifying effect that it has on them, and on the other hand, because it is also likely to generate benefits for the community as the obstacles that hinder such social inclusion are removed and opportunities for vulnerable collectives are created (Troncoso, 2014).

Even if it is hard to overcome the difficulty of measuring social value in economic terms, we have chosen as the basis of our research the study of the concept of “shared value” as

suggested by Porter and Kramer (2011) or Bonini and Emerson (2005), and according to them, what defines this value is not only the competitiveness of an organization but also those policies and operational practices that improve the social and economic conditions of the community. This latter condition that suggested the meaning of the concept of “shared value” is relevant to develop policies that promote the integration of PWDs into the labor market. To that extent, instruments such as the social return on investment (SROI) provide a framework for measuring this concept of value, which is expressed in terms of money as a common unit. Moreover, social and environmental value is included in such an approach thanks to the use of market proxies (Nicholls et al., 2012; Mook et al., 2015). However, even if it would be wrong not to recognize the importance of quantifying actions relevant to the people or organizations experiencing it or contributing to the concept of social value, to consider those actions the meaning of that concept may go beyond economics (Austin et al., 2006; Vásquez and Dávila, 2008; Wood and Leighton, 2010).

In line with this understanding of “shared value,” the entrepreneurship of vulnerable collectives, such as the PWDs, apart from having economic value as an entrepreneurial project, also has social repercussions and social objectives and, therefore, is likely to create social value. A large part of the entrepreneurial activity carried out by PWDs is focused on activities related to the third sector. The data published by the Observatorio Estatal de la Discapacidad (2019) are significant regarding the contribution of disability-related entities to the generation of social value: 10,500 organizations, of which 73.3% are more than 20 years old and represent 36% of the social action third sector, in which—according to estimates made in 2013—5,181 million euros were earned and 4,894 million euros were spent alone in that year, 52% of the entities recorded a positive balance sheet, 28% recorded a compensated one, and, last but not least, 92% generated the funds for their own self-financing, what reveals excellent economic management in the sector.

On a microscale, these are companies whose aim is to solve social and environmental problems through the market (Beaumont, 2016; Javier and Zamudio, 2018). In short, social value is created as a contribution to collective or individual well-being so that society is improved by seeking a response to unsatisfied needs of a different nature (Austin et al., 2006). Therefore, the process of entrepreneurship “involves a balance of social behavior and economic behavior, which, in turn, enables the generation of both social and economic value” (Chell, 2007: 17).

Following the experiences of previous research studies, the identification of what favors and what hinders PWDs from becoming entrepreneurs has become the central research question. This study approaches such issue in a different way going beyond the purely sociodemographic and economic aspects to explore the knowledge, skills, and abilities that are likely to activate entrepreneurship (Olaz, 2011). The objective approach to these competencies—whether individual or social—is a matter of utmost importance. Thus, the creation of instruments that contribute to such an approach acquires a major added value. This study contributes to this direction in the first place, because its focus is on the analysis of the competencies

that are self-attributed and may encourage the collective of PWDs, whose disabilities may be physical, organic, or sensory, to undertake an entrepreneurial activity. Moreover, the analysis also involves the relationship between entrepreneurship and positive conditions for the autonomy of that collective, which, if met, will also create “social value” in the sense indicated above.

When tracing the competency profile of the entrepreneurial condition of PWDs, the following question arises: Is it possible to speak of differences in entrepreneurship according to the condition of belonging to that collective? Some sociodemographic peculiarities in the entrepreneurship of PWD have been identified in the context of the project called Global Entrepreneurship Monitor (GEM) and through studies based on the data analysis of entrepreneurship in the world (Moreno et al., 2016; Barragán et al., 2019). These differences refer to elements such as age, educational level, and stereotypes/prejudices regarding their capacity, or motivation to create a business. Therefore, it has been considered that, concerning the activity, those factors are limiting (Mercado et al., 2013; Moreno and Tejada, 2016). However, in-depth analysis in the aspect of the competencies is missing, even if the entrepreneurial initiative is subject to such analysis.

Also, according to further research studies on that question, there is a lack of entrepreneurial activity among PWDs due to the absence or scarcity of specific measures to promote their entrepreneurship and poor involvement of public authorities or, in other words, a lack of funding to support the collective so that, as a professional alternative, they can develop their business idea. Meanwhile, some authors identify other aspects, such as social prejudices related to their labor potential, difficulties of accessibility, and the development of passive policies, which encourage PWDs to look for a labor alternative (Moreno, 2016). However, there are not enough research studies on analyzing how PWDs perceive themselves concerning entrepreneurship or precisely identified what attributed competencies are needed to carry out an initiative of this type.

In relation to the above, it could be expected that there is an obvious link between shared value and social value in relation to the group we are looking into. In this regard, policies aimed at improving the competitiveness of this collective result in the generation of social value from their full integration into the labor market, with the social and economic benefits resulting from that integration.

In conclusion, the objective of this research study is to explore the competencies that generate social value among entrepreneurial PWDs.

LITERATURE REVIEW FROM COMPETENCIES TO AUTONOMY AND THE CREATION OF SOCIAL VALUE

Subsequently, we went through a review of the literature that associates entrepreneurship, skills, and autonomy in PWDs.

Entrepreneurship, Competencies, and Disability

The sociological perspective has not been one of the most widely used in research on entrepreneurship, which has led to

an insufficient interpretation of the topic in an “asocial” and “timeless” way (Pereira, 2007: 19), hence the relevance of research studies where this point of view is adopted. According to this perspective, entrepreneurship is considered as a manifestation not only of social change but also of the integration of economic and social forces. Therefore, promoting this activity in vulnerable groups is of great social value. This approach has Weberian roots but has not been sufficiently explored. From the 1980s onward, a series of academic studies on the subject emerged from very different perspectives including the exploration of social and geographical mobility and its influence on the propensity for entrepreneurship (Hagen, 1968), the determination of contextual factors such as the existence of social networks and resources of diverse nature that condition entrepreneurship (Gibb and Ritchie, 1982; Ajzen, 1988; Burt, 2000), or the way how a combination of factors that operate in the long term relativize the entrepreneurial determination (Giraudeau, 2007). The competency approach combines a sociological and psychological perspective, as competencies are acquired in a social context that conditions their acquisition and possibilities of development.

Competencies are the formal translation of the skills required and self-demanded for the development of the entrepreneurial project. They are a construct that makes it possible to identify the behaviors responsible for performance according to dimensions such as knowledge, skills, and abilities (Olaz, 2011; Olaz and Ortiz, 2016a).

Even if the link between entrepreneurship and competencies has been already mentioned in previous research studies on that field, it developed an approach to such relation generally basing on the exploration of the psychological characteristics of the entrepreneur and, in particular, on the analysis of some aspects related to leadership skills and risk management. In this vein, research studies such as that of Raičević et al. (2007) identify strategic competencies for entrepreneurship and the entrepreneurial activity itself. Among the strategic attitudes, the authors include the willingness to show initiative, the positive attitude to change and innovate, and the willingness to identify areas where entrepreneurial skills can be evidenced.

Other research studies focus on perceptions as determining factors when undertaking an entrepreneurial activity, such as the perception of risk related to entrepreneurship (Brindley, 2005), not to forget those factors whose interest lays on the perception of attitudinal strengths, such as self-efficacy, control, and the need for achievement, all of which are attitudes that are very present in people who have had successful entrepreneurial experiences (Rábago et al., 2004).

In academic literature, there have been abundant research studies on motivation since 1943, as Maslow (1943) indicated that the motive that encourages to undertake is the search for the satisfaction of many needs. In other words, motivation arises from a state of imbalance or tension in the search to overcome a set of needs represented in the set of capabilities of the already well-known Maslow's pyramid. These references suggest the importance of motivation as a psychosocial category without relating it yet to the concept of competencies.

In the 1990s, interest in the study of competencies became active in two main areas: on the one hand, in an area that is

related to the processes associated with professional qualification and the labor market, in which the research works of Wolf (1994), Civelli (1997), Beret and Dupray (1998), Guerrero (1999), and Dodd et al. (2002) stand out; on the other hand, in an area which is more focused on management, that is represented by those of Merle (1997), Velde (1999), and Mulcahy (2000).

More recently, innovative approaches that went beyond the traditional training, entrepreneurial scheme, emerged as research focused on two specific fields: With regard to the first field, approaches referred to knowledge such as several research works that focused on models that were developed both in Bereiter's model about knowledge construction (Bereiter, 2002) and in innovative communities where learning is central (Paavola et al., 2004). In this line, it is also worth mentioning the suggestion of Billett about knowledge construction in the workplace (Billett, 1994).

As for the second field, other approaches referred to the process in which the concept of socio-emotional competencies relegates that of competency performance to a second status. In the same vein, the notion of performance seems to have been replaced by a different notion, which is related to a set of aspects concerning the potential and personal qualities of an individual as studied by the (Hay Group, McClelland Center for Research and Innovation, 2005), which suggested in its work the different performance domains (Burckle, 2000; Humphrey et al., 2001 and Sevinc, 2001; Stagg and Gunter, 2002; Nel and De Villiers, 2004).

Therefore, more and more studies emerge that, to some extent, show sensitivity toward the psychosocial component of competencies and motivation as a key competence. Nevertheless, the suggested definition concerning entrepreneurial processes is not clear and, from a competency perspective, such a definition is even more imprecise; hence, the singularity of the research study on entrepreneurship in PWDs from a competency perspective developed in Olaz and Ortiz (2016b, 2017, 2018) and Ortiz and Olaz (2019a,b, 2020).

Among the constraints to entrepreneurship in PWDs indicated in the research study, there are personal or psychological factors (Ortiz and Olaz, 2020) that are derived from the disability itself and hinder learning and developing social skills to a full extent. This is worsened by the lack of empathy of society toward these potential entrepreneurs, as a result of which they suffer from fear of failure and lack of self-esteem, self-confidence, and motivation. This reveals the importance of all aspects related to the competence framework. Thus, they should be prioritized over less influential factors such as political, institutional, legal, cultural, or environmental ones so that the understanding of this subject in question is enhanced.

Moreover, a research study that applies to entrepreneurship, the Theory of Expectations (Barba-Sánchez and Atienza-Sahuquillo, 2017), indicates that entrepreneurship in PWDs stems from an increase of the confidence in the competencies and skills needed to carry out the business project.

In the same vein, Caldwell et al. (2016) and Dhar and Farzana (2017) consider that self-confidence is the main premise of entrepreneurship among PWDs. According to these authors, the social and economic relevance of the

contribution to the creation of autonomous identity is from where PWDs can get the main motivation to become entrepreneurs and to overcome obstacles such as lack of access to information and training or those related to mobility and functioning. Empirical studies show that competencies and successful entrepreneurial experiences are implemented by PWDs in entrepreneurship (Obschonka et al., 2017). In addition, empirical research study finds evidence of the application of the competencies learned in professional and life history during the undertaking of an entrepreneurial project (Sánchez-García and Suárez, 2017) and using career self-management competencies, especially, the eagerness to learn and self-education (Alvarado et al., 2020). In that research study, it is concluded that the competencies that explain entrepreneurial success in PWDs include specific professional competencies, experience in the sector, ability to learn new things in business practice, ability to recognize opportunities, and socio-emotional competencies, such as being patient and knowing how to listen to people, being able to deal with uncertainties in the case of an innovative business idea, developing emotional and communication skills, and knowing how to seek and accept support.

Having reviewed the literature on entrepreneurship among PWDs, we have learned that it is not only difficult to find contrasted research studies on entrepreneurship from a competency-based perspective but, even more, to find those whose central focus is on disability. It is therefore interesting to discuss competencies and, in particular, self-attribution of competencies, especially as they are related issues. Even though they have not been addressed, they are a factor to be considered concerning the entrepreneurship of PWDs and, thus, support the working hypothesis H1.

Entrepreneurship and Autonomy Among PWDs

Analyzing the motivations that encourage an individual to become an entrepreneur involves talking about what conditions his behavior (namely, his personal and social circumstances, and factors of his environment). According to Westhead (Westhead et al., 2011), certain personality traits, such as the need for achievement, as well as for autonomy, the propensity to take risks, creativity, or having self-confidence, direct an individual toward entrepreneurship (Kuratko and Hodgetts, 2007; Chell, 2008; Dollinger, 2008; Price, 2013; Rampton, 2014). Although these personality traits are independent of the disability status, according to empirical studies, the collective of PWDs manifests a lower confidence and risk-taking capacity. Among the reasons why in that collective such behavior is developed, there is not only the internalization of social prejudices but also the low capacity of PWDs to create business networks. Even if networking is important for the creation and development of entrepreneurial projects, as well as for the expansion of business relationships, in this regard, PWDs face more obstacles than other collectives (Dhar and Farzana, 2017). Nonetheless, entrepreneurship is an interesting alternative for the collective of PWDs as it may empower the individual (Balcázar et al., 2014).

The trinomial consisting of the three factors, namely, empowerment, autonomy, and self-fulfillment, is analyzed by Shogren and Shaw in their research study on PWDs (Shogren and Shaw, 2016). In such a research study, they examined to which extent, out of four core characteristics of self-determination (autonomy, self-regulation, psychological development, and self-fulfillment), the three factors included in the trinomial predicted the quality of life of adults belonging to the collective of PWDs. Their research study was based on the definition of autonomy as the degree to which a person acts following his or her preferences, interests, and abilities, instead of being bound to undue external influences (Wehmeyer and Palmer, 2003). The authors of the research study identified that there was a relationship between autonomy, psychological empowerment, self-fulfillment, and employment in the collective of PWDs, which is an interesting issue, especially as they compared that collective and the general population and evidenced inequalities in their integration in the labor market. This suggests that the personal transformation that the individual inevitably needs to undergo to enter the labor market or while developing a professional career confronts this collective with many obstacles (Schur et al., 2017), being those obstacles linked to autonomy and poor skills for getting a job (Lindsay et al., 2015).

Entrepreneurship is an important means of gaining autonomy and thus overcoming obstacles and implementing skills that lead an individual to get employed (Nevala et al., 2015). In this vein, achieving a certain degree of independence is, along with entrepreneurship and the recognition of entrepreneurial opportunities, one of the main motives of undertaking an entrepreneurial activity (Lindsay et al., 2015; Moulton and Scott, 2016). Moreover, launching an own enterprise is a way of dealing with inequalities in the labor market, which is the reason why this activity has such a high social value (Alvarado et al., 2020).

The concept of autonomy referred to here is related to two aspects: first, the freedom of action of an individual—in the sense defined by Wehmeyer and Palmer (2003)—and second, the ability to achieve independence from the family nucleus, so that, on one hand, there is a greater need for self-financing, and on the other, there are also more possibilities to do so.

In this regard, it is necessary to consider the importance of the support of the family of PWDs in their development. In this case, we refer to the support of the primary family, which plays a role in the economic activity of the collective of PWDs and, in particular, in the entrepreneurial possibility as great as in the no less important resilience of entrepreneurs with disabilities (EWDs) (Knox, 1993; Porcelli et al., 2014; Ge et al., 2021). However, the primary family must necessarily facilitate the autonomous development among the collective of the PWDs and avoid overprotective dynamics that weaken the implementation of skills and competencies (Mendoza and Roldan, 2019). In this vein, there are research studies on the subject that consider the participation of the family in the labor market insertion process unnecessary, following the belief that the concept of normalization implies that the family should not be involved and should give way to the independence and autonomy competencies of PWDs, given that these competencies are aimed at adults (Valls et al., 2004). In this sense, the family

can become an obstacle to the development of an autonomous professional project. The idea is that the individual enters an environment—such as that of the company—that is not based on the logic of protection and care but on that of profitability and competition. So, the family is a means of resocializing the collective of PWDs giving the individuals of such collective decision-making capacity and responsibilities instead of too much protection and care (López and Seco, 2005).

In short, the review of the literature on the subject has allowed establishing the analysis model and the working hypotheses. According to the empirical research studies, a relationship can be determined between competence self-attribution and entrepreneurship in the collective of PWDs (Nevala et al., 2015; Olaz and Ortiz, 2016a,b, 2017, 2018; Barba-Sánchez and Atienza-Sahuquillo, 2017; Obschonka et al., 2017; Ortiz and Olaz, 2019a,b, 2020; Alvarado et al., 2020). In this new research study, the competency attribution profile among entrepreneurial PWDs has been traced using the Emotional Competence Inventory (ECI)¹. Furthermore, a total of 18 competencies² have been classified into four dimensions: personal self-knowledge; self-management; social awareness; and relationship management.

Regarding the link between PWDs entrepreneurship and social value, correlations between entrepreneurship and autonomy are one of the main findings of empirical research studies. In the resulting literature, it has been demonstrated that such correlations are liable to prove the creation of social value in this activity (Jones and Latreille, 2011; Toboso and Rogero, 2012; Balcázar et al., 2014; Lindsay et al., 2015; Moulton and Scott, 2016; Barba-Sánchez et al., 2019, 2021; Moreno, 2019). According to this evidence, the focus of this research study is on the autonomy of PWDs. The analysis of such autonomy, both economic and from the family, is based on issues related to the cohabitation form and to the benefit perception (Q. 19 and 2 of the questionnaire and **Appendix**). The analysis includes the recognized disability degree considering it as a moderating factor of autonomy (Q. 3). Another factor is the participation in a disability association, for which the existence of a social network is implied, likely to influence the propensity to develop an enterprise. According to such an approach, the mentioned analysis is graphically represented in the following figure:

Taking the model into consideration, based on the literature review that links entrepreneurial competencies in PWDs and social value (Akinyemi, 2016; Barba-Sánchez and Atienza-Sahuquillo, 2017; Barba-Sánchez et al., 2019, 2021),

¹Hay Group's Emotional Competential Intelligence (2005). Emotional Competence Inventory (ECI) Technical Manual, McClelland Center for Research and Innovation, prepared by WOLFF, S.B. DBA. Updated November 2005.

²Dimension 1. Personal self-knowledge (c1. Emotional conscience; c2. Autoevaluation; and c3. Self-belief); Dimension 2. Self-management (c4. Emotional self-control; c5. Transparency; c6. Adaptability; c7. Achievement; c8. Initiative; and c9. Optimism); Dimension 3. social awareness (c10. Empathy and c11. Organizational awareness) (c12. Orientación de servicio); and Dimension 4. Relationship management (c13. Developing people; c14. Inspiring leadership; c15. Catalyzation change; c16. Influence; c17. Conflicts management; and c18. Teamwork and collaboration).

the hypotheses explored in this article are the following (Figure 1):

- H1. Competencies are positively related to entrepreneurship, as among entrepreneurial people the self-assessment of their competencies is better than among those who neither have undertaken an entrepreneurial activity nor are likely to undertake one.
- H2. Entrepreneurship is significantly related to the capacity of individual autonomy of living alone or as a couple with or without children.
- H3. Receiving benefits is positively related to entrepreneurship, given that it can reduce the perception of risk, which is one of the main problems for entrepreneurship. Consequently, the generation of social value depends on it.
- H4. The recognized disability degree moderates the possibility of entrepreneurship as follows: the higher the degree of disability, the lower the possibility of entrepreneurship. Consequently, it implies that social value is reduced.
- H5. Belonging to an association is positively related to entrepreneurship causing a greater degree of independence so that the consequence would be the desired one.

MATERIALS AND METHODS

This research study has been developed according to the results of a nationwide survey carried out between November and December 2018. Its target group consists of people with some type of physical, organic, and sensory disability. The data collection tool, which is based on a questionnaire, has been designed considering its form and the singularity of such target

group when accessing information. The collaboration of the main national disability support associations (ONCE, FAMDIF-COCEMFE) was decisive for the design of the sample. The total population of the indicated type is 986,600 PWDs (ODISMET, 2016, 2018, 2020), out of which 224 valid responses were obtained, which represent a sampling error of 6.7% and a confidence level of 95.5% ($p = q = 0.05$). As for the rest of the technical characteristics of the sample, the target population is between 18 and 64 years old residents in Spain with physical, sensory, and organic disabilities. The survey was based on a face-to-face questionnaire that was validated in terms of navigability by the Diversity and Volunteering Service of the University of Murcia, as well as by the technical services of Organización Nacional de Ciegos Españoles (ONCE). Furthermore, it was carried out between November and December 2018 and consists of 22 questions, structured in four thematic blocks (Annex 1).

As for the analysis, it was based on two statistical operations: the Mann–Whitney U non-parametric test for two-level factors and a bimodal logistic regression. The first of these operations was used to analyze competency factors self-attributed by PWDs (Q.14, Appendix 1) and their relationship with entrepreneurship (H1), while H2, H3, H4, and H5 have been analyzed using a logistic regression expressed through the following formulation:

Undertaking of an Entrepreneurial Activity ~ P19 + P2 + P3 + P4

In order to achieve a more appropriate operationalization, we have proceeded to initially recode the variable entrepreneurship (Q. 5) so that a new variable (starting up a business) was created, which reveal the following data: Yes, they start up a business (94

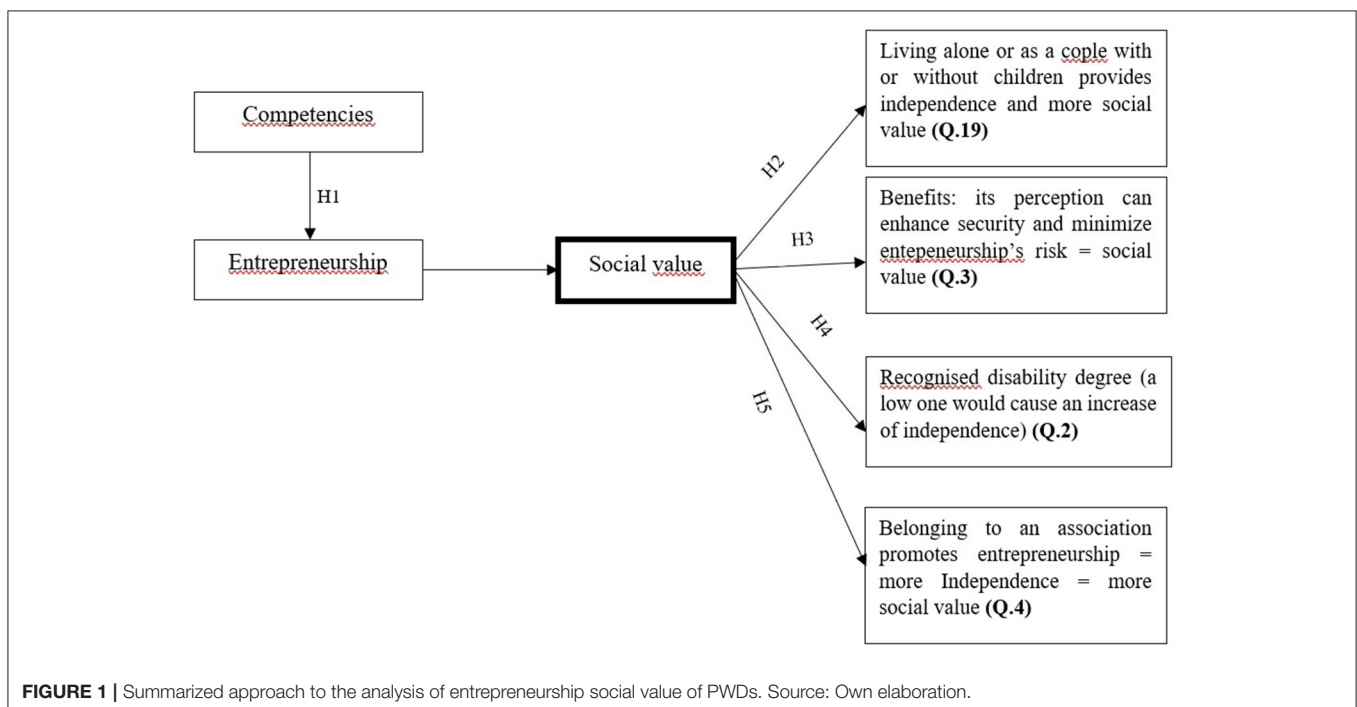


TABLE 1 | Descriptive data according to entrepreneurship and competencies of PWDs.

	Competency	Entrepreneur	N	Mín	Max	Mean	Median	%1	%2	%3	%4	%5	SD	W	p-value
Dimension 1. Personal self-knowledge	1. Emotional awareness	Sí	116	2	5	4.38	5.00	0.00	1.72	13.80	29.30	55.20	0.79	3282	0.621
		No	59	2	5	4.42	5.00	0.00	3.39	10.20	27.10	59.30	0.81		
	2. Self-assessment	Sí	116	2	5	4.55	5.00	0.00	0.86	6.03	30.20	62.90	0.65	3282	0.733
		No	60	2	5	4.52	5.00	0.00	1.67	5.00	33.30	60.00	0.68		
Dimension 2. Self-management	3. Self-confidence	Sí	115	2	5	4.30	4.00	0.00	2.61	14.80	33.00	49.60	0.82	3550	0.733
		No	60	2	5	4.18	5.00	0.00	8.33	16.70	23.30	51.70	1.00		
	4. Self-control	Sí	116	1	5	4.05	4.00	0.86	4.31	16.40	45.70	32.80	0.86	4008.5	0.0489*
		No	59	2	5	3.83	4.00	0.00	1.69	37.30	37.30	23.70	0.81		
	5. Transparency	Sí	116	2	5	4.35	4.00	0.00	0.86	11.20	39.70	48.30	0.71	3317.5	0.872
		No	58	3	5	4.36	5.00	0.00	0.00	15.50	32.80	51.70	0.74		
	6. Adaptability	Sí	116	1	5	4.28	5.00	0.86	2.59	17.20	26.70	52.60	0.90	3548	0.818
		No	60	2	5	4.28	4.00	0.00	1.67	16.70	33.30	48.30	0.80		
	7. Achievement	Sí	115	1	5	3.97	4.00	3.48	6.09	20.90	29.60	40.00	1.08	3402	0.976
		No	59	1	5	3.90	4.00	5.08	10.20	20.30	18.60	45.80	1.24		
	8. Initiative	Sí	114	1	5	4.17	4.00	0.88	2.63	18.40	35.10	43.00	0.88	3527.5	0.717
		No	60	1	5	4.10	4.00	1.67	1.67	25.00	28.30	43.30	0.95		
Dimension 3. Social awareness	9. Optimism	Sí	115	1	5	4.33	4.00	0.87	0.87	11.30	38.30	48.70	0.78	4209	0.01*
		No	60	1	5	3.97	4.00	3.33	1.67	21.70	41.70	31.70	0.96		
	10. Empathy	Sí	116	2	5	4.35	5.00	0.00	2.59	12.90	31.00	53.40	0.80	3735	0.383
		No	60	1	5	4.23	4.00	1.67	3.33	10.00	40.00	45.00	0.89		
	11. Organizational competency	Sí	114	1	5	4.18	4.00	2.63	0.00	17.50	36.00	43.90	0.91	3692.5	0.258
		No	59	1	5	4.05	4.00	1.69	3.39	15.30	47.50	32.20	0.88		
Dimension 4. Relationship management	12. Service orientation	Sí	115	3	5	4.31	4.00	0.00	0.00	11.30	46.10	42.60	0.67	3458.5	0.0459*
		No	51	1	5	4.00	4.00	1.96	1.96	23.50	39.20	33.30	0.92		
	13. Developing people	Sí	115	2	5	4.01	4.00	0.00	1.74	26.10	41.70	30.40	0.80	3714.5	0.195
		No	58	1	5	3.74	4.00	3.45	10.30	17.20	46.60	22.40	1.04		
	14. Leadership	Sí	113	1	5	3.98	4.00	1.77	1.77	23.00	43.40	30.10	0.88	3456.5	0.537
		No	58	1	5	3.83	4.00	3.45	8.62	22.40	32.80	32.80	1.09		
	15. Catalyzing change	Sí	109	1	5	4.24	4.00	1.83	0.92	15.60	34.90	46.80	0.88	3735.5	0.00303*
		No	54	1	5	3.65	4.00	9.26	5.56	27.80	25.90	31.50	1.25		
	16. Influence	Sí	113	2	5	4.19	4.00	0.00	2.65	19.50	33.60	44.20	0.84	3541.5	0.258
		No	57	1	5	3.98	4.00	5.26	1.75	15.80	43.90	33.30	1.03		
	17. Conflicts management	Sí	114	2	5	4.40	5.00	0.00	0.88	10.50	36.00	52.60	0.71	3533.5	0.214
		No	56	1	5	4.16	4.00	3.57	1.79	16.10	32.10	46.40	1.01		
	18. Teamwork	Sí	113	3	5	4.62	5.00	0.00	0.00	7.08	23.90	69.00	0.62	3411.5	0.593
		No	58	1	5	4.45	5.00	3.45	1.72	8.62	19.00	67.20	0.98		

The columns headed by percentages contain the percentage of people who responded in terms of the percentages heading each of the columns. Following the Likert scale, the percentages given in their responses range from 1% ("not at all competent") to 5% ("very competent").

Source: PWD survey. Project "Disability and entrepreneurship. Competency analysis" CSO2016-75818-R (AEI/FEDER, UE).

*means the result is statistically significant (<0.05).

PWDs); no, they do not start up any business (88 PWDs); and na (42 PWDs).

As for the treatment of the variables, the variable "starting up a business" resulting from the recoding of the variable "entrepreneurship" (Q. 5) was taken as the dependent variable, while the independent variables were "cohabitation form" (Q. 19); "benefits" (Q. 3); "disability degree" (Q. 2), and "membership in an association" (Q. 4).

RESULTS

Entrepreneurship in PWDs and Self-Attribution of Competencies

Taking into consideration the conducted analysis on the self-attributed competencies depending on whether or not PWDs have been entrepreneurs (Table 1), the average values indicate that the entrepreneurial PWDs attribute a greater capacity

to themselves than the non-entrepreneurial ones, except in competencies 1 (“emotional awareness”: 4.38 entrepreneurs, compared to 4.42 non-entrepreneurs), 5 (“transparency”: 4.35 entrepreneurs, compared to 4.36 non-entrepreneurs), and 6 (“adaptability”: 4.28 entrepreneurs and non-entrepreneurs). The exceptions point to the case when the evaluation given to certain competencies among non-entrepreneurial PWDs is equal or slightly higher than that among PWDs who have started up a business. Such exceptions are located in the dimension “personal self-knowledge” (competence 1 – emotional awareness) and “self-management” (competencies 5 – transparency and 6 – adaptability). On the contrary, competencies that belong to the dimensions “social awareness” and “relationship management” receive a higher rate according to the self-assessment of entrepreneurial PWDs than when evaluated by non-entrepreneurial PWDs. In the latter two dimensions, there is a statistically significant relation, which is present in competencies 9, 12, and 15 (optimism; service orientation; and catalyzing change). Meanwhile, in the “self-management” dimensions, significant is the relation in competence four (emotional self-management). According to the data, it may be noted that entrepreneurial PWDs attribute to themselves a higher competency value than non-entrepreneurial PWDs, which confirms the hypothesis (H1 entrepreneurial PWDs—the self-assessment of their competencies is better than among non-entrepreneurial PWDs).

Entrepreneurship, Autonomy, and Social Value

As established in the research model (Table 1), the relation between entrepreneurship and autonomy (H2) is analyzed below. The resulting data indicate that 53.4% of the PWDs launch a business out of necessity, while the rest do it out of the opportunity. Furthermore, autonomy is one of the fundamental motives for PWDs to start up a business that 33.9% of PWDs start up a business to increase income, 30.5% to achieve greater

personal independence, 27.1% to overcome a personal challenge, and the remaining percentage does not answer the question. Those are their main reasons, which are personal rather than economic, and prioritize economic independence and the self-satisfaction derived from autonomy.

As a result of the regression analysis (RA) (Table 2), it has been initially established that the significant values would refer to life in a couple without children ($p\ 0.0421 < 0.05$). No statistical significance was found in cases as respondents neither lived with family members under their charge nor had any other living situation.

Concerning the relation between entrepreneurship and economic autonomy, where entrepreneurship has been identified through the reception of disability benefits, significant is “not receiving any type of benefit” ($p\ 0.0288 < 0.05$). In other words, among the entrepreneurial PWDs, the reception of disability benefits is no motivational element toward entrepreneurship.

While there are some entrepreneurial capacity moderating factors, such as the recognized disability percentage, which is situated in the medium-high interval, namely, between 65 and 74%, which are practically significant, there are also other factors, such as belonging to an association, which are found not to be significantly related to the entrepreneurship of PWDs.

Regarding these results, the model has been optimized aiming at improving the final Akaike information criterion (AIC), thus obtaining the variables shown in Table 3. According to the logistic regression, it is confirmed that the living situation “I live together without children” is a statistically significant variable, which demonstrates that such a variable is consistent in predicting the entrepreneurship of PWDs.

Table 4 shows the ratios and CIs of the variables considered in the adjusted model, hence the optimization of the initial AIC. Furthermore, odds ratios above 1 for the variables relating to cohabitation (living with others with or without children) indicate that the predictors influence entrepreneurship. In contrast, the variable “not receiving disability benefits” does not influence the model, as its odds ratios below 1 show the following.

TABLE 2 | Statistical summary of logistic regression n.1 with results for all variables.

	Estimate std.	Error	z value	Pr(> z)
(Intercept)	1.09528	0.58934	1.858	0.0631.
P19V I live in company without children	1.02819	0.50580	2.033	0.0421*
P19V I live in company with children	0.65455	0.53173	1.231	0.2183
P2 from 50–64%	−0.01409	0.66411	−0.021	0.9831
P2 from 65–74%	−1.11350	0.64996	−1.713	0.0867.
P275% and more	−0.86794	0.56222	−1.544	0.1226
P2 Na	15.87135	1661.43837	0.010	0.9924
P3 No	−1.04478	0.47791	−2.186	0.0288*
P3 Na	−17.20240	2399.54482	−0.007	0.9943
P4 No	0.30436	0.47220	0.645	0.5192

<0.05***. AIC = 170.66.

Source: PWD survey. Project “Disability and entrepreneurship. Competency analysis” CSO2016-75818-R (AEI/FEDER, EU).

TABLE 3 | Optimized logistic regression n.2.

	Estimate std.	Error	z value	Pr(> z)
Intercept	0.6270	0.4577	1.370	0.1707
P19V I live in company, without children	1.0237	0.4761	2.150	0.0315*
P19V I live in company, with children	0.7763	0.5047	1.538	0.1241
P3 No	−0.6947	0.4327	−1.605	0.1084
P3 Na	−16.9693	1455.3976	−0.012	0.9907

<0.05***. AIC = 168.82.

Source: PWD survey. Project "Disability and entrepreneurship. Competence analysis" CSO2016-75818-R (AEI/FEDER, EU).

TABLE 4 | Coefficients and CIs.

	Odds ratio	2.5 %	97.5 %
(Intercept)	1.87	0.78	4.8e+00
P19 I live in company, without children	2.78	1.10	7.2e+00
P19 I live in Company, with children	2.17	0.81	6.0e+00
P3 No	0.50	0.21	1.1e+00
P3 Na	0.00	NA	2.2e+121

Source: PWD survey. Project "Disability and entrepreneurship. Competence analysis" CSO2016-75818-R (AEI/FEDER, EU).

TABLE 5 | Multicollinearity as a function of variance inflation factors (VIFs).

	GVIF	Df	GVIF ¹ /(2Df)
P19	1.101500	2	1.024463
P2	1.320900	4	1.035401
P3	1.181544	2	1.042587
P4	1.148053	1	1.071472

Source: PWD survey. Project "Disability and entrepreneurship. Competence analysis" CSO2016-75818-R (AEI/FEDER, EU).

The verification based on a statistic $X^2(1) = 9.32$ and a p -value = 0.05 demonstrates that the model with the predictor variables is significantly better than the model only with the constant.

Finally, the verification of multicollinearity, which is based on the variance inflation factors (VIFs), indicates that there is no multicollinearity in these predictor variables since the obtained values are below 10 (Table 5).

Having carried out a verification based on a statistic $X^2(1) = 9.32$ and a p -value = 0.05, we have obtained the demonstration that the model with the predictor variables is significantly better than the model only with the constant.

Finally, the verification of multicollinearity, which is based on the VIFs, indicates that there is no multicollinearity in these predictor variables since the obtained values are below 10 (Table 5).

According to the obtained results, on one hand, hypothesis H1 has been confirmed that a relation between entrepreneurial PWDs and the fact that their competency self-assessment is found to be positive. Also, hypothesis H2 has been corroborated, for there is a relation between autonomy and entrepreneurship

of PWDs, especially when the living form is that of a couple without children.

On the other hand, according to the analytic model formulation, hypothesis H3 has not been confirmed, given that that entrepreneurship is significantly related to the fact of not receiving disability benefits but not to the fact of receiving them.

Concerning hypothesis H4, entrepreneurship is not related to all degrees of disability recognition but only certain ones. Thus, such a hypothesis has been only partially confirmed.

Finally, no verification of hypothesis H5, which establishes the relationship between association membership and entrepreneurship, has been carried out.

DISCUSSION AND CONCLUSIONS

Understanding the social value as the result of an alignment between resources, processes, and policies, with the firm purpose of contributing to an improvement in the quality of life of a citizen, it is undeniable that there are many challenges, no less to say that there is an opportunity to achieve them.

Social policies should aim to increase the activity and employment rates of people with disabilities, as well as improving and dignifying their working conditions, while fighting discrimination. However, frequently the emphasis is placed in the forms of regular employment (in enterprises or public administrations with places reserved for PWDs) or protected employment (in dedicated centers) but not in self-employment where there is a lack of specificity toward activities intended for PWDs.

Even above and beyond business figures and economic performance, our society and, especially, companies and their great transformational power have increasingly begun to show greater concern to the social value that they are capable of generating and the social value they generate for the community (Harrison et al., 2020).

Neither is the relevant field of entrepreneurship nor that of people with some kind of disabilities alien to this reality given that such collective, even if it is most of the time "invisible," can also contribute to the creation of social value. The socio-emotional competencies, functioning as a cornerstone between attitude and aptitude and, thus, catalyzing the process of empowerment, are important to dynamize entrepreneurship among PWDs not only at a personal level but also at a community level, for the destiny of that collective, which is to represent social value in our complex society.

In line with the available research studies (Nevala et al., 2015; Olaz and Ortiz, 2016a,b, 2017, 2017, Barba-Sánchez and Atienza-Sahuquillo, 2017; Obschonka et al., 2017; Olaz and Ortiz, 2018; Ortiz and Olaz, 2019a,b, 2020; Alvarado et al., 2020; Barba-Sánchez et al., 2021), the analysis of the results carried out in this research study has evidenced the relationship between assessment of their competencies and the fact of starting up an enterprise of PWDs.

There are two possible explanations for the phenomenon that people who have been entrepreneurs have a better competency self-assessment than those who have not: On one hand, the positive self-assessment of certain competencies is due to entrepreneurship, and on the other hand, entrepreneurial

PWDs are identified by the positive self-assessment of those competencies. Even if it is impossible to choose one, whatever the explanation may be, such phenomenon is especially important in those competencies, which are directly related to activities that improve social behavior or social performance of PWDs, namely, the competencies belonging to the dimensions “social awareness” and “relationship management.” Therefore, it is interesting to note that, according to the entrepreneurial self-assessment of PWDs, such competencies are the most highly rated ones.

This first conclusion confirms those theories on the subject (Rábago et al., 2004; Raičević et al., 2007), which identify competencies, such as optimism, service orientation, and predisposition to change, that are strategic for entrepreneurship and the entrepreneurial activity itself. Not less to say that they have resulted statistically significant.

In the same vein as research studies on the topic (Jones and Latreille, 2011; Toboso and Rogero, 2012; Balcázar et al., 2014; Lindsay et al., 2015; Moulton and Scott, 2016; Dhar and Farzana, 2017; Moreno, 2019), we suggest that the link between autonomy and entrepreneurship of PWDs indicates how entrepreneurship and the involved effects contribute to the empowerment of the collective consequently generating social value in terms of quality of life and social inclusion improvement.

According to the analysis, results have identified a relationship between economic independence and entrepreneurship, which is based on the fact that starting up a business is positively linked to not receiving any benefits. The cause of such relationship may be the psychological empowerment of the entrepreneurial PWDs, which makes it worth engaging in activities that minimize the need for financial support, especially when that entrepreneur is familiarized with the fact that entrepreneurial actions and economic consequences are bound, what has been confirmed according to research studies on the issue (Shogren and Shaw, 2016). Furthermore, if entrepreneurship is carried out using financial solvency, but not public contribution, then it is likely to create social value (Barba-Sánchez et al., 2021).

The degree of recognized disability may be a limiting factor, yet according to the obtained data and the research studies carried out on the issue (Ortiz and Olaz, 2019a,b), it does not hinder entrepreneurship. As for membership of associations and its relation with entrepreneurship, while it may be true that entrepreneurship is enhanced thanks to the establishment of social support networks (SSNs), especially in the case of PWDs for whom such establishment is complicated (Dhar and Farzana, 2017), it is also true that membership of associations does not seem to be an indisputable predictor of the possibility of starting up any business activity.

This research study has focused on the attribution of competencies of PWDs concerning entrepreneurship and moderating variables such as autonomy. Consequently, a limitation of this investigation is that the exploration of the relationship between the inhibiting factors of assessment of competencies and entrepreneurial activity of PWDs has been out of the scope of this study and may be explored in future research studies. However, this research study has provided evidence on the social value of entrepreneurship in the collective of PWDs, which contributes to the development of a mature, fair, and equal society.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Comisión de Ética de Investigación de la Universidad de Murcia. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

POG and ÁO contributed to conception and design of the study and wrote sections of the manuscript. POG organized the database and the statistical analysis and wrote the first draft of the manuscript. Both authors contributed to manuscript revision, read, and approved the submitted version.

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SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.699833/full#supplementary-material>

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Conspicuous Consumption in Emerging Markets: The Case of Starbucks in Colombia as a Global and Sustainable Brand

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Conspicuous consumption symbolizes ostentatious and material consumption through the purchase of products and services with a higher economic value and that allows their consumers to excel socially. However, conspicuous consumption often does not represent social and environmental values, because their products are often not characterized by being made through sustainable processes. United Nations, through its sustainable development agenda, invited companies to be aware of the social and environmental problems of the world and to be able to generate strategies that can be sustainable over time and allow the growth of both the company and society in general. This study analyses the case of Starbucks as a global and sustainable brand, which also generates conspicuous consumption in emerging markets. In this way, we explain how this brand generates a social status in emerging markets, which allow their consumers to excel socially. On the other hand, we explain how Starbucks contributes positively to sustainability in these types of markets, generating greater well-being for both the environment and society in general. In this way, this brand manages to transmit messages with symbolic values of social status, as well as social and environmental awareness. This research allows us to see how Starbucks is able to generate conspicuous consumption in Colombia, which is the third largest exporter of coffee in the world but is also capable of generating sustainable processes that help Colombian coffee growers and the environment. This research used a quantitative methodology based on a structured questionnaire made for conspicuous consumers of the Starbucks brand in Colombia, whose data were processed through the statistical program PLS 3.2.7. This research details the sustainable processes carried out by this brand in this developing country and the reasons why its consumption in this emerging market is considered conspicuous. For this research, family allocentrism, ethnocentrism, and patriotism are considered antecedents of conspicuous consumption, and brand image and brand loyalty are considered their results.

Keywords: conspicuous consumption, global brands, sustainable brands, ethnocentrism, patriotism, brand image, brand loyalty, family allocentrism

INTRODUCTION

For Jung et al. (2020) conspicuous consumption is associated with values that allow showing a greater economic capacity through the products that are consumed in public, which generate to said consumers a reputation and a social status. However, the values of conspicuous consumption could be a barrier to sustainable consumption due to the eagerness to achieve ostentatious consumption at all costs. In this way, it is often pointed out that conspicuous consumption leads to social inequality and hinders sustainability, as this type of consumption attracts people who seek a clear social exposure through purchasing, the use and demonstration of products and services that allow them to excel socially; for this reason, one might think that global brands that generate a social status could promote these social inequities on a large scale, as they have presence in several countries of the world (Aliyev et al., 2019).

Jung et al. (2020) showed that the conspicuous consumer often associates sustainable products with products without design, little aesthetics, very outdated, and uninteresting; that is, with values that do not allow them to achieve a social distinction. However, this can change when brands have the ability to offer the conspicuous consumer products that are produced through sustainable processes but are, at the same time, eye-catching, original, and authentic. In this way, conspicuous consumers could use this type of sustainable products, which allow them to generate a social reputation.

For Aliyev et al. (2019), luxury companies can successfully adopt sustainability when they manage to improve communication and marketing processes. In this way, it seeks to know both the motivations that consumers have, to buy luxury products, as well as the motivations that they also have to buy sustainable products. In the same way, the same type of product could generate a double-purchase motivation. In this way, the idea is to be able to generate products that generate both symbolic and social satisfaction through sustainable luxury consumption. For Hardy and Van Vugt (2006), success in marketing products that are both luxurious and sustainable is based on being able to combine factors that generate both social altruism and factors that generate a status for the person who consumes them. In this way, such a consumer could demonstrate to the rest of society his or her desire for sustainable consumption but would also demonstrate his or her economic capacity above others.

This type of luxury and sustainable products would generate a benefit for the altruistic and economic reputation of the conspicuous consumer. In this way, if previously conspicuous consumption was perceived as a completely selfish consumption, nowadays, conspicuous consumption could be a strategy that allows promoting and exalting sustainable consumption practices. For this, celebrities or public figures who promote this type of consumption could be used, because these personalities exert a direct and indirect influence on other consumers (Griskevicius et al., 2010).

Considering this, in emerging markets, the purchase of certain products or brands becomes a reference toward an aspirational group of higher social status, in which the consumer is not

currently, but would like to be included in the future. For this reason, in developing economies, the system of aspirational and ostentatious values is a very powerful force motivating conspicuous consumption. This is because there is a need to impress others through the consumption of certain products and brands, which symbolize economic progress (Huang and Wang, 2018). Due to the increased penetration of global brands in emerging markets, it is still necessary to carry out more studies to understand consumer behavior in these countries (He and Wang, 2017; Huang and Wang, 2018), and especially its relationship with conspicuous consumption due to the limited literature on these relationships (Aliyev et al., 2019; Anwar and El-Bassiouny, 2020; Jung et al., 2020).

With this in mind, there is now a need to generate marketing strategies that are in line with the sustainable development agenda proposed by the United Nations, in which companies must understand the impact of their decisions on society in general. In this way, various marketing strategies can be developed that allow social, environmental, and economic progress for both companies and society in general (Anwar and El-Bassiouny, 2020). For this reason, companies today must carry out processes in which the social impact of their marketing decisions is assessed, as, otherwise, their competitors could take a competitive advantage, anticipating various strategies for sustainable growth. It is important to mention that, today, the consumer is increasingly oriented toward sustainable consumption and, for this reason, usually prefers companies that also carry out sustainable practices (Epstein and Buhovac, 2017; Kotler et al., 2019). For this reason, some companies have successfully developed various strategies in all their processes in a sustainable way, which allow them to achieve a greater connection both with their consumers and with the society in which they operate (Peattie and Belz, 2010).

With this in mind, the main objective of this paper is to analyze some explanatory factors of conspicuous consumption in emerging markets. We wanted to analyze a global brand whose consumption generates a social status in emerging countries, while implementing a strategy that is in line with the sustainable development program proposed by the United Nations. In this way, this brand generates a commitment to the environment and to society in general.

This study focuses on the Starbucks brand and its development in an emerging country like Colombia, taking into account that Colombia is the third country exporting coffee in the world and where coffee is a symbol of national identity, with a strong consumption in this country. Through this study, we want to explain how a brand generates symbolic consumption of social status and, at the same time, symbolic consumption of social altruism.

Taking into account the above, this research paper presents the following structure: after presenting the introduction, we proceed with a review of the conspicuous consumption literature as the main variable and on the variables that we consider to be their antecedents and their results. For this study, family allocentrism, ethnocentrism, and patriotism were considered as antecedents of conspicuous consumption, while brand image and brand

loyalty as their results. In this way, the relationships between the variables and their respective hypotheses are presented.

It is also explained why this research considers that the Starbucks brand generates conspicuous consumption in Colombia and the processes that it performs to generate sustainable production and marketing, with the environment and with the Colombian society. It then details the methodology that was used to verify the hypotheses, the results obtained, the conclusions, limitations, and future lines of research.

LITERATURE REVIEW AND DEVELOPMENT OF THE HYPOTHESES

Conspicuous Consumption

For Trigg (2001), theory of Thorstein Veblen of the idle class, written more than 100 years ago, now presents a powerful critique of the neoclassical theory of consumption since Veblen develops an evolutionary framework in which one can observe how preferences toward certain products determine certain social relations, with respect to the positions of individuals in the social hierarchy. In this way, according to theory of Veblen of conspicuous consumption, individuals often imitate the consumption behaviors of other individuals who possess a greater social position to try to resemble them. In this way, the higher the price, the more attractive the product, because the price becomes an indicator of prestige.

According to Belk (1988), an individual may become known to others, depending on the types of goods they may come to exhibit in front of others; in this way, the possessions of certain objects end up generating much importance for the one who has them and exhibits them, because these goods make it possible to communicate indirectly what a person can be; that is, we end up being judged according to the material goods we have and can show to others. Agreed with this, for conspicuous consumption of Grace and Griffin (2009) allows us to understand how the visible consumption of certain goods generates a better social position; in this way, individuals driven by this type of social values end up choosing products that allow them to convey the social image with which they wish to project themselves (Sheth et al., 1991). Given the above, for Braun and Wicklund (1989), the high price of products and the symbolism of status and prestige they represent in a given society are clear psychological antecedents of conspicuous consumption.

On the other hand, for Sirgy et al. (1991), the country of origin of a product can help to increase the desire to consume it, because the visibility of its consumption would also allow that social distinction in a certain population. That is to say that the good image that one has of the country of origin of this product would also be transmitted to who consumes it in a visible way for others, thus achieving public notoriety. For O'Cass and Frost (2002), one of the forces influencing consumer behavior is the desire for some to obtain social status through the purchase and consumption of some products and services, which allow them to have a clear social distinction. In this way, for some people, the purchase decision does not lie exclusively in the functional and rational features of the product you want to buy. In these

cases, it also takes into account the symbolic characteristics that this product transmits, which allows you to meet your emotional needs through consumption of a visible form in front of the other people in your society (Al-Hyari et al., 2012).

In this way, in conspicuous consumption it is of vital importance to be able to generate a consumption that can be completely visible by other people. That is to say, direct observation by others is needed, through an open and public consumption, and not through a reserved consumption or without spectators (Piron, 2020). In this way, for Roy Chaudhuri et al. (2011), conspicuous consumption is a fully deliberate decision by a person who wants a symbolic possession or consumption that is visible to other people in order to achieve an image in front of others. In this way, the status generated by conspicuous consumption is presented through the consumption of certain brands, products, or services in a public way (Grace and Griffin, 2009).

For this research, we adopted the definition of conspicuous consumption of O'Cass and McEwen (2004, p. 27): "conspicuous consumption focuses on the visual display or overt usage of products in the presence of others"; since we consider that the most important thing for the conspicuous consumer is to be able to show his or her consumption to other people. That is, it is not only valid to have the product but to be able to exhibit this consumption before society. In summary, we can find several approaches to the definition of this concept in the literature review in **Table 1**.

Family Allocentrism

Triandis and Gelfand (1998) proposed the terms "idiocentrism" by basing it on the characteristics of individualism and the term "allocentrism" by basing it on the characteristics of collectivism to distinguish the differences between these two social philosophies. Idiocentrism pay more attention to their own needs, and not so much to the needs of others; on the contrary, the allocentric people pay more attention to the needs of their group and not so much to their personal needs. For this reason, these types of people tend to prefer to fulfill goals of their groups first to their personal goals (Moon et al., 2018). Thus, for the allocentric, it is important to maintain good social relations (Dabul et al., 1995). Allocentric people emphasize family integration, where they tend to take into account the needs and concerns of members of their social group. Allocentrism is common in the regions of Asia, Africa, South America, and the Pacific; however, it is important to mention that there are several types of allocentrism according to specific cultural groups, such as family, friends, work, country, etc. (Triandis and Gelfand, 1998). For some authors, such as Li et al. (2018), this diversity of collective subgroups can generate ambiguity when trying to study them separately; for this reason, some researchers recommend that it be clarified specifically to which subgroup is referred.

Taking this into account, for Lay et al. (1998), family allocentrism specifically captures the allocentric orientations within the family context; it allows to identify the degree to which individuals are connected with their family. Individuals with a high level of family allocentrism tend to obey the expectations of family members, commit to family obligations, and prioritize

TABLE 1 | Approximations to the conspicuous consumption.

References	Definition
Piron (2020, p. 309)	"Conspicuousness as the social and public visibility surrounding the consumption of a product. For consumption to be conspicuous, we expect it to be a social event, publicly witnessed by other consumers. Thus, publicly used products are more conspicuously consumed/used than products that are consumed/used in the privacy of one's home"
Grace and Griffin (2009, p. 15)	"Visible consumption of goods as a mechanism to enhance one's social standing"
Roy Chaudhuri et al. (2011, p. 217)	"Conspicuous consumption is a deliberate engagement in symbolic and visible purchase, possession and usage of products and services imbued with scarce economic and cultural capital with the motivation to communicate a distinctive self-image to others"
Assimos et al. (2019, p. 353)	"Conspicuous consumption should be seen as a way to increase prestige before society, through the public display of wealth"

Source: Author's own compilation.

family goals over personal goals (Li et al., 2018). In other words, family allocentrism makes it possible to identify the degree to which individuals are linked to their families. In this way, this buying behavior is influenced by the family and its family tradition (Gregory et al., 2002). In light of the above, for Wong and Ahuvia (1998), when a person makes a decision, he or she acts not only as a particular individual but as the representative of a particular group; and this behavior will also be reflected in the rest of this group. In this way, for Childers and Rao (1992), family allocentrism influences an individual in such a way that the consumption of certain products, services, or brands usually remains in time, passing from generation to generation as a symbol of family tradition.

Wong and Ahuvia (1998) conclude that, in allocentric-valued societies, conspicuous consumption not only reflects the social status of a particular individual but also reflects the social status of all the members of the family of the consumer. That is, if a person has the economic capacity to consume certain luxury products, it is understood that all the members of the family of this individual also have the economic capacity to buy luxurious products. Ger and Belk (1999) consider that in societies with allocentric tendencies, the wealth and positions of the family are a factor of social status that can feed conspicuous consumption. In this way, it can be understood why in collective societies and, especially, in those emerging countries the conspicuous consumption of family members is important, either as a way to stand out socially among the less favored population groups, or as a way to resemble an aspirational group of higher social status (Thoumrungroje, 2014; Huang and Wang, 2018).

Taking into account the previous studies, we formulated the following hypothesis in developing countries:

Hypothesis 1

Family allocentrism has a positive impact on the conspicuous consumption of global brands that practice sustainability in developing countries.

Ethnocentrism

Shimp and Sharma (1987) associate the concept of ethnocentrism with the identification of the ingroups, which are those groups with which an individual identifies with, while the outgroups are the groups with which the individual does not identify with. In this way, aspects of the personality of the individual are related

to his or her social and cultural frame of reference. In functional terms, ethnocentrism then gives the individual a factor of identity through a feeling of belonging; for this reason, his or her behaviors are oriented and judged by his or her group of origin (Witkowski, 1998). For Caruana (1996), ethnocentrism from a sociological perspective has a social function of strengthening cohesion and solidarity among the members of a group, but it can also contribute toward an attitude of superiority, intolerance, and even contempt for those who have different customs. Taking this into account, ethnocentrism then refers to the inability of an individual to perceive reality from any other point of view than that of his or her own culture or social group, and, for that reason, he or she judges other groups from that personal reference (Thomas and Hill, 1999).

However, some previous research has shown how an ethnocentric society can have favorable feelings toward foreign brands in specific situations. For Wang and Chen (2004), in developing countries, it can be seen how imported products represent a symbolic meaning that generates social status and a social distinction. For Ger and Belk (1999), conspicuous consumers tend to show their wealth by buying imported products. In this way, the preference to buy domestic products and reject foreign products does not always occur, especially if foreign products are perceived as symbols that allow them to stand out socially, and are associated with a higher quality, image, and prestige (Wang and Chen, 2004).

On this point, Karoui and Khemakhem (2019) also consider that consumers in developing countries could accept the purchase of imported goods if these generate some kind of social recognition. In this way, consumers can express ethnocentric trends but, at the same time, conspicuous consumption trends, where, in this case, there may be inclined by their conspicuous trends. In their study, Kavak and Gumusluoglu (2007) concluded that, in groups with a clear family orientation, although there are ethnocentric values in some members of the family, these will not totally oppose the purchase of foreign products, provided that these foreign products enable the family to improve its social status. On the other hand, for Areiza-Padilla et al. (2020), in emerging markets, it is possible that a group can be ethnocentric and, at the same time, consume foreign brands; however, these foreign brands must be very strong and have values of globality, modernity, prestige, and success. From this, the following hypothesis was put forward.

Hypothesis 2

Ethnocentrism has a positive impact on the conspicuous consumption of global brands that practice sustainability in developing countries.

Patriotism

Patriotism refers to the positive perceptions that a person has toward his or her own country of origin and, therefore, toward his or her compatriots, customs, and national identity (Durvasula and Lysonski, 2008). However, although this concept includes pride in the country of origin of an individual, it is different from the concept of nationalism. Nationalism refers to the vision that people have, believing that their country of origin is superior to other countries, generating a totally uncritical feeling; however, patriotic feelings are related only to internal qualities and do not criticize other countries (Sinkkonen, 2013). Ishii (2009) considers that patriotism is the love that a citizen has for his or her country of origin, generating feelings of attachment and loyalty toward this country, but without generating hostility toward foreign countries. We can say that the difference between patriotism and nationalism lies in attitudes toward other countries. In this way, patriotism is compatible with attitudes that foster internationalization and cooperation among countries, while nationalism correlates negatively with these values. In this way, patriotism can be compatible with tolerance and economic and cultural diversity, while nationalism is associated with values of authoritarianism and intolerance (Li and Brewer, 2004).

For Eng and Bogaert (2010), conspicuous consumption represents a way to show the wealth and success of some citizens in a given society. In this way, these consumers become a social reference for the rest of the citizens, who are in a lower social hierarchy. This situation is more common in developing countries where the upper classes tend to have conspicuous consumption, which ends up being an example to be followed by the lower classes. In this way, if the upper classes consume products that they consider patriotic and represent symbols of national identity, the lower classes will also consider these same products as patriotic and as symbols of national identity. This is because consumers in the lower classes often repeat the behaviors of the upper classes as a mechanism that allows them to aspire toward that social group in a higher hierarchy. In other words, they generate false upward social mobility (González, 2017; Costa Filho et al., 2021).

On the other hand, in the study of Areiza-Padilla et al. (2020), it can be observed how companies of foreign origin that offered conspicuous consumption can manage to highlight the patriotism of their local consumers when they managed to diminish the perception of being a foreign brand. This is possible by symbolically nationalizing the brand by highlighting the symbols of the national identity of that local country. This is possible through different strategies. For example, when it is possible to stand out in the decoration of commercial premises, various symbols of national identity represent the country of that consumer, in addition to offering typical products of that country.

For example, the Starbucks chain, as a global and foreign brand in an emerging market, developed its strategy of penetration into the Colombian market by exaltation of the

national identity symbols of that country. For this, their premises were adapted and customized for this country. Its decoration was based on showing the landscapes alluding to Colombia through the use of images that highlight the Colombian coffee grower, the main landscapes of the regions where coffee is planted in Colombia, and all kinds of audiovisual strategy related to the production, sale, and consumption of Colombian coffee. On the other hand, in its communication strategy to the Colombian public, it was guaranteed that Starbucks in Colombia would only offer 100% coffee in its liquid coffee to the Colombian consumers, highlighting its commitment to the Colombian coffee grower and to this country. On the other hand, among the products offered at Starbucks, there is a variety of typical products from Colombia that are only available in that country; in this way, the Colombian consumers can feel like any coffee shop of Colombian origin. In this way, Colombian coffee is highlighted as a symbol of national identity for this country through a foreign brand (Areiza-Padilla et al., 2020).

Taking into account the above and based on previous studies by Lu Wang and Chen (2004), Eng and Bogaert (2010), Cervellon and Shammam (2013), González (2017), Semaan et al. (2019), Spielmann et al. (2020), and Costa Filho et al. (2021), for this investigation, we considered that the consumption of certain products or brands that generate conspicuous consumption in the upper classes will produce a purchasing behavior imitated by the lower classes. Thus, if the upper classes consider that the products they buy generate a feeling of patriotism, the lower classes will also consider that the consumption of these products exalts national identity and patriotism. In this way, a positive relationship between patriotism and conspicuous consumption can be observed, so we formulate the following hypothesis:

Hypothesis 3

Patriotism has a positive impact on the conspicuous consumption of global brands that practice sustainability in developing countries.

Brand Image

Brand image is directly related to the perception of a consumer of a specific brand and both its functional and symbolic benefits; even, in some situations, the consumer can value its symbolic benefits more than the functional benefits of the product (Nandan, 2005). In this way, brand image refers to the thoughts and feelings that the consumer has about a particular brand. These characteristics are fundamental for any company, since they allow it to develop a competitive advantage both rationally and emotionally, which allows them to be differentiated from their direct competitors (Roy and Banerjee, 2007).

In this way, if the brand has positioning in the mind of the consumer through values such as commercial superiority, quality, and prestige; these values will end up influencing the purchase decision of the consumer to choose this brand over other brands (Hsieh and Li, 2008). In this way, the more symbolic and positive characteristics the brand represents in a given society, the stronger the positive feelings toward its brand image. In this way, if a brand generates social status in that society, the

desire to consume it by the members of that specific society will increase (O'Cass and Frost, 2002).

For these reasons, we can say that the brand image can be positively related to conspicuous consumption, as these consumers seek to improve their social status through displaying a symbolic consumption, and certain brands allow them to represent these values of luxury and prestige. In this way, some consumers have a clear preference for the purchase and use of certain specific brands, which have previously been positioned as prestige and social reputation brands. Therefore, these types of consumers will be willing to pay higher prices, compared with other brands that do not have the same social weight (O'Cass and Frost, 2002).

In this way, there can be a strong symbolic relationship between the image of a brand and the self-concept of a consumer, if the consumer can reflect on his or her lifestyle, his or her values, and his or her social and economic aspirations through a specific brand. In this case, such a brand should then be able to represent its set of symbolic, emotional, and social beliefs (O'Cass and Frost, 2002). Taking this into account, we can explain the preference that the conspicuous consumer has for the purchase and use of certain brands, whose image is previously positioned in the market, as brands generate social status (Assimos et al., 2019; Li et al., 2019). In this way, we formulate the following hypothesis:

Hypothesis 4

Conspicuous consumption has a positive impact on the brand image of global brands that practices sustainability in developing countries.

Brand Loyalty

Brand loyalty generates an emotional bond in the consumer through the attributes and values represented by the brand; this makes consumers choose a particular brand over other brands, even at lower prices or with similar characteristics (Ogba and Tan, 2009). In this way, brand loyalty can generate benefits for both its customers and brand owners. For customers, emotional and symbolic benefits are generated, as the brand represents the same values and attitudes with which the consumer feels identified and can represent his or her lifestyle.

On the other hand, the brand generates economic benefits for the owners of the brand, as customers often repeat on several occasions the purchase of that brand and also usually recommend it to third parties, which, following these recommendations, end up buying that brand also (Bowen and Chen, 2001). On the other hand, brand loyalty can become a strong barrier to entry for new competitors because of its positioning in the minds of consumers, who, in most cases, are unwilling to change brands. In this way, brand loyalty allows the company to respond to the threats of the competition and generate greater sales by having customers less sensitive to the price. In this way, brand loyalty is considered one of the ways in which the consumer expresses his or her satisfaction with the performance of the product or service received (Delgado-Ballester and Munuera-Alema, 2001).

For Chaudhuri and Holbrook (2001), brand loyalty occurs when a consumer has a clear preference for buying a specific

brand above other brands regardless of their value or their functional characteristics. For this reason, loyalty to the brand influences both the attitudes and the behavior of the consumer since he or she feels an emotional commitment that forces him or her to buy this brand and to speak well of it (Chai et al., 2015).

Taking into account the symbolic value represented by the brands, a positive connection is generated with the symbolic value represented by conspicuous consumption. In this way, brands that symbolize a social status will allow the conspicuous consumer to exhibit the values and attributes associated with that social status. For this reason, the conspicuous consumer previously identifies the brands that generate that social distinction and generates loyalty to those brands (Ehrenberg and Goodhardt, 1970).

With this in mind, and based on previous studies by O'Cass and Frost (2002), Amaldoss and Jain (2005), and Jacob et al. (2020), for this research, we consider that conspicuous consumers are loyal to certain brands that allow them to satisfy not only their material needs but also their symbolic needs of prestige, luxury, and social distinction, which is the most evident in emerging markets, where there is strong pressure to excel socially. With this in mind, we propose the following hypothesis:

Hypothesis 5

Conspicuous consumption has a positive impact on brand loyalty that is global and practices sustainability in developing countries.

On the other hand, the brand image is positively related to the purchasing intention of the consumer, and, in the same way, it positively influences customer satisfaction, which, in the end, allows to generate brand loyalty toward it (Huang et al., 2020). In this way, the brand image ends up positively influencing brand loyalty, meaning that when a consumer has a very positive brand image, his or her brand loyalty to it will also be greater (Greve, 2014). According to Wu (2011), brand image has direct effects on brand loyalty, generating a tendency to repeat the purchase. For Sondoh et al. (2007), when customers perceive greater social benefits through a brand, they tend to be more loyal to that brand. In this way, there is a symbolic and affective value, which ends up being an indicator of purchase and repurchase. For this reason, they consider that there is a relationship between the functionality, the prestige of the brand, with the expression of the personality of the consumer, which seeks to have a similarity with the values and attitudes of a specific brand. In this way, for Bauer et al. (2008), a strategy that marketing specialists could develop is to boost consumer preferences and brand loyalty through the development of strong, positive, and unique beliefs about consumers, which is through the construction of a solid brand image. With this in mind, we propose the following hypothesis:

Hypothesis 6

Brand image has a positive impact on brand loyalty that is global and practices sustainability in developing countries.

Research Model

Figure 1 shows the model of this research with their respective hypotheses.

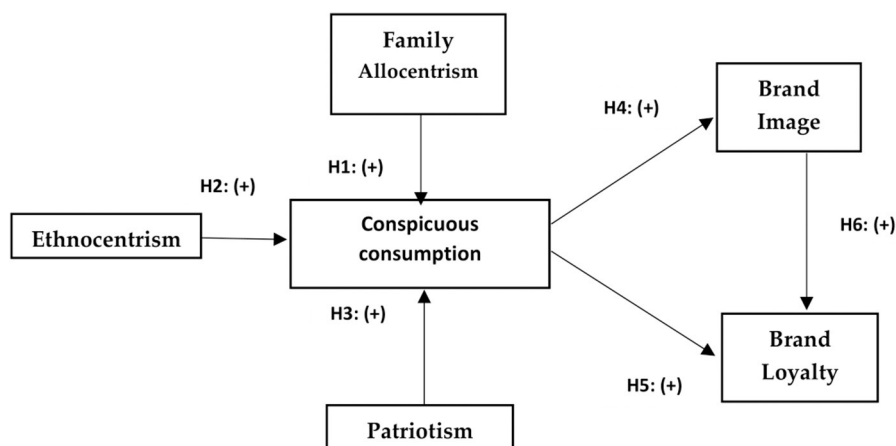


FIGURE 1 | Research model and hypothesis.

METHODOLOGY

For this research, we have focused on the American coffee chain Starbucks as a global brand and on Colombia as a developing country. For some authors, such as Lin (2012), Smith Maguire and Hu, 2013, and Wu et al. (2019), Starbucks clearly generates conspicuous consumption in emerging markets due to the values associated with its brand, such as its globality, in addition to its North American origin. This origin of the brand is associated with a more developed, more modern country with a greater economy, and, therefore, a country that is aspirational for some consumers in these emerging countries. In the case of the Colombian market, it should be noted that Colombia is a country with a very culturally and economically rooted coffee culture, since it is the third country exporting coffee in the world.

Due to the massification of its domestic consumption, coffee is a product that is obtained abundantly in the Colombian market at very cheap prices. By the date of this study, a cup of coffee in a popular sector is priced at approximately \$0.15 US dollars; however, this same cup of coffee can cost in Starbucks \$1.15 US dollars; that is seven times more than in a popular sector. Because Starbucks presents various types of products, such as cappuccino and frappuccino, among other products, their prices can rise above \$2.50. Although, in Colombia, the direct competitor of Starbucks is “Juan Valdez,” Starbucks still has the highest prices in the whole country regarding this type of coffee shops.

Starbucks entered the Colombian market in 2014; its first store was located in one of the most exclusive sectors of the Colombian capital to initially attract the wealthiest people in the city. In this way, their consumption allows to generate social notoriety, because not all can pay their high prices. At the time of this study, Starbucks has 23 stores throughout the country, always in very socially recognized places and with very attractive shops, which is why it has positioned itself in the Colombian market as one of the most expensive cafes in the country.

It is important to mention that one of the entry strategies of Starbucks in the Colombian market was a communication strategy where they informed the Colombian consumers that Starbucks, being a sustainable company, pays a “fair price” to Colombian coffee growers so that they have a better quality of life. In this way, Starbucks in Colombia pays a higher price for the coffee bags than the usual price in the market. This way, the coffee growers who sell their crops to Starbucks receive more income. On the other hand, Starbucks trains and promotes the responsible and fair production of the Colombian peasant and favors the production of organic products. For this reason, it monitors the social and environmental impacts of its suppliers, such as waste management, water protection, conservation of natural resources, preservation of biodiversity, and reduction of the use of agrochemicals, etc. (Redacción el Tiempo, 2015).

For this reason, Colombia has one of the “coffee grower support centers” in the city of Manizales, which owns Starbucks in various countries around the world, with the aim of supporting Colombian producers regardless of whether or not they sell their coffee to Starbucks, providing tools that allow them to reduce production costs and the management and control of pests and diseases that affect the quality of coffee. Currently, in Colombia, more than 60,000 farms in 12 departments of the country participate in this specific program. It also encourages the use of reusable containers and recycling processes for its waste in its stores. These actions have allowed it to stand out and position itself as a company with social and economic responsibility within the Colombian market (Starbucks Stories and News, 2016).

In view of the above, for this research, a quantitative study was conducted through a structured questionnaire to customers over 18 years of age, the Starbucks coffee chain in the city of Bogotá, Colombia. All the participants were previously told that the survey was anonymous, that their personal data would not be requested, and that the results would be processed globally and not individually. Similarly, the survey was voluntary and could

be discontinued at any time. The data were collected in mid-2019, obtaining a final sample of 305 valid questionnaires.

The data were processed through the technique partial least squares (PLS-SEM). For this research, we decided to use this technique, because it allows us to handle both formative and reflective variables in the same study (Diamantopoulos and Winklhofer, 2001). For this study, the brand image variable is formative according to the author of the scale we chose (Palacios-Florencio et al., 2018). Similarly, the PSL allows a better adaptation to predictive studies compared with other tools (Barroso et al., 2010). The results were analyzed in two stages. In the first stage, an exploratory factor analysis was conducted, using the SPSS program, to analyze the possible dimensions of conspicuous consumption and ethnocentrism variables, while, in the second stage, a confirmatory factor analysis was carried out to validate the measuring instrument, and the structural model was estimated, using partial least squares (PLS), using the Smart PLS 3.2.7 software.

Scales previously validated in the literature in previous studies were adapted for this study. The seven-point Likert scale was used as follows: 1 = “totally disagree” and 7 = “totally agree.” The variable of conspicuous consumption was measured using the scale of Marcoux et al. (1997). This scale uses 5 dimensions, which are described below: materialistic hedonism, communication of belonging, social status demonstration, interpersonal mediation, and ostentation. For family allocentrism, the four items of Triandis and Gelfand (1998), alluding to the family in the vertical collectivism resignation, were used. For ethnocentrism, the 24 items on the scale of Sharma (2015) were used, while, for patriotism, the nine items of Levinson (1950) were used. The nine items proposed by Palacios-Florencio et al. (2018) were used to measure the brand image, and, finally, the three items proposed by Kim et al. (2008) were used to measure brand loyalty.

Regarding the demographic profile of the participants, the sample had a very equitable gender distribution, where 51.8% were men, and 48.2% were women. Regarding age, 81% were in the age range of 18 and 35 years, 17.4% between 36 and 55 years, and only 1.6% were older than 56 years. Of this sample, the vast majority of 57% had undergraduate or postgraduate university studies, and 43.3% worked as employees, while 38.4% were still studying.

ANALYSIS AND DISCUSSION OF THE RESULTS

Exploratory Factor Analysis

To determine the dimensionality of the variable conspicuous consumption and ethnocentrism in order to determine which items should measure each dimension and if the items were grouped in the way in which it was initially proposed, an exploratory factor analysis was conducted with VARIMAX rotation. Thus, first, it was found that the items used to measure the conspicuous consumption construct were grouped into five factors, which, according to the semantic content of the items collected in each of them, have been named: materialistic hedonism, communication of belonging to/dissociation from

TABLE 2 | Summary of exploratory factor analysis.

Construct	KMO	Bartlett's test (Chi-square value)	Significance	Dimensions
Conspicuous consumption	0.922	3,657.57	0.000	5
Ethnocentrism	0.945	5,289.76	0.000	3

Source: Author's own compilation.

a group, social status demonstration, interpersonal mediation, and ostentation, jointly explaining 89% of the variability of the phenomenon, providing a satisfactory adjustment. Replicating the exploratory analysis on the scale used to measure ethnocentrism, 24 items were retained, from which three factors emerged that have been called: affective reaction, cognitive bias, and behavioral preference, and which together account for 83% of the phenomenon, providing a satisfactory adjustment. **Table 2** shows the results of the KMO (Kaiser-Meyer-Olkin) sample adequacy measurement index and the Bartlett sphericity test for the corresponding analyses.

Confirmatory Factor Analysis

For the evaluation of the confirmatory factor analysis, in the measurement models composed by reflective items (Mode A), the reliability of the first order constructs was analyzed, the individual reliability of the item (α of Cronbach), and the measure of composite reliability was analyzed (CR). With respect to convergent validity, all indicator loads were significant and >0.7 (except for one item of the family allocentrism variable and two items of the patriotism variable that were eliminated). In addition, the mean extracted variance (AVE) value of each variable was >0.5 , providing evidence of adequate convergent validity in the measurement model (Fornell and Larcker, 1981).

Table 3 shows the results of the AFC. For the brand image variable, when defined as formative (Mode B), its evaluation is done at the level of the indicators by assessing the possible multicollineality through the variance inflation factor (VIF) and the assessment of the magnitude of their weights and their significance, the results of which can be seen in **Table 4**. Regarding the discriminant validity, for the verification of its compliance, the Fornell and Larcker criterion and the Heterotrait-Heteromethod-HT and Mono-trait-Heteromethod-MT (HTMT) ratio were used.

As shown in **Table 5**, on the one hand, it is evident that the estimated correlation between two factors is less than the square root of the variance-extracted average of each factor (Fornell and Larcker, 1981), and, on the other hand, the values for the HTMT ratio are <0.9 Henseler et al. (2015), thus confirming the discriminating validity of the reflective structures of the measurement model. Regarding the second-order reflective constructs, **Table 6** shows the standardized loads, which are >0.7 and statistically significant for all dimensions, the Cronbach α , the composite reliability measurement (CR), and

TABLE 3 | Measurement model evaluation results.

Construct/Indicators	Mean	St.dev.	Loadings factor
F1. Family allocentrism ($\alpha = 0.803$; CR = 0.791; AVE = 0.573)			
Parents and children must stay together as much as possible.	5.38	1.47	0.751*
It is my duty to take care of my family, even when I have to sacrifice what I want.	5.44	1.43	0.757*
It is my duty to take care of my family, even when I have to sacrifice what I want.	4.97	1.63	0.992*
F2. Patriotism ($\alpha = 0.842$; CR = 0.881; AVE = 0.517)			
There will always be superior and inferior nations in the world and, in the interests of all concerned, it is best that the superior ones be in control of world affairs.	3.71	1.83	0.764*
Minor forms of military training, obedience and discipline, such as drill, marching and simple commands, should be made a part of the elementary school educational program.	3.63	1.84	0.747*
The main threat to basic Colombian institutions during this century has come from the infiltration of foreign ideas, doctrines and agitators.	3.72	1.91	0.737*
Present treatment of conscientious objectors, draft evaders and enemy aliens is too lenient and mollicoddling. If a person won't fight for his country, he deserves a lot worse than just prison or a work camp.	3.20	1.92	0.792*
In view of the present national emergency, it is highly important to limit responsible government jobs to native, white, Christian Colombians.	2.89	1.82	0.750*
Foreigners refugees may need them, but it would be a big mistake to lower your immigration quotas and allow them to flood the country.	3.84	1.97	0.737*
Colombia can never advance to the standards of living and civilization of the U.S., due mainly to the innate dirtiness, laziness and general backwardness of Colombian.	3.89	1.89	0.786*
F3. Ethnocentrism-Affectivereaction ($\alpha = 0.946$; CR = 0.955; AVE = 0.726)			
I love the services from Colombia.	4.77	1.39	0.753*
I am proud of the services from Colombia.	4.54	1.52	0.872*
I admire the services from Colombia.	4.51	1.47	0.844*
I feel attached to the services from Colombia	4.36	1.53	0.868*
I hate the services from foreign countries.	4.19	1.59	0.892*
I despise the services from foreign countries.	4.73	1.51	0.851*
I am embarrassed by the services from foreign countries.	4.44	1.69	0.879*
I feel no attachment with the services from foreign countries.	4.18	1.72	0.849*
F4. Ethnocentrism-Cognitivebias ($\alpha = 0.886$; CR = 0.909; AVE = 0.562)			
East or West, the services from Colombia are the best.	3.97	1.59	0.780*
Services from Colombia are examples of best workmanship.	4.19	1.66	0.802*
Service providers from Colombia have the best work attitudes.	4.34	1.49	0.737*
Products and services from foreign countries are no match for those from Colombia	3.53	1.72	0.755*
Colombia has the hardest working people in the services sector.	4.66	1.49	0.705*
Service providers from Colombia are more caring than those in any foreign country	3.99	1.44	0.810*
Services from Colombia are guaranteed for best performance.	4.11	1.37	0.845*
Colombia provides the most pleasant service experience.	4.31	1.66	0.801*
F5. Ethnocentrism-Behavioralpreference($\alpha = 0.889$; CR = 0.909; AVE = 0.556)			
For me, it's always the services from Colombia first, last and foremost.	4.15	1.71	0.770*
If I have a choice, I would prefer buying services from Colombia.	4.69	1.69	0.782*
I prefer being served by service providers from Colombia.	4.73	1.53	0.711*
As far as possible, I avoid buying services from foreign countries.	4.71	1.58	0.745*
I often refuse to buy service because it is from a foreign country.	3.53	1.65	0.743*
I would much rather not buy a product or service than buy one from a foreign country.	3.53	1.67	0.741*
It may cost me in the long run but I support services from Colombia.	3.95	1.71	0.799*
I will never regret buying a service from Colombia.	4.14	1.85	0.766*
F6. Conspicuous consumption-Materialistic hedonism ($\alpha = 0.856$; CR = 0.895; AVE = 0.631)			
People buy foreign services to enhance their image.	5.04	1.73	0.794*
People buy foreign services for uniqueness, to have services others do not own.	4.83	1.71	0.776*
People buy foreign services to be fashionable.	5.36	1.58	0.806*
By using foreign services people intend to please others.	4.64	1.69	0.802*
People using foreign services feel more important.	5.18	1.61	0.880*

(Continued)

TABLE 3 | Continued

Construct/Indicators	Mean	St.dev.	Loadings factor
F7. Conspicuous consumption-Communication of belonging to/dissociation from a group ($\alpha = 0.831$; CR = 0.889; AVE = 0.675)			
People want to have foreign services owned by their friends and colleagues.	3.98	1.80	0.910*
People want to have foreign services owned by their neighbors.	3.73	1.87	0.916*
People want foreign services owned by everybody.	3.61	1.87	0.867*
People buy foreign services to show off to be noted.	5.13	1.66	0.730*
F8. Conspicuous consumption-Social status demonstration ($\alpha = 0.834$; CR = 0.888; AVE = 0.729)			
Services from foreign are social status symbols.	4.94	1.79	0.709*
Services from foreign are a symbol of success and prestige.	4.53	1.79	0.909*
Services from foreign mean wealth.	4.17	1.89	0.934*
F9. Conspicuous consumption-Interpersonal mediation ($\alpha = 0.885$; CR = 0.921; AVE = 0.744)			
People using foreign services increase their own value from the point of view of others.	4.06	1.99	0.856*
People using foreign services are more attractive than others	3.38	2.00	0.867*
Use of foreign services allows popularity among friends and colleagues.	4.04	1.91	0.857*
Using foreign services induces respect from others.	3.29	1.89	0.869*
F10. Conspicuous consumption-Ostentation ($\alpha = 0.786$; CR = 0.903; AVE = 0.823)			
If people could afford it only foreign services would be bought	3.63	1.94	0.923*
People buy foreign services only because they are more expensive than Polish products.	3.65	1.90	0.891*
F11. Brand Loyalty ($\alpha = 0.914$; CR = 0.946; AVE = 0.853)			
I consider myself to be loyal to this café chain.	3.23	1.90	0.927*
The café chain would be my first choice.	3.31	1.99	0.924*
I am very likely to switch to another café chain brand that runs promotions.	3.46	1.94	0.919*

Source: Own compilation of the author; α , Cronbach's Alpha; CR, composite reliability; AVE, average variance extracted; * $p < 0.01$.

TABLE 4 | Measurement construct brand image.

Indicators	Mean	St.dev.	Weights	VIF	t	p-value
The location of café chain is suitable	5.32	1.39	-0.233	1.429	2.777	0.006
I can clearly distinguish the establishments of this café chain	5.38	1.53	-0.116	1.390	2.376	0.018
I tend to pay attention to the information they send me	4.33	1.74	0.132	1.364	1.988	0.047
This café chain's image fits my personality	4.43	1.71	0.166	1.446	2.243	0.025

Source: Author's own compilation.

the extracted variance analysis (AVE), and it is evident that first-order dimensions contribute statistically significantly to their corresponding second-order reflective constructs.

The Structural Model and Hypotheses Testing

After the validation of the measuring instrument, the estimation of the structural model was carried out, using the PLS technique and the Henseler (2017) bootstrapping procedure, with 5,000 subsamples. As can be seen in Table 7, the coefficients of the paths have been significant in all cases and, in the sense, indicated by the hypotheses, except in the relationship between family allocentrism and conspicuous consumption.

The importance-performance map (IPMA) analysis, also known as the "priority map," provides a valuable additional

analysis of the results obtained in the evaluation of the structural model, which contrasts the total effects (or importance) of the structural model and average score values of latent variables (or performance) to identify significant areas of improvement where business efforts should be concentrated (Hair et al., 2016), especially when these key spaces are of relatively high importance for the target variable but have a relatively low performance (Ringle and Sarstedt, 2016). The target variable in our case is brand loyalty. Based on the importance and performance averages, the map has been divided into four quadrants in which the latent variables are located according to their importance and performance.

The results provide managers with a guide for prioritizing business decision-making, with the aim of improving the different areas of interest in their organizations. According to

TABLE 5 | Discriminant validity.

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
F1	0.757	0.312	0.336	0.254	0.346	0.104	0.087	0.091	0.117	0.098	0.131	NA
F2	0.334	0.719	0.265	0.301	0.349	0.251	0.411	0.344	0.509	0.469	0.469	NA
F3	0.224	0.239	0.852	0.731	0.638	0.225	0.340	0.203	0.283	0.254	0.196	NA
F4	0.204	0.256	0.684	0.750	0.761	0.175	0.325	0.160	0.273	0.292	0.263	NA
F5	0.287	0.338	0.585	0.682	0.745	0.284	0.417	0.183	0.252	0.315	0.236	NA
F6	0.052	0.214	0.216	0.146	0.240	0.794	0.733	0.714	0.498	0.510	0.125	NA
F7	0.104	0.345	0.307	0.300	0.369	0.568	0.822	0.646	0.690	0.683	0.243	NA
F8	0.108	0.334	0.191	0.151	0.170	0.561	0.501	0.854	0.792	0.597	0.197	NA
F9	0.127	0.444	0.266	0.260	0.256	0.454	0.596	0.703	0.862	0.823	0.478	NA
F10	0.126	0.390	0.229	0.243	0.293	0.435	0.555	0.506	0.695	0.907	0.438	NA
F11	0.193	0.419	0.186	0.232	0.239	0.049	0.227	0.218	0.433	0.373	0.923	NA
F12	0.177	0.275	0.093	0.122	0.146	0.087	0.255	0.238	0.423	0.293	0.633	NA

Source: Own compilation of the author. On the diagonal: square root of the AVE values. Below the diagonal: correlations. Above the diagonal: HTMT values; NA, not applicable. F12 = image.

The values on the diagonal in bold represent the square root of the variance extracted. The values below the diagonal correspond to the estimated correlation between factors.

TABLE 6 | The measurement model of the second-order construct.

		Loadings dimension	α	CR	AVE
Ethnocentrism	SET-Affective reaction	0.859*	0.848	0.908	0.767
	SET-Cognitive bias	0.893*			
	SET-Behavioral preference	0.874*			
Conspicuous consumption	CC-Materialistic hedonism	0.766*	0.863	0.898	0.641
	CC-Communication of belonging to/dissociation from a group	0.792*			
	CC-Social status demonstration	0.797*			
	CC-Interpersonal mediation	0.901*			
	CC-Ostentation	0.829*			

Source: Own compilation of the author, α , Cronbach's alpha; CR, composite reliability; AVE, average variance extracted; * $p < 0.01$.

TABLE 7 | Structural model results.

Hypothesis and Relationship	Original Sample	t	p -value	Contrast
H1: Family allocentrism—Conspicuous consumption	0.059	0.613	0.540	Not accepted
H2: Ethnocentrism—Conspicuous consumption	0.241	4.168	0.000	Accepted
H3: Patriotism—Conspicuous consumption	0.393	6.760	0.000	Accepted
H4: Conspicuous consumption—Brand image	0.358	7.100	0.000	Accepted
H5: Conspicuous consumption—Brand loyalty	0.159	3.103	0.002	Accepted
H6: Brand image—Brand loyalty	0.578	12.691	0.000	Accepted

Source: Own compilation of the author. R^2 (conspicuous consumption) = 0.253; R^2 (image) = 0.128; R^2 (loyalty) = 0.426; Q^2 (conspicuous consumption) = 0.153; Q^2 (image) = 0.046; Q^2 (loyalty) = 0.356.

Ringle and Sarstedt (2016), when analyzing the significance-performance map, constructs located in the lower right area (i.e., above-average importance and below-average performance) are of greater interest in achieving improvement, followed by those in the upper-right area, lower-left area, and, finally, upper-left area. As can be seen in **Figure 2**, looking at the lower-right area of the importance-performance map, it is observed that the conspicuous consumption has a considerably greater importance (0.367) than the other variables, except the brand image.

These findings are in line with previous studies in this field such as those by Podoshen and Andrzejewski (2012); therefore, when managers aim to increase brand loyalty performance, their first priority should be to improve customer conspicuous consumption performance, as this construct has high (above average) importance, but a low (below average) performance. Second, with a total effect of 0.578, the importance of the brand image is particularly high. Thus, a one-unit increase in brand image performance would increase brand loyalty

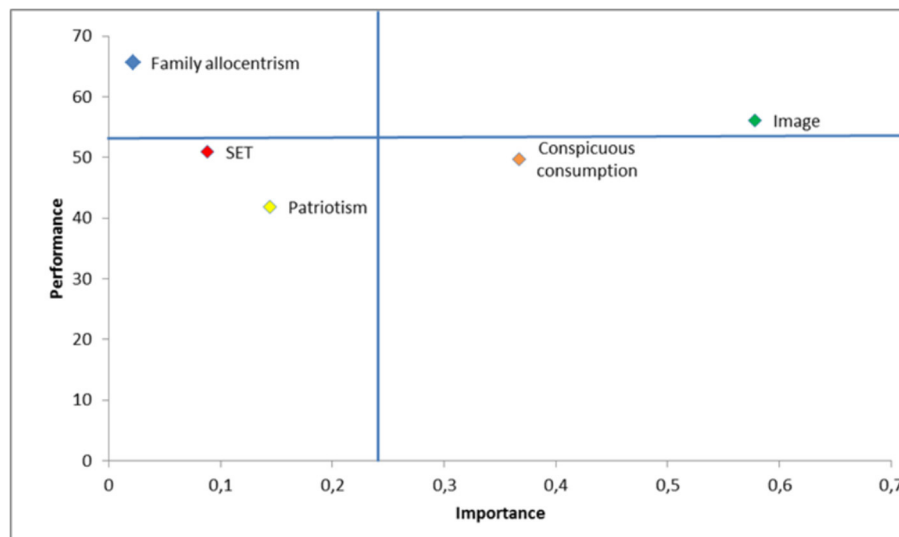


FIGURE 2 | Importance-performance map of the target construct loyalty. Source: Author's own compilation.

performance by 0.578 points (*ceteris paribus*). Third, our findings have revealed that ethnocentrism and patriotism have lower yields (51,979 and 41,879) and also below-average levels of importance (0.088 and 0.144), meaning that there is a great deal of room for improvement in these areas. Finally, the variable family allocentrism, by not having a significant effect on brand loyalty, should not capture the attention of managers in the organizations, since it is located in the lower business priority quadrant.

DISCUSSION, RESEARCH IMPLICATIONS, AND LIMITATIONS

Discussion and Theoretical Implications

This study has attempted to contribute to the scarce literature that exists between the possible positive relationship between conspicuous consumption and global brands that carry out sustainable practices in emerging markets. In this way, contributions are generated that will be of great value to the managers of global and conspicuous brands, who want their brands to contribute to economic, social, and environmental sustainability, both for the company and for society, in general.

The results show that there is no significant relationship between family allocentrism and conspicuous consumption. Initially, a positive and significant relationship between the two variables was proposed in the hypothesis (H1), but the results show that the relationship between the two is not significant. For this reason, we had to reject this hypothesis. This may be because conspicuous consumption is more common in individualistic societies than in collectivist societies, as individualists tend to have higher materialistic values in order to achieve their own individual goals, where their individual development is framed in a strong competition in search of personal success, where personal achievements are valued more than the social

relationships developed by a person (Wong, 1997; Arai and Pedlar, 2003).

Secondly, we were able to verify the positive and significant relationship between patriotism and conspicuous consumption, confirming previous studies by Eng and Bogaert (2010) and Semaan et al. (2019); thus, it can be concluded that patriotism in emerging countries like Colombia encourages conspicuous consumption, when these products or services are seen as part of that of the symbols of the national identity of that country.

Third, this study verifies the positive and significant relationship between consumer ethnocentrism in developing countries, with conspicuous consumption, based on previous studies by Karoui and Khemakhem (2019), Kavak and Gumusluoglu (2007), and Mai and Tambyah (2011); in this way, it can be observed that people in emerging markets, although they may be ethnocentric, when the purchase of foreign products generates social status, and, in addition, these products are part of the symbols of national identity, negative feelings toward them are not generated.

Fourth, this study confirms the positive and significant relationships between conspicuous consumption, brand image, and brand loyalty according to previous studies by Assimos et al. (2019), Li et al. (2019), Podoshen and Andrzejewski, 2012, and Palumbo and Herbig, 2000; in this way, we can say that conspicuous consumers usually have a very positive brand image of the brands they buy and that they generate this social status, and, for this reason, they have a brand loyalty toward them.

Finally, this research confirms the positive and significant relationship between brand image and brand loyalty, as did previous studies by Huang et al. (2020) and Bauer et al. (2008); in this way, we can say that the brand image is a precedent of brand loyalty.

Managerial Implications

This study has several implications for marketing managers who want their global and conspicuous brands to be able to generate sustainability strategies without losing the social status they generate for their consumers. We can conclude that conspicuous consumption should not always be negatively related to sustainability. In some cases, their consumption can even help popularize sustainable consumption. In the case of Starbucks as a global brand, in emerging markets, its consumption is considered conspicuous (Lin, 2012; Smith Maguire and Hu, 2013; Wu et al., 2019). In the specific case of Colombia, the price of its products is seven times higher than that of the products of the popular sectors, in addition because its strategy of entering the Colombian market was to position itself in this way in the mind of the consumer. In Colombia, Starbucks generates in its consumers notoriety that allows it to stand out socially, and that is why its customers are willing to pay higher prices than their close competitors. In this way, the values of globalization, social status, and economic success that the brand has are passed on to the people who buy it. On the other hand, Starbucks in Colombia continues in its communication and promotion strategy, frequently remembering that they are a sustainable brand.

They constantly state that the price they pay to the Colombian coffee growers is a “fair price,” and, for this reason, they pay a higher price for each sack of coffee, at the price established in the market by the National Federation of Coffee Growers of Colombia; that is to say that, thanks to them, Colombian coffee growers have better incomes and, therefore, a better quality of life.

They also often recall how they help the Colombian coffee growers in the training of environmentally friendly practices for coffee production, in addition to offering organic products, and encourage the use of reusable containers and waste recycling processes in their shops. On the other hand, through their support center for coffee growers in the city of Manizales, they support all Colombian producers who want it regardless of whether or not they sell their coffee to Starbucks, providing them with tools that allow them to reduce production costs and control the pests of their crops.

In this way, they have managed to position themselves in the mind of the consumers as a brand with sustainable processes that help society and the environment, but also continue to preserve their values of exclusivity and social status. In this way, the consumption of Starbucks turns out to be both sustainable and conspicuous consumption, since the people who buy their products contribute indirectly to social, environmental, and

economic sustainability, and, on the other hand, being a global and expensive brand, it generates ostentatious consumption that allows to excel socially.

LIMITATIONS AND FUTURE RESEARCH

To conclude, we propose some limitations of this study, which, at the same time, suggest future lines of research. The first is the geographical limitation of the sample, where we propose to analyze emerging markets from different continents in order to know if the cultural characteristics of each region influence the results. Similarly, researchers can replicate this study in developed countries to identify if the development of a country changes the perception of its consumers in these issues.

Second, ethnocentrism, family allocentrism, and patriotism in this study were antecedents of conspicuous consumption, so it would be interesting to analyze the direct relationship of these constructs to brand image and brand loyalty of global brands that practice sustainability in developing countries. Thirdly, this study was conducted with a multinational hedonic services company, and it would be interesting to know whether similar results would be presented with utilitarian goods.

Qualitative techniques could also be used to make views of consumers known directly and their adaptability to other industries. Finally, new variables could be included in the model such as the experience of consumption and the perception of consumers toward global brands after the COVID pandemic to see if, after the economic problems, the perception of it remains the same.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

JA-P: conceptualization, methodology, investigation, data curation, visualization, supervision, and project administration. JA-P and MM: software, validation, formal analysis, writing—original draft preparation, and writing—review and editing. Both authors have read and agreed to the published version of the manuscript.

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Accounting for Emotional Value: A Review in Disability Organizations

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The aim of this paper is to examine how disability organizations account for the emotional value they create for their stakeholders. Based on a review of the literature on emotional value measurement in third sector organizations working in the disability sector, we investigate to what extent emotional value is considered in their social accounting process and what type of value variables, indicators and proxies are used. The results reveal that the analysis of some quality of life domains provides appropriate evidence to represent the emotional value generated by these organizations but that there is a great dispersion in applied instruments and methodologies. The study improves the knowledge and understanding of existing approaches to capture the emotional component of social value creation and contributes to its standardization. Our analysis has implications for the management of disability organizations that can use social accounting to evaluate their performance and improve their effectiveness and efficiency, showing a more complete picture of the social value generated. Likewise, it can be an instrument to make the contribution and social benefits of these organizations visible in all their breadth, improving transparency and legitimacy.

Keywords: emotional value, social accounting, disability, emotional well-being, social impact, quality of life

INTRODUCTION

Social value measurement contributes to improve the management of non-profit organizations and social enterprises and has attracted the attention of researchers and social sector leaders, concerned with demonstrating the role of third sector entities in solving complex social problems, such as inequality, exclusion or poverty (Ebrahim and Rangan, 2010, 2014; Cordery and Sinclair, 2013; Luke et al., 2013; Millar and Hall, 2013; Arvidson and Lyon, 2014; Grieco et al., 2015; Corvo et al., 2021).

Compared to the use of other traditional performance measurement methodologies based on cost-effectiveness and cost-benefit analysis, the study of social value creation allows evaluating the transformative capacity of social organizations in all its breadth (Matthews, 2015). This value transcends the economic-financial market criteria of traditional financial statements (Mook et al., 2003; Richmond et al., 2003; Retolaza and San-Jose, 2021) and is essential to demonstrate the social contribution and progress toward the fulfillment of the mission of third sector entities (Sawhill and Williamson, 2001; Ebrahim and Rangan, 2014). Furthermore, in an environment of crisis and austerity, social value measurement can be a valid instrument of institutional legitimization for entities that are dependent on financial aid (Bagnoli and Megali, 2011; Luke et al., 2013; Mäkelä, 2021), justify the efficient use of the funds received

(Millar and Hall, 2013; Arvidson and Lyon, 2014; Ebrahim and Rangan, 2014; Mook et al., 2015; Lazkano and Beraza, 2019; Ruiz-Lozano et al., 2020) and help to improve the performance of social organizations (Ebrahim and Rangan, 2010, 2014; Gibbon and Dey, 2011; Cordery and Sinclair, 2013; Grieco et al., 2015; Mook et al., 2015). Particularly, in the field of organizations that work with people with disabilities, an important part of the social value is generated by its impact on improving the quality of life (QOL) and the emotional well-being of both service users and other stakeholders such as families, caregivers and staff (Owen et al., 2015).

However, although quality of life indicators are quite frequent in health economics studies (Edwards et al., 2013), and more specifically in areas such as disability (Jones et al., 2016; Moral Torres et al., 2020), so far there is no accepted model of emotional value accounting for disability organizations. This entails the risk of relegating the organizations' contribution to improving the emotional well-being of its stakeholders to the background or even render it "invisible" (Fuertes-Fuertes et al., 2020; Retolaza and San-Jose, 2021).

The problem is that the transfer of emotional value is difficult to quantify and monetize and thus limits the possibility of offering a complete vision of the benefits created by disability organizations (Grieco et al., 2015; Retolaza and San-Jose, 2021). To face this difficulty, studies are needed that present empirical evidence on the variables of the non-financial value generated and that allow consensus on standardized metrics, facing discretion in quantifications and allowing the generalization of the results (Arvidson and Lyon, 2014; Farr and Cressey, 2019; Jones et al., 2020; Retolaza and San-Jose, 2021).

The aim of this paper is to examine how disability organizations account for the emotional value they create for their stakeholders. Based on a review of the literature on emotional value measurement in third sector organizations working in the disability sector, we investigate to what extent emotional value is considered in their social accounting process and how it is addressed, i.e., which stakeholders are considered and what type of value variables, indicators and proxies are used. Thus, the study improves the knowledge and understanding of existing approaches to capture the emotional component of social value creation and contributes to its standardization.

The paper is structured as follows: after this introduction, the second section analyzes the contribution of social accounting to the value analysis and performance assessment of third sector entities in general. Section three highlights the importance of measuring emotional value for disability organizations and analyzes some contributions to the assessment of quality of life. Section four describes the methodology used and the fifth section describes the results of our study. Finally, section six discusses the results obtained and presents the main conclusions.

SOCIAL ACCOUNTING IN SOCIAL ORGANIZATIONS

Cost-effectiveness and cost-benefit analyzes have been frequently used by social entities to evaluate their interventions (Krliev et al.,

2013). However, these methodologies have been widely criticized for not being able to reflect the multitude of intangible benefits derived from the strong mission of social entities (Ebrahim and Rangan, 2010, 2014; Bagnoli and Megali, 2011; Gibbon and Dey, 2011; Arvidson et al., 2013; Grieco et al., 2015; Mäkelä, 2021). In addition, these methodologies do not have a holistic vision of that allows visualizing all the changes generated by the interventions, nor do they take into account the long-term effects (Edwards et al., 2013; Banke-Thomas et al., 2015). In short, cost-effectiveness and cost-benefit analyzes do not offer a complete vision of the value created by social organizations that helps them to understand what changes for stakeholders and how they can be able to improve their performance (Sawhill and Williamson, 2001; Ebrahim and Rangan, 2010, 2014; Cordery and Sinclair, 2013; Grieco et al., 2015; Mook et al., 2015).

Third sector organizations not only need to incorporate social benefits in their measurement systems, but also to evaluate compliance with the expectations of their stakeholders (Gibbon and Dey, 2011; Luke et al., 2013; Costa et al., 2014; Grieco et al., 2015; Mäkelä, 2021). This requires to analyze the social value creation in a context that differs from that of commercial companies operating in the market, and at different levels including individuals (beneficiaries, family members, employees and volunteers), organizations, community and wider society (Becker, 2001; Mook et al., 2003; Luke et al., 2013).

To analyze and evaluate the social value generated for stakeholders, organizations design social accounting systems (Richmond et al., 2003; Ayuso et al., 2020; Corvo et al., 2021; Retolaza and San-Jose, 2021). Richmond et al. (2003) define social accounting as "a systematic analysis of the effects of an organization on its communities of interest or stakeholders." This social accounting includes value transfers to stakeholders that do not originate in a market transaction, some of which have an emotional nature (Retolaza et al., 2016).

There are different proposals for the systematization of social accounting: social balance (Vaccari, 1997), common good balance (Felber, 2008), blended value accounting (Emerson, 2003), expanded value-added statement (Meek and Gray, 1988), integrated social value (Retolaza et al., 2016) or social return on investment (SROI) (Nicholls et al., 2009). However, despite the diversity of proposals, several authors have highlighted three essential aspects shared by social accounting systems: engagement and prioritization of stakeholders (Hall et al., 2015; Costa and Pesci, 2016), the search for evidence on the social value generated (Arvidson et al., 2013; Millar and Hall, 2013) and the quantification and monetization of social value (Mook et al., 2003; Richmond et al., 2003; Gibbon and Dey, 2011; Banke-Thomas et al., 2015).

In third sector organizations, social accounting must fulfill two major functions. On the one hand, it is a complex, dynamic, multidimensional and multi-stakeholder accounting system (Costa et al., 2014; Mäkelä, 2021) that holds a humanistic vision of the value created by the entity, in order to improve the well-being of people and face social challenges (Aguado et al., 2015). On the other hand, it must be an instrument that favors improvements in internal management (Ebrahim and Rangan, 2010, 2014; Gibbon and Dey, 2011; Ormiston, 2019;

Mäkelä, 2021) and organizational legitimacy (Gibbon and Dey, 2011; Luke et al., 2013; Lazkano and Beraza, 2019; Retolaza and San-Jose, 2021). In addition, Mäkelä (2021) argues that the social accounting of these entities should be an instrument for socialization, and not a purely organizational phenomenon that responds to pressures from funders.

These objectives can be addressed in different ways when approaching the social accounting process (Brown and Dillard, 2015; Mäkelä, 2021), generating different theoretical paradigms regarding the evaluation of interventions and the measurement of social value (Edwards et al., 2013). On the one hand, it is necessary to develop an opening-up process that emphasizes stakeholder participation and engagement, since their testimony confers credibility and rigor to the measurements. Stakeholders acquire a leading role in social accounting, which becomes a dialogical and narrative instrument. On the other hand, a more technical-rational approach maintains a closing-down approach where performance measurement, accountability, transparency and control become important objectives of the accounting system (Ormiston, 2019). Both paradigms are complementary and necessary for social accounting to meet its objectives.

Another issue related to the social accounting of non-profits and social sector entities is its relevance from a public value perspective, in a context of public policy reforms (Millar and Hall, 2013). Measuring the social value of non-profit entities makes it possible to legitimize the allocation of public resources and the grants-in-aid (Matthews, 2015), and is useful when analyzing the impacts of public policies in areas such as disability (Farr and Cressey, 2019). Social value measurement reveals which organizations are the ones that contribute more effectively and efficiently to create public value (Fuertes-Fuertes et al., 2020).

Ormiston (2019) concludes that there are multiple rationalities in the social value literature. The multifaceted nature of social value and its study from different approaches has turned it in an interdisciplinary issue whose benefits can be highlighted from different organizational functions. Furthermore, the existence of an emotional component as part of the social value generated by organizations requires its study in transdisciplinary terms. However, despite the weight of emotional factors in creating social value, there are still few studies that have analyzed the role of emotional value in improving the management of organizations, or that link the social accounting of third sector entities with other disciplines such as psychology or mental health.

The lack of consensus on how to measure the social value generated by third sector organizations (Arvidson and Lyon, 2014), together with the absence of studies that allow systematically to assess emotional value, has led us to consider the need to investigate the mechanisms for the recognition of this value. Specifically, we will focus on the sector of disability organizations, as this area has attracted a good deal of research on social impacts (Krlev et al., 2013). In addition, it is a sector that works to improve the quality of life of people, so the emotional component is part of its social mission and has an important weight in its interventions.

SOCIAL ACCOUNTING AND EMOTIONAL WELL-BEING IN DISABILITY ORGANIZATIONS

The concept of emotional value differs depending on the type of organization. In commercial firms, the dimensions of emotional value could be related to the consumers perspective in their market transactions, and could be quantified applying methodologies from the field of service quality, or to the fulfillment of workers' labor expectations and their commitment to the company (Ruiz-Roqueñi, 2020). However, for non-profit organizations, especially those that work with groups of disadvantaged people such as the disabled, emotional value is associated with improvements in the quality of life and the well-being, as well as with the consolidation of public collective values such as equality, inclusion or dignity (Aguado et al., 2015; Farr and Cressey, 2019). Since these issues are related to the fulfillment of the mission of nonprofit organizations, it is essential that they are reflected in its social accounting model (Akingbola et al., 2015). However, it is not easy to account for these values (Edwards et al., 2013; Millar and Hall, 2013; Banke-Thomas et al., 2015; Willis et al., 2018; Ashton et al., 2020).

In organizations in the disability sector, emotional value is created in multiple ways: taking care of the physical and mental health of its beneficiaries, improving their social relationships, guiding families and freeing up time for leisure and rest, or creating employment opportunities for users and their families (Owen et al., 2015; Jones et al., 2020; Barba-Sánchez et al., 2021). For the people who work in these organizations there is also an emotional plus due to the satisfaction of being able to help people in need. At the community level, emotional value is related to awareness and sensitization of the problems associated with disability, and also with the change in attitude of society toward disabled people (Owen et al., 2015; Farr and Cressey, 2019).

From a social accounting perspective, this value could be used for multiple purposes in the management of organizations in the disability sector, including setting strategies (Schalock et al., 2018), improving effectiveness and efficiency (Edwards et al., 2013; Golics et al., 2013; Owen et al., 2015; Onyx et al., 2018; Jones et al., 2020), continuous improvement of intervention programs (Van Loon et al., 2013; Willis et al., 2018), project evaluation and the choice of alternatives (Onyx et al., 2018; Willis et al., 2018; Hutchinson et al., 2020), internal and external communication (Shaw, 2018), or justification of the funds received (Akingbola et al., 2015; Owen et al., 2015; Farr and Cressey, 2019; Jones et al., 2020; Ruiz-Lozano et al., 2020).

The construction of a social accounting model that integrates emotional value begins with the identification of the value variables for each stakeholder (Retolaza et al., 2015). The main stakeholders of a disability organization are its users who participate and benefit from the interventions and programs and experience improvements in their quality of life. Among the most relevant scientific works in the conceptualization and measurement of quality of life we find those of Schalock and Verdugo (2002) and Schalock et al. (2008). They propose a multidimensional model of quality of

life that could serve as a starting point in the delimitation of the corresponding value variables. Their model is structured around eight dimensions, grouped into three factors: (a) independence: personal development, self-determination, (b) social participation: interpersonal relations, social inclusion, rights, and (c) well-being: emotional well-being, physical well-being, material well-being.

The emotional well-being is associated with the psychological aspects of the person and is related to positive feelings such as self-acceptance, empathy, autonomy, purpose in life or personal growth (Ryff and Keyes, 1995). Emotional well-being is thus differentiated from well-being arising from the individual's state of health and from well-being providing the necessary means to lead a dignified life, although there are obvious links between all these well-being dimensions. Accordingly, for disability organizations to improve people's emotional well-being, it is not enough with a welfare model that prolongs people's life expectancy (Jones et al., 2020), or that is focused only in improving their physical and mental state and the coverage of basic needs (Ashton et al., 2020). Overcoming this neoclassical approach, it is necessary for these organizations to act in other quality of life domains, such as those related to security, trust and the affective environment. The development of individual and collective capacities constitutes an effective strategy for this (Edwards et al., 2015). Regarding individual capacities, it will be necessary to promote social skills in order to improve interpersonal relationships, in addition to reinforcing the skills needed to be able to lead an autonomous life. These improvements are achieved through programs that promote employability (e.g., Owen et al., 2015; Jones et al., 2020), entrepreneurial competences (e.g., Barba-Sánchez et al., 2019, 2021; Ortiz García and Olaz Capitán, 2021), learning (e.g., Shaw, 2018), or participation in artistic, cultural or recreational activities (e.g., Onyx et al., 2018; Bosco et al., 2019). Regarding collective capacities, it will be necessary to consider issues related to equity (Ashton et al., 2020) and dignity (Aguado et al., 2015), and to sensitize society about social problems (Edwards et al., 2015).

In conclusion, emotional value variables would be linked to psychological aspects of the person's well-being (independence, confidence, self-esteem, etc.) conditioned, on the one hand, by their health situation and the satisfaction of their basic needs, and on the other hand, by the state of their social and family relationships. In addition, emotional value would be influenced by the improvement of skills and capabilities that allow people with disabilities to achieve full integration. **Figure 1** illustrates this relationship between the quality of life dimensions proposed by Schalock and Verdugo (2002) and how they are influenced by the diverse support services offered by disability organizations.

However, disabled users or participants or organizational interventions and programs are not the only stakeholders experiencing effects on their emotional well-being. Since social accounting is a multi-stakeholder accounting system, it should consider the changes experienced by an array of groups that interact with users/participants, starting with their family members and caregivers, and continuing with the workers of the different organizations involved in the interventions and

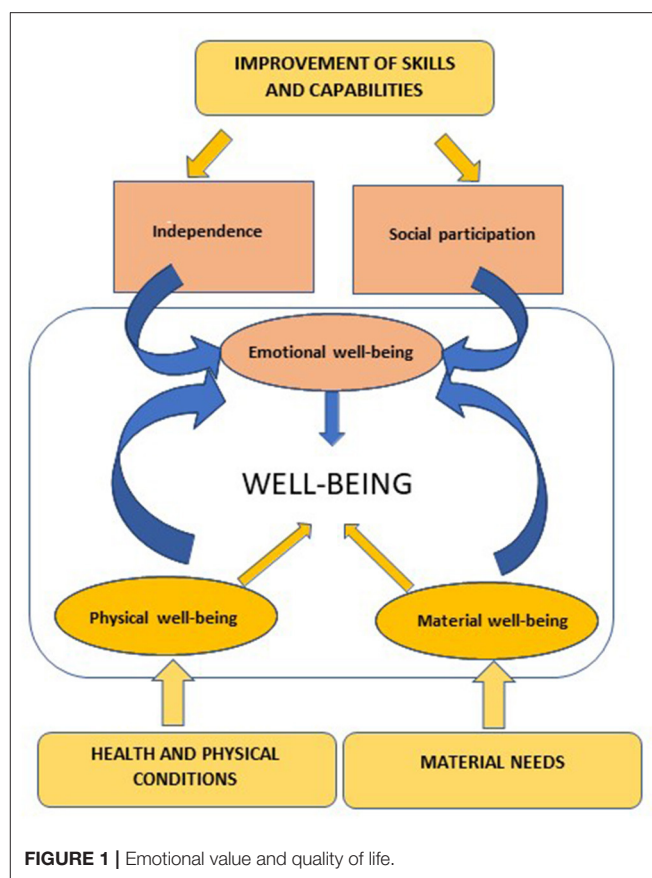


FIGURE 1 | Emotional value and quality of life.

programs, or even citizens with whom they may share different activities. In this sense, the identification of the value variables of emotional well-being from the point of view of the beneficiary would be complemented with an organizational and community perspective (Schalock et al., 2011).

One of the main problems of measuring social value that also applies to disability organizations is the search for evidence for its recognition and quantification (Arvidson et al., 2013; Millar and Hall, 2013). Due to its intangible nature, the measurement of well-being requires indicators based on a subjective assessment by the individual (Ruiz-Roqueñi, 2020). However, in the field of disability, there is a great diversity of questionnaires and standardized quality of life scales that help to measure emotional value variables (Townsend-White et al., 2012). These scales have traditionally been used to design individualized intervention plans for social entities that work in the field of disability (Schalock et al., 2008), and thus enjoy considerable consensus in the field of psychology. One of the most widely used questionnaires is the Quality of Life Questionnaire (QOL-Q), which has been validated in numerous studies (e.g., Schalock et al., 2005).

This measurement approach seems potentially interesting for capturing the emotional value in disability organizations. Indicator items associated with each quality of life domain are used to assess either the person's perceived well-being on the

item (“self-report”) or an objective indication of the person’s life experiences and circumstances (“direct observation”) (Schalock et al., 2008; Van Loon et al., 2013). These indicators not only allow to make a clinical diagnosis that determines the most appropriate medical treatment for each individual, but also establish his or her subjective well-being (Diener et al., 1999), when evaluating other aspects such as life satisfaction, positive effects (e.g., happiness) and the absence of negative effects (e.g., sadness/worry).

Finally, a common challenge in social accounting is how to monetize the identified and quantified value in the absence of market references. Traditionally, social value monetization techniques have been based on the preference based valuation approaches that use market prices proxies (revealed preference methods), or surveys to ask individuals their willingness to pay (stated preference methods). However, these preferences are not always consistent and reliable in behavioral and emotional economics studies (Fujiwara, 2014). Instead, Fujiwara (2014) proposes the use of methodologies to measure welfare, life satisfaction and happiness based on well-being valuation. This well-being valuation approach estimates the impact of the good or service and income on people’s subjective well-being and uses these estimates to calculate the exact amount of money that would produce the equivalent impact on well-being. Some other useful measurement tools from the point of view of public health economics as the quality adjusted life years (QALYs), the disability adjusted life years (DALYs), the healthy life-years gained, the caregivers CAREQOL or the EuroQOL can also be relevant in the field of disability (Edwards et al., 2013).

METHODS

To identify the most relevant studies that analyze the emotional value generated by third sector organizations working in the disability sector, we conducted a systematic review of the academic literature in the field. Our literature review followed a PRISMA approach (Moher et al., 2015) to identify the relevant items to carry out the review and define the eligibility criteria for selecting the studies. Since previous literature reviews of social value studies have identified a relatively small number of studies from academic journals (e.g., Banke-Thomas et al., 2015; Hutchinson et al., 2018), we have extended our review to gray literature to search for available reports from disability organizations that have applied social accounting processes.

Search Strategy

The search was comprised of two main steps: first we identified academic peer-reviewed articles, and second, gray literature reports. For peer-reviewed articles, we searched Web of Science, Scopus, PubMed and MedLine databases in February 2021. Terms used were “disabilit* AND social accounting,” “disabilit* AND social value,” “disabilit* AND social impact,” “disabilit* AND social return on investment,” and “disabilit* AND SROI.” These search terms were applied to the title, abstract and keywords fields. All searches were repeated replacing the term “disabilit*” with “mental*.” We searched for articles published in English from 2010 onward, which is when studies on social value and impact measurement started to gain importance (Krlev et al.,

2013). Once the repetitions were eliminated, we obtained a total of 185 academic papers were obtained.

For gray literature, we searched on the website of Social Value UK (<https://socialvalueuk.org>) whose database has been considered one of the best repositories of reports on social value analysis in third sector organizations (Hutchinson et al., 2018). In April 2021 we found 45 reports classified within the topic “disability” in the search engine of its website.

Two researchers independently conducted the search and reviewed all retrieved records. Studies identified through the searches were screened by reading the abstracts or executive summaries. Agreement was reached regarding the final eligibility based on the set inclusion and exclusion criteria.

Inclusion and Exclusion Criteria

We included peer-reviewed and gray literature studies that dealt with emotional value measurement in disability organizations. We included only studies dealing explicitly with disability. Thus, studies related to the loneliness of the elderly or the treatment of addictions were discarded, although these problems could be the cause of some disabilities.

Regarding the type of activity carried out by the organizations, we incorporated both entities directly dedicated to improving the health of disabled people, as well as those that perform activities that indirectly affect the welfare of the disabled. For example, we included studies that analyze the impacts generated by social entities dedicated to improving employment opportunities or artistic activities.

Nevertheless, we excluded all those studies that were not related to the management of organizations in the disability sector, such as studies that analyzed clinical aspects, treatment of diseases associated with disability, validation of measurement scales of quality of life and public health. Likewise, we discarded all those papers and reports that focused on the study of health economics, health costs or economic impacts of public and private health interventions. Finally, we excluded all articles that were merely theoretical or conceptual.

In the case of the disability-related reports from the Social Value UK database, we included only those reports that described in detail the steps undertaken to measure emotional components of social value and excluded all publications that were only summaries of more extensive reports, and all documents that were not available in English.

After this process, we finally identified a total of 29 studies related to the aim of our study: 10 academic papers and 19 reports from the Social Value UK database. The studies are listed in the **Appendix** with consecutive numbers from 1 to 29.

Data Extraction and Synthesis

We extracted information from each study and classified data in two pre-developed summary tables. The first one captured the basic study characteristics such as type of organizational activity, type of disability addressed by the organization, reference year(s) for conducted social value measurement, method used for social value measurement, stakeholders included in study, purpose of the study from the organizational perspective, stated organizational learnings and reported limitations. The second

TABLE 1 | Disability organizations' stakeholders that receive social value.

Stakeholder	Description
Users/participants	People with disabilities who are targeted by the organizational interventions and programs and who are their direct beneficiaries
Families/carers	Family members and professional carers who provide care to users/participants and whose relationship will change due to the activities undertaken by the organization
Staff	Employees of organizations that implement interventions and programs for people with disabilities or provide support, both in capabilities development and employability
Volunteers	Persons who support and enhance the service delivered by the organization on a voluntary basis
Community/society	Citizens with whom the rest of the stakeholders interact or who sporadically participate in the organization's activities
Institutions/companies/organizations	Public and private entities that implement interventions and programs, provide support, provide funds or are clients

summary table was aimed at recording the information about the prominent elements in the social value measurement process and included type of emotional outcomes (value variables) identified, type of indicators used, type of financial proxies used, type of adjustment factors used (deadweight, displacement, attribution and drop-off) and performance of a sensitivity analysis.

Afterwards, in order to classify the emotional value variables, indicators and proxies found in the different studies, we built categories in an iterative process. The findings are summarized in **Tables 1, 2** in the next section.

RESULTS

The reviewed studies identify a series of stakeholders that receive social value from the organization's activity. **Table 1** lists the stakeholders most commonly analyzed in the studies and summarizes their relationship with the disability organization. Besides users or participants with disabilities, studies include in their assessments families and caregivers, staff from different organizations, volunteers, local community or wider society, and institutions, companies or other organizations that actively contribute to the improvement of skills and capabilities of the disabled.

In general, most of the disability organizations analyzed collect information on the created social value by addressing directly their stakeholders through interviews, focus groups or *ad hoc* questionnaires. The use of these consultation methods is due to the need to identify and quantify the social value based on the perceptions of the stakeholders involved. It also responds to the convenience of reflecting different views on the complex problems associated with disability. All the analyzed cases follow a participatory approach that favors stakeholder engagement, where the narrative about the value sources provides the necessary rigor to confer credibility to the results (Ruiz-Lozano

et al., 2020). In some studies, stakeholder participation facilitates the identification of the priority issues that add the most value or are of most concern, as well as the materiality analysis of the value variables, based on their significance or occurrence probability. However, despite the richness that this participatory process provides, it involves a significant consumption of resources. As a consequence, though all the studies recognize a wide diversity of affected stakeholders, there are few cases which report interaction with all of them.

Regarding the identification of the variables of the social value generated by disability organizations, the results of the review reflect the multidimensional and holistic nature of this value, by incorporating issues related to health, psychology, ethics, education, economy or internal management of organizations. We find value variables related to all dimensions of well-being: improving health, covering basic needs, improving skills and capabilities and diverse emotional aspects. However, while some important components of the individual's well-being such as health and care, the coverage of basic material needs and the improvement of skills and capabilities, are easy to measure in an objective manner (Van Loon et al., 2013), the emotional component has a purely subjective character as it is conditioned by the perception of each individual, which undoubtedly hinders its standardization.

This fact is not an obstacle that all the studies analyzed, reflect in some way this emotional component of the change induced by the organizational intervention, separately from the other dimensions of well-being and, with a considerable weight in the final sum of social value (see **Table 2**). The detailed analysis of the value variables incorporated in the reviewed studies allows us to affirm that there is considerable consensus regarding the recognition of the aspects that foster emotional well-being in disabled people. These impacts can be grouped into two categories. On the one hand, the contribution of the organization to the creation of positive feelings in the individual such as self-esteem or independence. On the other, the effects on the affective environment and the improvement in family and social relationships.

While all of the studies consider the impacts on the quality of life and the needs of people with disabilities, to a lesser extent they identify an improvement of emotional well-being for family members and caregivers and volunteers, perhaps because it has a lower relative weight in the set of social value created in the final sum of social value. Few studies analyze the impacts on the staff from different types of health and care organizations that participate in the interventions and programs for the disabled. For a part of these workers, knowing that they are involved in projects that directly contribute to improving the living conditions of people with disabilities provides significant emotional value for them. At the same time, one of the main activities of disability organizations consists in labor integration, which causes important impacts on the personnel of the companies that host or employ persons with disabilities. Both the impact on the personnel of these companies and their clients is usually left out in the studies.

Less frequent in the studies is the impact on the community and its contribution to values such as inclusion or equality.

TABLE 2 | Elements of emotional value measurement.

Stakeholder	Valued outcome	Reference studies	Type of indicators used	Type of financial proxies used
Users/Participants	Feeling more independent/control over their life/self-determination	2, 3, 6, 8, 9, 11, 13, 15, 16, 17, 20, 21, 22, 24, 25, 28	Self-reported level of perceived change (13, 20, 22, 24, 25); increased participation in domestic life and traveling (2, 9, 11, 24); change in DEMQOL Q13 (16)	Cost of counseling sessions or courses to develop personal autonomy (1, 28); cost of renting a one bedroom flat (13); cost of a life insurance payout (15); cost of a special education technical assistant (25); cost of additional living expenses (9); feel in control: HACT Social Value Bank (16)
	Increase in confidence	1, 3, 8, 9, 15, 16, 17, 18, 20, 21, 22, 23	Self-reported level of perceived change (8, 17, 20, 22); change in DEMQOL Q5 (16)	Cost of confidence building course (8, 15); cost of therapy (1); HACT social value bank: high confidence (16)
	Increase in self-esteem	1, 8, 13, 15, 16, 18, 21, 22, 27	Self-reported level of perceived change (1, 8, 13, 22); change in DEMQOL Q5 (16)	Cost of counseling sessions or self-esteem building course (1, 6, 8, 27); HACT social value bank: high confidence (16)
	Self-regulation of behaviors	17, 25, 26	Self-reported level of perceived change (17, 25)	Cost of counseling sessions (17, 25)
	Improvement in family/social relations and decrease in feeling isolated	1, 2, 7, 8, 9, 11, 13, 15, 16, 17, 20, 21, 22, 23, 24, 26, 28, 29	Self-reported level of perceived change (13, 16, 24); new contacts and social network participation (2, 8, 11, 17, 21, 22); assessment using loneliness scale (11)	Cost of attending day support and recreation programs (9, 13, 24, 28); cost of depression treatment (29); HACT Social Value Bank: feel belonging to neighborhood (16)
	Improvement in purpose and life satisfaction/Feeling happy	4, 8, 9, 11	Self-reported level of perceived improvement in life satisfaction (8, 9, 11)	Health-Adjusted Life Years metrics: QALYs or Disability-Adjusted Life Years (DALY) or Value of Statistical Life Year (VOSLY) (4, 9); cost of counseling sessions (8, 9)
	Feelings of dignity, respect, involvement, inclusion	6, 7, 11, 15, 20, 28	Self-reported level of perceived change (6, 28); index of community involvement (11)	Value of a donation (6); cost of diversity and disability awareness training (15, 28)
Families/carers	Reduction in worry, stress and/or anxiety	3, 5, 8, 9, 11, 13, 14, 19, 24, 26, 27, 28, 29	Self-reported level of perceived change (3, 8, 9, 13, 14, 19, 24, 26, 27, 28, 29); data from the literature about decreased probability of suffering mental health issues (5); assessment using General Health Questionnaire (EQ-5D) (11)	Cost of physical and mental treatment services to achieve the same effect (3, 8, 9, 14, 24, 26, 27, 28); cost of medical services saved (5, 13, 29)
	Improvement in family relationships	3, 9, 10, 13, 17, 19, 21, 22, 25, 27, 28	Self-reported level of perceived change (3, 9, 10, 13, 17, 19, 21, 22, 25, 27, 28)	Cost of counseling sessions or courses to recover a family relationship (3, 9, 10, 21, 25); cost of doctor visits saved (10); partial cost of bringing up a child (19); average family spend on social activities, recreation, culture or holidays (13, 17, 27, 28)
	Improvement in social life	3, 9, 16	Self-reported level of perceived change (3, 9); use of validated scales (31-item DEMQOL-proxy, 19-item Approaches to Dementia questionnaire) (16)	Cost of home care (3); cost for a gym membership (9); HACT Social Value Bank: feel belonging to neighborhood (16)
	Change in attitude toward disability	16, 28	Self-reported level of perceived change (28); use of validated scales (31-item DEMQOL-proxy, 19-item Approaches to Dementia questionnaire) (16)	Cost of (disability awareness) training (16, 28)
Staff	Awareness of rights and potential of people with disabilities	3, 9, 8	Self-reported level of perceived change (3, 8, 9)	Cost of disability awareness training (8)
	Increase in confidence/morale	8, 9	Self-reported level of perceived change (8, 9)	Cost of confidence building course (8, 9); organizational costs (9)
	Increase in satisfaction and self-esteem	8, 9, 17, 22	Self-reported level of perceived change (22); reduction in number of sickness hours (8)	Cost of sickness absence (8); willingness to contribute to a similar charitable program (22)
Volunteers	Increase in confidence and self-esteem	2, 9, 17, 21	Self-reported level of perceived change (2, 9, 17, 21); reduction in number of doctor visits (2)	Cost of physical and mental treatment services to achieve the same effect (2, 21); cost of time and transport (2); cost to volunteer abroad (17); contingent valuation (9)

(Continued)

TABLE 2 | Continued

Stakeholder	Valued outcome	Reference studies	Type of indicators used	Type of financial proxies used
Community/society	Feeling engaged and contributing to society	6, 21, 25, 29	Self-reported level of perceived change (21); number of (additional) volunteering hours (6, 25, 29)	Value of hours of service offered (6); cost of an equivalent professional (25); cost to volunteer abroad (21); value of job satisfaction according to Global Value Exchange (29)
	More involvement in society	2, 6, 25	Self-reported level of perceived change (2, 25); return of their time input (6)	Cost of a similar activity (25); increase in spending on recreation (2); multiplier of value of time inputted (6)
	Change in attitude toward disability	25	Self-reported level of perceived change (25)	Cost of disability awareness training (25)
	More positive interaction with people with disabilities	9	Self-reported level of perceived change (9)	Cost of course or lecture (9)
Institutions/ companies/ organizations	The emotional outcomes related to institutions or organizations have been assigned to the corresponding staff.			

In some cases, the contribution to community well-being is recognized thanks to the improvement of the understanding of the problems associated with disability and by generating a greater commitment to these people, although at this level it is still necessary to advance in the recognition of the value variables.

With regard to the indicators used to quantify emotional value, the existence of different dimensions of quality of life, coming from different fields of knowledge, would justify the use in social accounting of tools from other disciplines, such as quality of life and life satisfaction questionnaires. These instruments offer the opportunity to measure emotional value with standardized scales that have already been validated. However, the results show that the use of this type of questionnaires is not widespread in the field of social accounting and that organizations prefer the use of surveys in which the subject declares his or her self-perception about the change experienced (Table 2). Surprisingly, standardized indices and scales from the fields of psychology or health are rarely used.

The measurement of emotional value from indicators on the self-reported level of perceived change is the norm among the studies analyzed. In some instances, the measurements are made in terms of improvement in the abilities to carry out certain daily activities such as traveling or shopping. The improvement in social relationships is measured, for example, by the number of new contacts or participation in social networks or by the cost of participation in recreation programs.

Finally, the proxies used for the monetization of the emotional value reflects an enormous dispersion (Table 2). First, many studies use proxies related to the cost of providing a similar service to that offered by the disability organization. These services mainly refer to psychological support and therapy, or participation in self-help courses that would achieve an equivalent effect on emotional well-being as the organizational activity. In the case of improving social relationships, common proxies are related to the cost of recreational programs or programs that favor the socialization of individuals. Second, some organizations have taken advantage of the existence of

standardized proxy data bases such as HACT Social Value Bank or Global Value Exchange. Values from the field of health economics such as the Health-Adjusted Life Years (QALYs) or Disability-Adjusted Life Years (DALY) are rarely used.

DISCUSSION AND CONCLUSIONS

The review of studies on social accounting of disability organizations reveals that these organizations attach great importance to emotional value when designing their accounting systems. All studies have identified emotional value variables and have linked them to the self-esteem, autonomy, trust and improvement of social relationships, although sometimes these variables are difficult to delimit, and are grouped differently and under diverse names. According to Millar and Hall (2013), these “soft” outcomes characterize the value generated by health and social care organizations, which is why organizations are striving to incorporate them into their social accounting. Furthermore, as suggested by other authors such as Golics et al. (2013), Owen et al. (2015), Farr and Cressey (2019), and Jones et al. (2020), organizations extend these impacts to other stakeholders that are related to people with disabilities as well as to the community, and do not limit themselves to analyze effects on direct beneficiaries.

The results reveal that the analysis of some quality of life domains provides appropriate evidence to represent the emotional value generated by these organizations, and offers a holistic and understandable view of the individual's well-being, as Van Loon et al. (2013) already suggested. In comparison with an emotional value measuring system based on global perceptions of consumer in their market transactions, as might be expected in a commercial company (Lazkano and Beraza, 2019; Ruiz-Roqueñi, 2020), our results show that, in disability organizations emotional value is related to personal well-being and collective values, and goes beyond the mere state of the individual's health or the coverage of their basic needs (Ashton et al., 2020; Jones et al., 2020).

The analysis shows that the processes for determining the elements of the social accounting systems of these organizations have required stakeholder engagement, whose identification and participation is an essential requirement to give legitimacy to the analysis (Arenas et al., 2015; Ruiz-Lozano et al., 2020). However, this dialogue-based and deductive process should be accompanied by mechanisms that allow validating whether the variables and their quantification accurately reflect the stakeholders' perceptions about the impacts they have received. This would help to partially alleviate accusations of arbitrariness in the recognition and quantification of value variables (Millar and Hall, 2013). Furthermore, Banke-Thomas et al. (2015) suggest that in order to better reflect the complexity of social changes, stakeholders' discourse could be accompanied by the theory of change that underlies the interventions, to make more visible the links between social change dimensions and the causal relationships between the value variables. In some of the reviewed studies we have found that this reflection process has been carried out and documented.

Since social accounting is a costly process (Owen et al., 2015), some authors such as Gibbon and Dey (2011), Krlev et al. (2013), and Bosco et al. (2019) refer to the need to perform a materiality analysis of the issues that are relevant for stakeholders. This allows identifying the most significant value variables, to focus efforts on them and maximize performance. Nevertheless, this type of analysis is rare among the cases analyzed since they apparently trust that the stakeholders' report accurately reflects their priorities.

Emotional value measurement has been based on qualitative methodologies that build on the perception of the changes generated and on the fair value that stakeholders attribute to them. However, the lack of homogeneity in the measurements shows that we are still very far from the necessary standardization to guarantee the generalization and comparison of the results (Shaw, 2018; Jones et al., 2020; Ruiz-Lozano et al., 2020). This limitation is due to subjectivity in perceptions and the use of self-reported attributions to measure emotional value, conditioned by the environment and the moment in which the measurement is conducted (Farr and Cressey, 2019). The use of these measurements makes it possible to make a diagnosis of the conditions in which the subject finds himself or herself based on his or her own self-perception. However, they do not necessarily reflect the emotional value generated by the organization (Fuertes-Fuertes et al., 2020; Jones et al., 2020). For this reason, in most of the cases analyzed, the value is measured in terms of improvements or advances in people's well-being, through the use of indicators such as the self-perceived level of change.

Van Loon et al. (2013) state that another important limitation in the use of self-perception indicators is that the perception of the subjects is conditioned by personal, cultural and environmental factors. To face this limitation, many of the reviewed studies have incorporated in their social accounting counterfactual analyzes and adjustment factors that try to delimit what part of the change is attributable to the intervention of the organization and is not due to other factors unrelated to its activity.

Although some authors have suggested the use of indicators that are specific from the field of health economics to measure social value objectively, such as disability adjusted life years (DALYs) (Edwards et al., 2013), we have found few studies that use this type of indicators. Neither have we observed many studies that use standardized scales of quality of life measurement and emotional well-being as suggested by Schalock and Verdugo (2002), despite their wide recognition in the field of psychology and mental health. Generally, these measures have been incorporated into welfare economic models to evaluate the cost-effectiveness of psychosocial interventions, trying to maximize their usefulness for as many people as possible, without being the best metrics to represent non-health benefits (Jones et al., 2020). Nevertheless, according to Owen et al. (2015) open dialogue with stakeholders shows their experiences and the changes in their lives better than the use of standardized questionnaires, which would explain its little uptake by organizations.

Regarding the use of proxies that allow the monetization of the quantified value, according to Akingbola et al. (2015) social organizations often follow a commercial logic rather than a non-profit logic and value the benefits using revealed preference methods based in market prices. In some cases, these types of proxies have been used in the reviewed studies (e.g., cost of renting a one bedroom flat or cost of a life insurance payout). However, the proxies that are more commonly applied are in line with Fujiwara (2014) proposal and generally refer to the amount of money that would produce an equivalent effect through psychological care or therapy services, for example.

Our results corroborate the use of SROI as the main methodology in the field of social accounting. Corvo et al. (2021) conclude that of the 98 impact assessment models identified in the literature, SROI is the most widely used compared to other models coming from performance and management systems. Furthermore, the SROI methodology has emerged as a preferred technique for measuring social value and impact in the field of health and care services (Krlev et al., 2013), since some organizations such as the UK Department of Health have been promoting its application in social accounting for more than a decade (Millar and Hall, 2013; Banke-Thomas et al., 2015; Ashton et al., 2020; Corvo et al., 2021). However, this is not surprising since we collected the analyzed reports from the Social Value UK database, which could lead to a biased result.

The conducted analysis has revealed the difficulty in measuring the emotional value of disability organizations, given its subjective, intangible and multidisciplinary nature. However, there is considerable consensus regarding the need to recognize emotional well-being as part of social accounting, moving from a financial accounting system focused on inputs and tangible benefits to a social accounting model aligned with the components of the outcome (Van Loon et al., 2013).

The dispersion of instruments and methodologies suggest the need to harmonize the measurements to improve the comparability and credibility of the analysis. This study contributes to identifying some of the most common practices among disability organizations that could be the basis of a framework for the development of a common methodology

applicable to the disability sector. The relevance of the use of social accounting methodologies for disability organizations is clear from the fact that studies affirm their importance not only in setting strategies and selecting alternatives, but also in improving effectiveness and efficiency and in the internal and external communication, coinciding with conclusions reached by Schalock et al. (2008).

Our study has implications for the management of disability organizations that can use social accounting to evaluate their performance and improve their effectiveness and efficiency, showing a more complete picture of the social value generated. Likewise, it can be an instrument to make the contribution and social benefits of these organizations visible in all their breadth, improving transparency and legitimacy.

Since we have confirmed the difficulty in standardizing emotional value and the enormous dispersion of instruments for its assessment, future lines of research could propose a homogeneous social accounting model based on an empirical study of the emotional value drivers in disability organizations. The measurement framework should be in line with the existing psychological scales on quality of life and emotional well-being that are actually used by disability organizations in their interventions, adding the emotional value assessment into their social accounting. This framework would facilitate the standardization and comparability of the performance results of disability organizations. Likewise, future research could

investigate the usefulness of this social accounting model in management. Just as previous studies have proven the relevance of generic social accounting in multiple organizational functions such as strategic planning or marketing, there is still a need to discover the contribution that the measurement of emotional value in those areas.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

PT-V, SA, and VF-R contributed to the design of the research, to the analysis of the results, and to the writing of the manuscript. The authors had an equal contribution to this research. All authors contributed to manuscript revision. All authors read and approved the final manuscript.

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Contribution of Entrepreneurship to the Social Integration of People Intellectual Disabilities: A Case Study Based on the Analysis of Social Networks

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In an environment characterized by high unemployment rates among people with disabilities, the objective of the present work is to analyze entrepreneurship as a labor option which fully inserts people with intellectual disabilities (PwID) into their societies. In order to carry out this research, a case study methodology based on social network analysis has been adopted, given the nature of the variables analyzed. The results indicate that the fact of having managed to start up the company has been an important source of self-confidence and inspiration, as well as increasing and intensifying the social networks of PwID involved in the entrepreneurial project.

Keywords: entrepreneurship, intellectual disabilities, social integration, social networks, case study

INTRODUCTION

In an environment characterized by high unemployment rates among people with disabilities (PwD), this group's social incorporation is undermined by their economic dependence both on their families and on public institutions (ODISMET, 2018). According to data from the INE (2020), in 2019, the unemployment rate among PwD in Spain exceeded that of the non-disabled population by more than ten points (23.9% compared to 17.1), a gap that has consisted during the evolution of such data since records have been kept. Although the main objective of Law 13/1982 (Law on the Social Integration of the Disabled) has been to reduce this gap at a national level in order to achieve the full social integration of this group, we observe that, in fact, this has not been the case (Calderón-Milán et al., 2020); the relevance of this problem is underlined by the fact that, at the national level, almost two million people of working age (from 16 to 64 years of age) have some form of disability, either permanent or temporary, thereby representing 6.2% of the total working-age population (INE, 2018). At the level of the European Union (EU), this percentage is approximately 16%, a percentage which is likely to increase as the population ages (Halabisky, 2014).

Manzanera-Román and Brändle (2019) point to employment as one of the most effective elements in the integration of people into society. Authors such as Bengisu and Balta (2011)

suggest that the use of PwD would improve the quality of service and efficiency, reducing the employing company's costs. In practice, however, discrimination by employers plays a major part in PwD's low employment rates (Hashim and Wok, 2014; Beisland et al., 2016), while those who have been employed tend to be employed in low-skill and low-paid occupations (Meager and Higgins, 2011). In short, the problem is not only that PwDs have a high unemployment rate, but that those who do get a job often find it unsatisfactory (Darcy et al., 2020).

In this context, self-employment is a useful alternative (Dhar and Farzana, 2017; Barba-Sánchez et al., 2019), which contributes to PwD's social inclusion (Maritz and Laferriere, 2016) and which, even in a worst-case scenario, serves as a training program to improve employment (Doyel, 2002; Bruce and Schuetze, 2004). Furthermore, authors such as Pagán (2009) and Halabisky (2014) consider this alternative appropriate for PwD given that it can give them higher work flexibility in terms of workload and working hours, thereby allowing a better balance between their disability and their working life. Akinyemi (2016) points out that self-employment gives PwD the opportunity to be productive members of society, which, according to authors such as O'Neil et al. (2020) or Seelman (2008), increases their self-esteem and self-confidence. However, inclusive entrepreneurship defined by Maritz and Laferriere (2016, p. 46), as that which "contributes to social inclusion to give all people an equal opportunity to start and operate a business" in general, and more specifically inclusive entrepreneurship developed by PwD is a subject that is scarcely addressed both in specialized literature (Renko et al., 2015; Bagheri and Abbariki, 2017) and in public policies that promote it (Muñoz et al., 2019).

Among PwD, PwIDs are particularly vulnerable as they "tend to be largely sedentary and passive with negative implications for their self-confidence, constructive engagement time, environmental sensory input, and social status" (Lancioni et al., 2017 p. 282). However, previous literature on entrepreneurship among this group of PwID in the growing body of empirical research on entrepreneurs with disabilities (EwD) is almost non-existent (Hutchinson et al., 2021). This lack of knowledge presents policy makers and practitioners involved in the promotion and development of entrepreneurship among PwID with a challenge in developing effective strategies and programs (Bagheri and Abbariki, 2017). Hence, the objective of this work is to contribute to the study of entrepreneurship among PwID, specifically investigating the question: does entrepreneurship favor the social integration of PwID?

ENTREPRENEURSHIP, SOCIAL NETWORKS THEORY AND SOCIAL INTEGRATION

Keyes (1998 p. 122) defines social integration as "the evaluation of the quality of the relationships we maintain with society and the community." Following the Social and Cultural School of Thought (Dhar and Farzana, 2017), most of the time, entrepreneurship is undertaken when people feel supported

by their social and cultural environment. From such thinking, the "Social-Inclusive" Model is born, which interprets the reality of PwID from the guarantee of fundamental rights. Thusly, it is assumed that it is the person themselves who should be the active participant in achieving their personal objectives, while the family, in turn, should serve as a support tool for achieving those objectives, maintaining an active role that facilitates access to the framework of fundamental rights; society, therefore, must be permeable, understanding PwID as another member of society, with all the rights and duties that pertain to such membership.

However, the disabilities not only affect individuals but also family groups, the local social environment and economy, society in general and its pertinent public authorities (Ortiz-García and Olaz-Capitán, 2021), this type of inclusive entrepreneurship cannot be analyzed solely from the perspective of Stakeholder's Theory (Barba-Sánchez et al., 2021).

Social network theory allows the analysis of egocentric or personal networks, which are those centered on specific individuals and on which the studies of their behavior are focused, since they show the relationships of the context in which these individuals are immersed or anchored (Scott, 1991). Thus, social networks are a form of representation in which an attempt is made to identify the various social structures of human relationships (Barba-Sánchez and Molina-Ramírez, 2015). Lee et al. (2005) classify them as close primary networks, made up of members of the nuclear family, non-close primary networks, made up of friends, neighbors and work colleagues, and secondary networks, which include the rest of professional contacts.

Among the main conclusions of the Report on the Disability Entrepreneurship Ecosystem in Australia (Darcy et al., 2020), is the importance of social networking, not only for the success of the business project, but also for the personal development and social integration of PwIDs. The creation of the company favors the increase in the PwID's professional networks. Furthermore, having a larger network of contacts contributes both to job placement and mobility (Györi et al., 2019) and to alleviating and preventing social isolation (Thoresen et al., 2018). However, PwID often have much smaller social networks than people with other disabilities (van Asselt-Goverts et al., 2014).

Given that the aim of the present work was to analyze entrepreneurship as a labor option which fully inserts PwID into their societies, we intend to visualize the evolution of the entrepreneurial team's social networks, classifying them into personal networks, such as family and friends, and professional networks, such as customers, suppliers, and public institutions.

METHODOLOGY

In order to carry out this research, we have carried out a qualitative study that can be assimilated to a case study in which the information collected was done through in-depth interviews, which are a valid method for collecting information in numerous empirical and qualitative studies. However, due

to the exploratory nature of this research and space limitations, we have only included the data in the graph that summarize the information collected. A social network analysis (SNA) has been adopted, given the nature of the variables analyzed. Case studies allow an analysis of the phenomenon under investigation within its real context, using multiple sources of evidence, both quantitative and qualitative (Villarreal and Landeta, 2010). In Yin's words (1989) when he speaks of the definition of a case study, he points out that they are empirical investigations which study a contemporary phenomenon within its real context, where the limit between the phenomenon and the context are not precisely shown, and in which multiple sources of evidence are used. For its part, SNA is based on social network theory, whose main axiom is "that a node's position in a network determines in part the opportunity and constraints that it encounters, and in this way plays an important role in a node's outcomes" (Borgatti et al., 2009 p. 894). In this sense, according to Rutte et al. (2010), SNA allows us to understand the spatial dimension of the social capital of individuals. Specifically, the current study's methodology consists of drawing the relational social networks of PwID before and after undertaking entrepreneurship (the so-called ego network), observing the differences between the two temporal moments.

This technique not only allows us to draw the existing relationship for each actor (vertexes) but also the intensity of the relationship between two actors (edge thickness) and the direction of that relationship (arcs). In our case, the intensity of the relationship has been measured on a five-point Likert scale where 1 was an unknown person; 2, a known person; 3, a known person with a weak connection and sporadic interactions; 4, a known person with medium connection and frequent interactions; and 5, a known person with strong connection who is part of the entrepreneur's daily life.

Our current analysis focused on a case of inclusive and collective entrepreneurship carried out entirely by PwID: coffee fertilizer. This cooperative company arose as a result of the Entrepreneurship Course for PwID taught by the University of Castilla-La Mancha (UCLM) during the 2016/17 Academic Year, and under the supervision and support of the Social Business Factory (SBF), a business incubator and seedbed for creating, monitoring, and advising of socially inclusive companies. Created in 2018 by 14 partners, this cooperative depends on a circular economic model that elaborates ecological hummus (fertilizer) from the waste of coffee grounds using the Californiana red worm. After its creation, 8 more partners joined the project, bringing the current number of partners to 22 (see **Table 1** with description of the 22 Cooperative members). **Table 2** lists all the stakeholders with whom at least one of the members of this cooperative has a relationship before and/or after the creation of the company.

RESULTS AND DISCUSSION

Overview of the Interview Results

Upon analyzing the case study, we can summarize the following results:

First of all, participants' families had a high level of involvement in the early stages of the project, helping to establish the cooperative's infrastructure. There were many interactions between families, which extended to the relationships between the participants themselves. At some point, this interaction damaged the relationships between some families and strengthened trust between others. The relationship of the participants with their own families did not change due to the entrepreneurship process *per se*, although it is true that the context generated with the business project has facilitated the professional team's training efforts in this sense, working transversally with other areas of the entity. It would be complicated to establish the relational flows in this aspect or to try to measure its average.

"One of the cooperative members, as a result of working in the cooperative, went to live in a sheltered flat, his mother said that before this he would never have imagined that he would have had the self-confidence to take this step."

Relationship between equals. All entrepreneurial processes promote collaboration and teamwork and the technical counseling that participants received placed great importance on cultivating these aspects in order to produce a cohesive group. At the quantitative level, the evolution that participants had regarding interpersonal and group relations based on the identity of the entrepreneur/worker is interesting.

- Participants. Related to the previous point, it is important to underline how each participant evolved parallelly in terms of maturation, self-concept and self-knowledge. In this way, the relations toward their equals and toward themselves undergo constant translation with a positive tendency toward personal and interpersonal evolution. As in the case of the families, it would be complicated to establish relational flows in the aspect or to try to measure their mean.

With regard to the SNA, as can be observed in **Figure 1**, the main link between all future entrepreneurs, prior to the creation of the company, was CECAP. In addition, the relations between the entrepreneurial team's members (drawn in fuschia) were weak (among the fourteen initial promoters) and even, in some cases, non-existent (among the eight new members).

Once the company had been established, the generation of an ego network (**Figure 2**) is observed in a dense network among the members of the company (especially among the initial promoters of the company), which is represented by the fuschia area. Additionally, their relations with external stakeholders have multiplied (eight new stakeholders were added, represented by triangles) and intensified considerably (greater edge thickness), especially the relations with the professional guide, with the network of cafés that supplied the raw material and with the neighboring orchards that share part of the municipally owned campus where the company is located.

TABLE 1 | Cooperative members detail of Abono Café.

Cooperative member	Gender	Age	Type of disability	Degree of disability	Educational level
CM1	Female	31	Psychica	65%	School Graduate
CM2	Female	26	Psychica	41%	Secondary level education
CM3	Female	31	Psychica	65%	Secondary level education
CM4	Female	35	Psychica	65%	Secondary level education
CM5	Female	33	Psychica	65%	Secondary level education
CM6	Female	28	Psychica	65%	Secondary level education
CM7	Male	41	Psychica	68%	School Graduate
CM8	Female	22	Psychica	81%	Secondary level education
CM9	Female	35	Psychica	65%	Primary School
CM10	Male	33	Psychica	65%	Basic Professional Training
CM11	Hombre	38	Psychica	65%	No schooling completed
CM12	Male	47	Psychica	65%	No schooling completed
CM13	Female	43	Psychica	65%	School Graduate
CM14	Hombre	26	Psychica	70%	Secondary level education
CM15	Male	27	Psychical, physical, and sensory	76%	Primary School
CM16	Female	31	Psychica	65%	Primary School
CM17	Female	31	Psychica	69%	School Graduate
CM18	Female	25	Psychica	65%	School Graduate
CM19	Female	29	Psychica	67%	Initial Professional Qualification Program
CM20	Male	31	Psychica	65%	Primary School
CM21	Female	26	Psychica	65%	Primary School
CM22	Male	30	Psychica	65%	Primary School

TABLE 2 | Stakeholders participating in the study.

Stakeholder ID	Description
CoopMember#	Cooperative Member Number #. It is necessary to distinguish the first fourteen from the following eight, who joined the project after its creation.
PresidentCoop	President of the Cooperative and member #3.
SecretaryCoop	Secretary of the Cooperative and member #11.
TreasureCoop	Treasurer of the Cooperative and member #13.
ProfessionalCounsellor	Professional Couch that accompanies participants during entrepreneurial process.
CECAP	Staff of the social entity CECAP, a Training Service based in Toledo who collaborated with the project.
SBF	Staff of the Social Business Factory group, support platform, and monitoring of the entrepreneurial process.
UCLMteacher	Professors of the course Entrepreneurship and Specificity, articulated through the UCLM.
EOIteacher	Professors of the entrepreneurship course organized by the School of Industrial Organization (EOI).
EOIstaff	Management team of the entrepreneurship course organized by EOI.
TownHall	Members of Toledo City Hall sympathizing with the project.
JCCM	Members of Regional Government of Castilla-La Mancha sympathizing with the project.
CigarralBusiness	Management team of the <i>Cigarral del Ángel Custodio</i> . First business partner with whom an agreement was signed for the temporary transfer of space; the EU committee was received at its facilities and came to visit the project.
GrecoMuseumStaff	Management team of the Greco Museum. First client of the company.
Children&Families	Children and family members attending the awareness-raising workshop organized by the Greco Museum to promote the entrepreneurial project.
Caixabank	Director of the Caixabank office where the company's account was made.
CaixabankVolunteers	Team of Caixabank volunteers, who offered a financial economy workshop to the entrepreneurs.
Neighbours	Group of gardening neighbors who manage an urban gardening project and share part of the premises where the company is located.
CafeNetwork	Network of cafeterias that collaborate with the project.
BioenergyBusinesses	Entrepreneurs of the bioenergy company with which negotiations are being established.

CONCLUSION

The results indicate that the fact of having managed to start up the company has been an important source of self-confidence, in line with what Tirado-Valencia et al. (2021) say as well as increasing and intensifying the social networks of PwID involved in the entrepreneurial project,

in line with results obtained by previous literature (Conroy et al., 2010; Thoresen et al., 2018; Caldwell et al., 2020). However, the process has faced additional challenges, such as social reticence and having to overcome the limitations derived from disability, which are conclusions of interest for policy makers and other social agents involved in disability.

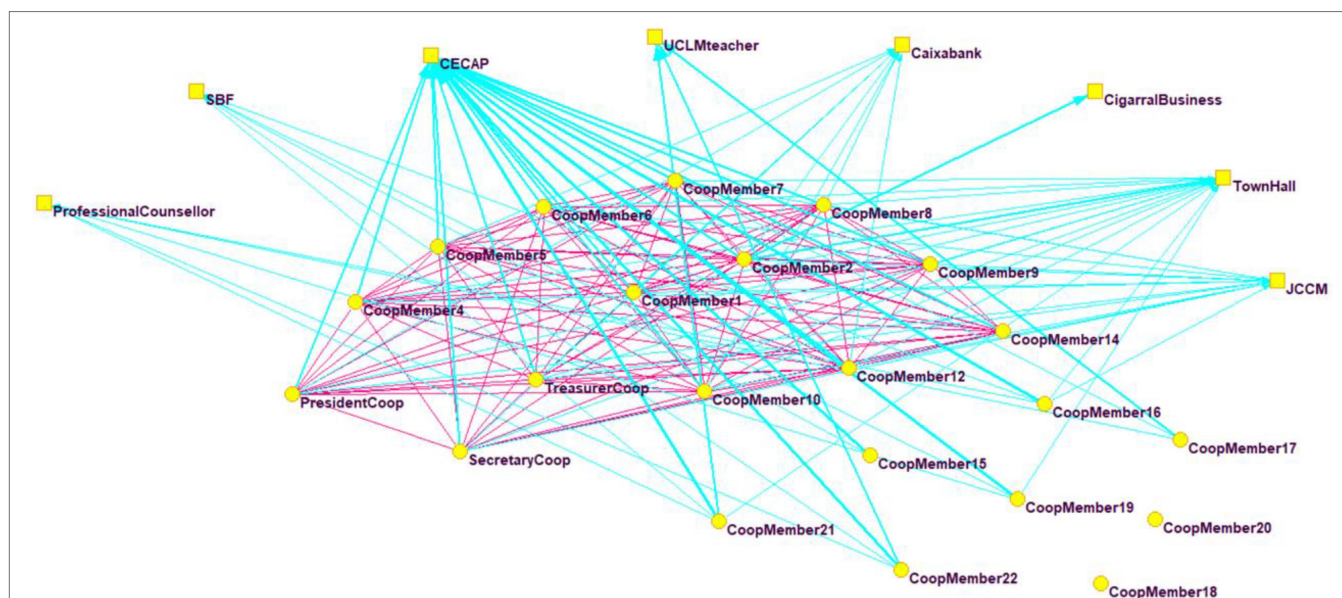


FIGURE 1 | Network of entrepreneurs before company creation. The members/workers of the cooperative (internal stakeholders) are represented by circles, and their relationships are displayed in fuschia, while external stakeholders (organizations that maintained some kind of contact prior to the creation of the company) are represented by squares, and their relationships are drawn in blue.

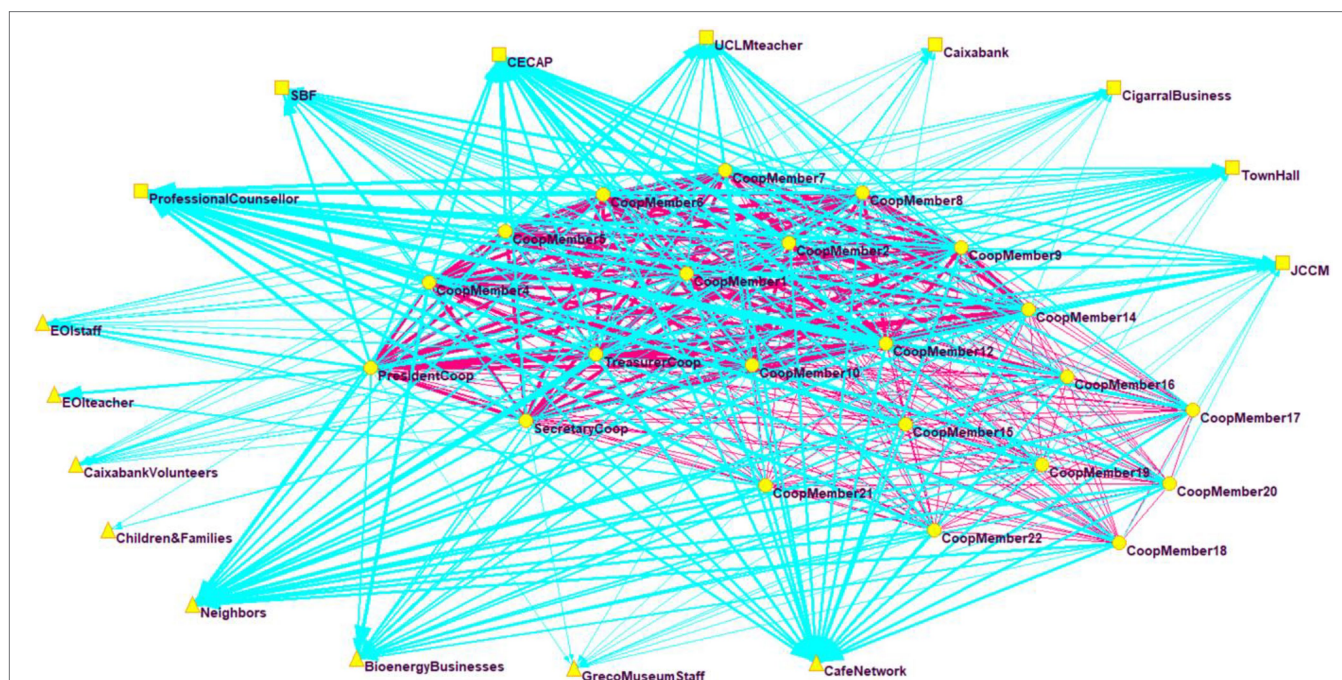


FIGURE 2 | Network of entrepreneurs after company creation. The members/workers of the cooperative (internal stakeholders) are represented by circles, while external stakeholders (organizations that maintained some kind of contact prior to the creation of the company) are represented by squares and triangles (new contacts). The relations between the members of the company are drawn in fuschia and the external ones in blue.

During the entire process of training, creating the company and carrying out the entrepreneurial activity, an essential and fundamental pillar has been the support and interest of the students' families: They are not mere spectators of the project,

but also implicate themselves, helping students in some activities (a fact that strengthens family union even more, if possible). Additionally, it has been indispensable that the students have had the collaboration of a member of the social entity CECAP,

who assigns each cooperative member the task that is most adequate for him/her and in which they can best develop their capacities.

One of the limitations of our study is that we have only collected evidence from one company, the first that has emerged from the inclusive entrepreneurship courses. It is foreseen that this line of work will continue at the University of Castilla-La Mancha (UCLM); in other words, we intend to continue giving courses and to continue supporting entrepreneurial ideas, with the hopes of expanding our sample with more companies created by PwID in the near future. As in Europe, the United States, and Australia (Larsson, 2020), there are no data on the number of Spanish companies owned by PwID (Ortíz-García and Olaz-Capitán, 2021), so a relevant future work would be to quantify the group of entrepreneurs with intellectual disabilities (EwID).

Our work is eminently descriptive because what we are looking for is a study of the relationships between entrepreneurs and their networks. As future lines of inquiry, we will analyze, following the evidence pointed out by Hutchinson et al. (2021), whether these new relationships provide these entrepreneurs with a better quality of life and greater integration within their social environment.

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DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

AUTHOR CONTRIBUTIONS

VB-S, PJ-E, and YS have made the theoretical review and empirical study. EG has developed the interviews. All authors contributed to the article and approved the submitted version.

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An Empiric Experience Implementing a Methodology to Improve the Entrepreneurial Support System: Creating Social Value Through Collaboration and Co-creation

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Entrepreneurs are considered an important source of innovation, acting as agents of change in developed societies. For entrepreneurs to develop, entrepreneurial ecosystems are required. These environments are complex heterogeneous systems. However, the atomization of the subsystem of agencies and organisms supporting entrepreneurial activity can cause problems. To solve this governance problem, a social experiment was designed to test the value of a solution based on a technological platform. The methodology is based on a dynamic scheme, seeking the involvement and collaboration of all the stakeholders. This method uses a co-creative process inspired by design thinking. The theoretical framework included literature on entrepreneurial ecosystems and governance theory and took into account the need to involve all the stakeholders to improve the previous situation and achieve sustainable development goals. Based on the application and an *ad-hoc* methodology seeking the involvement and collaboration of all stakeholders, a social network supported by an ICT-based platform was formally created, contributing to alleviate the atomization problem and generating social value at the same time. This social experiment, carried out in the Spanish province of Biscay in the Basque Country, was a pilot test and could be extended to other entrepreneurial ecosystems with similar casuistic frameworks.

Keywords: entrepreneurship, entrepreneurial ecosystem, entrepreneurial support system, network, co-creation, social value, stakeholders, information and communication technologies (ICTs)

INTRODUCTION

Creating new companies allows an economy to grow and generates employment. It constitutes one of the main sources of innovation and is, therefore, one of the key elements of competitiveness in a globalized market. However, entrepreneurship is not just an economic phenomenon, as outlined by Korsgaard and Anderson (2011), who explore beyond purely economic results, analyzing the social outcomes created by the entrepreneurial process. They argue that social factors play a role at different levels, and act as an enabler and the context of the entrepreneurial activity. They create different types of social values, depending on both the type of project and the level analyzed, from

individual to societal contexts (Korsgaard and Anderson, 2011), all of which are interrelated in complex ways.

Innovation is one of the outcomes of entrepreneurial endeavor, and also a way of searching for solutions to the challenges and problems humanity is facing. They are synthesized in the 2030 Agenda with 17 sustainable development goals (SDGs) related to innovation. The Global Entrepreneurship Monitor (GEM) (Kelley et al., 2012) highlights the importance of the environment in fostering entrepreneurial activity and, thus, contributes to economic development. To achieve this, it is not enough to create a favorable institutional framework, there also needs to be an interrelation and collaboration between entrepreneurs, organizations, and the different agents of the environment. These relationships shape what Mason and Brown (2014) call the entrepreneurial ecosystem. This new concept offers a systemic view of entrepreneurship (Cavallo et al., 2019), but not as a simple system; rather, entrepreneurship is complex and dynamic (Isenberg, 2010; Feld, 2012; Spigel, 2017; Han et al., 2019). The whole ecosystem is formed by different interconnected subsystems (Motoyama and Knowlton, 2017) and due to the aforementioned complexity, Miller and Acs (2017) suggest going through its parts instead of pretending to reach an integral modelization. One of these subsystems is the support system, which is composed of various members who share the same goal of entrepreneurial support within a local geographic community (Theodoraki et al., 2018). In many ecosystems, there is a conglomerate of public and private agents covering the different areas that an entrepreneurial project goes through. Motoyama and Knowlton (2017) apply the social network perspective to analyze the relationships and interactions between and among entrepreneurs, support organizations, and other secondary support actors, to uncover what is happening in the case of St. Louis. They are of the view that previous research has considered this subsystem as a black box since studies tend not to clarify the connections and interactions inside the subsystem and ecosystem. One of their findings is that the ways in which support organizations interact significantly impact how and why entrepreneurs connect (Motoyama and Knowlton, 2017).

Hayter (2016) considers that the interactions in the different networks conform to an ecosystem that evolves in time, as it is a dynamic entity. The entrepreneurs arrive at the resources through the relationships and interactions of their networks, so their social capital is a critical element. Colombelli et al. (2019), describing the entrepreneurial ecosystem of Turin (Italy), say that the system is characterized by its high entropy. The support subsystem is formed by a wide variety of actors, but there is a lack of teamwork, overall, among public entities.

This need for better coordination has been addressed in different countries. In the United States, the U.S. SourceLink program (Meyers, 2011) is incorporated for this cause. It connects entrepreneurship support organizations to the entrepreneurs whom they serve, to leverage their resources and improve their services. This initiative was born in Kansas City in the late 1990s, as it was perceived that many organizations would provide entrepreneurial support services, but aspiring and existing business owners were unable to find the right

examples. The first step was to create a one-stop-shop for entrepreneurs, which joined several organizations in the same physical location. However, the idea soon evolved into creating a network to link partners. Consequently, any entrepreneur connecting to the network could refer to the right resources for their needs and stage of business instead of being shuffled from place to place. This network is supported by an internet-driven simple point and a click engine called The Resource Navigator. There are networks in more than 20 regions in the country.

The same obstacle to growth and entrepreneurship in Spain lies in so-called atomization. The existence of a large number of simultaneous programs and organizations, as well as the overlapping discoordination of their actions, means potential entrepreneurs are often not clear where to go. According to the GEM's special report about organisms and measures, this lack of support for entrepreneurs in Spain is an extended problem (Rubio and Sánchez, 2016).

In the specific case of the Basque Country, the GEM 2018 Report (Saiz et al., 2018) concluded that public policies are the main positive driver in supporting and promoting entrepreneurial activity. Despite recognizing its effectiveness, the report identifies the complexity of bureaucratic processes, low efficiency of unique windows, and demand for greater institutional coordination, as obstacles to entrepreneurship.

One of the problems our society faces is the complicated entry of young people into the labor market. The complexity of this transition means that their talent, along with the capital and resources invested in their preparation are not being taken advantage of, as these collective concerns and business ideas could become viable entrepreneurial projects. It should also be taken into account that many young people have a sustainable approach to projects in addition to a purely entrepreneurial one. Apart from these economic results, they take into account social and environmental factors, known as the triple bottom line (Elkington, 1994). Therefore, supporting young people enables increased social cohesion. It is up to institutions to help and facilitate young people in the development of business projects and the startup of their companies, which they do. Numerous agents and agencies support new ventures in the Basque province of Biscay. With the challenge of improving the functioning and coordination of the agents of the subsystem of support, a project based on the collaboration of all the components of the ecosystem of the province was carried out during the first term of 2018.

The initial objectives discussed in this research project at its initiation were:

- a) To detect the needs of young entrepreneurs.
- b) To obtain the involvement of the agents of support to improve the coordination, collaboration, and operation of the proper network.
- c) The creation or definition of a shared entity such as a portal or online platform that gathers and connects the young entrepreneurs of Biscay with support agents, providing services with added value and improving the interconnection between them.

To achieve these objectives, we developed a methodology (Balderas et al., 2020) based on co-creation and design thinking (Brown, 2008), with the participation of the full range of stakeholders. The process was divided into three phases:

- 1) The first sought collective reflection and the promotion of the spirit of collaboration between people and institutions related to entrepreneurship, to build a network based on collaboration.
- 2) The second had the objective to build together and generate ideas to center them through a process of co-creation.
- 3) The third and last session objective was to land the proposals generated in the second one.

This kind of effort has importance and creates social value from several points of view. First, as Agrawal et al. (2015) outline, the value emerging in co-creation is social and should be appreciated in a social context, where a large number of stakeholders are present in the system. Second, new governance models are needed to align the functioning and objectives of public and private stakeholders. Third, because of attempts to improve the entrepreneurial ecosystem to favor entrepreneurial activity, producing new companies and employment, which are essential for innovative projects to flourish; and fourth, because innovation is crucial for accomplishing SDGs in the long term.

This paper presents an experience of collaboration between agents of the entrepreneurial ecosystem in Biscay, who worked together to improve the entrepreneurial project's support subsystem. As the solution was not planned at the beginning and arose during the planning process, a longitudinal study analyzing the development and effect on the whole system might be required. Alvedalen and Boschma (2017) performed a literature review and found many static approaches that merely described the relations in the entrepreneurial ecosystem, indicating that there is a poor understanding of how it evolves and by which process it develops over time. Therefore, this experience might be used as a pilot test—since atomization and a lack of coordination are problems affecting the entrepreneurial environment in several ecosystems—but also as a longitudinal embedded case study of the evolutionary dynamics of a specific entrepreneurial ecosystem.

THEORETICAL BACKGROUND

Productive Entrepreneurship, Social Value, and Stakeholders

Entrepreneurs have a high potential for generating social, productive, and cultural changes in the regions where they act. Literature on entrepreneurship confirms that they are agents of change, innovation, employment, and the creation of new businesses. Consequently, entrepreneurs are a necessary part of our societies, especially when the community is facing new economic and social scenarios. Entrepreneurship plays an increasingly important role in achieving economic growth and progressing innovation (Acs, 2006; Audretsch et al., 2006; Minniti, 2008; Wennekers et al., 2010; Stam, 2015). However, as Baumol (1996) expounds, the exercise of entrepreneurship

is not always productive; it can at times be unproductive or even destructive, depending on the structure of payoffs in the economy that constitute the rules of the game. In addition, focusing specifically on social value creation, Acs et al. (2013) define productive entrepreneurship as creating both social and economic value, while unproductive and destructive entrepreneurship generates economic value for the entrepreneur but does not result in net social value creation.

Mazzucato (2018) also focuses on the difference between productive and unproductive entrepreneurship. Moreover, apart from questioning the role of the different actors in the innovative movement, Mazzucato makes a distinction between value creation (and its destruction) and value extraction, questioning the measurement of that value. If a value is based on profit as the bottom line of an income statement, several factors are missing, contributing to undesirable societal situations. As outlined in the preface of the book “if the goal is to produce growth that is more innovation-led (smart growth), more inclusive and more sustainable, we need a better understanding of value to steer us” (Mazzucato, 2018, p. 11). Furthermore, this study explains how the paradigm passes from maximizing shareholder value to take into account stakeholder value.

Mazzucato refers to the value in terms of the process by which wealth is created, considering it a flow (2018). This flow results in actual things, whether tangible (a loaf of bread, for example) or intangible (new knowledge), and wealth, instead, is regarded as the cumulative stock of the value already created. In this way, this study defines value creation as to how different types of resources (human, physical, and intangible) are established and interact to produce new goods and services. Mazzucato considers value extraction activities focused on moving around existing resources and outputs, which gain disproportionately from ensuing trade (2018).

Additionally, Kuratko et al. (2017) analyze the social value creation in business, defined as creating benefits beyond those captured by their creator. They explain that in recent years, there has been a decided increase in the emphasis on social value creation by all organizations, including for-profit organizations for several reasons: (1) customers want to buy from these companies, (2) employees want to work for them, (3) investors are willing to invest in them, and (4) entrepreneurs hope to start them (Kuratko et al., 2017). However, despite rapidly growing interest in social entrepreneurship, there is no equivalent instrument regarding social value creation.

Even though corporate social responsibility (CSR) has been studied for quite some time, CSR scholars tend to focus more on protecting the business's social license to operate in society by developing goodwill, rather than identifying opportunities to create, deliver, and capture social value (Bansal and Roth, 2000; Auld et al., 2008). More significantly, if businesses are going to emphasize social value more, managers and employees will likely need to monitor the environment and continually revisit the ways they create, deliver, and capture social value, just as they have done with financial value. New instruments are needed to measure individual perceptions of the current organizational environment to determine whether it is conducive to individual efforts to create social value.

Stakeholder theory was developed by Freeman (1994). It states that stakeholders are defined as any group of individuals who can affect, or be affected, by the achievement of the organization's objectives and considers that the integration of the interests of all stakeholders is necessary to generate sustainable profits in the long term. Despite Freeman's (1994) broad definition, stakeholders could be groups of individuals that are important for the success of the organization. Curiously, stakeholders could be the same using either Freeman (1994) or Friedman's (1962) theory, the latter of which states that the objective should be to maximize the shareholder value: owners, workers, suppliers, clients, and the local community.

As Retolaza et al. (2009) suggest, the link between stakeholder theory and CSR is close and based on those concepts on which they develop a model to apply newly created firms. Their proposal focuses on the inclusion of social responsibility as a new factor, under the value innovation model proposed by Kim and Mauborgne (2005). An important aspect to introducing this new factor relies on the necessity to align it with the strategy, which will use the balanced scorecard model developed by Kaplan and David (1992).

Focusing on society, entrepreneurial abilities and attitudes, risk-taking behavior, and creativity are crucial competencies in the development of economies (Guellec and Wunsch-Vincent, 2009). That is why scholars have an increasing interest in measuring entrepreneurship and studying the role of specific environments in different countries to promote these competencies and new business creation (Mason and Brown, 2014).

Entrepreneurial Ecosystem

As stated, entrepreneurship is not an isolated phenomenon. It occurs due to—and is affected by—the conditions present in the environment. Entrepreneurial activities are the result of the decision of the players according to the institutional framework that sets the rules of the game. North (1990) divides those rules (or institutions in terminology) into formal (regulations, laws, policies, and agencies) and informal (culture, beliefs, values, ideas, habits, and attitudes of society) factors.

Entrepreneurs are not isolated players taking their decisions and pursuing their ventures, meaning their activity can be seen as a system or network of interconnecting and interacting parts, which is the definition of an ecosystem. Mason and Brown (2014) define an entrepreneurial ecosystem as:

“a set of interconnected entrepreneurial actors (both potential and existing), entrepreneurial organizations (e.g., firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies), and entrepreneurial processes (e.g., the business birth rate, numbers of high growth firms, levels of ‘blockbuster entrepreneurship’, number of serial entrepreneurs, degree of sell out mentality within firms and levels of entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment” (Mason and Brown, 2014, p. 82).

Based on their previous research, Stam and Spigel (2016) undertook a critical review of the literature in this field to reach a definition of the term and an integrative model. They define an entrepreneurial ecosystem as a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship in a particular territory (Stam and Spigel, 2016). Productive entrepreneurship is any entrepreneurial activity that contributes directly or indirectly to new outputs in the economy or the capacity to produce new outputs (Baumol, 1993). In their approach, the government is not the leader but a feeder of the ecosystem that creates the proper economic, social, and legal environment that enables new ventures to flourish (Stam and Spigel, 2016). Additionally, startups are at the center of the ecosystem, but entrepreneurs might also act as feeders or facilitators, as both mentors and models for new players.

Mazzucato (2011) expands the scope of these ideas, outlining that the state plays roles in entrepreneurial activity in broader ways than are formally recognized. For example, by providing public funds at the beginning, they support the most uncertain phase of research, when the private sector might not be willing to invest due to the risks involved. This should be taken into account when debating the role of government in the future. Additionally, in 2021, Mazzucato developed the idea of the need to use new forms of collaboration between public and private actors to build more mutualistic and symbiotic collaboration systems. As stated in the previous section, it is necessary to use stakeholders' points of view as well as shareholders, but all actors must be rewarded: workers, communities, and the environment.

Based on best practice and research, Isenberg (2010) sets out nine principles for building an entrepreneurial ecosystem that government leaders should focus on. They suggest that instead of trying to replicate Silicon Valley, a region should shape the ecosystem around local conditions (Isenberg, 2010), and the private sector should be engaged from the start, since the government cannot build the ecosystem alone. Additionally, it is better to favor high growth, since its impact and influence as a reference and inspiration is better than encouraging self-employment. This takes us to the next point, which is to use the big successful experiences as an example and bring them to the public, even over-celebrating success (media events, highly publicized awards, speeches, etc.). Cultural change is also important in changing minds, and apart from the precedent factor, the media plays an important role. As opposed to focusing on easy money, it is preferable to “stress the roots” and bring out the imagination and innovation from entrepreneurs, as even startup incubators have been proven to be not good enough to develop strong companies. Facilitating an entrepreneurial environment is not a matter of generating clusters of innovation artificially; it is better if they generate and grow organically with support from the government. Isenberg (2010) finishes by saying that legal, bureaucratic, and regulatory frameworks should be revised. The latter is what most governments focus on but a holistic view with all the precedent principles is required.

However, it is also true that to create an ecosystem, encouraging entrepreneurs and learning from failures might encourage new initiatives to flourish in different countries. There are many different approaches or policies to enhance

entrepreneurial activity such as education, and labor market regulation, etc., instead of thinking solely about entrepreneurial public policy.

Public policies that are only focused on economic promotion are not enough to consolidate a successful entrepreneurial ecosystem. They contribute in many ecosystems to the above-explained atomization of agents, providing services and assistance to entrepreneurs in an uncoordinated way. That questions the efficiency of public efforts invested. According to Spigel (2017), the support system is one of many core components of an entrepreneurial ecosystem, but as Motoyama and Knowlton (2017) remark, it is considered a black box by most previous research, which has not analyzed how it works.

Mack and Mayer (2016) showed that it is interesting to analyze the interdependence of the elements of the ecosystem. They explore its evolutionary dynamics by taking into account the institutional framework and the sociopolitical context in which it has evolved over time, along with the role of regional policy in acquiring missing elements and facilitating interaction between these and other elements. Mack and Mayer (2016) distinguish four stages of ecosystem development starting from birth, followed by growth, sustainment, and ending with decline. Each of the stages was characterized by a different mix of Isenberg's (2011) entrepreneurial ecosystem domains. Furthermore, Hayter (2016) outlines the evolutionary dynamics of the ecosystem with social networks as critical pathways, through which entrepreneurs access resources and other contacts important for the development of their ventures, social capital being a critical element for the exchange of information and resources, and explaining the evolution through network bridging.

Audretsch and Belitski (2017) define systems of entrepreneurship (as a synonym to ecosystem) as institutional and organizational, along with other systemic factors, such as the educational system. Education is an important tool for stimulating entrepreneurship (Harris and Gibson, 2008; Raposo and Do Paço, 2011). Entrepreneurship research provides evidence that there is a positive and robust link between entrepreneurial education and entrepreneurship performance (The Small Business Economy, 2007).

This section has analyzed entrepreneurial ecosystems and their problems, and the next section will focus on society in a broader sense.

Sustainable Development Goals and Governance

Sustainable Development Goals (SDGs) set the framework for national action and international cooperation on sustainable development. The United Nations has set 17 goals that to be achieved in the next decade. These ambitious goals summarize the biggest challenges we face, and although they are all interrelated and must be taken into account, within the scope of this project, we highlight the following: promoting constant, inclusive, and sustainable economic growth, and full employment that is productive and decent work for all (decent work and economic growth, Goal 8); to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster

innovation (industry, innovation, and infrastructure, Goal 9); promote peaceful and inclusive societies for sustainable development, facilitate access to universal justice and create efficient, inclusive, and accountable institutions at all levels (peace, justice, and strong institutions, Goal 16); and, to strengthen the means to implement and revitalize the Global Partnership for Sustainable Development (partnerships to achieve the goals, Goal 17).

The International Institute for Applied Systems Analysis The World in 2050 Initiative (2018) carried out The World in 2050 report to provide the scientific foundations for the 2030 Agenda. It is based on the assumption that ambitious but ambiguous SDGs are necessary but not sufficient to lead humanity toward long-term sustainable development. The time horizon and scope go far beyond 2030 and will have to be revisited to adjust the SDGs with regard to longer-term socioeconomic and environmental sustainability. Furthermore, it states that effective and inclusive governance is a central element of sustainability and transformation The World in 2050 Initiative (2018). Such a transformation toward sustainable development will require profound normative and social, political, and institutional changes Sachs et al., 2019. Key elements include investments in capable public institutions, active civil societies, sustainability-oriented partnerships, science, engineering, the private sector and governments, and the formulation of plans and roadmaps to achieve the SDGs and long-term sustainability goals.

Mazzucato (2018) suggests the need for a redefinition of policymaking, in the sense that policy can be addressed to shape a different future: co-creating markets and value. A better economy might be created since markets are outcomes of decisions that are made in business, in public organizations, and civil society. This makes it possible to choose a different path among the many that are available. To do so, a purpose-driven sense has to affect the relationships among the different agents. Mazzucato (2021) characterizes it as a mission economy, which requires a radical change in the core of the business models and value chains. The selection of the mission must stimulate the search for multiple solutions, and according to the author, even if it is directed to a specific objective, this should be broad enough to cover numerous projects that, together, carry out the mission (Mazzucato, 2021). This shared mission is the SDGs and the Change (with capital letter due to the size and importance of the challenge), which require governments to reformulate the structure of relationships among economic agents and society. Additionally, rethinking corporate governance has to be prioritized in the agenda; as previously a company's objective had to pass from shareholder to stakeholder value.

Stakeholder value gives meaning to the interaction between the different economic agents and the creation of value in favor of the common good since the value created is reinvested in a larger group of actors, which includes the community. For the governance of such a system, it is essential to focus on relationships that are established, for example, between public and private actors. Many measures can be introduced, for example, conditionality when granting aid or contracts. Nevertheless, the associations also need to be organized.

The application of a mission-oriented thought requires not only the capacity to adapt but also institutional innovations that create new markets and reconfigure existing ones. It also additionally requires citizen participation. In some countries, involving and engaging citizens in mission design has become a fundamental principle of innovation in the public sector, just as it is in the private sector. There are many positive examples in the consultations and idea-generation processes that led to the establishment of SDGs. The joint design guarantees the social appropriation of the objectives of the missions, ensuring that they exceed the term of office of the politicians in charge.

Participation requires rethinking the future together. That is why it is important to bring together different voices not only to react to a mission but to design it. This requires systems to be open to change and adaptation based on the response received.

Co-creation is a paradigm of relationship based on the creation and joint evolution of value among people with shared interests in collaborative and commitment platforms that arise from ecosystems with diverse capacities and that materialize in concrete experiences, which expand the wealth and well-being of society (Echegaray et al., 2017).

The design thinking methodology (Brown, 2008) promotes the participation of all the stakeholders of an ecosystem to design the key lines of a new model of the relationship among them. It is used to develop people-centered innovation processes, offering a lens through which to observe challenges, detect needs, and propose solutions.

Policymakers in Basque Country have been working for years to build a successful entrepreneurship ecosystem. As a result, we see a multitude of entrepreneurial programs (public and private) promoting entrepreneurship. It is important to note that in Basque Country, policymakers used to define measures of economic promotion to increase the entrepreneurial activity rate, but they can also influence it through many other factors. The GEM Basque Country 2019–2020 report (Saiz et al., 2020) shows that “public policies and public programs” promoting entrepreneurship had an excellent score in the entrepreneurship ecosystem, with “education”—primary and secondary—the worst factor assessed.

In this sense, as Mazzucato (2021) says, the attitude of a mission is to identify problems that can channel collaboration between many different sectors; therefore, it is about structuring policies that can attract many types of organizations that carry out different solutions or projects. To do so, the purpose must be part of the core of corporate governance (also in public entities) and a very broad stakeholder-based perspective for the entire economy must be adopted.

With these discussions in mind, this study aimed to undertake a pilot test, a co-creative experience among all the stakeholders involved to deal with a detected problem.

Hypothesis

The atomization of the network of agents and entities that support entrepreneurial activity provokes the existence of inefficacy and inefficiency in the use of public resources invested. This is a general problem in the Spanish regional ecosystems (Rubio and Sánchez, 2016). Based on the research about the

Spanish situation (ENISA y GEM España, 2018) and the previously detailed American US SourceLink experiences, we assume this is a global problem, and used the case of this regional ecosystem as a pilot approach to develop a new methodology. This objective requires the collaborative effort of all the stakeholders related to the support system, who, through a dynamic process based on design thinking, will look for a solution.

Our hypothesis outlines that this experience will lead to an improvement in the entrepreneurial ecosystem but also introduces a new governance model that joins the efforts of the public and private agents and agencies. It is also addressed to undertake the SDGs both directly, by improving the service to entrepreneurial activity, which is one of the sources of innovation, and indirectly, because it could be an inspirational test of how to engage stakeholders in the search for the solutions to the different problems we have to confront in the future.

As explained above, social value is created under various assumptions: from the societal point of view, by favoring the creation of new companies and employment; from the policy point of view, by involving all the stakeholders in the design of public policies, aligning the interest of public and private entities; and from the ecosystem point of view, creating a favorable framework in which innovation can flourish and which, being adequately oriented, could lead to the achievement of the SDGs in the long term.

METHODOLOGY

As mentioned above, the initial objectives were, first, to detect the needs of young entrepreneurs; second, to obtain the involvement of the agents of support to improve the coordination, the collaboration, and the operation of the proper network; and third, the creation or definition of a shared entity such as a portal or on-line platform that gathers and connects the young entrepreneurs of Biscay with support agents, providing services with added value and improving the interconnection between them.

A key requirement of achieving the ultimate goal of the challenge was to encourage the participation and involvement of all the agents in the entrepreneurial ecosystem. This study aimed to build this through participation, involvement, and commitment, meaning we adopted an inclusive methodology based primarily on design thinking and co-creation. A further explanation of the methodology and the process is described by Balderas et al. (2020). In this process, key points are the development of empathy, the generation of as many ideas as possible, the construction of prototypes, and learning from the implementation of that prototype.

A preliminary phase of initial reflection was raised followed by three working sessions, detailed below. A varied and representative sample not only of agents but all related stakeholders were summoned to sessions, with the objective to gather a plurality of approaches and viewpoints to enrich the work. The capacity of our methodology was limited to no more than 60 participants. In addition, between the different phases, the opinion and contributions of the remaining agents of the

ecosystem were obtained by online means, as we have shared the results of each session. Online participants who were physically not present were termed as the contrast group.

The first session took place in January 2018, was titled “Collaborating.” It sought the collective reflection and the promotion of the spirit of collaboration between people and institutions related to entrepreneurship, in order to build a network. Assistants ran the six working groups, and each group was tasked with the objective of seeking maximum representation of the ecosystem without losing sight of equitable distribution with respect to gender. Six questions relating to the current situation were distributed randomly among the six working tables, with the generation of ideas being the main activity.

The second session was held in February with the title “Co-creating,” and its objective was to build together and generate ideas to center them through a process of co-creation. To achieve this we used the World-café format, working on two questions that sought to detect the main reasons for slow progress in each of the seven phases of an entrepreneurial project and generate ideas or proposals to overcome these obstacles. Once again, a wide representation of people, agencies, and institutions that make up the entrepreneurship ecosystem were invited.

The third and last face-to-face session of the project had an objective to land the proposals generated in the second session. This final session took place in March, and it was titled “Landing.” The aim was to shape the concepts that had emerged in the previous working days and facilitate the elaboration of an action plan for the implementation of these ideas in the near future.

RESULTS

This section summarizes the findings obtained during the different steps.

Collaborating Stage

The objective of the first session was to generate a climate of collaboration between the different agents. The participants were distributed in six tables; each one was asked to complete a representation of the stakeholders of the ecosystem. The issues were worked through according to a prefixed scheme, which tried to diagnose the situation of the question in the province of Biscay (whether in the Basque Country or in Spain or in the North of Spain). The main topics that arose about each theme were:

1) Current situation of the entrepreneurial ecosystem

Here, a lack of clarity was emphasized, both for the entrepreneur and the proper agents/entities of support to entrepreneurship, with regard to who was available and what did they offer, referring to their programs and activities. Thus, the problem labeled as atomization was diagnosed and identified by the participants from the very beginning.

Other ideas were suggestions, but they led to underlying problems. They were related to encouraging an investment culture that favors the financing of entrepreneurship since it was considered another important dearth; a better understanding of the causality of the venture, to better conform to the needs of each

case; and the need to adapt the measurement of the results of the agencies to not only take into account the number of companies created under their umbrella but also to open the evaluation to other indicators. This follows with Mazzucato's (2021) suggestion to align the control measures with the objectives of the mission to be accomplished.

2) Needs of the young entrepreneur

The problems derived from atomization were also asserted since there were comments regarding doubts relating to citizenship and about where to apply to receive different kinds of help/support from funding institutions, support agencies, other entrepreneurs, etc.

Concrete suggestions were made, such as the demand to be supported by expert mentors who know how to steer the whole process according to young entrepreneurs' needs and bring them the necessary knowledge about trends and the market. Additionally, it was observed that they should be provided with knowledge regarding the disposal of adequate physical spaces that are cheap and well-located, roadmaps of supports and unique formats, and focused networking.

All this was coupled with the absence of social recognition for the entrepreneur, who often was not recognized but rather stigmatized. This argument reflects a cultural issue of the environment and is one of Isenberg's (2010) nine principles for building a better entrepreneurial ecosystem.

3) Strengths of the ecosystem

A common understanding of the existence of an entrepreneurial ecosystem was already considered a strength by itself, as in other regions, there is no such perception.

Other strong points identified were the capacity to support entrepreneurship by various means, both economically with money and humanly through people with ideas, institutional agents, and mentors—and there is also a business network since the business population in the territory is quite well-associated.

An interest in promoting entrepreneurial attitudes is not only reflected in the educational field—being more entrenched in the field of vocational training than in the university—but there were also programs, contests, and actions, etc. that encourage it as well. The presence of entrepreneurship in education comes from afar, which favors knowledge, prepared people, and referents of success, etc. that might constitute a guide to build on in the future.

4) Weaknesses of the ecosystem

For this topic, the atomization problem appeared again, as the existing shortcomings in terms of cohesion between support agents for entrepreneurship were mentioned, which means that there were duplications among them, as well as a lack of knowledge and information of the potential entrepreneur, who is the “client,” and about who is who within the ecosystem.

The table that had this topic assigned also discussed cultural matters, since they considered the business culture to be rather difficult, encompassing failures that are hardly forgiven and successes that are often criticized, which does not stimulate entrepreneurial activity. It does not encourage people, as to

whether they did business wrong or right, they may be criticized and judged severely.

Finally, the ecosystem's entrepreneurial strategy was perceived as a weakness in three respects: entrepreneurship is understood as a tool to reduce unemployment, being preferably oriented toward youth entrepreneurship (knowing that the highest percentage of success in the venture is in age ranges of more than 35 years); and by wasting the potential of certain groups such as the self-employed or micro-SMEs, as those segments are capable of boosting successful entrepreneurship.

5) Ecosystem's challenges

The table working on this topic discussed the need to improve the attractiveness of entrepreneurship as a professional option. They considered that, at present, education through both university and professional training was more oriented to creating technicians, executives, as opposed to entrepreneurs. In this sense, the figure of the entrepreneur needs to achieve social recognition, which the participants consider as currently non-existent.

They also considered it interesting to encourage collaboration between potential entrepreneurs of different profiles, in favor of the development of an entrepreneurial project that, in its beginning, requires a capable team apart from financing the initiative. This was also related to Isenberg's (2010) suggestions.

The financing of venture initiatives was further commented on and was considered to be misfocused, as some initiatives aim to attract investors from outside who are not going to invest in local projects. It was, therefore, suggested to further enhance local investment. It was taken into account that a local investor, with the capacity to invest between 50,000 and 100,000 €, usually lacks the training necessary to understand certain new concepts that are linked to the ventures of startups and similar initiatives. This lack could be solved with training in how to invest in startups. It was suggested that investments should be changed in such a way that the venture capital funds avoid risks, especially in the case of seed capital, which is when entrepreneurs require their capital to access the funding that exempts them from risk. This prevents many projects from being able to access funds because they do not meet these requirements.

On the other hand, they also discussed the need to facilitate bureaucratic procedures for entrepreneurs and to unify the models of forms on the projects and business plans that must be presented, since the disparity and diversity of models that have to be adjusted cause them to not attend to their project for too long throughout the year. Hence, the problem of atomization and lack of coordination appeared again, another of the Isenberg (2010) principles for improving the ecosystem.

6 Role of collaborating agents, facilitators, or prescribers in the ecosystem

It was commented that there was a need for transparency among the agents that support entrepreneurship. Participants outlined that creating trust among agents was imperative and that it might result in a better performance in providing services to the final customer, the entrepreneur. In this sense, the visualization of

the network was considered essential, and it had to be as extensive as possible in terms of the entities, services, and resources available. Thus, participants suggested using a platform where all this information is available as an objective or tangible part of the process, while the most important subjective or intangible part, should aim to enhance personal relationships, trust, and professionalism among agents.

All this should be incorporated without forgetting that once these networks have been created. They must be maintained and continue working, meaning that collaboration between agents through meetings or in ways that strengthen ties and allow greater coordination and efficiency of the work, is vital. The agents, who make up an entrepreneurial support system, should always bear in mind that their final objective should be to carry out the project of the entrepreneur.

Co-creating Stage

The second session was about building together, generating ideas, and polishing those ideas during a co-creation process. In this case, the participants worked on six tables. All the participants were rotating between tables except for the one who was designated as the host and the facilitators who were part of the work team.

The work was divided into two sections. The first part of the dynamic was about detecting critical points or breaks during the seven stages, in which the life cycle of an entrepreneurial project was divided into: 1) awareness or entrepreneurial culture, 2) idea, 3) prototyping or business plan, 4) viability or financing, 5) constitution, 6) startup, and 7) consolidation.

Among the brakes detected was the stigma of failure, which was a restraint to entrepreneurial thinking associated with cultural bias. This stigma was perceived to undermine the possibility of assuming any type of risk from the start. In other cases, it stopped projects at the time of considering the startup. This perception of failure was considered to be deeply rooted in the collective consciousness, and came from school days, meaning it was a cultural factor. Not had this stigma been fought since school, it was also considered that there should be changes in the early stages of education, to instill risk-taking and the initiative to undertake projects to generate a critical mass of potential entrepreneurs who are now missing. However, addressing this problem involves two difficulties; on the one hand, teaching staff lack the knowledge and resources to impart the required qualities. On the other hand, family can also act as a hindrance to developing entrepreneurship because relatives might not consider entrepreneurship as a professional or desirable career for children. Concerning gaps in school education, it was suggested that collaboration with external experts in the field might alleviate this problem.

Another critical point was that as the projects progressed, there were shortcomings in the management knowledge of teams. Although technically the entrepreneurs were capable in their fields, they lacked other types of managerial skills.

Participants also outlined that they faced difficulties in achieving viable projects. They observed that it was difficult to materialize some ideas. Moreover, multidisciplinary and

complementary teams were not always generated. Furthermore, they discussed how peers with shared experiences were missing, both in terms of successes and, perhaps more importantly, failures. In this sense, it was considered that small experiences or ventures were closer to inspirational means than those of large companies.

Participants also commented that they lacked a community of entrepreneurs, which could be understood as a lack of consciousness or a sense of ecosystem. Events that facilitate interaction between entrepreneurs could address this issue, allowing them to not only share common ideas and initiatives, meaning these events could be used to match different profiles. In this context, they would be able to test ideas and form teams. Participants were interested in physical spaces that fostered a favorable climate and encourages continuous entrepreneurial initiative.

Another point that arose was the resistance to sharing common ideas for fear of others stealing them. This means that the entrepreneurial team tends to validate the product before introducing it to the market, thus carrying the loss of many resources invested and making it impossible to pivot the project to try to test engagement in the market for the first time. This is a cultural matter.

Once the company was set up, there were financial shortages that hindered growth. Although, in some cases, this growth was hindered by the inability of the initial entrepreneurial team with projects ended because the team did not know how to manage success. There were also barriers to internationalization by the competencies of the team itself such as weak finance and management skills.

With regard to the support services offered by the network, participants mentioned that it was necessary to organize services, to make them known, and to encourage collaboration and synergies between different agents. Therefore, the problems arising from the atomization of the system were identified again.

Regarding aid, there were varying opinions. Some people perceived aid as necessary and others outlined that it was indispensable. The majority of opinions outlined that excessive focus on obtaining aid should be prevented and that the viability of the business should be perceptible without it. This could be related to the need to strengthen the roots of entrepreneurial initiatives, as suggested by Isenberg (2010). In the second part of the session, each table focused on developing two proposals to overcome the brakes that had been identified.

Regarding entrepreneurial culture, the participants suggested workshops (aimed at both parents and children) to change perceptions of failure, as an inevitable part of the process. These workshops could train and improve the skills of both students and teachers; and also provide spaces to create, with examples and close references that serve as inspiration and guides. Additionally, two suggestions were proposed: the launch of more idea contests and funding for the initial development of incipient ideas and projects.

Regarding the interaction among people, participants suggested the creation of physical spaces and events, which would allow the mix of all three key elements—minds, management, and money. The importance of the early validation

of the project as well as the importance of the business model was also stressed.

In terms of support services related to the atomization problem, participants suggested that existing services and networking should be better coordinated and that there should be unified access or sources of information. It would be advisable for a mentor to accompany the team throughout the process with a memory briefing of what each agent contributed to that project, where the performance of these agents is measured by indicators for the services provided. In addition, business plans were suggested to not only ensure that the time of entrepreneurs accessing the system was not wasted, but also that the system should be oriented to the entrepreneur (which is supposed to be ecosystem and not “egcosystem”).

Landing Stage

To prepare the third session, which aimed to propose an action plan, the proposals of the preceding phases were narrowed and grouped into 14 areas that were randomly assigned to groups. Thus, the contributions developed in the session can be condensed into categories relating to the problems being addressed:

The first category regards the atomization problem:

- 1) Create a centralized gateway by concentrating online information and advice, simplifying processing, and facilitating a map of agents and aids

The use of social networks was proposed as a communicative vehicle linked to the creation or updating of a page or portal that agglutinates to the whole network, in which a map is displayed with all the available ordered information of the agents.

- 2) Coordination and collaboration between the agents working in a network, unifying forms, and creating new indicators for the measurement of performance.

It was proposed that the action be divided into three parts. First, the aforementioned map should be used, and segmented according to the different phases. This should be made known among the agents, allowing them to share information through the page, which would act as a collaborative platform *via* the web. For this, it is essential to have the commitment and the involvement of all. Secondly, it was considered that processes, objectives, and ways of measuring the results obtained should be coordinated. In this part, the decision of the government is fundamental since they are responsible for setting the measurements. Finally, aid needs to be optimized.

The second category is oriented to changes in mindset and the culture of the ecosystem to create a favorable environment that incentivizes new ventures and innovation:

- 3) Think globally by importing good practices and by contacting and collaborating with international networks aligned with state and community initiatives

For this, it would be interesting to share existing international contacts as well as organize expeditions or conferences for the dissemination of best practices. In addition, it would be necessary to have expert mentors from international markets. We should

also share experiences and try to attract talent and international investments as well as create local consortia to act globally and make companies think at that level. It would be important to have an orderly resource map to avoid overlap and duplication.

- 4) Promote the entrepreneurial community by creating events and forums.

Numerous regular meetings, events, or forums for entrepreneurs would act as physical spaces or places in which they could share experiences or ideas.

- 5) To promote the generation of ideas by offering aid for the development of previous ideas and spreading new business models.

There were a wide variety of suggestions from generating thematic events, contests of ideas (including the school stage) involving professors, entrepreneurs, and companies, and sharing experiences through videos, lectures, and interviews, using both traditional media, social networks, and the Internet.

- 6) Change the perception of failure.

It was felt that it was important to perceive so-called failures as an inevitable part of any creative process. This should be taken into account when designing the support process *via* the use of mentors and also training. One approach might be to disseminate references for people who were wrong initially and how their failures led them to learn. It is also important that potential investors and public agents change their perceptions of failure.

- 7) Training: Differentiated training during the process and preparation of teachers.

It would be helpful to educate both entrepreneurs and the families of young people, raising awareness of the influence and the importance of these values and personal skills.

The third category is about strengthening projects, which includes both the configuration and the financing of the initiatives.

- 8) Accompaniment: mentoring or tutoring differentiated projects depending on the stage of the project.

It is important to accompany entrepreneurs at the beginning of the project and when they face failures. In addition to agents, it was considered important to generate meeting spaces between potential entrepreneurs and people who have gone through these experiences. To achieve this, it was considered necessary to have spaces or meeting forums.

- 9) Strengthening initiatives by promoting multi-disciplinarity and complementarity, and promoting teams to generate co-creative spaces that favor networking.

It was suggested that face-to-face and virtual encounters involving all kinds of agents would be helpful, and that big events that introduce activities for the promotion of entrepreneurial initiatives might also provide networking opportunities.

- 10) To insist on a rapid validation in the market by producing a prototype or developing a minimum viable product to be tested before the development process is complete.

It was proposed that creating a safe means to perform validation and involve experts in the field *via* the portal would be helpful.

- 11) Help to pivot if there is no engagement in the market or acceleration if it works and there is traction.

It was suggested to focus more on taking projects to action rather than on the planning stage and entrepreneurs and agents should could be trained in techniques concerning product-market fit.

- 12) Facilitate funding by training local investors and encouraging their participation in projects.

Participants distinguished between capital or initial aid and financing, which, in both cases, can be public and private. For the first, it was proposed that they educate and sensitize the different groups that have funds to contribute. There should also be consultancy for both parties. It was also proposed that there could be financial incentives encouraging entrepreneurs to look for synergies and collaborations between different sources.

- 13) Encourage collaboration between investors and various sources of funding.

This resulted in three possible actions: the first was to cover gaps in financing in the initial phases of projects that require seed capital; the second, was to use the agent map to raise awareness of all possible existing sources; and finally, to promote knowledge and mutual encounters between investors through events that may facilitate opportunities for collaboration.

The fourth category regards governance:

- 14) Valuing entrepreneurial initiative: Showing and promoting the development of personal capacities.

It was proposed, first, to involve families and to act *via* education from early stages, which could generate activities and dynamics from school, and encourage a positive perception of learning from failure.

Each table organized the ideas they thought were more important in shaping the entrepreneurial network and presented them to the other groups.

CONCLUSION

After 3 months of work and reflection *via* the three dynamics sessions discussed in this paper, which acted as milestones in January, February, and March 2018, this research indicated a clear need to create a formal network of entrepreneurial support. Participant discussions indicated that it needs to be a well-managed and coordinated subsystem, strengthened by an ICT-based platform. This would address the atomization problems identified by participants in the dynamic research sessions, who were a representative selection of all the stakeholders of the entrepreneurial ecosystem in the Basque Country.

This methodology involved committed agents and contributed to the birth of this network, allowing the achievement of the initial objectives of the study, addressing the needs of not only young but all entrepreneurs, since representative entrepreneurs took part in the dynamic sessions. Agents of support outlined the need for improved coordination, collaboration, and operation through a network with a shared entity supported by an online platform. A network would not only improve the interconnection between the agents but also act as a portal that gathers and connects potential entrepreneurs, for whom the support agents could provide services with added value.

A formal digitally reinforced network was identified as a solution to problems of atomization. In this network agents, entrepreneurs, resources, and services could be displayed, with a physical presence *via* events related to entrepreneurship. The network should consider all areas of action, including the education system, business structures, finance/investors, and public institutions, etc. The network would aim to foster a culture of entrepreneurship by naturalizing the failure inherent to this phenomenon, which should be understood as a process, and socially disseminate shared entrepreneurial experiences.

As a final output, and in response to the research discussed in this paper, the network was formally created in June 2018. And the use of an existing digital platform based on information and communication technologies (ICTs) was suggested and accorded; as it would allow public access and the location of all agents and their functions.

The next stage involved the launch of the network. That phase of development with measures and indicators is described by Cearra and Saiz (2021). This study concluded that the use of the ICT-based platform to boost the network was a key methodology. Its use enabled the researchers to measure the impact and results of the action quantitatively. Thus, the platform is a social network that improves the entrepreneurial ecosystem and also acts as a tool to evaluate public policies. We think that it could eventually be used as a proper tool to connect different entrepreneurial ecosystems.

This work has relevance to entrepreneurial ecosystem literature for several reasons. First, it is an empirical study addressing the so-called atomization problem and has the potential to enhance not only the coordination and collaboration among the support network but also to reinforce the relationship with the entrepreneurial people in the ecosystem. Second, it carries out a longitudinal study that will allow us to better understand the dynamics and consequent evolution as well as the impact the entrepreneurial ecosystem can have. Third, thanks to the use of the ICT-based platform, the measurement of the interactions will be easier than in previous research done in other locations.

Finally, this project led to the generation of social value, which was identifiable in several ways. First, by the proper co-creation process, which is social in nature and allows the participation of a large number of stakeholders present in the system. Second, because networks represent new governance models which are needed to align and improve the functioning and objectives of public and private stakeholders. Third, because this initiative could improve the entrepreneurial ecosystem,

hence favoring entrepreneurial activity, which is conducive to new companies, employment, and essential in encouraging innovation to flourish. Fourth and finally, because innovation is crucial for accomplishing SDGs in the long term.

LIMITATIONS AND FUTURE RESEARCH

This pilot project was undertaken in Biscay (Spain) and a clear limitation of the investigation is that it was based on a single region, meaning the results cannot be generalized. As a complex problem, a multiple case study methodology, as proposed by Yin (2014) might be suitable for future experiences.

A rigorous evaluation of the methodology demands the execution of the proposal outlined in the action plan at the start of this article. However, execution is not enough and as it is desirable to maintain the involvement and commitment of participants as time goes on, so responsibilities have to be fixed and development and must be controlled. Thus, a set of indicators need to be developed to act as a balanced scorecard, measuring the effectiveness of the project over time. Additionally, as with any experiment, new issues might arise during the extended research process, meaning this subject requires a longitudinal approach. Over time, these new issues also enhance understanding of the evolution of the entrepreneurial ecosystem, as Alvedalen and Boschma (2017) claim in their review about this research field.

Apart from measuring development at the network level, it is important to analyze the impact of this enhanced support network on the existing entrepreneurial ecosystem. Therefore, it is necessary to design a set of variables to evaluate the development of this project, standardize it, and share experiences with other ecosystems with similar atomization problems. There is still a lack of agreement about the set of indicators used to measure evolutionary dynamics in the literature about entrepreneurial ecosystems.

The methodology outlined in this study might be implemented in other geographical areas to test the application of these methods and whether they invigorate different entrepreneurial ecosystems. This challenge, as may other ones we have to confront, will require the involvement and participation of a wide variety of stakeholders to not only examine different points of view and perspectives on seeking feasible solutions but also to create a collaborative climate, so a similar approach might be used to address those issues.

DATA AVAILABILITY STATEMENT

The datasets presented in this study can be found in online repositories. The names of the repository/repositories and accession number(s) can be found at: <https://www.dema.eus/wp-content/uploads/2019/12/red-sarekin-dema-bizkaia-castellano.pdf>.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Bilbao Chamber of Commerce Research Committee.

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All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

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Reporting the Social Value Generated by European Universities for Stakeholders: Applicability of the Global Reporting Initiative Model

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Universities are increasingly being asked to contribute to addressing the significant local and global challenges, such as those identified in the 2030 Agenda. Set in this framework, universities need to account for the social value they generate through their activities, particularly from the perspective of their contribution to different stakeholders. This approach requires, first of all, that the main stakeholders are identified. Relationship and dialogue mechanisms then need to be established which can help guide universities to choose activities which can better meet the needs of their stakeholders. The current paper analyses the potential of integrated reports, and triple bottom line reports, as an instrument for reporting on aspects that go beyond the financial sphere, including economic, social and environmental aspects. Specifically, the paper focuses on studying the viability of the Global Reporting Initiative (GRI) for reporting the value that European universities generate for their stakeholders. The results show, firstly, that the universities in the sample do not sufficiently address these questions in their reports. Internal stakeholders are prominent in their reports, with the interaction between them and the universities being generally unidirectional. References to value generated are limited, and usually refer to the economic value. However, some examples of good practices are identified that could be used to improve standards of reporting, especially in universities committed to integrated reporting initiatives, in order to better reflect the social value.

Keywords: GRI standards, sustainability reports, social value, stakeholders, higher education institutions, societal challenges, 2030 Agenda, comparative case study

INTRODUCTION

Challenges, such as the increase in social inequalities or the worsening of the ongoing environmental crisis, are prompting society to look to the social role of universities to address these problems. Their involvement is now considered essential in helping to find a solution to the significant local and global issues, such as those identified in the 2030 Agenda

(Utama et al., 2018; Sianes, 2021). The academic literature is beginning to identify the components of a new way of viewing a university's activity in which the priority lies in generating value for the stakeholders involved (Tetteh et al., 2021). These debates are putting forward different proposals which advocate for the potential of universities to be at the service of society.

In this context, disclosure of the broader impact that universities have through their role is fundamental. This has given rise to academic reflections as well as practical advances in suggesting new models for Higher Education Institutions (HEIs) to use to be able to collate and communicate financial and non-financial information.

At present, the financial statements completed by HEIs do not allow for the value created by these institutions to be accounted for (Adams, 2018), yet the latest trends promote the elaboration of 'integrated reports' or 'triple bottom line reports', capable of reporting economic and social information in the same document. It is hoped that, by using these reports, universities can move from a financial accountability approach to an approach that incorporates recognition of the value they generate for their stakeholders, demonstrating how this value is created and the components involved.

To achieve this, report models are proposed based on processes in which information gathered through an ongoing dialogue with stakeholders is collated and recorded in a memoir or public report, and given as much value in the report as traditional accounting. One widely used report model, which goes beyond financial aspects, is that proposed by the Global Reporting Initiative (GRI).

This study begins with a review of the GRI as a model and framework for integrated reporting in a broad sense. It then goes on to analyse the reports prepared by different European universities, which are using the most recent version of GRI Standards, by posing the following questions:

- Which stakeholders do universities take into account in their reports? How do they evaluate the relationship (engagement) with stakeholders? What procedures are in place for this?
- How do they approach the generation of value in their reports? What types of value do they consider? Do they relate the generation of value to the stakeholders and their needs?
- Is the GRI model adequate as an instrument for reporting stakeholder participation and involvement, as well as for conveying to stakeholders the social value generated by the university's endeavours?

With these questions as a guide, Section "Generating and reporting value for stakeholders in Higher Education Institutions" introduces the theoretical framework, based on three aspects: debates on the value generated by universities; consideration of the stakeholders and their relationship with the institution as key aspects for guiding the management of the universities and the generation of value; and the existing reporting models, focusing on those that go beyond economic values, such as the GRI methodology which this current study analyses. Section "Methodology" details the methodology and the sample analysed, while Section "Results" shows the results obtained for the

universities studied. After section "Discussion," the article ends with conclusions.

GENERATING AND REPORTING VALUE FOR STAKEHOLDERS IN HIGHER EDUCATION INSTITUTIONS

Generating Value in Higher Education Institutions

In a framework of social and economic change accelerated by globalisation, the social problems and challenges that begin at a local level quickly reach a global dimension (Stiglitz and Greenwald, 2014). In the context of the social model known as the 'knowledge society' (World Bank, 2002), society appeals to the university, as an institution that generates knowledge, to propose alternatives and respond to new global problems and challenges (Altbach, 2008; UNESCO, 2009; Boni and Gasper, 2012; Cardona et al., 2016; Grau et al., 2017).

The university, often through its social responsibility policies, sees its mission as being at the service of society. Since the 1990s, academics and researchers have supported the role of the university as a generator not only of economic value but also of social value (Stokes and Coomes, 1998). Through diverse actions related to teaching, research and knowledge transfer, the university generates value and affirms its social commitment (Dima, 2015; Wallace and Resch, 2017) and its commitment to human development (Oketch et al., 2014; Boni and Walker, 2016).

Some authors identify value generation in line with the companies where graduates will be employed (Kucharcikova et al., 2019). Other authors highlight the value that is generated through the transfer of knowledge, or the co-creation of knowledge with other agents, which generates an impact on the economic and social environment (Meissner and Carayannis, 2017; Di Nauta et al., 2018; Djikhy and Moustaghfir, 2019). More recently, certain authors analyse the value contributed by the university as a co-transforming agent and catalyst of innovation in its local environment (Ponsiglione et al., 2018). The public procurement process of universities, as a way of generating value in the economic environment, is also analysed from a critical perspective by the academic literature (Torres et al., 2010; Hofacker et al., 2012; Valero and Van Reenen, 2019).

Van den Akker et al. (2017) analyse how the response of universities to social challenges is changing the general view of the impact these institutions can have, and this is influencing their research and teaching. Academic work is framed from this perspective in a dynamic in which the contribution of the different stakeholders is considered and their involvement is crucial in working towards a common goal.

In addition, the way of financing universities has changed dramatically in recent decades, which has led to a rethinking in terms of how they generate value and translate it into sources of income. These new areas of work, closely related to innovation and economic development, also require new types of relationships between the university, social agents and

governments (Etzkowitz and Leydesdorff, 2000; Jaegersberg and Ure, 2017; O'Neill et al., 2017).

In the current context of commercialisation of university activity that Slaughter and Leslie (1997) described, some authors emphasise that valuation is broader than commercialisation. In the words of Benneworth and Jongbloed (2010, p. 568), the way of measuring the value generated by universities based solely on their economic contributions can often overshadow the broader contributions to society.

However, appropriation of the value generated by the universities is not without criticism. Within the framework of the knowledge economy, this generation of value brings with it, for example, a discussion about the legitimacy with which the value generated in laboratories or universities is distributed (Iscaro, 2014; Veltri and Silvestri, 2015).

In any case, the generation of value by universities only makes sense when it is perceived by their stakeholders. Thus, some authors have made proposals that enable the identification and measurement of the value generated by entities in general (Hartmann and Ibanez, 2006; Mittal et al., 2008; Kocmanová et al., 2016; Evans et al., 2017) and, more specifically, by universities (Sánchez-Fernández et al., 2010; Fagerström and Ghinea, 2013; Lubik et al., 2013; Mindruta, 2013; Booth and Kellogg, 2015; Ayuso et al., 2017).

The methodologies proposed by different authors to identify and/or measure the value that is generated are developed within the framework of the Stakeholder Theory (Friedman and Miles, 2002; Freeman et al., 2010; Garriga, 2014; Tantalo and Priem, 2016).

Stakeholder Theory in the University Environment

Stakeholder Theory has been used in the literature to justify the incorporation of new management systems into the university environment, especially in the incorporation of improvements in its governance and in the decision-making processes at an institutional level (Saurbier, 2021).

The interpretation by Larrán-Jorge and Andrades-Peña (2015) of this theory is that it incorporates the commitment of universities – through teaching, research and knowledge transfer – to meeting the needs of the different stakeholders from three aspects: economic, social and environmental. Dialogue must be recognised as an enabler of legitimacy and transparency based on symmetrical communication between stakeholders.

The idea of symmetry has caught the attention of a number of studies which analyse the nature of the relationships that universities establish with their stakeholders. Mainardes et al. (2012) study not only the presence but also the relevance of the different stakeholders in the university context, for which they apply the theory of stakeholder identification and salience of Mitchell et al. (1997) to the university setting, adding an additional attribute, influence. The results of their study show that the influence between the university and its stakeholders cannot be measured by four factors alone (one only influences, one is only influenced, one influences and is influenced, one does not influence and is not influenced), but rather the relationships should be evaluated in a much broader sense,

taking into account whether these entities and institutions are influenced more than they influence or vice versa.

Along these lines, Benneworth and Jongbloed (2010) show how organisations establish links of a different nature with their stakeholders, paying more attention to certain stakeholders than others, depending on the nature of the link established. However, these links are not formally established, so they are neither static nor the same in all organisations and the context and reality of each organisation will determine the composition and relevance of the link established with each stakeholder (Pantoja et al., 2015).

The influence that the different stakeholders have on university activity largely depends on the objective of their relationship. In this sense, Duque (2009) highlights that the university has given more importance to its links with those interest groups related to the economic system than other interest groups related more to the social system.

By adopting the sustainability approach in their management strategy, universities consider identifying their stakeholders from sectors that may have expectations of value generated based on the role of the university, either in its internal aspect (students, staff contracted) or in its external aspect (suppliers, companies, public administrations, etc.). However, what really represents an innovation in Stakeholder Theory in the university environment is the interaction with other agents of society, beyond those with whom there is a specific functional relationship (Whitmer et al., 2010). Studying the scope of what universities consider to be their stakeholders and the quality of their communication channels is essential if universities want to know what value they generate for these interest groups.

But, as the academic literature shows, in addition to identifying the value generated by universities, this value must also be communicated to society. Numerous academic articles focus attention on this aspect, and this is discussed in the next section.

From Financial Reporting to Integrated Reporting as a Way of Accounting for the Value Generated

Traditionally, financial accounting has served as an instrument for disclosing relevant information about organisations through the publication of their financial statements. In recent decades, entities have shown themselves to be more committed to major global challenges, and they take into account the impacts of their activities on these issues in their strategic management. Nowadays, in addition to generating profits, organisations are expected to contribute to the creation of global value.

In this context, accounting information systems have had to evolve to respond to a society that demands greater transparency in terms of performance, not only economic but also social and environmental. Social accounting is a relatively new development in the accounting world, first appearing in the business sector in the mid-1950s (Mook, 2014).

In the 1990s, interest in social accounting resurfaced and new models of accountability were proposed that were capable of integrating social accounting in the management and accounting systems of organisations. Current trends indicate that organisations are choosing a new way of communicating

their social and environmental policies, prioritising the mitigation of information asymmetry between users (Rodrigues et al., 2021).

Indeed, in a current scenario where the 2030 Agenda and the Sustainable Development Goals (SDG) have become the objectives shared by all types of organisations, the financial statements proposed through integrated social accounting put social and environmental performance alongside financial performance (Mook, 2020).

Integrated information represents a major change in the disclosure of information in organisations, and regulatory bodies are becoming more aware of the complexity of the current business model. The acceptance of non-financial metrics to reflect the creation of value is considered progress towards better communication of results to stakeholders (Burke and Clark, 2016).

Organisations with responsibility for the standardisation of information made public by institutions [such as the American Institute of Certified Public Accountants (AICPA), International Integrated Reporting Council (IIRC), International Accounting Standard Board (IASB) and International Organisation for Standardisation (ISO)] are working on proposals that allow the integration of financial and non-financial information in the same document, with appropriate adaptations for certain sectors (De Vicente-Lama et al., 2021).

Integrated reports make it possible to provide a holistic view of an entity, acknowledging and communicating the total value of an entity to both internal and external users. One of the benefits derived from the preparation of this type of report is that it can be used for interaction with interested parties (Burke and Clark, 2016).

Although the fundamental pillar of the integrated report is the traditional financial report, regulated by accounting standards and required by legal regulations, the main initiatives that promote the preparation of integrated reports are based on developments that complement regulated financial information with other types of information that give insight into the social and environmental impact of organisations. Thus, several authors present integrated reporting as a further step in the sustainability reporting process (Stubbs and Higgins, 2014; Brusca et al., 2018).

Ogata et al. (2018) find a co-dependent relationship between sustainability reporting and integrated reporting, which means that sustainability reports, such as those based on the GRI principles, can be useful in disseminating the activities of entities from an ESG (Environmental, Social and Governance) perspective. In this sense, the GRI standards, widely recognised internationally, are designed for the presentation of sustainability information that can be included in integrated reports. Currently, the GRI Reporting Framework has a main role in the process of preparing these types of reports (Michalczyk and Konarzewska, 2018).

The Higher Education sector is also keen for society to recognise the efforts made and the value generated, and therefore places great importance on the preparation of reports typical of social accounting. Since the financial statements currently in use are not capable of transmitting the value created (Adams, 2018), universities are addressing this by actively producing sustainability reports or documents. These reports sometimes

follow their own models, and on other occasions they take advantage of those models that have already been standardised, the GRI being the one most widely implemented (Alonso-Almeida et al., 2015; Amiano et al., 2021).

The GRI, created in 1997 as a joint project between the United Nations Environment Programme (UNEP) and the Coalition for Environmentally Responsible Economies (CERES), incorporates a set of standards with social and environmental content that, in the case of universities, allows them to gain more visibility, improve their reputation in certain areas, and attract new financing (Lozano, 2006; Larrán and López-Hernández, 2010; Rojas Donada and Bernardo Vilamitjana, 2016).

The objective of GRI is to create a global standard for sustainability reports so that they are rigorous and comparable, with a style similar to that of financial reports. Its scope, initially very focused on sustainability, has been extended to social, economic and governance objectives.

In practice, few universities publish sustainability reports. Obstacles to this include the lack of adaptation of reporting models to this sector (Alonso-Almeida et al., 2015; Ceulemans et al., 2015), which requires a contextualised approach. Along the same lines, Amiano et al. (2021) show the difficulty of the GRI methodology for reporting on issues related to the central objectives of universities.

One of the basic principles in the GRI methodology calls for an organisation to identify and explain how it responds to the expectations and interests of its stakeholders. This includes those who cannot make their views heard and whose concerns need to be channelled through their representatives (e.g., through NGOs), and also those with whom the organisation cannot maintain an open and ongoing dialogue. Emphasis is placed on identifying the legitimately established needs of society.

Among the information to be documented, GRI asks for an explanation of how stakeholder participation has influenced not only the content of the report but also the activities, products or services provided by the organisation (Global Sustainability Standards Board, 2016a).

The GRI methodology, as discussed in the empirical contrast, incorporates specific disclosures that can be used to report the creation and distribution of the economic value generated in organisations. These variables, typical of social accounting, have been developed by the GRI to reflect the importance it places on organisations explaining how they have generated value for stakeholders (Global Sustainability Standards Board, 2016b).

METHODOLOGY

The state of the art has shown that, at present, there are still numerous ongoing debates on how universities should integrate their stakeholders and generate value for them. From these debates, the following research questions are derived to guide this empirical study: which stakeholders do the HEIs take into account in their reports and how do they interact (engage) with them? How do they address the generation of value in their reports and how do they relate it to stakeholders and

their demands? The review also highlights that universities have begun to use different integrated reporting models, introducing them into their management processes, although the model most used, which emerged in recent years and which continues to gain strength, is the GRI Standards model. This gives rise to the last question that guides this study: does the GRI model prove itself to be an adequate instrument for reporting on these aspects of university management?

To address these research questions, the reports published by universities adopting the latest GRI version available, GRI Standards, are used. Although any specific selection of reports may limit the possibility of generalisation of the results, for the purpose of this study, only the reports published by universities located in Europe are chosen for analysis. There are several reasons for this choice. They all share a common university regulation, the European Higher Education Area, which means biases of a normative nature are avoided, and all of them are based on a university tradition that is sufficiently similar as to make comparisons possible, but at the same time with their own cultural nuances that can enrich the results. The number of reports available (10) allows a comparative analysis large enough to extract qualitative knowledge of depth and value.

Analysis of the sustainability reports focuses on the most recent GRI report published by each institution, at the time of writing (June 2021). As can be seen in **Table 1**, the 10 reports analysed belong to HEIs from only four European countries. In three cases (IUNR, ETSII-UPM and ESADE), these are not global reports but rather sustainability reports published by these three faculties or institutes independently of the university to which they belong. All the institutions analysed are public universities except for one private entity (ESADE). Only one of the selected HEIs uses the ‘comprehensive’ GRI report format (University of Cádiz). The remaining reports use the shorter model (core report).

The method used in this study is the comparative case study (Bartlett and Vavrus, 2016), which is ideal for this type of comparative analysis. By comparing cases, potential patterns in the use of GRI reports can be detected, identifying similarities and differences while facilitating the extraction of specific results from each institution that can serve as good practices in the sector. The use of the comparative case study covers, therefore,

both academic learning based on the systematisation of empirical evidence and the extraction of applications for industry.

The first part of the analysis focuses on the role of stakeholders in universities and their ability to influence them. With the aim of making a critical judgement of it, this paper proposes an adaptation of the participation ladders developed by authors, such as Arnstein (1969). To this goal, and inspired by similar proposals, such as those by Moratis and Brandt (2017) and Ferrero-Ferrero et al. (2018), the instruments through which universities interact with their stakeholders have been classified into two types: one-way instruments, which encompass all those that the university uses to inform and communicate their activities to stakeholders and two-way instruments, which encompass all those in which stakeholders have the capacity to respond and interact. To better analyse this latter type of bidirectional relationship, three categories are created as: consultation instruments through which the university consults the opinion of the stakeholders before making a decision; dialogue instruments, in which the university generates a space for exchanging opinions with stakeholders before making a decision; and co-decision instruments, in which the university and the stakeholders co-decide or co-execute the agreement reached after their dialogue.

The second part of the analysis evaluates how universities integrate the generation of value for such stakeholders in their reports. To this goal, a differentiation between economic value and social value is followed.

To identify how universities report these aspects of their management, the following process is implemented. Firstly, disclosures directly related to each topic (stakeholders and generation of value) are examined. Afterwards, to complement this analysis with an inductive approach, selected keywords (“stakeholders” and “value”) are defined and searched across the reports. Then, information on the relationship with stakeholders and the generation of value for them is located, taking note of the disclosures where universities report these issues. Finally, these additional disclosures where universities account for these topics are re-examined in all universities. The combination of this deductive and inductive approach contributes to answer the third research question, about the potential of GRI Standards as an adequate guide for universities’ reporting.

TABLE 1 | Description of the sample.

University	Country	Reported period	Date of publication	GRI report	Ownership
Università di Firenze	Italy	2018	2019	Core	Public
Università degli Studi di Torino	Italy	2018/19	2018	Core	Public
Fundación ESADE (Universidad Ramón Llull)	Spain	2018/19	2020	Core	Private
Universidad de Cantabria	Spain	2015/16, 2016/17	2018	Core	Public
Universidad de Cádiz	Spain	2018/19	2020	Comprehensive	Public
Universidad Politécnica de Madrid (ETSII-UPM)	Spain	2016/17	2019	Core	Public
ETH Zürich	Switzerland	2017/18	2019	Core	Public
Universität Zürich	Switzerland	2018	2019	Core	Public
IUNR Institut für Umwelt und Natürliche Ressourcen (IUNR-ZHAW)	Switzerland	2017/2018	2019	Core	Public
Manchester Metropolitan University	UK	2017/18	2019	Core	Public

Source: authors’ own elaboration.

The results from applying this procedure to the aforementioned GRI reports are presented in the next section, following the order described above.

RESULTS

Acknowledgement of Stakeholders in the University Reports

Identifying Stakeholders

The principles of the GRI methodology give a central role to the relationship that organisations establish with their stakeholders. Of the 10 universities in the sample studied, only 3 of them (Torino, Cádiz and IUNR-ZHAW) specifically define what they consider to be stakeholders in their activity. Their definitions agree in considering a stakeholder as being exposed to the factor of influence, either to the extent that they influence the activity of the university or that they are influenced by it.

The number of stakeholders identified by the different reports varies from seven identified by the IUNR-ZHAW to more than 40 identified by the Università di Torino. Although the level of detail with which each of these stakeholders is described in each report varies significantly, it is possible to make an initial grouping of the type of stakeholders identified. Based on the Ferrero-Ferrero et al. (2018) classification, **Figure 1** shows the stakeholders that are explicitly identified in the reports that make up the sample.

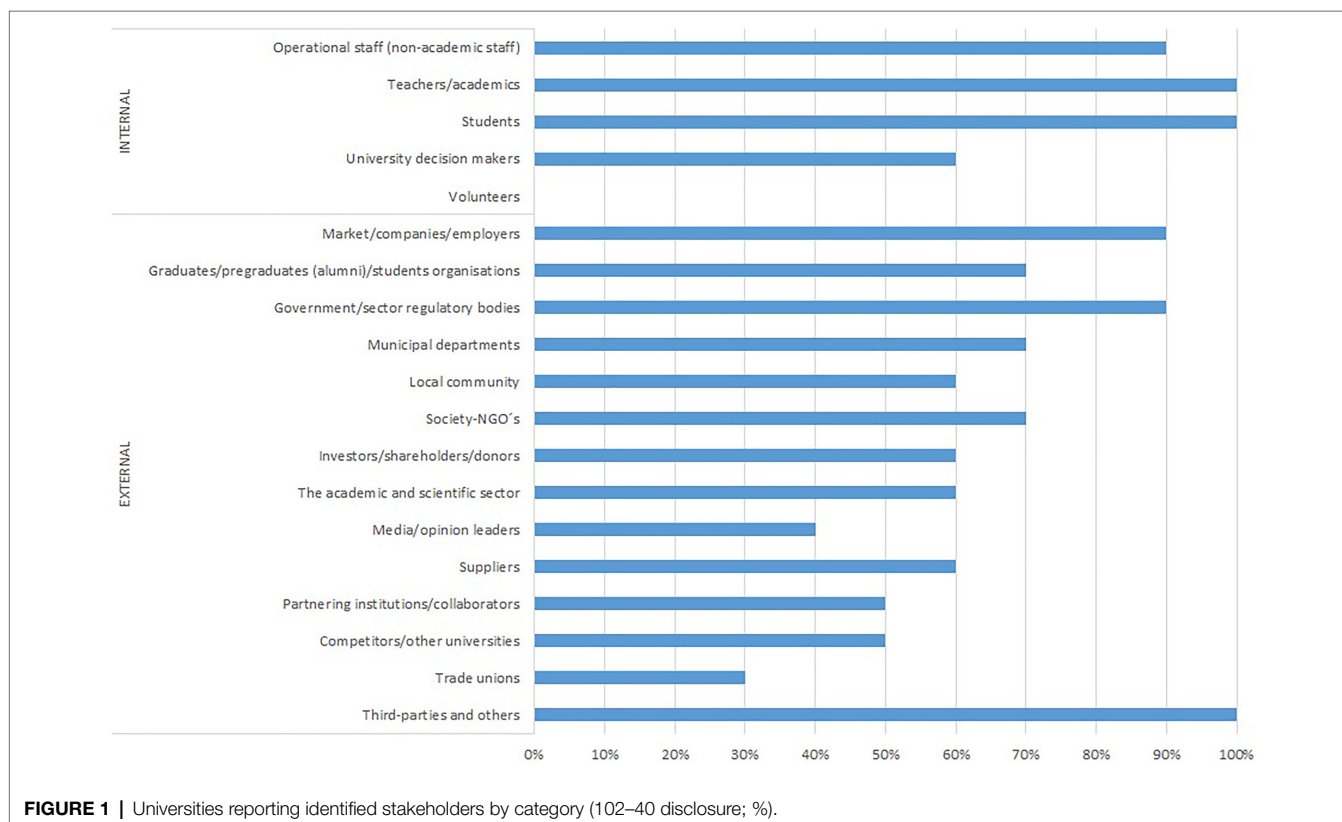
Figure 1 shows that internal stakeholders are significantly more represented, although two results within this group show that only 60% of the universities add university decision-makers to the usual students, academics and operational staff and no university mentions its volunteer collaborators. With regard to external stakeholders, a wide variety is seen, with very different types of relationships and roles, although there is clearly a greater presence of market institutions and companies (90%). Likewise, 90% of the reports feature the stakeholder Government/Sector regulatory bodies.

These results suggest that the ability to influence how a university generates value depends on the way in which these relationships are established with its stakeholders, an aspect that is explored in the next section.

Channels of Relationships and Engagement With Stakeholders

In line with that established in the GRI methodology, another aspect which should be included in the report is the way in which universities interact with stakeholders, in order to identify the objectives (material topics) and the way these activities are developed. However, the detail with which this information is presented differs substantially between universities.

The University of Cantabria, the Polytechnic University of Madrid (ETSII-UPM) and the University of Cádiz detail the channels used for each stakeholder, while ETH Zürich, Manchester Metropolitan University and the Universität Zürich go further, detailing the topics identified for each of them. Other universities,



however, provide more vague and generic information regarding the instruments used for dialogue with stakeholders.

Figure 2 shows the different communication channels used by the universities in the four categories mentioned and shows what percentage of the sample has made use of each of these coordination instruments in their relationship with their stakeholders, following the categorisation introduced in the methodology section.

Figure 2 shows a decreasing slope, which suggests that the link between universities and their stakeholders is more informative than participatory. In fact, this categorisation clearly shows that all universities, through one instrument or another, use unidirectional communication channels, which allow them to provide information to their stakeholders. The instruments for consultation and dialogue with stakeholders are also quite popular, especially through meetings, conferences or workshops, which is a good way of obtaining feedback on the specific issues that universities raise with their stakeholders. Up to 90% of the reports refer to having consulted with their stakeholders in order to obtain information on specific topics of interest for the universities. However, this process is not enough to assess the relationship between both actors as bidirectional, as pointed out by Pantoja et al. (2015).

In fact, the data show that only 30% of the universities in the sample acknowledge in their reports the presence of more

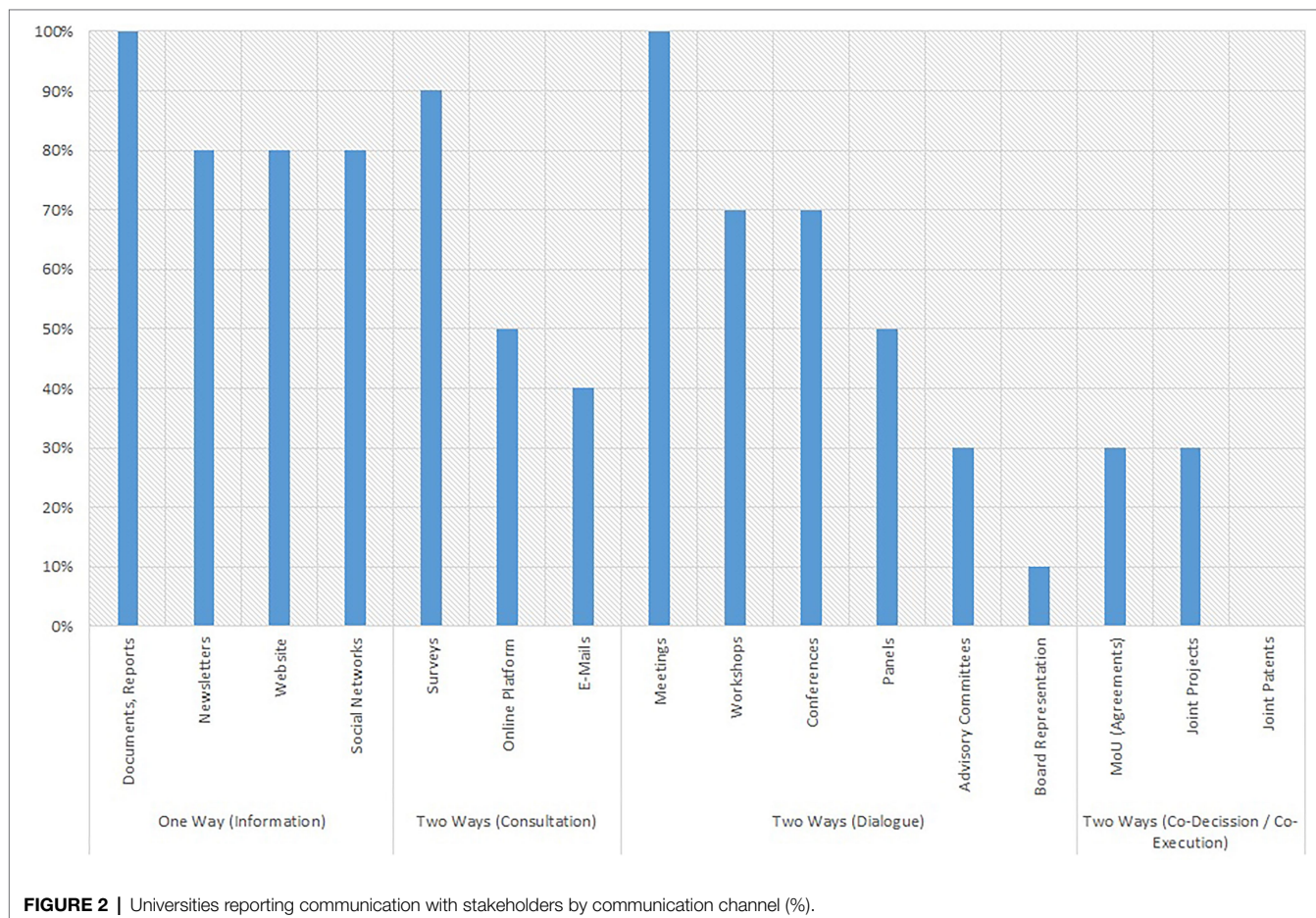
stable channels that allow their stakeholders to in some way influence university activity, as indicated by Mitchell et al. (1997). When this occurs, it is generally a case of partnership in the implementation of specific projects, since in no case are stable partnerships reported.

Aspects Related to the Reporting of Value Generated

The principles of the GRI methodology suggest that, in order for these to enable an integrated reporting exercise, organisations should record in their reports the economic and social value generated by their activity. Although *a priori* one would expect universities to make use of their activity reports to declare their contribution to the socio-economic development of the territory, it is clear from the review that reporting of this information is scarce.

In fact, even the information most readily available, that of the annual accounts, is not recorded by 30% of the universities in their reports, and only 60% of them detail the sources of financing that have allowed them to carry out their activity.

There are very few references to the generation of economic value in integrated reporting exercises, and the presence of the other essential element – that of the generation of social value – is even more scarce. Using a detailed keyword search,



some references to the social value generated could be found, as summarised in **Table 2**. This shows the importance given, or not, to this point in the reports.

As **Table 2** shows, reporting on the generation of value beyond the economic sphere, or its distribution among stakeholders, is not a relevant issue for most of the universities in the sample. The mention and identification of social value, or the valuation of aspects related to university activity, are scarce in these extensive reports.

In four universities (ETH Zürich, ESADE, IUNR-ZHAW and Manchester), there is hardly any mention of this aspect. In the case of ETSII-UPM, there are some references to the value chain, and the contribution made to society from different missions. On very few occasions an amount of added value is calculated with respect to the funds received, which is understood as a multiplier (around three in Firenze and five in Zürich) that could represent the socio-economic value generated or returned to society. And only in some cases, already mentioned, the economic information is presented in such a way that it is possible to identify the value generated for some specific stakeholders (e.g., salaries and taxes).

It should be noted that the Italian universities (Firenze and Torino) go one step further by presenting a breakdown of the value generated for stakeholder groups. Despite being fundamentally economic, it reflects an interest in bringing together the issues of value and stakeholders, in what could be an example for other cases.

Assessment of the Capacity of the GRI Model to Capture the Social Value Generated and Its Transfer to Stakeholders

The previous sections demonstrate that preparation of reports following the GRI methodology has allowed the universities in this analysis to account for the value they generate for society, and show how this value is transferred to their closest stakeholders. This section explores whether the instrument proposed by GRI to achieve integrated reporting, the disclosures, acts as an appropriate guide for universities to communicate these aspects.

First, the GRI contents used by the universities in their triple bottom line reports are shown. Disclosures are divided into general (100), economic (200), environmental (300) and social (400) issues, and **Table 3** shows the relative use of each family of disclosures in the reports analysed.

As can be seen in **Table 3**, economic contents are the least used in absolute and relative terms (altogether only 22% of the possible disclosures are used), followed by social disclosures (with 25% being used). This initial analysis could already explain why the previously analysed elements of information end up so spread out in the report and not always easily identified.

Analysis of the Usefulness of Disclosures Related to Stakeholders

The GRI considers it essential that the report collects detailed information on the composition of its stakeholders and how the organisation relates to them. For this reason, GRI 102 (General

TABLE 2 | References to value for stakeholders and social value in the reports.

Università di Firenze	The question of value (economic and social) is present in different places: on 4 occasions, the report mentions social value generically. It presents a definition of the added value to the stakeholders (valore aggiunto), defining it as an economic-social value that represents the wealth produced and distributed by the university, taking into account the remuneration of all the participating actors. It includes a reclassification of the economic value to calculate the contribution of value to the different stakeholders, including percentages for each case.
Università degli Studi di Torino	The question of value (economic and social) is very present in different places: on up to 8 occasions there is talk of the direct and indirect value that the work of the university adds or transfers to society or its stakeholders. The value generated in relation to the subsidies received is calculated, indicating that the University generated 2.93 euros for the territory with its multiplier effect. A calculation of the direct economic value generated for different stakeholder groups is included (p. 120). An isolated mention regarding the alumni mission to generate value for its members and society, without quantification (p. 177).
Fundación ESADE (Universidad Ramón Llull)	There is no reference to social value. References to the generation of economic value include a breakdown of the direct economic value generated and distributed by concepts (p. 18).
Universidad de Cantabria	It includes specific references to the value chain and aspects, such as those related to purchases (p. 27). It collects information on a Chair of entrepreneurs to co-create economic and social value. It includes an analysis of purchases in proximity and payroll, which partly reflect the economic value contributed in these cases (p. 31–32).
Universidad de Cádiz	There are references to the ETSII-UPM value chain and the contribution they make to society from different missions, but it is not quantified (p.84). Some generic reference to the need for value to be transferred to society (p. 87). Some generic reference to added value in strategic alliances.
Universidad Politécnica de Madrid (ETSII-UPM)	An isolated mention of the value that is generated by saving resources and their reuse (p. 69).
ETH Zürich	There are no direct references to social value, but reference is made to a study on added value by UZH, which indicates that each franc invested produces around 5 (p. 77).
Universität Zürich	No references to social value found
IUNR Institut für Umwelt und Natürliche Ressourcen (IUNR-ZHAW)	No references to social value found
Manchester Metropolitan University	No references to social value found

Source: authors' own elaboration.

disclosures) dedicates a whole section, to detailing Stakeholder engagement. This section includes five disclosures (from 102–40 to 102–44) in which the following information is required as: 102–40 List of Stakeholders; 102–41 Collective bargaining agreement; 102–42 Identifying and selecting stakeholders; 102–43 Approach to stakeholder engagement and 102–44 Key topics

TABLE 3 | GRI disclosures used in the reports of the sample universities.

Type of standards	Number of disclosures	Maximum possible	Percentage
100 (universal)	414	590	70.17%
200 (economic)	38	170	22.35%
300 (environmental)	120	320	37.50%
400 (social)	102	400	25.50%
TOTAL	674	1,480	45.54%

Source: authors' own elaboration.

and concerns raised. It should be noted that these disclosures must be incorporated in all reports, whether the organisation uses the Core option or the Comprehensive option. Therefore, it is no surprise that all the universities in the sample respond to these disclosures, in greater or lesser detail, except for one university report, which does not include the information related to the Collective bargaining agreements.

In addition to these specific disclosures, stakeholders are also explicitly cited in other fundamental disclosures, such as 102–21 (Consulting stakeholders on economic, environmental and social topics), or even in thematic disclosures, such as 413 (Local Communities), in which the projects undertaken that relate to vulnerable groups can be described, with collective rights, and social projects with an impact on the local community and that take into consideration stakeholders in a broader sense, including those with whom there is no direct relationship. However, these disclosures are not widely used, with only 30% of the universities providing information on 102–41, and 40% of the universities in the sample reflecting their impact on the local community through disclosure 413.

Analysis of the Usefulness of Disclosures Related to Value

To further examine the usefulness of the GRI disclosures proposal with regard to accountability for the economic aspects collected in the reports, **Table 4** indicates the 200 disclosures used by each university in the sample.

Table 4 shows a very different reflection of economic issues depending on the case study. While 6 of the 10 universities make residual use of these disclosures (reporting on between 0 and 2 of them), the other four show much greater use, reaching nine in the case of Firenze and up to 11 for Cádiz, out of a possible maximum of 17. It can be seen that these four universities are precisely those that provide more detail on their accountability in generated and distributed value (see **Table 2** in the previous section).

Among the economic disclosures used, the most common is 201–1 (Direct economic value generated and distributed), reported by seven universities, usually referring to their annual accounts. This is followed by 201–4 (6 cases), where the public aid received is reported. Disclosure 201–1 is especially interesting as it refers to the generation of value, even if it is from an economic perspective. In this sense, significant differences in approach are observed between the seven universities that use it. In three of the cases (ESADE, ETSII-UPM and

TABLE 4 | Use of 200 standards in the sample universities.

University	200 Disclosures used	Maximum possible	Percentage of use
Università di Firenze	9	17	52.94%
Università degli Studi di Torino	6	17	35.29%
Fundación ESADE (Universidad Ramón Llull)	2	17	11.76%
Universidad de Cantabria	5	17	29.41%
Universidad de Cádiz	11	17	64.71%
Universidad Politécnica de Madrid (ETSII-UPM)	1	17	5.88%
ETH Zürich	1	17	5.88%
Universität Zürich	0	17	0.00%
IUNR Institut für Umwelt und Natürliche Ressourcen (IUNR-ZHAW)	2	17	11.76%
Manchester Metropolitan University	1	17	5.88%
TOTAL	38	170	22.35%

Source: authors' own elaboration.

IUNR-ZHAW), the information replicates the usual information on the income statement (income and expenses), from a financial approach. In the case of Cádiz, an analysis of proximity purchases and payroll is added to the financial approach which, in part, reflects the economic value provided in these cases. However, in up to three cases (Cantabria, Firenze and Torino), the perspective is of generated and distributed value, which allows an approximation of the value generated for different stakeholders, an aspect which is given particular attention by Firenze and Torino. This shows that certain universities find the use of GRI disclosures to be a good practice for going beyond the presentation of their financial statements. This could serve to inspire other similar institutions.

DISCUSSION

Firstly, with regard to the identification of stakeholders in the reports, the preponderance of market and business-related institutions among the external stakeholders is remarkable. This result is in line with that found in the literature review, which showed that universities have a stronger relationship with those interest groups related to the economic system than with other interest groups more related to the social system. This trend seems to reflect a central focus of the universities in securing potential job opportunities for students. With regard to Government or Sector regulatory bodies, present in 90% of cases, their relevance may come both from the fact that they provide funds for research and teaching (90% of universities in the sample are public) and from the regulation that affects the entire sector.

Although not apparent in all the reports studied, there is some evidence that other agents more related to the social context, such as the local community and NGOs, and to the academic sector, such as investors and collaborators, are gradually being incorporated into these reports. However, and in line

with findings from previous similar studies (Bellucci et al., 2019), these stakeholders are usually presented in a somewhat generic way. This confirms the general interest in improving collaboration with those actors with whom there is no specific functional relationship but, at the same time, this generality makes the interpretation of this relationship difficult. Examples include mention of the physical and social environment by the University of Cantabria, the territory mentioned by the Università di Firenze, and society by the University of Cádiz.

In terms of stakeholder relations channels, reference is often made to consultation processes, which, given their characteristics, do not really constitute two-way relationships (Pantoja et al., 2015). The lack of formality in these types of links makes them dependent on the context, with the characteristics of each organisation determining their composition and relevance. Moreover, only 30% of the cases show more stable channels, which make it easier for stakeholders to influence university activities along the lines of Mitchell et al. (1997). This could be a significant weakness for the university system since, as the literature has identified (Saubier, 2021), it is a stable partnership which allows the incorporation of improvements in governance and decision-making processes at the institutional level.

In general, the GRI format seems appropriate for introducing the question of stakeholders and the necessary relationship with them for setting objectives (material topics) as well as a way of universities moving towards integrated reporting models.

However, and despite the fact that from its base (101, Foundations), it refers to the need to respond to the expectations and interests of the different stakeholders, there is no disclosure directly related to the measurement of social value, which may be why this issue has not been seen in the reports analysed in this study.

Nevertheless, the GRI methodology does promote the reporting of information on economic value generated, with disclosures, such as 201–1 (Direct economic value generated and distributed) or 203–2 (Significant indirect economic impacts), allowing for an extension of this concept, with a consensus on common methodologies, instruments or proxies so that the information provided by the universities is comparable.

In practice, no report in the sample refers to the ‘generated social value’ as such. The value generated by the universities is never expressed in monetary terms, as proposed by some authors (Retolaza et al., 2015; Ayuso et al., 2017). However, throughout all the reports, and in different GRI disclosures, information is provided on elements, such as employability, contracts and student body, that in certain studies already cited have been considered ‘value generating variables’.

Regarding the creation of value for stakeholders, the sample shows that some universities, such as Firenze or Torino, do include a calculation of these issues based on their financial statements. This could serve to promote these practices among other HEIs through benchmarking, and the use of this potential in a generalised way by universities.

It should also be noted that practically all the reports analysed cover aspects beyond what is envisaged by GRI, such as the approach taken in the institution towards the Sustainable Development Goals (SDG). Considering the few referrals made to the social value generated, the effort made in the reports

to reflect the contribution of universities to the global challenges posed by the 2030 Agenda is quite encouraging.

CONCLUSION

The evolution of the demand for greater transparency and improvements in the disclosure of non-financial information calls for new practices and new communication channels that allow organisations to express the value generated for their stakeholders.

While the academic literature reinforces the idea of universities committed to the generation of social value, as well as the need for its dissemination through integrated reports, and the importance of interaction with stakeholders (as a contrast process to identify the value generated), the results show that various issues are underrepresented in the GRI reports analysed. This is surprising, considering that the universities analysed here are likely leaders in their commitment to using the GRI as a wider reporting model.

However, it is clear that the objective of interacting with stakeholders, which is central to the preparation of GRI Reports, focuses on identifying aspects on which these wish to be informed rather than on identifying variables of value. On a positive note, it seems that once agile channels of communication with stakeholders have been established, these can be used to identify how value is generated and what aspects could be improved. The case studies analysed in this study, however, show that those communication channels which are unidirectional prevail and that the bidirectional ones have a high contingency component, which makes it difficult to introduce improvements and innovations in university management.

It is worth remembering, both for universities and academics who generate knowledge from their work, that this type of partnership is especially relevant in the current context of addressing the global challenges posed by society. All the strategic documents and global regulatory frameworks reflect this, such as the 2030 Agenda, which dedicates its SDG 17 to the necessary promotion of this type of partnership. To what extent the university can adapt its structures to a more organic relationship with its stakeholders and transfer the value that its activity generates to society are questions which require further empirical evidence. Identifying good practices and benchmarks among the universities that are already adapting integrated reporting models would be a step in the right direction.

Lastly, the results of the study should be interpreted taking into account certain limitations. On the one hand, the caveats inherent in every comparative case study mean that, by studying a larger number of cases rather than focusing on a single case study, in-depth knowledge is sacrificed. On the other hand, the possible biases derived from selection of the sample means that it is advisable not to generalise the results to all sectors of the university system, not even those in a European context. In fact, it is possible that certain elements, such as the location of the universities or their size, could influence the depth of information presented on the value generated for their stakeholders. Finally, the very format of the reports is another limitation, since most of the information is spread out across the report, and given the nature of this study, it has been

preferable to review in greater detail the information provided in the corresponding GRI disclosures.

Some of these limitations could well be addressed through future lines of research, for example: by conducting case studies, perhaps on the universities that in this study have shown themselves to be leaders in providing more comprehensive information; or by combining these detailed studies with studies of a larger sample, in particular sectors or countries, such as Italy, given that the study seems to point to possible good practices in Italian universities; or conducting studies with content analysis methodology which can capture in a more thorough and quantitative way certain key communication elements present in the reports. All these approaches could contribute to the ongoing generation of empirical evidence on the practice of integrated reporting in universities and identify good practices in other organisations and regions.

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DATA AVAILABILITY STATEMENT

Publicly available datasets were analysed in this study. This data can be found at: <https://www.globalreporting.org/reportregistration/verifiedreports>.

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All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

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Positive Affect Predicts Turnover Intention Mediated by Online Work Engagement: A Perspective of R&D Professionals in the Information and Communication Technology Industry

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Remote work has become the most popular approach during the COVID-19 lockdown; however, remote work engagement is an issue which creates challenges for human resource management. Some individuals engage in work no matter how difficult the job is, but some people's minds wander, no matter how simple the job is. To address this issue, this study drew on trait activation theory, which indicates that one's positive disposition may affect one's turnover intention mediated by work engagement, to formulate a research model to test the associations among R&D professionals. Questionnaires were distributed to R&D professionals working in China information and communication technology (ICT) through several Instant Message groups. In total, 386 valid questionnaires were collected for confirmatory factor analysis with structural equation modeling to verify the research model. The study found that positive affect can positively predict three types of remote work engagement: the cognitive, emotional, and behavioral engagement of R&D personnel. All three types of remote work engagement of R&D personnel can negatively predict their turnover intention. The results suggest that if human resource managers working in the ICT industry want to reduce the turnover intention rate of R&D workers under pressure from COVID-19, they should enhance workers' remote engagement by selecting R&D workers with a high level of positive affect.

Keywords: positive affect, work engagement, turnover intention, organizational behavior, remote working

INTRODUCTION

The SARS-COV-2, COVID-19, is becoming more virulent (Huang et al., 2020), and the associated pandemic is creating huge challenges for those working from home, affecting employees' psychological pressure in a way that has never before been seen (Carnevale and Hatak, 2020). It has created a situation of crisis and uncertainty, during which companies have to provide adequate information and communication technology (ICT) to foster higher levels of engagement in online work with measures to prevent employee stress (Ruiz-Frutos et al., 2021). It is possible that the COVID-19 pandemic will result in a number of work paradigm shifts within organizations which are facing new demands, leading to a "new normal" of working from home (Howe et al., 2020). With the aim of gaining insights from a case of online work, the focus of this study was to understand

the potential factors that influence online work for R&D professionals in ICT jobs during the COVID-19 lockdown.

The high costs of turnover are associated with recruitment and the difficulties of finding talented employees (International Labour Organization, 2020). For example, one study found that the cost of replacement was on average 213% of the annual salary of highly skilled employees (Purvis, 2021). R&D professionals as highly skilled workers in the ICT industry face intense pressure to innovate and to create groundbreaking products (Jiang et al., 2019). Their turnover has been identified as a major challenge for companies that wish to retain workers. Examples of measures to retain such workers include creating an attractive work culture by providing flexible work schedules (Caillier, 2018) and mentoring programs (Fogarty et al., 2017). According to the job demand-resource theory, every occupation has two general categories of job demands and resources which may improve employee well-being and performance (Bakker and Demerouti, 2007) and reduce turnover intention (Islam et al., 2018). While turnover intention cannot replace actual turnover, it is correlated and can serve equally well as a precursor to actual leaving (Dalton et al., 1999; Lee H.-F. et al., 2019). Considering the change of job demand-resource associated with turnover intention cost during the COVID-19 pandemic, this study aimed to understand the individual turnover intention of ICT personnel.

Trait activation theory (TAT; Tett et al., 2013) states that work engagement is the activated state of positive work-related affect with increased job motivation (e.g., Warr and Inceoglu, 2012). Generally, high job motivation means having a positive mental state while working, and having high job motivation while engaging in a job is a particularly important variable in performance (Jung et al., 2021). Considering this, the present study took positive affect as an individual factor related to experiences in R&D jobs. Moreover, previous studies have focused on employees' turnover intention as an outcome of their work engagement (Jiang et al., 2019), but few studies have as yet examined how turnover intention is influenced by positive affect, mediated by online work engagement. Thus, this study aimed to fill this gap by developing a research model that explores the mediating role of work engagement in relation to R&D professionals' positive affect and turnover intention.

LITERATURE REVIEW

Turnover Intention

DeTienne et al. (2012) stated that, "Turnover intention is simply whether an employee has the objective of self-terminating his or her employment" (p. 380). Recruitment, selection, and training of human resource management (HRM) that represent a heavy investment for a firm. Previous meta-analyses aggregated that the estimates of the correlations between turnover intention and actual turnover ranged from 0.31 to 0.52 (Dalton et al., 1999). Cho and Lewis (2012) used the central personnel data file (CPDF) and MPS 2005 to assess how well turnover intention predicts turnover in the federal sector. Their study indicated that turnover intention seemed to be a reasonable proxy for actual turnover, especially as using age and experience as units of analysis resulted

in a correlation of 0.7 or higher. Thus, turnover intentions have a direct effect on actual turnover (Cohen et al., 2016), although the estimate coefficient may be limited for different groups.

During the COVID-19 pandemic, working environments have faced uncertainty as a result of technological changes, economic fluctuations, and political insecurity. It has therefore been impossible for organizations to guarantee employment stability for all of their employees (Bajrami et al., 2021). Considering that job insecurity is a risk factor, its effects on turnover intention are a managerial factor during the COVID-19 pandemic (Jung et al., 2021). The job demand and control models suggest that ICT employees' ability to pace themselves and to make their own task decisions can reduce their turnover intention (Shih et al., 2011). Particularly, R&D jobs are usually designed to give the ICT employees a great deal of autonomy in terms of the pace and process of their work. However, R&D workers in the ICT industry need to work smart and hard, and their turnover intention can impact the competitiveness of ICT firms. Yet, during the crisis of the COVID-19 pandemic, R&D workers' turnover intention has not yet been clearly studied. It was therefore explored in this study.

Work Engagement

Work engagement (WE) has been defined in two main ways in the literature. Kahn (1990) originally defined it as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (p. 694). These three types of WE were therefore adopted in this study. The advances in applied ICT have led to increased flexibility in terms of how and where people can work. Thus, this study considered R&D workers in the context of the electronics industry to explore their three types of WE based on Kahn's (1990) classification.

It has been argued that if workers perceive their jobs as being both significant and meaningful, and if they experience a sense of pride while performing work-related activities, their three types of WE will be promoted (Perera et al., 2018). Recent studies related to WE have been thoroughly discussed in terms of the environments or organizational factors, such as in the hospitality industry (Dai et al., 2021), and in the medical industry (Cao et al., 2019). However, few studies have considered WE in the ICT industry to explicate the motivation of R&D professionals. Additionally, with the spread of COVID-19, working remotely quickly became the norm for workers in numerous organizations (Shafi et al., 2020), with employees having to adjust to teleworking from home (Burdorf et al., 2020). If this remote work was not initially employed, the ability to work effectively in a virtual format may have created a hurdle for employees (Howe et al., 2020). The present study therefore aimed to understand more about the WE of R&D professionals while working from home.

Positive Affect in the Context of the Workplace

The term "affect" tends to be used as an umbrella term for mood trait, or in other words, it refers to affection that is not directed toward a specific object, for example, feeling tired

versus feeling alert (Reis et al., 2016). Positive affect is related to a subjective experience of emotions, moods, or dispositions which have a facilitating effect on behaviors and interactions with environments (Jones and Graham-Engeland, 2021). Here, we use the term affect to refer to the psychological trait that shapes the states of one's feelings in the face of failure.

As the COVID-19 pandemic and interventions continue to have an impact on everyone's daily life, personality research may be useful for addressing the various ways in which different people respond to a major global health crisis such as this (Hardin et al., 2021). By investigating the ways in which psychological traits predict how people respond to unprecedented shifts in their environment, research on the role of personal traits in the pandemic may be able to make a broader contribution to personality psychology (Zajenkowski et al., 2020). Thus, we draw upon the task-specific affective responses as a personal trait which is generated in the process of R&D workers interacting with their remote job activities while facing the pandemic crisis.

HYPOTHESES

Positive Affect and Remote Work Engagement

The openness of positive emotion may allow individuals to attach a more positive valence to neutral experiences, thus enhancing the positive affect even further (Huffziger et al., 2013). In other words, promoting greater positive affectivity may broaden one's outlook and build psychological resources that can promote healthy emotional responses in the workplace (Fredrickson, 2004). Under emotion-eliciting processes, positive affect can validate the prediction of motivation to WE (Laguna, 2019; Yan et al., 2019). A workplace culture which involves continually being "on," and which leaves no opportunity to experience the pleasure of thinking cognitively and deeply can affect job engagement (Collins, 2017). Specifically, personality has been linked to health-risk perceptions, whereas some personality traits have positively predicted job behaviors (Malesza and Kaczmarek, 2019). Accordingly, during the COVID-19 pandemic, how positive affect as a personal trait is related to remote WE was hypothesized as follows:

H1: Positive affect is positively related to cognitive engagement in the context of working remotely;

H2: Positive affect is positively related to emotional engagement in the context of working remotely;

H3: Positive affect is positively related to behavioral engagement in the context of working remotely.

Remote Work Engagement and Turnover Intention

It has been shown that there is a relationship between individual differences in job engagement and outcomes such as organizational commitment or weaker turnover intentions (Meyers et al., 2020). Turnover intention is recognized as an important factor as it relates to WE (Fu and Chen, 2015). For

instance, previous studies found that the affective dimension of WE has a strong link to the turnover intention of Malaysian nurses (Al-Hussami et al., 2014). Moreover, Shin and Jeung (2019) found that allowing employees to actively participate in their work can effectively reduce their willingness to leave their job. Therefore, to avoid excessive turnover intentions, employers should pay attention to employees' behavioral engagement. While working from home during the COVID-19 pandemic, how remote WE is related to the turnover intentions of R&D personnel in the ICT industry is hypothesized as follows:

H4: In the context of working remotely, emotional engagement is positively related to turnover intention;

H5: In the context of working remotely, cognitive engagement is positively related to turnover intention;

H6: In the context of working remotely, behavioral engagement is positively related to turnover intention.

Positive Affect and Turnover Intention

Previous studies have found that monitoring employees with high levels of positive affect can encourage them to remain in the company (Steel and Lounsbury, 2009). Studies have already demonstrated that intentions to leave can be changed by a mediation process (e.g., Afzal et al., 2019; Cepale et al., 2021). Several studies revealed that there may be a mediating process, respectively, with Afzal et al. (2019) and Cepale et al. (2021) supporting the existence of mediating variables (e.g., self-efficacy, organizational socialization, and organizational identification) between affect and intention to leave through cross-sectional study and three-waves (or longitudinal) models. WE can mediate the relationship between a high level of positive feeling and organizational commitment (Teo et al., 2020). Moreover, Gottschalck et al. (2020) highlighted that if organizations can consider individual differences in the patterns of turnover intentions, they can design retention strategies that are more closely aligned with the specific needs of different employee groups. Accordingly, how R&D professionals' positive affect is related to their turnover intention mediated by remote WE during COVID-19 was hypothesized as follows:

H7: Positive affect is negatively related to turnover intention mediated by remote WE.

Research Model

The appraisal theories of emotion (Scherer et al., 2001) have been used in numerous studies to evaluate the processes of emotion elicitation. Since these theories rely on cognitive processes such as perception, decision making, and behavior, they can be used to assess one's feelings about a job. Ecological theories focus on the interaction of persons and environments requiring individual unique physical and psychological adaptations (Bronfenbrenner, 1995). This suggests that engagement plays an important role in generating behavioral responses (Jain and Asawa, 2019; McLaughlin et al., 2019); thus, during the COVID-19 lockdown, the research model for investigating the relationship between

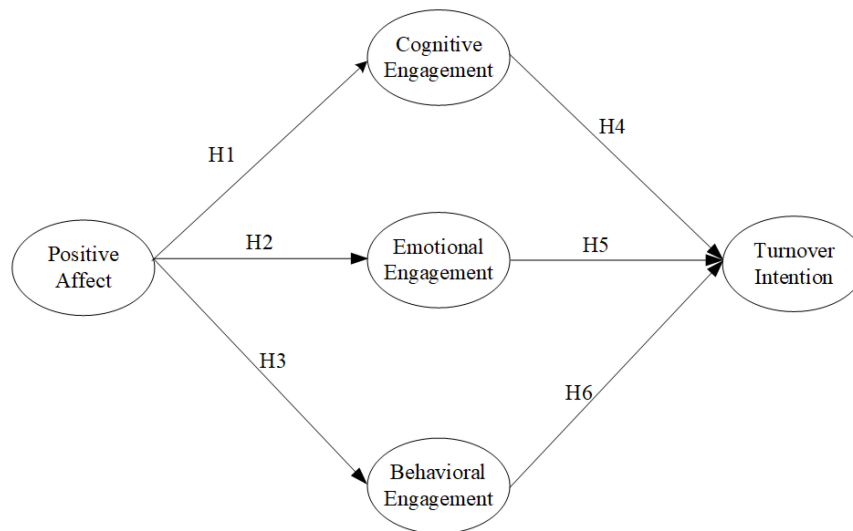


FIGURE 1 | The hypothesized research model.

positive affect, remote WE, and turnover intention of R&D professionals was proposed as shown in **Figure 1**.

MATERIALS AND METHODS

Participants and Procedure

Snowball sampling was adopted to recruit participants from among R&D professionals in information technology who had worked remotely for at least 3 months during the COVID-19 lockdown in China. Questionnaires were distributed by post on a number of Instant Messaging groups. Group members were asked to reply and to pass on the questionnaires to their colleagues on June 01, 2020. After 2 weeks, there were 412 returned questionnaires, of which 26 invalid questionnaires were excluded (19 were incompletely filled out, and 7 subjects had the same answer for all questions), so that 386 useful data were retained for analysis. Invalid data were randomly distributed across groups, meaning that they did not cause random bias in the model.

In terms of gender, 75.9% (293) were males and 24.1% (93) were females. Regarding age, participants up to 29 years old comprised 6.7% (26) of the sample, between 30 and 34 comprised 31.6% (122), between 35 and 39 comprised 25.9% (100), and 40 years old and above comprised 15.1% (58). As for the participants' educational backgrounds, 14.7% (57) had a qualification of junior college or below, 45.1% (174) had a bachelor's degree, and 40.2% (155) had a master's degree or above. In terms of years of employment in their current R&D jobs, 6 years or less comprised 12.9% (50), between 7 and 9 years comprised 18.9% (73), between 10 and 12 years comprised 16.6% (64), between 13 and 15 years comprised 10.9% (42), between 16 and 18 years comprised 16.3% (63), and 19 years and above comprised 24.3% (94).

Questionnaire

The content of the questionnaire was designed with reference to previous research and related theories; moreover, to ensure face validity (Hardesty and Bearden, 2004), the questionnaire content was reviewed by domain experts. After the data collection, the items and the face validity of the questionnaire were analyzed. Items were rated on a 5-point Likert scale (ranging from 1 = *very slightly or not at all* to 5 = *extremely*). This study adopted a confirmatory study approach, meaning that the reliability and validity of the constructs of the questionnaire should be re-examined, as suggested by Hair et al. (2019).

Positive Affect Measurement

PANAS (positive and negative affect scale; Watson et al., 1988) is used to assess broad-based positive and negative mood states (Watson, 2000). Joshanloo (2017) shortened the scale to 12 items for measuring positive and negative affect. Eight items were designed in this study to assess positive affect (e.g., "You don't feel sad when your boss asks you to redo the work during the COVID-19 lockdown" and "You will be thankful when someone gives you some advice to improve your job during the COVID-19 lockdown.").

Remote Work Engagement Measurement

The WE scale was developed by Walden et al. (2017) (Work Engagement Scale). Albro and McElfresh (2021) applied it to assess how librarians in a remote work environment coped with COVID-19. Adapted from their studies, to measure participants' perceptions of the three types of engagement during the COVID-19 lockdown, six items for each WE were designed in this study. For example, for cognitive engagement: "When working remotely, I pay a lot of attention to my job" and "When working remotely, I devote a lot of attention to my job." For emotional engagement: "When working remotely, I feel energetic when doing my job" and "When working remotely, I am enthusiastic

about my job.” For behavioral engagement: “When working remotely, I exert my full effort to perform my job” and “When working remotely, I exert a lot of energy when performing my job.”

Turnover Intention Measurement

DeTienne et al. (2012) stated that, “turnover intention is simply whether an employee has the objective of self-terminating his or her employment” (p. 380). Adapted from the Chinese version of the Turnover Intention Scale developed by Su (2021), this study designed seven items to measure turnover intention (e.g., “During the COVID-19 lockdown, I will leave my job if another job becomes available” and “During the COVID-19 lockdown, I will probably not stay with this organization for much longer”).

RESULTS

Confirmatory Factor Analysis for Measurement Model

The internal and external validity of each item was tested in this study. To perform the test of internal validity, first, the factor loading less than 0.5 was deleted. Second, first-order confirmatory factor analysis (CFA) was performed to test those values of χ^2/df , RMSEA, GFI and AGFI, by deleting those items with highest residual values. If those values are reach the threshold suggested, then those items would be remained (Hair et al., 2019). **Table 1** shows the results for internal validity, therefore, we reduced the number of items from eight to five for positive affect, from six to four for cognitive engagement, from six to four for emotional engagement, from six to five for behavioral engagement, and from seven to five for turnover intention.

To test the external validity of each item, the top 27% of the scale scores were classified as the high group, and the bottom 27% were selected as the low group for independent sample *t*-tests. A *t*-value above 10 ($p < 0.001$) is considered to be statistically significant (Awang et al., 2015). The *t*-value in this study was higher than 13.59 ($p < 0.001$), indicating that all questions in this study were discriminatory, that is, all items have external validity for use in different situations with different samples (Green and Salkind, 2004).

Reliability and Validity Analyses

Awang et al. (2015) indicated that when the Cronbach's α value and composite reliability (CR) fall between 0.70 and 0.98, there is a high level of reliability. **Table 2** shows that the Cronbach's α values are over 0.83, indicating that those constructs have good internal consistency; the CR values are over 0.70, revealing that those constructs have acceptable external consistency. To test the convergent validity of each construct, the values of AVE and the factor loading of each construct should be above 0.5 (Hair et al., 2019). **Table 2** shows that the values of FL are over 0.68, and the values of AVE are over 0.63, indicating that all constructs have good convergent validity.

To test the construct discriminant validity (i.e., the difference between two different constructs), Awang et al. (2015) suggested that the correlation coefficient between two constructs should be

lower than the square root of the AVE of the construct. **Table 3** shows that the ranges of the square root of the AVE of each construct are higher than the value of correlation coefficients between constructs, indicating that the questionnaire has good construct discriminative validity.

Model Fit Analysis

Model fit is analyzed by AMOS 20.0, and is described in three parts. Hair et al. (2019) suggested that absolute fit measures, incremental fit measures, and parsimonious fit measures should be taken into consideration before path analysis.

Absolute fit measures: Hair et al. (2019) suggested that if $\chi^2/df = 2.61$ is less than 5, RMSEA is less than 0.08, and GFI and AGFI are above 0.8, it is not a good model fit. In this study, the value of RMSEA is 0.07, GFI is 0.87, and AGFI is 0.84, indicating that all of the absolute fit measure values exceed those thresholds. Incremental fit measures: Hair et al. (2019) suggested that the values of NFI, TLI, CFI, IFI, and RFI should be larger than 0.8 to show that the model has a fair fit. In this study, NFI = 0.879, TLI = 0.91, CFI = 0.92, IFI = 0.92, and RFI = 0.87, so all of the incremental data are over the threshold, indicating a fair model fit. Parsimonious fit measures: The value of PNFI and PGFI larger than 0.5 means it has a good model fit (Hu and Bentler, 1999). In this study, PNFI = 0.79 and PGFI = 0.72, which were larger than the threshold 0.50, indicating that the Parsimonious fit measures have a good model fit. According to Podsakoff et al. (2003), Harman's single-factor test is one of the most widely adopted techniques for determining the model fit of common methodological bias. The first factor interpreted 17.95% of the total variance which was below the threshold of 40%. This result indicates that there was no common method bias in this study.

Path Analysis

In the verification step, this study adopted AMOS 20.0 for path modeling over the covariance-based SEM. Hair et al. (2012) suggested that the significance of a pathway is identified by each route coefficient's value. **Figure 2** shows that all of the hypotheses were supported as follows: positive affect was positively correlated to cognitive engagement ($\beta = 0.387$, $t = 6.267$, $p < 0.001$); positive affect was positively correlated to emotional engagement ($\beta = 0.212$, $t = 3.707$, $p < 0.001$); positive affect was positively correlated to behavioral engagement ($\beta = 0.268$, $t = 4.543$, $p < 0.001$); cognitive engagement was negatively correlated to turnover intention ($\beta = -0.320$, $t = 3.634$, $p < 0.001$); emotional engagement was negatively correlated to turnover intention ($\beta = -0.403$, $t = 4.138$, $p < 0.001$); and behavioral engagement was negatively correlated to turnover intention ($\beta = -0.252$, $t = 2.982$, $p < 0.001$).

In path analysis, the value of R^2 indicates the explanatory ability of the model, explaining variation. Thus, the closer the value of R^2 is to 1, the more powerful is the model's explanatory ability. Awang et al. (2015) suggested that when R^2 is larger than 0.67, the model would have good explanatory ability, around 0.33 indicates fair explanatory ability, and around 0.19 means poor explanatory ability.

Positive affect to cognitive engagement has good explanatory ability ($R^2 = 0.795$); positive affect to emotional engagement has

TABLE 1 | Results of first-order confirmatory factor analysis – model fit measures.

Index	Threshold	Positive affect	Cognitive engagement	Emotional engagement	Behavioral engagement	Turnover intention
χ^2/df	<5	2.82	1.02	3.30	1.82	1.12
RMSEA	<0.10	0.07	0.09	0.08	0.05	0.08
GFI	>0.8	0.96	0.98	0.96	0.97	0.99
AGFI	>0.8	0.94	0.97	0.98	0.95	0.98
FL	>0.5	0.72–0.77	0.64–0.81	0.65–0.84	0.67–0.83	0.63–0.82
<i>t</i> -value	>10	13.59–18.75	17.43–20.71	15.55–20.43	17.61–23.16	10.66–15.99

TABLE 2 | Construct reliability and validity analysis (*n* = 386).

Constructs	<i>M</i>	<i>SD</i>	α	CR	FL	AVE
Positive affect	3.77	0.72	0.83	0.84	0.73	0.63
Cognitive engagement	3.75	0.76	0.85	0.83	0.72	0.70
Emotional engagement	3.77	0.71	0.84	0.84	0.68	0.67
Behavioral engagement	3.79	0.73	0.88	0.88	0.76	0.69
Turnover intention	2.54	0.70	0.84	0.87	0.75	0.68

good explanatory ability ($R^2 = 0.762$); positive affect to behavioral engagement has good explanatory ability ($R^2 = 0.714$); and cognitive engagement, emotional engagement, and behavioral engagement to turnover intention also has good explanatory ability ($R^2 = 0.796$).

According to Cohen (1988), the effect size Cohen's f^2 is defined as follows: Where R^2 is the squared multiple correlation, $f^2 \geq 0.02$, $f^2 \geq 0.15$, and $f^2 \geq 0.35$ represent small, medium, and large effect sizes, respectively. Although the above data can be used to determine statistical significance, if it is confirmed that it is practically significant, it can be judged by the verification of the effect quantity. Regarding the effect size in this study, the results showed that positive affect to cognitive engagement has a large effect size ($f^2 = 2.496$); positive affect to emotional engagement has a large effect size ($f^2 = 3.201$); positive affect to behavioral engagement has a large effect size ($f^2 = 3.878$); and cognitive engagement, emotional engagement, and behavioral engagement to turnover intention also has a large effect size ($f^2 = 3.901$).

Indirect Effect Analysis

When analyzing indirect effects, if the interval between the two values does not include zero, it means that the model has an indirect effect (Preacher and Hayes, 2008). The indirect effect of positive affect on turnover intention is between 0.180 and

0.379, and the indirect effect of WE on turnover intention is between 0.720 and 0.861. Each 95% confidence interval (CI) did not include zero, thus indicating that indirect effect existed in this research model (see **Table 4**). Results of this study provided initial evidence of the role of WE in the remote working context of intention to turnover regarding a positive affect trait. As hypothesized, a higher degree of positive affect was negatively related to turnover intention, thus supporting H7. That is, positive affect can negatively predict turnover intention mediated by the three types of work engagement.

DISCUSSION

By examining how remote WEs play a mediating role in linking R&D professionals' positive affect and their subsequent turnover intention during the COVID-19 lockdown, this study drew on the appraisal theories of emotion (Scherer et al., 2001) and ecological theory (Bronfenbrenner, 1995) to evaluate the effect of the environment on employees' feelings while working remotely during the COVID-19 lockdown. The results of this study are discussed in more detail as follows.

From the perspective of positive psychology, positive affect plays an important role as a facilitator of engagement in a job (Laguna, 2019; Yan et al., 2019). For example, Perera et al. (2018) found that workers perceived that their behavioral, cognitive, and emotional engagements while performing a task were influenced by their positive or negative affect. Coe et al. (2021) identified the potential positive and negative perspectives related to congruence and incongruence between individuals and their teammates that affected their WE. Consistent with those studies, H1 was verified, indicating that participants' positive affect was positively related to their remote cognitive engagement during the COVID-19 pandemic.

Additionally, Perera et al. (2018) showed that workers' WE, including their cognitive engagement, will be promoted if they perceive their job as being significant. McLaughlin et al. (2019)

TABLE 3 | Construct discriminative validity analysis (*n* = 386).

Constructs	1	2	3	4	5
(1) Positive affect	(0.74)				
(2) Cognitive engagement	0.66***	(0.77)			
(3) Emotional engagement	0.58***	0.72***	(0.75)		
(4) Behavioral engagement	0.60***	0.71***	0.74***	(0.77)	
(5) Turnover intention	−0.57***	−0.73***	−0.72***	−0.71***	(0.75)

*** $p < 0.001$. Bold values on the diagonal are the square roots of AVE. To establish the discriminative validity, the value should be greater than the inter-construct correlations.

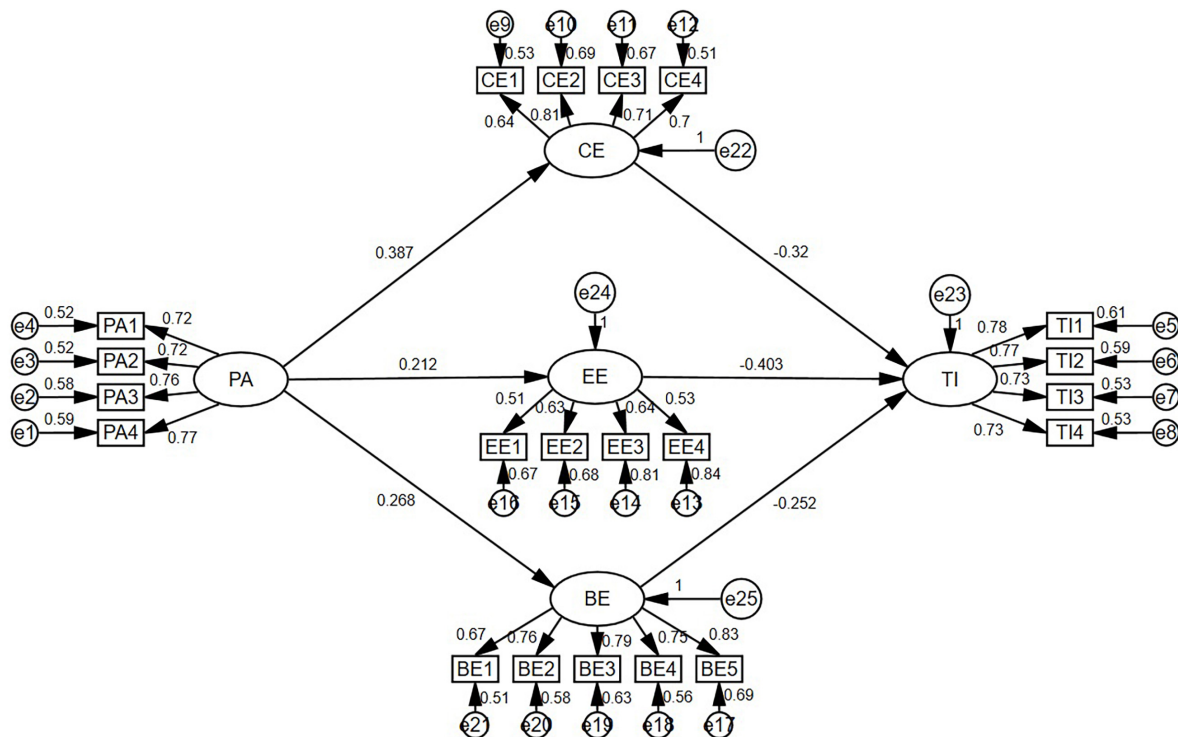


FIGURE 2 | Model fit analysis.

pointed out that positive affect may lead to enhanced emotion regulation, while more positive emotions may have an impact on the extent of enhancing one's capacity to notice positive emotions and experiences which occur in the workplace. In examining H2, the results showed that participants' positive affect was positively related to their emotional engagement. Moreover, the higher their personal WE, and the less personal fatigue they feel, the more willing they are to quit (Ferreira et al., 2019). Supporting this study, the results showed that participants' positive affect was positively related to their remote behavioral engagement, indicating that H3 was positively supported.

Work engagement is a multi-dimensional variable support associated with job demands. Consequently, employees have to manage multiple tasks at the same time in stressful working conditions, causing the turnover intention to withdraw from an organization (Park et al., 2019). That is, increasing employees' cognitive engagement can effectively reduce their turnover intention (Lee M. C. C. et al., 2019). In examining H4, the results showed that participants' cognitive engagement was negatively related to their turnover intention. Moreover, employees' work emotion tends to make them more energized to perform well in their jobs, thus resulting in higher levels of emotional engagement at work and a lower level of turnover intention (Saks, 2021). In examining H5, the results showed that the participants' emotional engagement was negatively related to their turnover intention. Additionally, Jain and Asawa (2019) suggested that engagement plays an important role in generating behavioral responses. In examining H6, the results showed that participants' remote behavioral engagement was negatively related to their turnover

intention, indicating that employees who have more behavioral engagement will show less turnover intention. Conclusively, positive cognitive, emotional, and behavioral engagement will reduce employees' turnover intention during the COVID-19 pandemic. It can be noticed that workers can significantly improve their three types of engagement and reduce their willingness to leave with higher work pressure (Li et al., 2019), such as ICT R&D professionals working remotely.

The validated and reliable positive affect found an improvement role in viewing WE, and reducing intentions to leave amongst the commercial contract research organization samples (Heyns, 2021). When perceiving organizational support as a positive factor, WE can mediate the relationship between a high level of positive affect and organizational commitment (Teo et al., 2020). However, employees felt that engagement of all specialties with the work process had decreased when working from home. Those with lower levels of positive affect tend to change their jobs during the period of working from home (Mohamedbhai et al., 2021). In examining H7, the results

TABLE 4 | Indirect effect analysis.

Indirect effect	Positive affect		Remote WE	
	β	95% CI	β	95% CI
Turnover intention	-0.274**	[0.180, 0.379]	-0.802**	[0.720, 0.861]

** $p < 0.01$.

showed that the R&D professionals' positive affect was negatively related to their turnover intention, mediated by their remote WE during COVID-19.

CONCLUSION

With the rapid spread of COVID-19, how to keep R&D professionals in organizations has become a common concern. When proposing the expanded person–job fit model, positive affect could lead to the sense of job-fit and work-based engagement. The results of this study reveal the correlation between positive affect, WE, and turnover intention, in which one can understand the significance of the empowerment of positive affect for R&D professionals to decrease their turnover intention. That is, the positive affect of R&D personnel had significant predictive power on the three types of WE, and all three types of WE of R&D personnel had negatively predictive power for turnover intention in the ICT industry.

Implications

The results can be applied to enhance workers' engagement so as to reduce their intention to change jobs by selecting R&D workers with a high level of positive affect. The results can also help employers who want to understand what factors will help their workers reduce their turnover intention by increasing their positive affect when facing the crisis of the COVID-19 pandemic.

Gottschalck et al. (2020) highlighted that if organizations can consider individual differences in the patterns of turnover intentions for different types of workers, they can design incentive strategies that are needed and closely aligned with those workers' specific needs. Supporting their study, the results of the present study suggest that ICT human resource managers can use incentives to strengthen remote WE that is necessary to keep R&D professionals working remotely.

Contribution

During the outbreak of the COVID-19 pandemic, along with lockdowns and working from home, some employees' work attitude toward engaging in their work has changed and has consequently influenced the degree of their turnover intention. This phenomenon is also potentially influencing the practice of human resources, in particular, the cost of personnel training and management. Drawing on job demand-resource theory, this study aimed to elaborate the correlation between the psychologically positive affect, work engagement, and turnover intention of R&D professionals in the ICT Industry. Through structural equation modeling, we found that positive affect can positively predict three types of employees' remote work engagement and negatively predict their turnover intentions. There are two principal contributions of this study. First, theoretically, the study introduced the job demand-resource theory to explore the psychological traits affecting psychological adjustment in working from home during COVID-19, in particular, for the long-term telecommuting R&D IT staff. Second, the results of this study can be applied to human resource management to reduce the intention to leave of R&D staff in the IT industry and to decrease HR costs by selecting

R&D professionals with positive emotion, thus increasing their work engagement.

Limitations and Future Study

Future research could be conducted as follows. The workplace and work content of employees in the ICT industry, based on employees' job demands-resources, are different from each job. Thus, besides R&D professionals, future studies related to factors affecting turnover intention may consider a cross-sectional study of the ICT industry to understand the predicting power of the antecedents on turnover intention. Moreover, the advancement of technology is undergoing extremely rapid change in the ICT industry, meaning that the work content of R&D professionals is constantly changing. To understand how this change affects employees' turnover intention over time, a longitudinal study may be worthwhile.

In this study, the participants were R&D workers who were mainly less than 40 years old and who had a baccalaureate degree. They were working in the area of software R&D. Dalton et al. (1999) suggested that age, work experience, and geographic preferences are differential factors related to employees' turnover intention. However, differentiation analysis regarding turnover intention was not performed; thus, future studies can explore the differential power of age, gender, work experience, and so on. Integrated Circuit engineers can also be selected as the research sample.

Moreover, turnover research may benefit from studying the role of emotional self-efficacy beliefs (i.e., people's perceived capability and confidence to successfully manage their emotions; Caprara et al., 2013) as they have been already shown consistent evidence in negatively predicting turnover intentions in the workplace (Cepale et al., 2021). Accordingly, it may be worthwhile, to test emotional self-efficacy beliefs as a further mechanism able to explain turnover intentions among ICT workers.

Instead of focusing on studying what factors affect turnover intention, Hom et al. (2017) studied the psychology of staying (rather than leaving) and attitudinal trajectories in predicting turnover, and suggested some human resource management strategies to promote staying. This alternative perspective of exploring why workers intend to stay can be taken and compared with those studies on intention to leave in future research.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

AUTHOR CONTRIBUTIONS

J-CH and SP: concept and design. J-CH and YC: acquisition of data. J-CH, SP, and YC: drafting of the manuscript. J-CH and YC: critical revision of the manuscript. YC and SP: statistical analysis. All authors contributed to the article and approved the submitted version.

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Is It Possible to Monetarily Quantify the Emotional Value Transferred by Companies and Organizations? An Emotional Accounting Proposal

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Social accounting focuses on value transactions between organizations and their stakeholders; both market ones, where the value perceived by the different stakeholders is identified, and non-markets ones, where transactions are monetized at their fair value. There was long awareness of an emotional value translation, linked to the transfer of different products, services, remunerations, and incentives, regardless of whether they were market or non-market. Yet that emotional value seemed to be anchored in the field of psychology and managed to elude economic science. This study seeks to identify emotional value with consumer surplus and, by extension, of the other stakeholders in a value transfer process. This proposal allows the emotional value to be anchored in the micro-economy and allows it to be objectively calculated using a regression involving three elements: the market price, the fair value interval, and a perceived satisfaction score by the different stakeholders in the form of significant sampling. The result obtained not only allows Social Accounting to be complemented with emotional value, but it also facilitates its incorporation in the strategy to optimize the emotional value. Furthermore, it enables a quantification of the perceived subjective utility, which opens up a research path where some possible lines are clearly identified.

Keywords: utility, emotional value, stakeholder, monetize, monetization, social impact, social value, social accounting

“Uncritical enthusiasm for mathematical formulation tends often to conceal the ephemeral substantive content of the argument behind the formidable front of algebraic signs” Wassily Leontief

INTRODUCTION

In recent years, the breakdown of the microeconomic model relating social optimum to profit maximization has led to the development of complementary social accounting that is capable of measuring, preferably in economic terms, the value generated and distributed to the stakeholders. In general, the accounting incorporates the market value, through economic-financial accounting, and the non-market value, through the fair value. In turn, although the transferred emotional value is considered a fundamental element, it has so far remained elusive to a systemic attempt to its measuring in monetary units. This study seeks to develop a proposal to allow a systematic monetary valuation of that type of value, based on the supply and demand curve.

Although the work is theoretical, it is underpinned by a large number of cases analyzed in recent years by the social accounting for sustainability (SAS) research group, recognized by International Centre of Research and Information on the Public, Social and Cooperative Economy (CIRIEC), some of which are published in leading journals, general papers (Retolaza et al., 2016; Retolaza and San-Jose, 2021), on its application in the social economy in general (Lazcano et al., 2019; Lazkano and Beraza, 2019; Etxanobe, 2020; Lazkano et al., 2020), on its usefulness to measure hospital efficiency (San-Jose et al., 2019), about sport clubs (Mendizabal et al., 2020; Mendizabal and Garcia-Merino, 2021), applied to ecclesiastical organizations (Retolaza et al., 2020), to universities and education (Ayuso et al., 2020; Arimany-Serrat and Tarrats-Pons, 2021; Barba-Sánchez et al., 2021a), its benefit for technology parks (Blázquez et al., 2020; Torres-Pruñonosa et al., 2020), associations of fishers (Guzmán-Pérez et al., 2018), tourism (Guzmán-Pérez et al., 2021), public tenders (Bernal et al., 2019), and agri-food companies (Barba-Sánchez et al., 2021b). These studies identify the importance of emotional value and propose its inclusion in social accounting, which has so far been partially addressed by few studies (Ruiz-Roqueñi, 2020; Tirado-Valencia et al., 2021).

Therefore, this study presents a system to quantify the emotional value. For this purpose, in the second section, the theoretical framework is shown, and after that, the proposal for quantifying the emotional value on organizations, the range of the value, extension to whole stakeholders, degrees of satisfaction, and the full process are explained. The study ends with a discussion and concluding remarks, limitations, and future research.

THEORETICAL FRAMEWORK

Nearly three centuries ago, Bernoulli (1738), building on his well-known St. Petersburg paradox, introduced the concept of expected utility to incorporate aspects such as morality and emotions into the decision process, which solved, at least in theory, the constraints of the classic paradigm regarding expected value. The first notion of expected utility was subsequently formalized by Von Neumann and Morgenstern (1947) and developed in the field of game theory. If people maximize something unknown called utility instead of maximizing the expected value, many decisions that would otherwise be considered irrational could be explained. In this vein, the subsequent reflection has fundamentally focused on decision-making linked to uncertainty processes and not to such an extent on the morality and emotional sphere that would be opened by reconceptualization (see Table 1).

The origin of expected utility emerged from the need to solve the problem of the actual behavior of people not being fully rational, at least in economic terms. If, on the contrary, an individual subjectivism is accepted of the profit-loss binomial about such aspects as emotions, morals, or uncertainty, an irrational choice from the point of view of the economic value may be fully rational from the utility expected by the specific individuals. From this perspective, the expected

TABLE 1 | Example of net promoter score.

Market price (breakeven)	α	€15
Upper limit of the fair value	p_{\max}	€25
Lower limit of the fair value	p_{\min}	€10
$S_i X_i \geq 5 \rightarrow [p_{\max} - p_m]; S_i X_i \leq 5 \rightarrow [p_{\min} - p_m]$	β	+10
Satisfaction score (NPS), $i = 1-10$	X_i	8.05

utility introduced subjective value elements, complementing the economic value objectified in the price. Subsequently, Kahneman and Tversky (1979) noted that the principles proposed by Bernoulli are mathematically valid, but poorly explained actual human behavior, which is clearly affected by cognitive processes that distance it from the rational man ideal underlying the expected utility theory. Simon (1972, 1979) had already pointed out that people do not act as profit maximizers but rather as satisficers. Similarly, Samuelson (1993) defined “utility” as an expression of satisfaction; in other words, the subjective pleasure reported by a person after consuming a good or service.

In contrast, another appraisal must be made. During nearly three centuries of economic reflection following the introduction of the concept, and despite the specific contribution of the economic behavior, a model has not been proposed that supports the monetary quantification in the form of individual assessment, which at the end of the day runs the risk of turning it into a tautological concept. A payment is worth so much, if the payment is what it is worth, at least for me; given that that specific value for each person cannot be identified, any payment adequately reflects consumer preferences and is, therefore, a rational choice; yet totally indisputable, as we cannot find examples of irrational conducts, and, therefore, beyond scientific knowledge.

Being able to identify what the standard value (breakeven price) of a good or service is and the value of the set of attributes accompanying that good or service is for a specific consumer could greatly help to advance in researching the idiosyncratic utility. This can be defined as the difference between the expected value and the expected utility, where the first concept is understood as a purely economic concept, whereas the second concept incorporates the complementary aspects that can be valued by each specific individual, and this is called as a differential emotional value.

$$\text{Emotional value} = \text{Expected utility} - \text{Expected value}$$

$$E(x) = u(x) - E(x)$$

Hence, the emotional value would materialize as an increase or decrease in the expected economic value, represented by the breakeven point between supply and demand.

$$\text{Emotional value} = \text{Increase/decrease of the market value (price)}$$

$$E(x) = T E(x)$$

From this perspective, the emotional value functions as a correction factor upward or downward of the value identified

by the price, in the case of the market transactions, or by the fair value, in the case of non-market transactions. Given that we already know the economic value of the transfer, two complementary data would be needed to quantify monetarily the perceived emotional value: the degree of satisfaction of the set of recipients and the scope of the value range.

Regarding the first question, given the nature of the expected utility, there is no other option than to determine the average value using a representative sample of recipients. It should be noted that, as the recipients are distributed into interest groups, the significance of the sample should be maintained for each of the groups of stakeholders, at least to identify not only the consolidated emotional value but also the specific distribution to each of the groups of stakeholders. The solution for this first point may be painstaking, but theoretically it is not complicated.

The second point is much more complicated to address. We know the breakeven economic value and, therefore, we can consider that, if the satisfaction is correctly measured, its breakeven point (neither satisfied nor dissatisfied) would tally with that breakeven value. In other words, null satisfaction (neither positive nor negative) would not add any emotional value to the breakeven value that we already have. Therefore, there would be parity between the expected value and the expected utility:

$$E_c(x) \rightarrow u(x) = E(x);$$

or its inverse: $u(x) = E(x) \rightarrow E_c(x)$

Yet if the satisfaction score shifts toward the minus or plus, we cannot determine the monetary value or that addition or subtraction as the maximum and minimum point of the perceived utility is not known. A simple solution consists of establishing a fair value range, using expert consensus or another technique, which was followed in the early research in this respect (Ruiz-Roqueñi, 2020), where a range of $\pm 50\%$ was established. However, the solution has some theoretical and practical problems. In the first case, there is a great deal of research that suggests that people are not symmetrical in their utility assessment (Kahneman and Tversky, 1972) and express asymmetrical expectations regarding the assumed risk, as in the case of wishful thinking (Babad and Katz, 1991), which would mean that the (+) and the (–) would be asymmetrical. In contrast, we came across value variables that would clearly exceed $\pm 50\%$, e.g., in the world of sport (Mendizabal and Garcia-Merino, 2021), where the emotional value may be much greater than the economic value *per se* generated using transfer mechanisms, regardless of whether they are market or non-market.

To obtain a monetary calculation of the emotional value generated for the different stakeholders and, by consolidation, for society, we must address and diligently settle the two previously indicated aspects, namely, (1) the mechanism to measure stakeholder satisfaction and (2) the range of values around the breakeven point, identified by the price or the fair value. The following sections address both challenges in reverse order to how they are listed above.

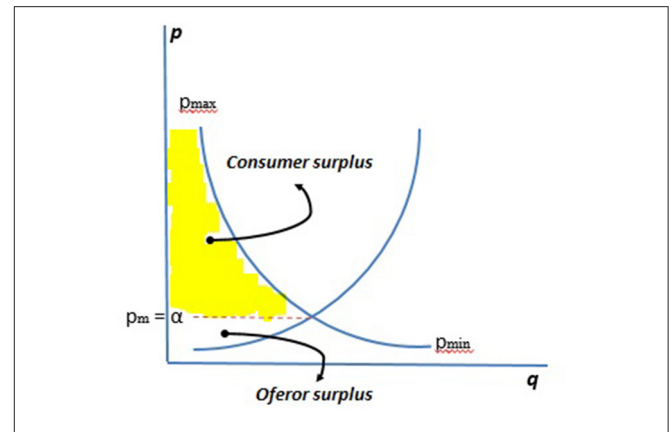


FIGURE 1 | Range qualifying demonstration. Source: own compilation based on Samuelson and Nordhaus (1989).

QUALIFYING THE RANGE OF THE MONETIZED EMOTIONAL VALUE

The supply curve and demand curve are an established and accepted logic framework in economics. It can, therefore, be a starting point for understanding and solving the problem of the emotional value range. As is well-known, both curves cross at the breakeven point, which reflects the price of a service or product for a certain market. The breakeven point acts as the base to calculate the surplus of the consumer and of the producer, taken to be the difference between the total utility obtained from the purchase or sale of a good or service and its market price. In other words, the difference between the value and the utility (see Figure 1).

$$\text{Consumer surplus} = \text{Maximum price willing to pay} \\ - \text{the real price}$$

Taking into account that the maximum price willing to be paid finds its upper limit in the marginal utility obtained, the aforementioned parity corresponds to:

$$E_c(x) = U(x) - E(x)$$

Which, as can be seen, is equivalent to the formula defined for the emotional value, which when aggregated would tally with the consumer surplus.

$$E_c(x) = U(x) - E(x) \approx E_c(x)$$

Therefore, for its individual calculation, it can be considered that

$$E_c(x) \approx E_c(x) = [p_{\max}(x) - p_m] * \beta$$

β is the perceived utility level

While it can be calculated globally as:

$$E_c(x) \approx E_c(x) = [p_{\max}(x) - p_m] * \beta_i$$

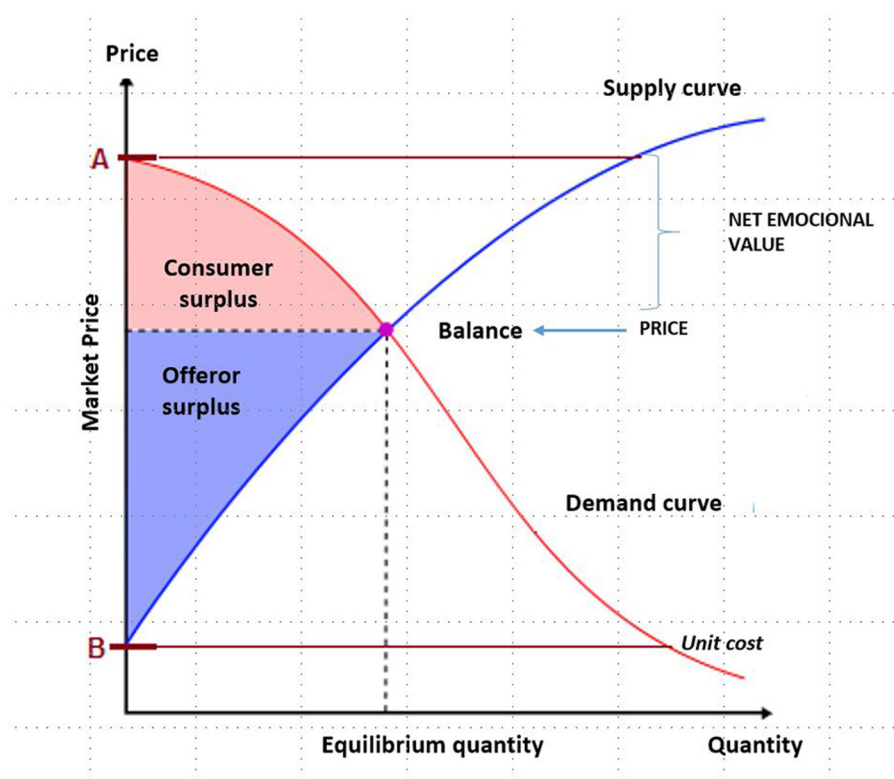


FIGURE 2 | Emotional value breakeven point. Source: own compilation based on Samuelson and Nordhaus (1989).

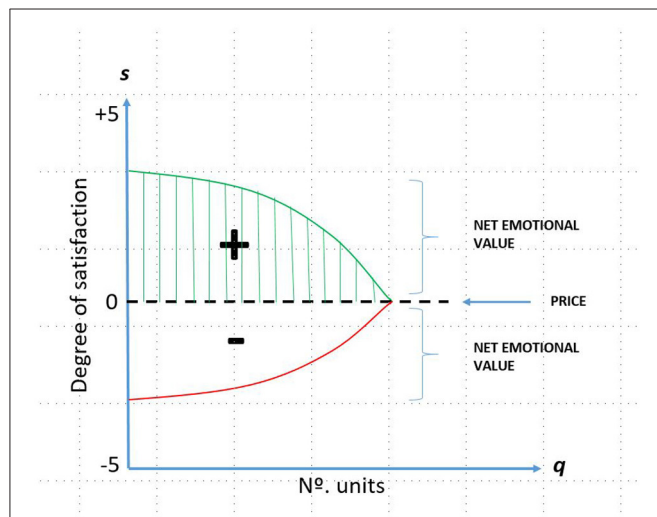


FIGURE 3 | Net emotional value price. Source: own compilation based on Samuelson and Nordhaus (1989).

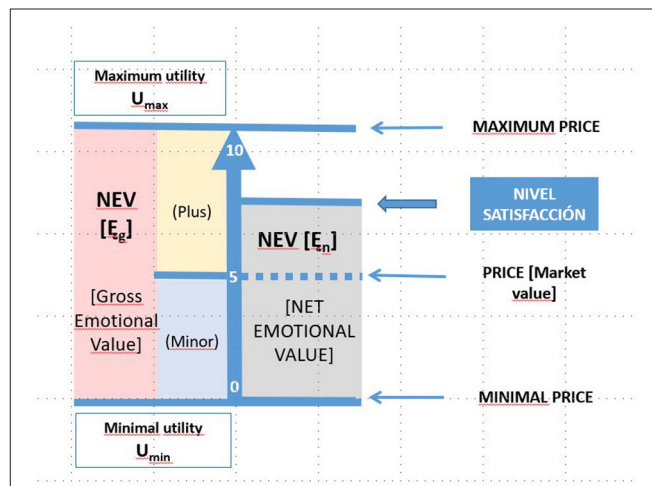


FIGURE 4 | Net emotional value. Source: own compilation. (1) The numbers in white located on the horizontal axis are only decimal references to make the information easier to see; under no circumstances should it be assumed that the percentages of each value must be related to them. (2) Should the price not match the market value due to market failure, the appropriate corrections would have to be applied.

i is the $(1, \dots, n)$ utility perceived by n number of individuals

Figures 2, 3 visually depict the emotional value considered as the difference between the value and the utility and, therefore, represented by the area generated by the breakeven price and the maximum willingness to pay multiplied by the number of units.

However, the emotional value is identified as the difference between what the consumer would be willing to pay for the product or service received and what they have actually paid

for it. As can be deduced, the emotional value can be positive and negative, in those cases where the perceived utility after the purchase of the good or service is lower than the purchase price (market value) (Figure 3).

Figure 4 shows the relationship between the different costs and value types generated in a transactional market relationship between supplier and recipient. As can be seen, the potential emotional value [$E_g = GEV$] is taken to be the maximum that could be generated and corresponds to the perceived maximum utility, i.e., with the maximum willingness to pay by the recipients, and would correspond to the perceived utility. We refer to this emotional value as gross compared with the one actually obtained in a transaction, which is net emotional value [$E_n = NEV$]; the difference between the net and the gross represents the potential margin to improve the experience of consumers.

EXPANDING THE EMOTIONAL VALUE TO THE SET OF STAKEHOLDERS

Despite the above analysis has been performed based on the interrelation of what has been consumed with the producer, it can be expanded to the set of stakeholders, or at least, those who interact with the organization in exchange for a payment. Although it is true that, in the case of suppliers and

production factors, the organization acts as the recipient and the stakeholders as producers, a market value supposedly exists, which corresponds to the agreed price. If the price is subsidized, either totally or partially, the benchmark price would not be the benchmark fair value but rather the minimum value, represented by the lower end of the fair value interval.

There is also a market value in the case of the interrelation with the suppliers and stakeholders that can be considered as production factors, such as the workers or investors. In the case of suppliers, this value is expressed in the price. In the case of workers, it would be the salary, which has certain market restrictions, such as the minimum wage or collective agreements; it should be noted that the emotional salary concept is making its mark in this area. In the case of capital, a difference would have to be made between fixed-price investors, such as lenders, and shareholders, where the expected value is an expectation likely to be modified and where the risk margin plays an important role. Concerning other more general stakeholders such as residents or citizens, the market value may be calculated using the costs or the fair value of the outsourcing, whether negative or positive.

In any event, we find that each of the stakeholders interacts with the organization in an interplay between supply and demand, where the stakeholder adopts a similar role to that of the consumer and the organization to that of the producer, and a breakeven price is indeed generated that can be lower or higher to

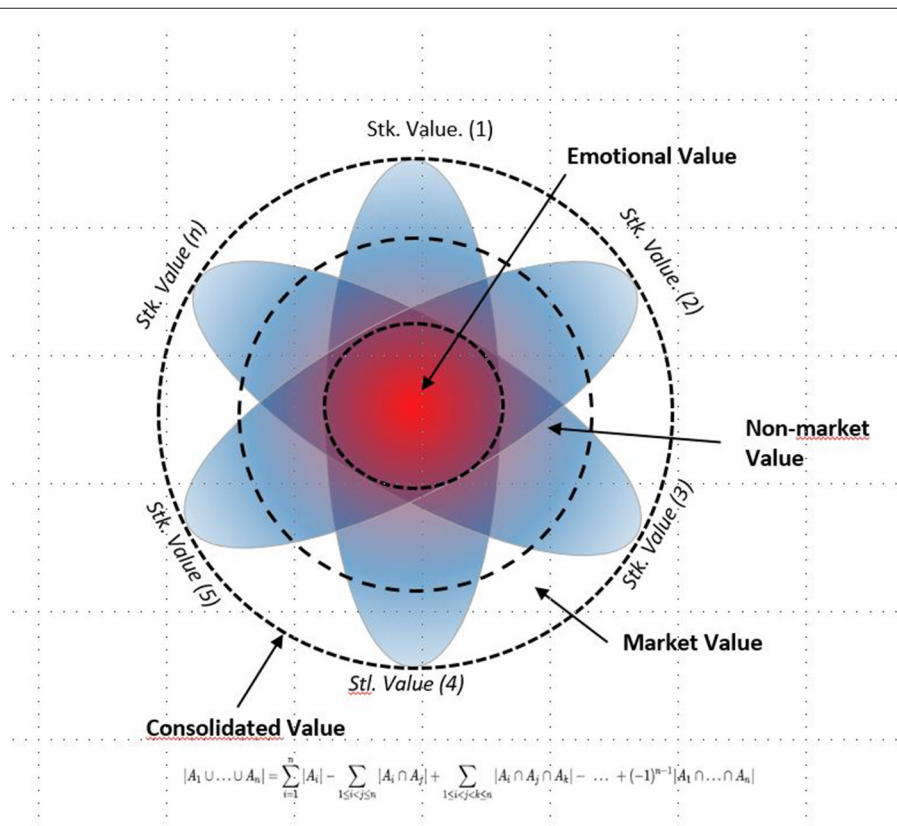


FIGURE 5 | Emotional value in the multifaceted model. Source: Freeman et al. (2020, p. 102).

the perceived utility, regardless of the degree of freedom in setting the exchange price. Normally, the utility is greater than the value, otherwise the balance is unstable, except when the transaction costs are excessively high (see **Figure 5**).

Figure 5 shows the differential perception by the different stakeholders of each value type: market, non-market, and emotional. Note that the market value is exclusive in its appropriation, whereas the non-market value is partially shared. To a great extent, the emotional value is necessarily shared between the different stakeholders interacting in the transfer process.

DISCUSSION AND ASSESSMENT OF THE DEGREE OF SATISFACTION OF THE STAKEHOLDERS

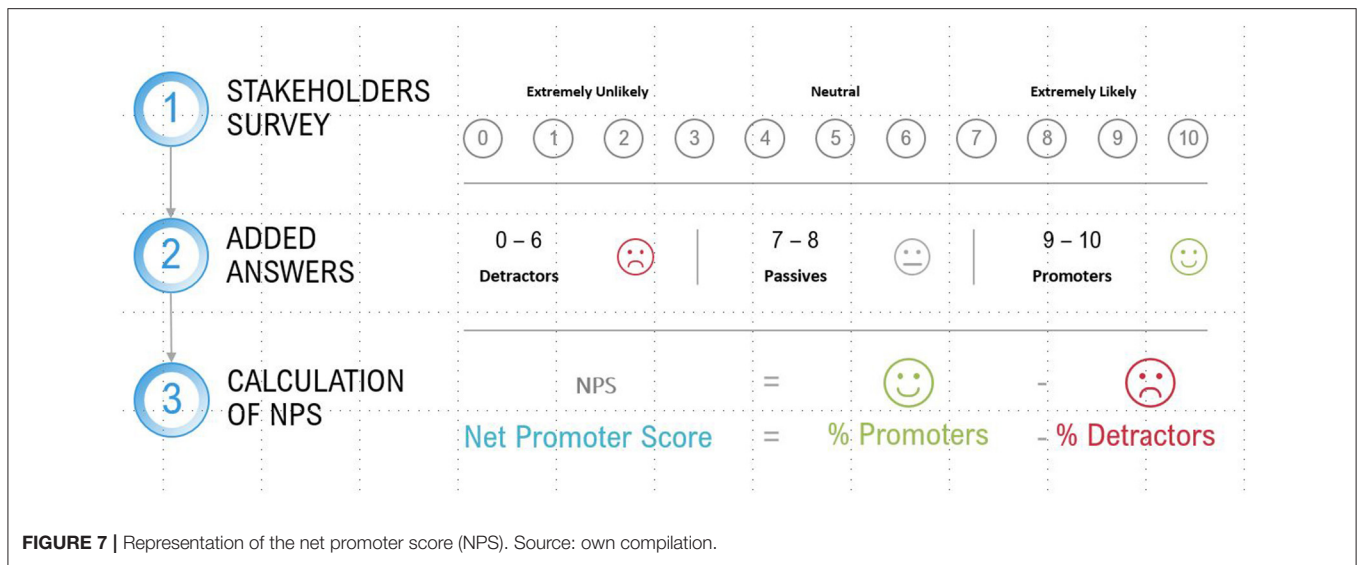
Unlike the rest of the emotional value, which can be inferred from the market, whether directly through trading processes or indirectly using the fair value when the transfer is not a market one, the transferred emotional value is a closely personal matter, in a similar way as regards utility. Accordingly, it cannot be calculated generically, as the difference between the price paid and the satisfaction obtained is specific for each individual. Therefore, it is necessary to have information on the population. In some cases, the population is limited, such as in the case of the workers of a micro-company, where it is possible to obtain information for the population as a whole; but it is not possible in other cases, for example, the customers of a retail area, and we have to resort to a significant sampling of the population.

As it cannot be inferred whether the emotional value generated for the different stakeholders is uniform, significant sampling is needed for each of the groups whose emotional value should be analyzed. The most common ones are customers, workers, investors, funders, and suppliers. The questionnaire must also be adapted to the different stakeholders, as, in the process to identify the value variables, there may be some variables common to several groups but others would be specific. It seems reasonable for each group to be questioned about the variables through which the value is transferred. Therefore, the information gathered must consider two complementary dimensions: the stakeholder group and the different variables (see **Figure 6**).

Regarding the specific methodology to conduct the satisfaction assessment, it is a contingent matter and the selection can be performed using what is published in other fields of business administration, such as marketing or quality analysis. At the time of writing the article, and without it being an exclusive proposal, it seems that the net promoter score (NPS) could be a good option. It is a methodology that measures customer satisfaction through their loyalty, measured in terms of the probability of their recommending a product or service of the company. In the case of the emotional value, for obvious reasons, it would spread from the customer to other stakeholders and the value variables would be assimilated to products or services. The questionnaire consists of a single question, namely, what is the likelihood of you recommending the value variable (specifying which) to somebody else? This question would be multiplied by each of the value variables identified for each stakeholder. Additionally, another general question can be included for the question overall, such as, what

STAKEHOLDERS	CLIENTS / USERS	WORKERS	INVESTORS	FINANCERS	SUPPLIERS
VARIABLE 1					
VARIABLE 2					
VARIABLE 3					
VARIABLE 4					
VARIABLE 5					
VARIABLE 6					
VARIABLE 7					
QUESTIONNAIRE	<i>Questionnaire A</i> [Variables 1,2,3]	<i>Questionnaire B</i> [variables 3,4]	<i>Questionnaire C</i> [variables 2,5]	<i>Questionnaire D</i> [variables 2,6]	<i>Questionnaire E</i> [variables 3,7]

FIGURE 6 | Matrix for the variable and stakeholder synthesis. Source: own compilation.



is your current mood? That question could be used to perform a weighted adjustment of the direct scores obtained in the previous question.

The proposed formula to calculate the resulting score would be:

$$\text{NPS} = \% \text{Promoters} - \% \text{detractors}$$

For this calculation, score of 9 or 10 is considered as promoters, and a score of 6 or below is considered as detractors. Scores 7 and 8 are considered neutral and are known as passives (see **Figure 7**).

It should be noted that the resulting NPS is for each variable, but not for the organization overall. Given that the value intervals of the different variables may be very different, the calculation must be performed for each specific variable and then the individual values obtained must be added up. Obtaining an average NPS and applying it to the different variables may lead to a great error source; establishing an average variability margin may exponentially increase that error.

PROCESS TO CALCULATE THE EMOTIONAL VALUE

Three types of data are needed to transfer the emotional value to monetary units, namely, the price paid, which represents the breakeven price; the scope of the valuation range, which is given by the limits of the fair value; and the degree of satisfaction of the stakeholder in question. According to these three variables, the emotional value can be calculated as a regression where α corresponds to the breakeven point, from which the value that is added or subtracted will be calculated as a product between the distance of the average value and the minimum (B-) or maximum (B+) value multiplied by the degree of satisfaction of

the individuals overall. The indicated regression is reflected in **Figure 8**.

$$E_i \approx Y_i = \alpha + E$$

$$E = \beta * (X_i - 5)/10$$

$$E_i \approx Y_i = \alpha + \beta * (X_i - 5)/10$$

$$E_i = \text{Integral value}$$

$$E_i = \text{Utility} = \text{Gross emotional value (GEV)}$$

$$E = \text{Net emotional value (NEV)}$$

$$\alpha \text{ is the market price (breakeven)}$$

$$\beta = S_i X_i \geq 5 \rightarrow [p_{\max} - \alpha]; S_i X_i \leq 5 \rightarrow [p_{\min} - \alpha]$$

$$p_{\max} \text{ is the upper limit of the fair value}$$

$$p_{\min} \text{ is the lower limit of the fair value}$$

$$X_i \text{ is the satisfaction score, } i = 1 - 10$$

Before going further into its application, some features of the system should be considered. First, it should be noted that B+ and B- areas do not have to be similar, given that the breakeven price does not have to be located at a midway point between the minimum and maximum price; in other words, the potential value that is added or subtracted is not necessarily symmetrical. Although symmetry is a certain possibility, it is very unlikely to occur. Second, it should be noted that, given that the reasonable value is different for each value transfer variable, the emotional value must be calculated as an aggregate of the value generated by the different variables. This raises the question about the possibility of creating an average beta for the set of variables and using a single weighting regarding satisfaction; this method has been used in some earlier practical work (Ruiz-Roqueñi, 2020). It has the advantage of simplifying the calculation and the data needed, and the clear disadvantage is that it introduces a large error factor. It can be assumed that the error introduced and to what extent it can be pinpointed, in practice, avoided, and

whether or not it compensates the ever-increasing complexity of the calculation can be seen, using practical comparisons between the strict methodological application and this simplified one.

We are going to perform a mental experiment using fictitious data to facilitate the understanding of the process to calculate the emotional value.

Variable V_1 assumption:

The emotional value generated is equal to €3.05, which is obtained using the formula proposed above to the experiment data.

$$E = \beta * (X_i - 5)/10 = 10 * 0.305 = 3.05$$

The integrated value of the proposed variable is obtained by adding the emotional value to the market value.

$$\begin{aligned} Y_1 &= \alpha + \beta * (X_i - 5)/10 = 15 + (25 - 15) * (8.05 - 5)/10 \\ &= 15 + 10 * 0.305 = 15 + 3.05 = 18.05 \end{aligned}$$

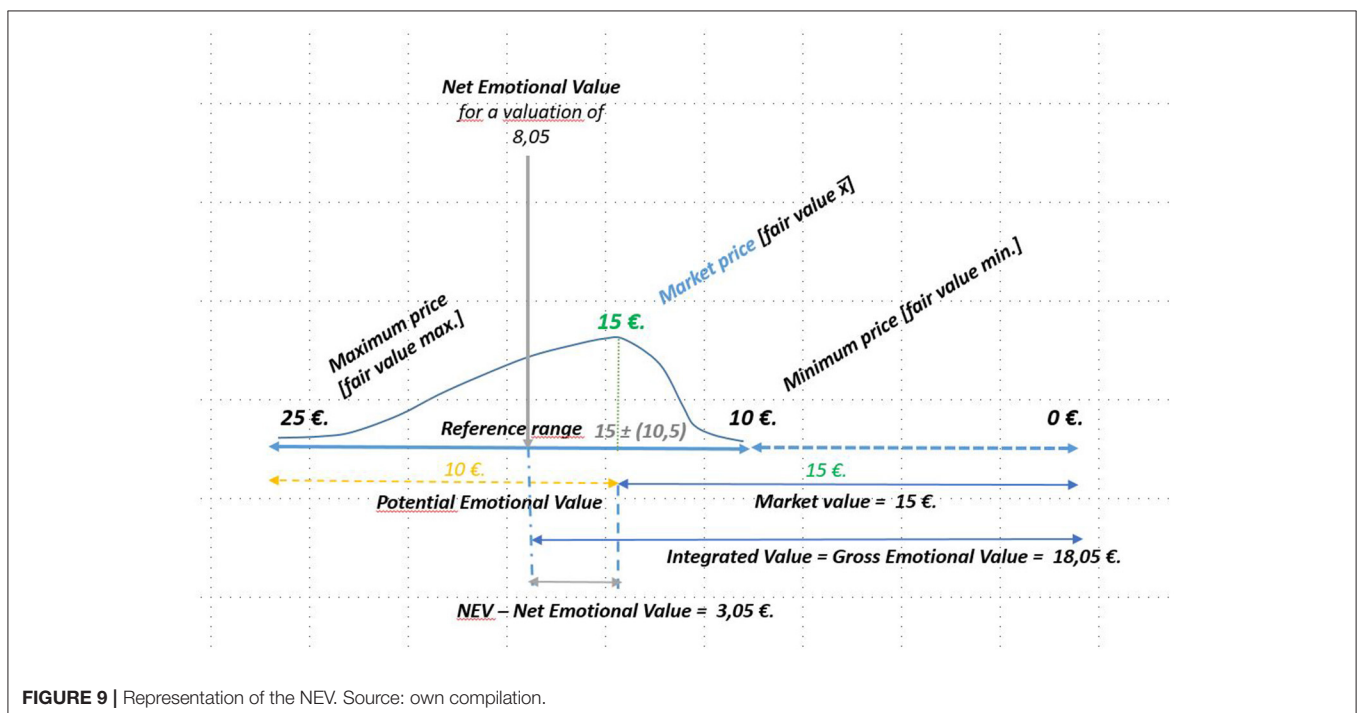
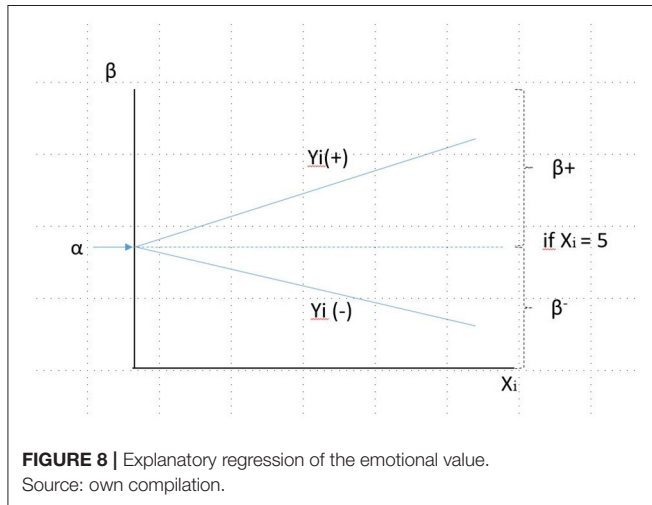
The aggregate value of the set of variables is obtained by adding all the variables that generate value for the benchmark stakeholder.

$$E_t = \sum Y(1 \dots n) = Y_i$$

Figure 9 visually reflects the analysis conducted.

CONCLUSION AND RESEARCH LIMITS

The main contribution of the study consists of identifying the monetary quantification method of the social value that is coherent with the orthodox economic theory so that it not only acts as a means to identify the different components of that value in microeconomic terms but can also be used to conceptually substantiate the definition and the calculation of the emotional value as an added value to the market price. The mathematization of the calculation using a regression allows the result to be objectified, provided that the data referring to the fair value are shared by the analysts. In any event, if that is not so, the problem moves from a confusing field, as has been the case of the conceptualization of the elements comprising the emotional subjective experience allocated to the utility of a good or service up to now, to the estimation of the fair value; an analysis that already has an extensive background in the field of accounting,



though it is related to assets to a greater extent than to products or services.

The ability to monetize the emotional value transferred through a set of variables provides better knowledge of the integrated social value [ISV] that an entity transfers to or detracts from society. In addition, the ability to identify the potential emotional value [PEV] allows the percentage that the organization is activating and, therefore, the resulting margin for improvement to be known.

Beyond the sphere of social accounting or the strategic management of the value, the emotional value allows the utility concept to be specified and, therefore, means it can be empirically compared, thus, avoiding the tautological circle in which it is usually immersed.

The limitations include the research is not completely or systematically addressing the calculation of the social value in those cases where there is no market transfer. Although a fair breakeven price can be generally established, it is true that, as there is not a payment or it is subsidized, α is equal to zero, in any event, a lower amount than the breakeven price, which involves a more complex calculation of the transferred emotional value. Despite it being a specific case of the general model, the fact that an important part of the value generated in social accounting may be non-market means progress should be made in the systematization of the calculation in this environment.

Although it is a problem external to the model itself, the correct identification of the fair value of each variable is essential to subsequently calculate the emotional value; furthermore, the ability to identify all the value variables without incorporating false positives is also essential for the holistic calculation of the value transferred by an organization to its stakeholders overall and through them to society.

POSSIBLE LINES OF RESEARCH

From a practical perspective, the most obvious is the application of the model to analyze the emotional value of different entities, including those with monetary social accounting. As already discussed, there is also the challenge of adapting the model in the specific case where the effective price is subsidized, either in full or partial; the systematic development of this option would allow the benchmarking between market, non-market, and mixed entities to be improved, something that is relatively complex at this time.

As the economic value is the result of the sum of the aggregated value and the emotional value, the hypothesis can be put forward that the non-market value would be incorporated in the emotional value; this hypothesis requires appropriate consideration. If that is the case, it would mean that large corporations, where identifying the non-market value is very costly, could ignore this social accounting step and only work with the emotional and market values.

We have only considered the price from among the costs assumed by the recipient, but the opportunity costs associated

with the purchase of the good or service should perhaps be considered for a more holistic approach. There is a whole line of research related to the inclusion of the opportunity costs associated with the transfer processes in social accounting.

Tibor Scitovsky develops the concept of motivation as the reason to search for pleasure that leads to a variation in the level of comfort. Meanwhile, lasting comfort leads to boredom, which drives the individual to make an effort. The individual striving to obtain a good generates pleasure and the individual obtaining it generates comfort. Therefore, the trade-off between pleasure and comfort is created. This reflection is consistent with the modification of the utility perceived over time. Therefore, the emotional value should be seen as a dynamic system that is constantly updated over time. Developing a model able to incorporate the calculation of this constant adaptation process would be an extremely interesting research line.

Another complementary but not less interesting line of research is the analysis of the situations where the emotional value is negative and to study how that affects the continuity in the exchange relationship and what is the trade-off of the exchange concerning the transaction costs.

Finally, given that we as people are incapable of managing information comprehensively and we use heuristic shortcuts in the analysis, and we search for satisfaction rather than maximization in the performance, it would be interesting to research if reputation acts as an enabler, not only in decision making but also in the perceived utility.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

JR and LS-J designed the paper, developed the theory and example, written the paper, and reviewed it. All authors contributed to the article and approved the submitted version.

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Systematic Review of Socio-Emotional Values Within Organizations

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The theory of separation assumes, with provocation, that an organization cannot reconcile profits and social function. Organizations can reconcile these two, apparently contrasting, missions, by considering emotions, especially moral emotions, to create a genuine motivation for focusing on goals beyond simple economic earnings and protecting organizations or groups of people from dysfunctional attitudes and behaviors, as well as considering the important role of the stakeholder accountability. Using the PRISMA method, we created a review of records using keywords relating to a socio-emotional value within organizations, with a particular focus on the last 20 years. We used the SCOPUS database and, after removing irrelevant records, we used the VOSviewer tool to create a cluster map of different areas in this topic. Some records cite the socio-emotional value that is related to organizational and employee suffering, while other articles consider it a positive factor that improves performance and prevents problems in organizations.

Keywords: organization, emotion, social, value, socio-emotional influence, stakeholder

INTRODUCTION

Entrepreneurial organizations are structures that develop ideas from all members, promoting alternative views and projects (Burger-Helmchen, 2013). Their social function aims to facilitate cohesion between people, institutions, and a collective conscience (Barbaro, 2008). For the theory of separation (Friedman, 1962; Werhane and Freeman, 1999; Alzola, 2011), social function and profits are two separate and independent missions of an entrepreneurial organization. Many authors have attempted to reconcile this dualism through research (Freeman, 2000; Freeman et al., 2004; Wempe, 2008; Hartman, 2011). The theory of separation follows an ideological dualism, whereby the entrepreneurial world (Thorpe et al., 2006), based on profit and with an individual mode, fights against a collective strategy, which aims to achieve a common good and neglects earnings. Recently, however, there has been a change due, in part, to overcome the ideological contraposition that preceded the fall of the Berlin Wall and the collapse of many state-run enterprises (Yanishev-Nesterova, 2020), when it became necessary to create a new entrepreneurial paradigm that united the entrepreneurial efficiency with a sensitivity to social, ecological, and community areas (Magala, 2002). Even before the fall of Communism, there was debate over whether an extremist approach of maximum vs. minimal state intervention was sufficient for finding a solution for the economy in some countries (Valaskakis, 1987), suggesting a strategy, in which, state institutions form partnerships with the entrepreneurial world to tackle certain problems. Social entrepreneurship is

not a recent topic, having been studied since the 1970s (Moran, 1976), not only in authoritarian countries, where there is a need for the state to perform social functions to reach consensus (Tuber, 2019) but also in democratic and liberal countries, following a research path that can be considered parallel to studies about the classic entrepreneurial paradigm. In this case, there is an unavoidable need to reconcile a social mission with an earnings goal, which can be realized through rational resource management. Emotions (Graca, 2017) and moral emotions are important for giving information that could not be delivered through simple, rational, and emotionally deprived thinking, not only for an insufficient perception of reality (Miceli and Castelfranchi, 2018) but also to help us perceive the suffering and disagreement of others, to improve their lives, and to avoid anger, sadness, anxiety, and negative behavioral consequences, thereby preventing aggressive acts (Caprara et al., 2014). The quest to overcome the past division between emotions and rationality began with the ancient Greek dualism of “*pathos*” and “*logos*” and continued throughout the subsequent centuries. This contraposition was eliminated by the psychoanalytic approach (Freud, 1911; Rayner, 1995; Blanco, 2019), whereby the human mind is shown to work without following a rational line, using cognitive sciences (Beck, 1967; Arnold, 1984), in which emotion, rational processes, and cognitive functions are melted down to give us the opportunity to evaluate and manage our daily lives using the emotive intelligence paradigm (Goleman, 1996), which states that even people with the highest scores on the traditional intelligence quotient (IQ) test can perform worse than people with lower IQs but higher emotional intelligence. Emotions are important during strategic phases of organizational life, such as succession (Manzoor et al., 2018), especially in a family firm (Razzak et al., 2019). Emotions are important for reinforcing our moral and social motivations, which propel our actions toward reaching a less selfish goal that is more oriented toward equity and justice ideals. An important position in this paradigm is the stakeholder, a person or group interested in pursuing specific goals—in this case, also oriented toward social responsibility—within an organization (McVea and Freeman, 2003; Verkerk, 2013; Correa and Larringa, 2015; Barrera Martinez et al., 2016; Elizandro et al., 2018) in the areas of sport (Escamilla-Fajardo et al., 2020), education (Tolochko et al., 2020), environment (Lawrence et al., 2020), engineering (Cierna and Sujova, 2020), or medicine (Blau et al., 2012; Lierville et al., 2015; Stawicki and Firstenberg, 2018; Lomakina, 2020; Naslund, 2020).

There is a dualistic conception: An organization with a “pure” entrepreneurial philosophy, founded on profit and an individualistic view based on a zero-sum-game, where the profits of an organization are more important than the richness and wellness of society; in contrast, there is an organization that adopts a strategy strictly oriented to improving society, in terms of health, security, quality of life, or other aspects, without consideration for profit, resulting in a poor or sometimes negative economic balance (Nikodemaska-Wolowik, 2008; Kirzner, 2019; Mensik, 2019). The social accounting for the stakeholder model is a paradigm, where even an entrepreneurial organization that is usually focused on satisfying only the interests of its founders

and shareholders must also consider the needs of the society and the community in which it operates (Hadden, 2012; Tang and Luo, 2016; Bhatia et al., 2020; Dimitropoulos, 2020). While a traditional entrepreneurial approach involves capital investment by one person, two or more associates, or a total or prevailing state capital, there has recently appeared a new form of capital contribution, crowdfunding (Pavlidou et al., 2020). This is a solid alternative to these strategies because institutional resources are often delayed by bureaucratic procedures, while spontaneous fundraising by a private organization depends on the individual willingness of organizational associates. This strategy, which is more efficient, has been used in different areas, such as social entrepreneurship (Morell et al., 2020; Figueroa-Armijos and Berns, 2021; Motero et al., 2021), research (Dalrup et al., 2020), and start-up development (Lee and Lehdonvirta, 2020; Shi et al., 2021), to help different small investors support international entrepreneurial activity (Tiberius and Hauptmeijer, 2021) or cope with international crises, due to ecologic emergencies (Predkiewicz and Kalinowska-Beszczyńska, 2020) or pandemics (Saleh et al., 2021). Previously, these areas could be treated in a sufficiently short time because, while public institutions are dedicated to managing problems that are potentially harmful to the community, they are sometimes limited by bureaucracy, political dynamics, priorities on interventions, and temporary or permanent lack of resources; meanwhile, private organizations have difficulty managing some national crises that make it necessary to switch from a profit-making to a social mindset. This difficulty emerged clearly during the coronavirus disease 2019 (COVID-19) pandemic that started in 2020 when both liberal and centralized systems faced important difficulties for the aforementioned reasons, including liberal countries with a profit-making philosophy, delayed lockdowns, and antiepidemic measures to save money and economic activities; in contrast, governments that put the wellness of people first had important difficulties for a more complex reason, that is, people in this situation were considered more important than the economy, but many workers suffered from the pause in economic activities, while many citizens also suffered a perceived loss of freedom to move due to lockdowns imposed in different countries around the world. This situation made politicians respond to different requests from people, with demands to guarantee health but also work rights, which are irreconcilable aspects; whoever has to state a priority between these two functions suffers a sort of “double bind,” risking the loss of political appreciation by choosing one over the other. Organizations must consider socio-emotional aspects without focusing only on profit-making goals and considering their social function, based on a genuine and sincere motivation, without following a consensus approach that is typically adopted by political leaders or parties, who change their priorities to maintain power (Gellately and Kiernan, 2003).

MATERIALS AND METHODS

We believe that socio-emotional factors are not just for consideration in clinical studies as a psychological weakness that needs to be cured but also in a positive way, as psychological

wellbeing indicators or protective factors within organizational studies. Our hypotheses can be summarized as follows:

1. During the last 20 years, articles discussing the importance of socio-emotional factors have significantly increased.
2. Socio-emotional factors are not only considered negative, for example, appearing in clinical studies.
3. Socio-emotional influence is considered to be a positive factor in improving organizational management.

In this study, we considered the influence of socio-emotional factors on the life of organizations, considering both negative consequences, where a “suffering” organization is characterized by negative emotions among its members, studying its normal working and functioning considering a normal socio-emotional process, or considering records mentioning organizational strategies based on the socio-emotional aspects. We used the PRISMA statement (Liberati et al., 2009) to refine our research, using SCOPUS to obtain a literature review about this phenomenon, without considering the publication year 2021 and considering all records marked as articles or reviews, excluding conference articles, conference reviews, editorials, letters, notes, short surveys, erratum, books, and book chapters. We used a Boolean String “ORGANIZATION” AND “EMOTIONAL VALUE,” OR “SOCIAL VALUE” and excluded all pertinent records regarding non-psychological or organizational business areas. We considered only records with the following inclusion criteria:

1. Records discussing both lucrative and non-lucrative organizations.
2. Records discussing entrepreneurial organizations.
3. Records discussing organizations belonging to public institutions.
4. Records written in English.

We also stated exclusion criteria and did not consider records defined by the below keywords within their subject area because they did not involve a psychological aspect:

- Biochemistry
- Medicine
- Mathematics
- Earth Sciences
- Physics

Once we refined a list of records on SCOPUS, we used VOSviewer (Waltman et al., 2010) to create a cluster analysis using author keywords and excluding redundant keywords, reusing SCOPUS to cite them within each cluster.

RESULTS

We extrapolated 1,761 records. The first mention citing the influence of socio-emotional value on organizations appears in a publication of 1922 (Link, 1922), describing a Psychological Service Centre, where, despite strong stress on individual psychology among first clinical psychological contributions, there is a significant sensibility about organizational functioning, going

beyond simple individual psychology. After this first work, there were no further articles for almost 20 years, with some articles after the 1960s about therapeutic groups and health organizations. If we consider the number of records during each decade between the 1960s and the 2020s, as we can observe in **Table 1**, we notice an exponential incrementation of studies about this area, with more than 50 articles published by the 1990s. We hypothesized that the importance of socio-emotional influence on organizations is due to the birth of interest in emotions (Burton, 1963; Krebs, 1975; Hoppe, 1983; Goodnow, 1990) outside clinical and experimental psychology, which, up to the second half of the twentieth century, were exclusively treated within psychotherapy studies and laboratory walls.

Continuing to represent a graphical trend in **Figure 1**, we revealed that this trend has grown over the last 20 years, with a veil between 2005 and 2010 (probably due to the important economic crisis during 2007–2009) and a good incrementation after 2015.

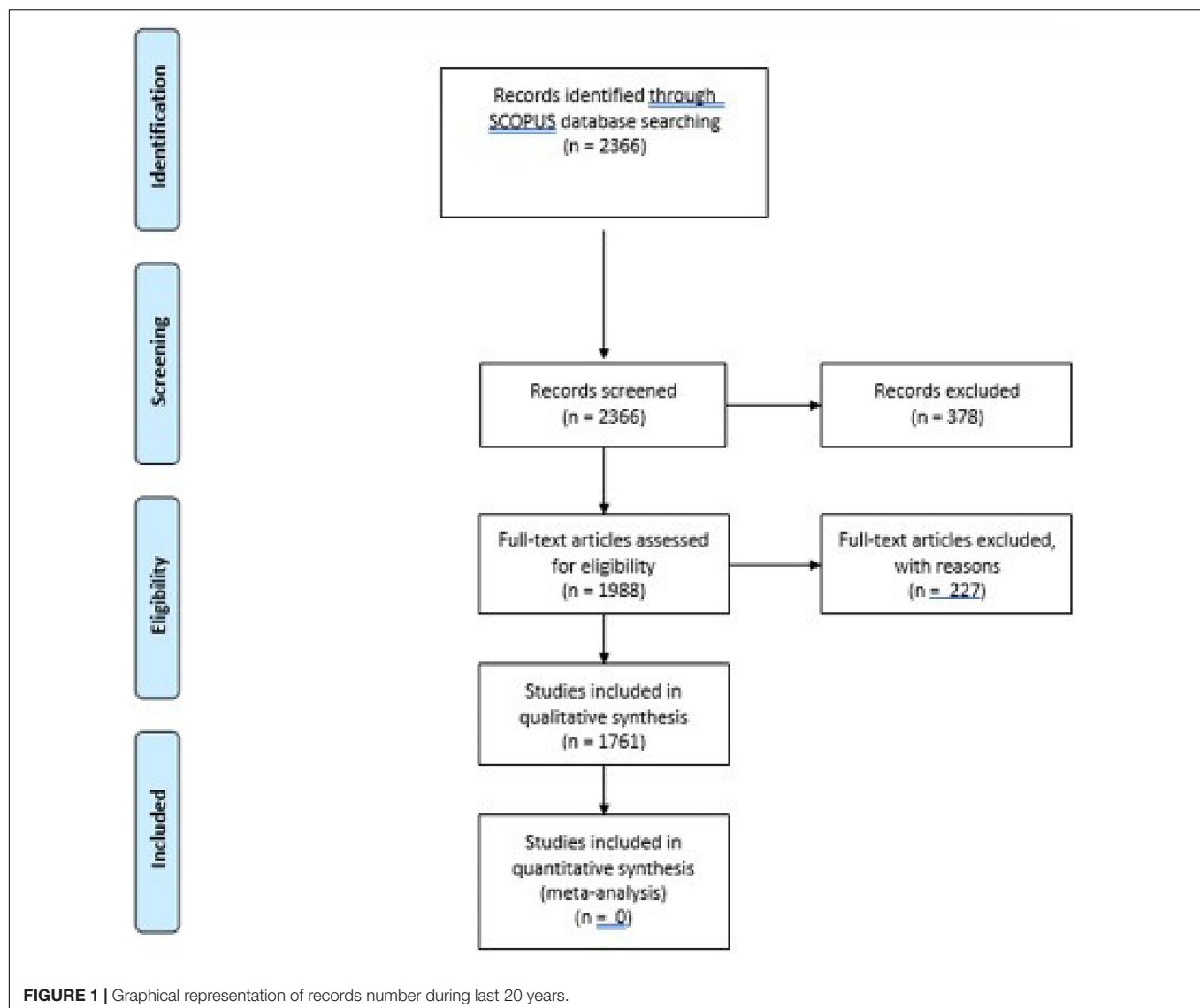
If we consider countries that have published at least 30 records about this topic, we can observe in **Figure 2** that the United States is the highest publishing country, with a significant gap to others. The United States, the United Kingdom, and Australia are the first three countries treating this topic, showing the supremacy of an Anglo-Saxon research approach, even though many Asian and European countries contribute.

Considering most active journals as presented in **Tables 2, 3**, we underline how much socio-emotional value is a core topic in most business management publications, where the organization has to consider the variables in order to have a peculiar sensitivity to satisfying community requests and to preserve a positive organizational climate and individual wellness among personnel. Some journals in this area have an h-index superior to 40, showing how much this area attracts important research teams.

Despite the Anglo-Saxon supremacy of the literature, if we consider the most productive authors, there are many contributions from Spanish, Turkish, Israeli, and Indian researchers. The most prolific author on this list is Applebaun from a Business School in Montreal, who has written articles about leadership and stereotypes among organizations (Applebaun et al., 2016c). Emotional intelligence is an important area of interest for various authors (Boyatzis, 2009; Boyatzis and Ratti, 2009; Gabel-Shemueli and Dolan, 2011; Meisler, 2014): Eisenberger, affiliated with the Psychology Department in Houston, focuses on organizational perceived support, another important aspect in the wellbeing of employees (Ameli et al., 1998; Kim et al., 2016; Kurtessis et al., 2017), and Karatepe and Srivastava are Turkish and Indian researchers, respectively, who publish articles about negative socio-emotional aspects

TABLE 1 | Number of records for each decade with more of 50 records publication and incrementation publishing rate.

Publishing years	Records No.	% Incrementation rate
1991–2000	103	110%
2001–2010	403	289%
2011–2020	1201	202%



regarding organizations, such as burnout or work-family conflict (Karatepe and Tekinus, 2006; Karatepe and Zargar-Tizabi, 2011; Karatepe, 2015; Srivastava et al., 2019; Srivastava and Argawal, 2020; Srivastava and Dey, 2020).

We used VOSviewer to divide the previous group of articles on SCOPUS, using their author keyword co-occurrence. We stated a minimum of 10 occurrences, extrapolating 53 items. We revealed a graphical representation, which was regrouped into six different clusters. These clusters, with their co-occurrence, are graphically represented in another image in **Figure 3**.

Cluster (Red Colored) 1: Emotional Exhaustion (15 Items, 318 Records)

This is the cluster regrouping with the highest record number (18% prevalence) and recalls significant distress within organizations (Peng et al., 2010; Reed et al., 2018), regarding

both users and personnel, where the psychological suffering of the first damages the second and vice versa. Stress (Deckard and Present, 1989; Micael et al., 2008; Richardsson et al., 2008; Martinéz et al., 2013; Sheldon et al., 2015; Linden et al., 2018; Prada-Ospina, 2019), anxiety (Goetz et al., 2006; MacNeil et al., 2009; Inal et al., 2010; Shongwe and Cilliers, 2020; Wu et al., 2020), and depression (LeDoux et al., 1998; Galvin et al., 2006; Jafri et al., 2011; Karatepe and Zargar-Tizabi, 2011; Rooney and Grant, 2013; Wu et al., 2020) are principal indicators of this psychological symptomatology, sometimes reaching dangerous levels and becoming a psychiatric emergency (Johnson et al., 2016; Gil-Rivas et al., 2019). This vulnerability makes personnel members uncomfortable, causing burnout (Booth and Faulkner, 1986; Gupchup et al., 1994; Robinson et al., 2003; Skaalvik and Skaalvik, 2011; Rama-Maceiras et al., 2012; Glaser and Hect, 2013; Huynh et al., 2014; Malik et al., 2016), which has important consequences not only at the individual level but also

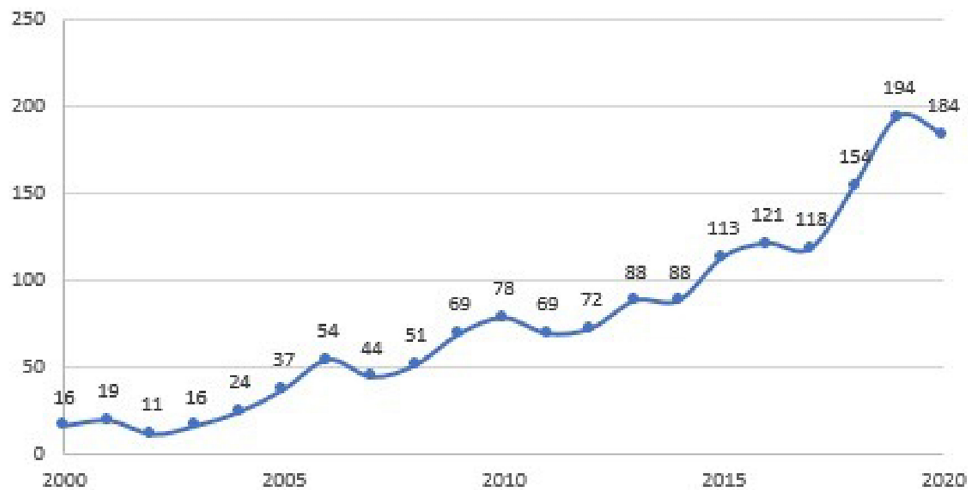


FIGURE 2 | Graphical representation of most active publishing countries.

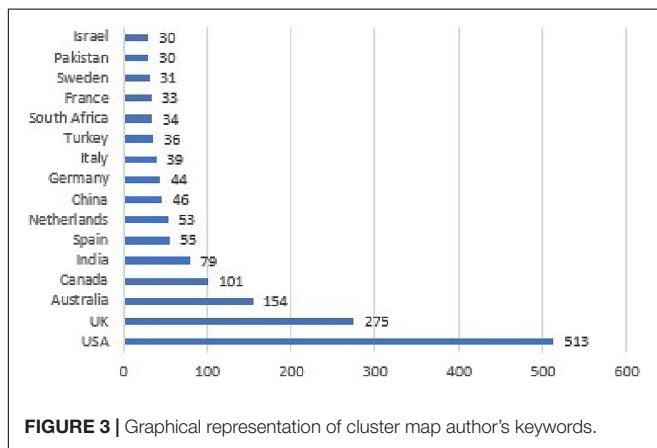


FIGURE 3 | Graphical representation of cluster map author's keywords.

to family and working performance (Glaser and Hect, 2013; Babic et al., 2020).

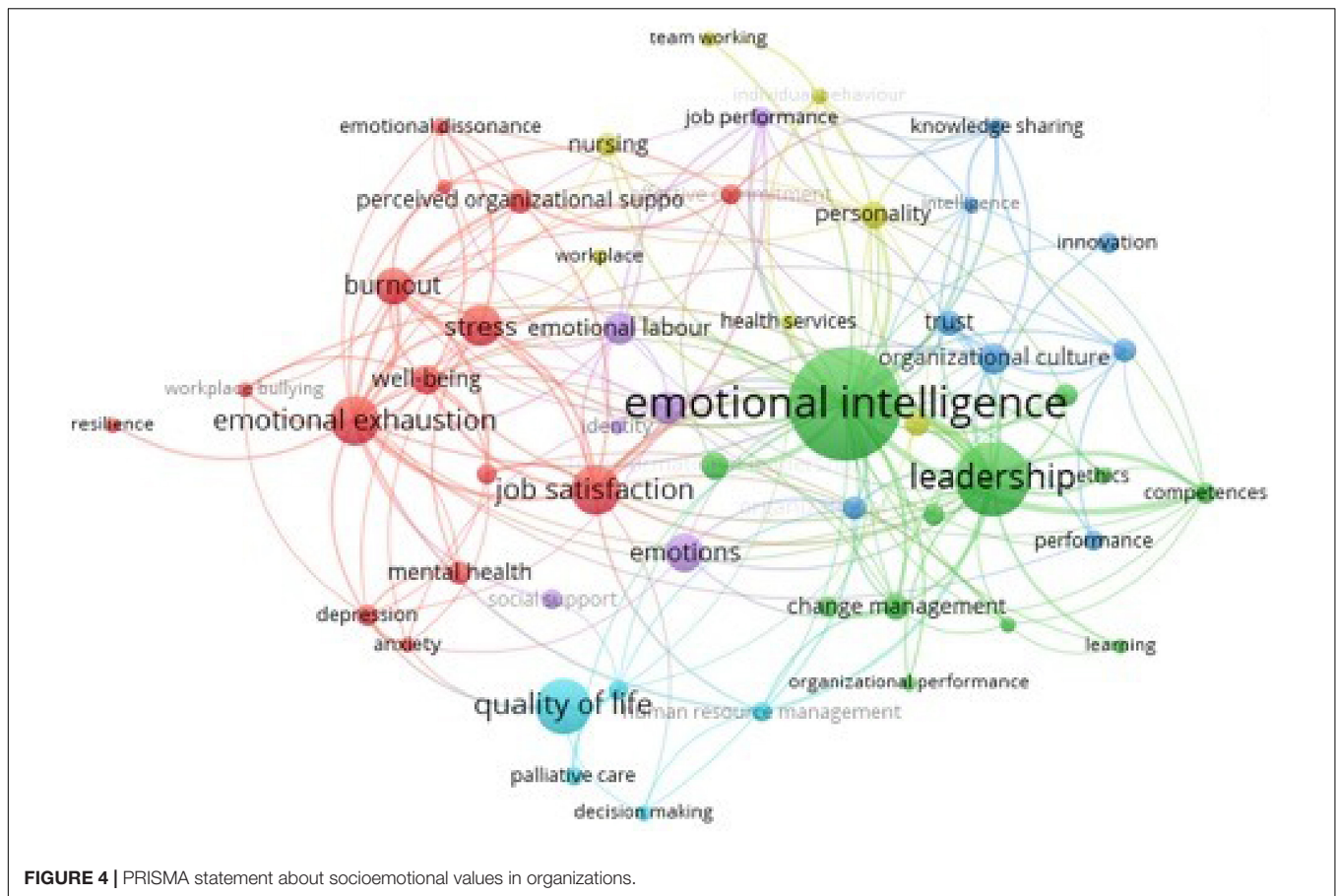
Cluster (Green Colored) 2: Emotional Intelligence (12 Items, 297 Records)

This cluster is the second most numerous cluster (17% prevalence) regarding socio-emotional aspects (Crusheil, 2006; Kerr et al., 2006; Akerjordet and Severinsson, 2007; Hopkins et al., 2007; Koman and Wolff, 2008; Coskun et al., 2018; Chen et al., 2019; Perez-Fuentes et al., 2019), which can create a buffer effect against distress within organizations, preventing individual and organizational suffering. Organizations are not purely rational institutions (Carter, 2005) where every individual has a precise role, with tasks to perform and intervention protocols to manage automatically with plenty of clear satisfaction and without ambiguities and inner conflicts (Chiva and Alegre, 2008; Meisler, 2014). People who work are not always satisfied with their personal and working life and clearly change jobs constantly. They are sometimes frustrated by difficulties, and working skills cannot be evaluated, excluding emotional

components. Emotional intelligence (Chrusciel, 2006; Suliman and Al-Shaikh, 2007; Davies et al., 2010), since its introduction by Goleman (1996), defines an important ability to cope with problems that cannot be navigated using only intellectual skills (Brown et al., 2006), considering also moral aspects that a pure rational intelligence does not consider, thereby creating learning opportunities (McCracken, 2005; Vorhauser-Smith, 2011; Starbuck, 2017). Emotional intelligence can be used within organizations to prevent emotional exhaustion (Meisler, 2014; Clark and Polesello, 2017), to manage and create an appropriate organizational climate (Der Foo et al., 2004; Morehouse, 2007; Chen et al., 2016) that improves organizational performance (Gabel-Shemuely and Dolan, 2011; Wei and Li, 2011; Bettis-Outland and Guillory, 2018) and leadership (Kent, 2006; Fowlie and Wood, 2009; Hess and Bacigalupo, 2010; Lindebaum and Cartwright, 2011; Applebaun et al., 2016a,b,c,d) and provides organizations with an ethical approach (Rok, 2009; Fairchild, 2010; Capell and Gabel-Shemuely, 2013; Caldwell and Hayes, 2016; Asgary and Lawrence, 2020).

Cluster (Blue Colored) 3: Organizational Culture and Knowledge Sharing (8 Items, 89 Records)

An important aspect of organizations is the cooperation between different workers within their organization (Shihi and Susanto, 2010). This aspect, apparently simple and reasonable, is sometimes forbidden, bringing the workers of an organization to work without coordination (Cangemi et al., 2008; Daniels, 2009; Kahili, 2017). This means that different departments or workers from the same organization could work on the same task doing intervention already carried out by the other (Meisler and Vigoda Gadot, 2014), or sometimes performing counterproductive actions (Zhang and Shi, 2017), just like a psychiatrist who prescribes psychotropic drugs with significant collateral effects for a cardiopathic patient cured by another physician. Organizations have their peculiar organizational



climate (Armeli et al., 1998; Worthington, 2012), their myths (Gordon and Winpenny, 1996; Bao et al., 2013), their mission and objective (Campbell and Yeung, 1991; Rahmani et al., 2015; Krajcsák, 2018; Serwint and Stewart, 2019), group resilience, and power (Freeman and Carson, 2006; Leggat and Balding, 2013; Seyedpour et al., 2020), where the individuality of every single worker should be directed at the same goal (Flanagan and Henry, 1994; Leggat and Balding, 2013; Gokturk et al., 2017; Herkes et al., 2019). Better cooperation and communication are important for trust between different workers (Dibben, 2004; Swift and Hwang, 2013; Lim et al., 2018), which grants better cooperation and knowledge sharing, preventing useless or chaotic actions.

Cluster (Yellow Colored) 4: Care Services Communications (7 Items, 175 Records)

Some organizations and professions have a superior emotional investment (Penticuff, 1989; Ho, 2007; Hujala and Rissanen, 2011) than those in which the professional has to stress less about the rational and technical aspects of their activities. A classic example is the helping professions, where helpers have scientific protocol interventions to use but cannot exclusively manage their job without considering socio-emotional aspects (Ramo et al., 2009; Fairchild, 2010). Nurses (Severinsson and Hallberg, 1996; Tuck and Wallace, 2000; Wright and Baker, 2005; Evans, 2006; Stone et al., 2006; Strandås et al., 2019) are typically

one of the principal professions dedicated to superior socio-emotional nearness to patients (Brunton, 2005; Waddington and Fletcher, 2005; Ostaszkievicz et al., 2016). If we compare their relationship with a more detached physician-patient relationship (Dubler, 1995), they are the principal person who constantly manages the illness of a patient, even more than a parent or other sanitarian workers. Considering that, socio-emotional influence is not only fundamental to preventing a psychological collapse in these cases but also to improving caregiver-patient relations and communication (Thomson and Hecker, 2001; Loosemore, 2010; Vinall-Collier et al., 2016), with a positive effect on the healing process (Rustoen, 1998; Molter, 2003). This interaction is a result of two personalities of the patient-nurse dyad, comprehending both normal and sometimes pathological but functional personalities (Dijkstra et al., 2005; Young and Dulewitz, 2007; Igarashi et al., 2009; Wolff and Kim, 2012; Lounsbury et al., 2016; Schwarz et al., 2016).

Cluster (Violet Colored) 5: Gender Issue (6 Items, 250 Records)

Female workers are considered more oriented to emotions than men; it is the third most representative cluster (i.e., 14% prevalence), and female workers are typically involved in some working activities, such as nursing (Severinsson and Hallberg, 1996; Tuck and Wallace, 2000; Wright and Baker,

TABLE 2 | List of most active journals about this research line.

No.	Journals	h-index	Research area
32	Journal of Management Development	55	Business and Management Accounting; Organizational Behavior and Human Resource Management
30	Journal of Organizational Change Management	66	Business, Management Accounting; Decision Sciences
29	Journal of Managerial Psychology	74	Business, Management Accounting; Decision Sciences, Psychology
29	Personnel Review	67	Business Management Accounting; Psychology
26	Leadership and Organization Development Journal	62	Business, Management and Accounting; Organizational behavior and Human resource management
18	Journal of Services Marketing	96	Business, management and accounting
16	Employee relations	48	Business, management and accounting; Organizational Behavior and Resource Management
15	Human Resource Management International Digest	11	Organizational Behavior and Resource Management
15	International Journal of Conflict Management	50	Business, management and accounting; Social Sciences
15	Management Decision	91	Business, management and accounting; Decision Science

TABLE 3 | List of authors with more of 4 publications about socio emotional influence.

No.	Author	Affiliation	h-index	Prevailing research area
5	Applebaun, S., H.	John Molson School of Business, Montreal, Canada	27	Business Management Accounting; Social Sciences; Decision Sciences.
4	Boyatzis, R., E.	Cleveland University, United States	31	Business Management Accounting; Psychology; Social Sciences; Economics, Econometrics.
4	Dolan, S., L.	ESADE, Barcelona, Spain	12	Business Management Accounting; Psychology; Social Sciences; Medicine; Economics, Econometrics.
4	Eisenberger, R.	University of Houston, United States	40	Psychology; Social Sciences; Business Management Accounting; Medicine.
4	Karatepe, O., M.	Mersin University, Turkey	44	Business Management Accounting; Social Sciences; Economics, Econometrics and Finance; Environmental Sciences
4	Mesler, G.	Haifa University, Israel	6	Business Management Accounting; Psychology; Economy, Econometrics; Social Sciences; Medicine.
4	Srivastava, S.	Jaipur Institute of Management, Noida, India	4	Business Management Accounting; Social Sciences; Economy, Econometrics; Decision Sciences; Psychology.

2005; Evans, 2006; Stone et al., 2006; Gray, 2009; Strandas et al., 2019) and school education (Salami, 2008; Galtseva et al., 2020). Some of these activities are more complicated than others and sometimes less socially considered (Syed et al., 2005; Gray, 2009, 2010; Blau et al., 2012; Yagil, 2014; Hur et al., 2015; Shin et al., 2015; Pandley, 2018; Adams and Mastracci, 2020; Dhliwayo and Coetze, 2020). This cluster focuses on both positive and negative emotions (Donnay et al., 1993; Wilkinson, 2002; Humphreys et al., 2005; Driller et al., 2011; Mularz and Johansen, 2016).

Cluster (Light Blue Colored) 6: Hospital and Quality of Life (5 Items, 207 Records)

This cluster is located within the walls of the hospital and is treated by intervention protocols based on the socio-emotional influence (Berman et al., 2016). Hospital patients cannot be cured using only medication and pharmacological therapies and must be considered as human beings with their own personalities and desires, needs, and fears. Medicine must consider life wellness and satisfaction in patients, especially for medical pathology, where psycho-social aspects and quality of life of patients

(Powell and Kornfeld, 1993; Knight et al., 2001; Erim et al., 2015) contribute to a better disease progression, considering the severity of their clinical condition, which can be chronic, mild, or permanent (Duncan and Siegal, 1998; Sengelov et al., 2000; Tsunoda et al., 2007; Segalla et al., 2008; Inal et al., 2010; Yu et al., 2010). Palliative therapies in this case, sometimes have significant prognostic effectiveness despite usually being used in terminal-illness departments, and the decision-making process (Solloway et al., 2005; Oliver and Jacobs, 2007; Gronstad, 2017; Bakst et al., 2019) during therapy is a fundamental aspect in diagnosing and acting at the right moment during the healing process.

DISCUSSION

This study did not only consider emotional (Lombard, 2021) or social (Micaelson, 2021) values because these constructs are often used interchangeably, even if there are some important differences. In contrast to the “hard” sciences, we treated a research area full of disturbing variables as decision science, where we must adopt a complexity paradigm (Jorm et al.,

2021). Considering a negative attitude through socio-emotional influence, people who use an emotional approach are irrational and potentially target manipulation (Lenidou and Lenidou, 2009; Yang, 2016). Our topic analysis uses cluster mapping with two orthogonal Cartesian axes in **Figure 4**, giving a graphical setting, where the horizontal defines a cluster mostly centered on individual wellness or, in contrast, defining an organizational setting, while the vertical is more oriented to a negative consequence/state or a positive way.

In a synthetic description, the position of every record under the same cluster could be in a different graphical area. For example, burnout is a keyword under cluster 1. Many authors define burnout as a syndrome characterized by individual psycho-physic suffering, which can also regard some causes and consequences related to the entire organization of a worker, defining this construct and its cluster negatively, but connected at both an individual and organizational level (Schulz et al., 1995; Yip and Rowlinson, 2009; Brown and Quick, 2013; Jones-Schenk, 2019). It emerges as a balanced result, whereby cluster 1, with the highest number of co-occurrence, is related to psychopathological problems, but the other clusters are positively related to socio-emotional values, where there is a positive influence that improves protective aspects in organizations. The emotional intelligence or other aspects bring potential improvement to organizational performance in terms of a more efficient organization and communication (clusters 3 and 4), personal skills, and inner positive characteristics for better interpersonal competence (clusters 2 and 5) or considering the psychological needs of users and patients to improve their wellness (cluster 6).

Our three hypotheses have been verified by this review.

1. If we consider the last 20 years of research, we notice an incrementation in records considering both emotions and organizational keywords, following a general incrementation trend, whereby emotions are not neglected considering their influence among organizations. There were mild decreases during times of economic recession, for example, during the economic crises of 2008 and 2020, with the beginning of the economic recession caused by movement limitations due to COVID-19, following a new increase.
2. Our cluster analysis revealed prevalence and where emotions are considered negatively, with discussions of stress, burnout, depression, and clinical manifestations due to emotional dysfunction, but we underline that it is just a cluster, whereas the others talk about leadership, gender issues, and organizational performance due to an ethical approach, which also considers emotions as “humanizing” to an organization.
3. Emotions also relate to organizational management, whereby emotions cannot be considered only in an individual way, as single human characteristics, but are also related to organization and people groupings.

For this research, we found many records, even considering only English-language articles and reviews and only using the

SCOPUS database to focus on the research topic. This must be underlined as a limitation, as we excluded other databases.

CONCLUSION

People working within an organization and the same management rules are strongly moved by a purely rational mechanism, and problems that organizations treat cannot be solved following only rational logic. Kahneman and Tversky (1981), Kahneman (2003), and Thaler and Sunstein (2008), demonstrate that emotions strongly determine important human decisions, even significant financial investments. Recalling the beginning of this study, the theory of separation brings an organizational attitude that spoils the organization from their social function, creating an extremist world consideration, in which an organization cannot consider the possibility of earning money by considering the common good, neglecting environmental sensitivity, labor and political rights, urban sustainable development, and creating wars and exploitation. Trying to overwhelm an ideological approach, the integration of profit and social function must involve socio-emotional elements among organizations introducing social accountability (Hadden, 2012; Tang and Luo, 2016; Bhatia et al., 2020; Dimitropoulos, 2020), which aims to obtain a balanced vision between these two dimensions. Emotions are fundamental to moving managers to a major social sensitivity and an ethical approach to business management (Rok, 2009; Fairchild, 2010; Capell and Gabell-Shemueli, 2013; Caldwell and Hayes, 2016; Asgary and Lawrence, 2020), better communication (Dibben, 2004; Swift and Hwang, 2013; Lim et al., 2018), and improved organizational performance (Gabel-Shemueli and Dolan, 2011; Wei and Li, 2011; Bettis-Outland and Guillory, 2018), preventing conflict (Flanagan and Henry, 1994; Leggat and Balding, 2013; Gokturk et al., 2017; Herkes et al., 2019) and suffering (Micael et al., 2008; Richardsson et al., 2008; Skaalvik and Skaalvik, 2011; Martínez et al., 2013; Rooney and Grant, 2013; Shongwe and Cilliers, 2020). There has been an important incrementation rate during the last 20 years on this topic probably due to the generalized growth of the research. The economic crisis of 2008–2009 reopened discussion of the importance of social function among entrepreneurial organizations, where the exaggerated free economic speculation of single businessmen damaged Western economies; it was the failure of a liberal system that equaled the fall of the Berlin Wall almost 20 years before, where, on the contrary, there was a socialistic failure with an overcentralized economy, which limited entrepreneurial freedom, creating a closed and not competitive market. The COVID-19 pandemic revealed significant neglect of the socio-emotional influence of human behaviors.

Many countries around the world have delayed a tempestive and preventive intervention and have underestimated the pandemic problem in favor of a short-term economic decision strategy, which does not consider long-term effects and consequences (Zang et al., 2020). Different enterprises, such as fashion firms (Zara, Armani, Zegna, H&M, Gucci, etc.), have reconverted some of their factories for the production

of medical instruments. Surely, the smart working, already existing, will receive a better diffusion and application, and any service or selling activities are improving in the educational, medical, or selling sectors (Soled et al., 2020; Spurlock, 2020). An important intervention in many countries is the educational system, changing the teaching style, no longer being based on face-to-face relations (Choe and Choi, 2020). There is now a confrontation between economic superpowers, and Europe has to participate as a single country formed by different nations. There is some financial European aid, which is implementing different economic aid programs for each individual European nation. Moreover, there are—beyond the usual European projects that the EU promotes annually—different specific European projects, such as Pan European Hackaton #EUvsVirus, which regroups different people from every European country, with different preparations who create different projects to fight the emergency using different focus areas.

This strategy is predominantly insufficient and prioritized economic and sanitarian aspects, where the latter mostly considered just medical aspects without considering a bio-psycho-social model (Engel, 1977), which could properly set a better preventive intervention strategy, avoiding a delay of contention strategy against the virus and with chaotic management of the health emergency, where a late intervention by health workers only partially coped with the biological risk, but almost totally neglected the psycho-social negative consequences of the pandemic, creating important discomfort among the population (Griffith, 2020; Banerjee et al., 2021; Jokic-Begic et al., 2021; Szmulewitz et al., 2021; Taylor et al., 2021). COVID-19 is not only a pandemic, which has caused the death of millions of people, but it has also seriously damaged world economies, creating a psycho-social impairment among the population and acting negatively toward organizational vulnerabilities among work and health organizational systems, considering, in this case, only the economic priority, with biological risk as a secondary consideration. However, even in this case, only the medical aspect of this drama was considered, neglecting plenty of effective prevention (better than a cure!) being realized by considering psychological intervention (Hanna-Attisha and Olson, 2021;

Mimiaga et al., 2021; Zhang et al., 2021). It is difficult to maintain critical thinking in this case, and often people fail in this task because it is easier to follow emotional thinking (Wynes, 2021; Yu et al., 2021), which has often negatively influenced socio-political decisions, for example, creating and maintaining populist movements, which are stronger in uncertain times (Bone, 2021). Stakeholder accountability moves its actions through a complex situation, especially during an actual socio-economic crisis, where there is a significant impairment in terms of social cohesion and trust between people and institutions (Antinyan et al., 2021; Fikukova et al., 2021; Surina et al., 2021; Ye et al., 2021). The accountability of stakeholders means that a single person or a group of people operate for an individual initiative, without an institutional setting, following their own principles, intrinsic rules, and ethics (Salsbury et al., 2018). There are some easy ways to lead in this situation, in which, people must cope with another great challenge: to cooperate with the institution and other people within the same organization or become an autocratic leader, taking every decision alone, deciding easier and faster, but forgetting a democratic approach and risking important mistakes (Zarinah et al., 2017; Hentschel et al., 2018; Levene and Higgs, 2018). History has many examples of “gifted” people in moral and leadership terms who take charge, with all the decision-making power in their hands and guide the destiny of entire countries.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

TP and GC stated keywords and build the cluster analysis. TP contributed to write and sampling statistics. BH-S and GC contributed to discussion. All authors contributed to the article and approved the submitted version.

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The Emotional Dimension of Value: A Proposal for Its Quantitative Measurement

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The first goal of this paper is to develop a theoretical and practical framework which can help to measure the emotional value generated by organizations in quantitative terms. Its second goal is to use data obtained from the UCAN (Union of Food and Agriculture Cooperatives of Navarre) in Spain as a case study to illustrate the quantification of the emotional value generated, with a view to factoring that value into a social accounting system. Ever greater recognition of the social role of organizations in recent years has led to a need for a consistent definition of the concept of socio-emotional value, and for instruments that can be used to measure that value in terms of generic social accounting. Taking the current lack of standardization in such models and instruments, especially those that deal with emotional value as its starting point, the paper proposes a new instrument for measuring that value quantitatively in such a way as to overcome some of the limitations of earlier proposals. The underlying perspective is that the monetary values identified in market and non-market transactions do not accurately account for all the value generated for different stakeholders, and that adjustments are required through a correction factor applied to the value variables identified. The quantification of the socio-emotional value generated by an organization is seen as a more comprehensive indicator of its performance, given that it provides more information and takes into account the value generated for stakeholders as a whole in all dimensions.

Keywords: stakeholder theory, stakeholder accounting, monetization, social value, emotional value

INTRODUCTION

There is increasing concern in developed countries at the impact that economic activity is having on society. That concern translates into a greater commitment to society on the part of organizations, through initiatives in the fields of corporate social responsibility (Carroll, 2015; Schwartz, 2017) and, more recently, sustainability (ONU, 2015). More specifically, leading organizations have committed to shifting toward more inclusive business models and incorporating the creation of value for all stakeholders into their business management (Business Roundtable, 2019a,b). Generating value for stakeholders is becoming a key factor for organizations when it comes to legitimizing their activities in the eyes of society (Freeman et al., 2010; Mitchell et al., 2015;

Williams, 2018). Institutional initiatives have emerged, such as the Principles of Corporate Government of the OECD and the G20 (OECD, 2016). By establishing principles of policy and governance, they seek to orient organizations toward the design of structures to set and attain goals in regard to their shareholders and stakeholders in general. In this context, organizations that operate in the social economy fit well into these new models of organization (Lazkano and Beraza, 2019; Echanove, 2020) because of their internal values: Prioritizing people and social goals over capital; democratic governability; solidarity; and the reinvestment of most profits in pursuit of sustainable development goals (Social Economy Europe, 2020).

This new, complex setting leads organizations to shift toward finding new ways of generating value for their stakeholders and opens up new research lines associated with the creation of value for stakeholders (Harrison and Van der Laan Smith, 2015; Freeman, 2017; Freudenreich et al., 2020) and with measuring that value (Retolaza et al., 2016; Freeman et al., 2020; Harrison et al., 2020).

Publications on the creation of value for stakeholders are emerging in the field of business management (Harrison et al., 2010; Argandoña, 2011; Harrison and Wicks, 2013; Garriga, 2014; Schneider and Sachs, 2017), but it is necessary to continue obtaining more knowledge and measuring it (Gyrd-Jones and Kornum, 2013; Bapuji et al., 2018; Freeman et al., 2020; Harrison et al., 2020). Few organizations systematically measure the social value that they generate, and there is no single, broadly accepted method for doing so (Olsen and Galimidi, 2008; Tuan, 2008; Mulgan, 2010; Retolaza et al., 2020; Tirado-Valencia et al., 2021).

To help move this line of research forward this paper argues that, from the viewpoint of stakeholders, “value” is better represented by the new logic of “service dominant” value (Vargo and Lusch, 2004, 2008b, 2016; Vargo et al., 2008). The value construct has evolved from an approach in which priority was assigned to the sharing of resources and value was given by price to a new approach in which value emerges from the integration of resources from all stakeholders and is determined by their value in use. The initial approach fits better into orthodox economic models, as it reduces value to economic and financial terms under the point of view of the organization. The new approach is seen from the perspective of the recipient: More dimensions of value are therefore considered, including the emotional dimension. This leaves a gap in the literature in regard to measurement in quantitative terms.

In the face of that problem, this paper seeks to help establish new ways of measuring value generated for stakeholders, and puts forward a proposal on how the emotional dimension of value can be quantified, through a case. So, that proposal is tested at a social organization: UCAN (the Union of Food and Agriculture Cooperatives of Navarre).

The rest of the paper is structured as follows: Section “Conceptual Foundations of the Value Construct and Its Evolution: From Value in Exchange to Value in Use” presents a review of the theoretical framework as regards the value construct, outlining its development and moving toward a more comprehensive conceptualization of stakeholder value. Section “Limitations on the measuring of stakeholder value through

financial- Economic accounting” presents the current accounting system used to measure value at organizations, pointing out its limitations in terms of measuring stakeholder value. Section “Socio-Emotional Value” explains why the proposal for measuring emotional value is put forward. Section “Materials and Methods” describes the methodology used. Section “Results” sets out the results as regards the quantification of emotional value at a social organization (UCAN). Finally, a discussion and conclusions are given in the next section.

CONCEPTUAL FOUNDATIONS OF THE VALUE CONSTRUCT AND ITS EVOLUTION: FROM VALUE IN EXCHANGE TO VALUE IN USE

The creation of value by organizations is a core concept, but one in which there is little agreement as to what “value” actually means or how it is created and distributed or captured (Windsor, 2017).

Axiology is the branch of philosophy that studies the nature of values and evaluative judgments. Reflect on questions such as the nature and classification of values and what kinds of things are or can be valuable. Outside of philosophy, it has a high importance in economic theory (Hirose and Olson, 2015).

The conceptual foundations of “value” and “price” were laid long ago in the field of ethics, where the search for fairness led to efforts to define the fair price of things. The earliest known reflections on value and price are those of Aristotle (384-322 BCE). Those reflections were subsequently consolidated in terms of the notions of value in use and value in exchange. Adam Smith introduced these two concepts with the following explanation: “The word value, it is to be observed, has two different meanings, and sometimes expresses the utility of some particular object, and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called “value in use” the other, “value in exchange”” (Smith, 1776: 42). In his work he exemplified these two values through a paradox of economic value, explaining that although water is more useful than diamonds, the latter have a higher market price. Years later, as economic science developed, the law of marginal utility and diminishing marginal utility (Krugman and Wells, 2012) solved the paradox of value by establishing that abundance of a good reduces its value in exchange, even if that good has great utility.

The value in exchange has generally been expressed in monetary units and reflected in market prices. Insofar as it is objective and objectifiable, this value subsequently came to be associated with the theory of prices and was developed especially strongly in economics. Other disciplines such as psychology and marketing have focused on value in use, an inherently subjective value determined by individuals. With transactions being the core concept of marketing, value in use became a key idea due to its power to explain why transactions were made voluntarily (Bagozzi, 1975).

Considering the distinction drawn between value in use and value in exchange, the analysis below looks at the evolution of

the value construct from the discipline of marketing, due to its greater alignment with stakeholder value.

Value in Exchange/The Traditional Goods-Dominant Nature of Exchange

The neoclassical economic model argues that economic value is generated in transactions on the market. Under the traditional goods-dominant nature of exchange, the organization manufactures goods and services that are embedded with value. The value generated by organizations and contained intrinsically in goods is exchanged on the market for a sum of money determined by its market price. Economic value is generated because the market price that consumers pay for a good is greater than the cost of the resources used in producing it. The difference between the two values determines the producer's surplus, which is defined as that part of the value which is captured by the organization or its owners as residual value once the resources used have been paid for Mishan (1968). In this process of voluntary exchange on the market, consumers receive a good for which they pay a market price (value for money). From the viewpoint of consumer stakeholders a consumer's surplus, i.e., a value, is generated if the maximum price that they are willing to pay for the good based on the utility that it gives them is higher than the actual price paid. The difference between the two is the consumer's surplus (Dupuit, 1844). In economic terms, the value in use of a good is equated to its utility. This leads to the theory of utility and diminishing marginal utility, which is the theoretical foundation of the value construct (Tellis and Gaeth, 1990).

This influence of neoclassical economics on the way in which consumer value is understood is supplemented by how deeply rooted the concept is in cognitive psychology. The classical definitions of consumer value reflect the cognitive and utilitarian perceptions of value on the part of consumers, and represent it a trade-off between benefits and sacrifices (Day, 1990). One conventional definition of consumer value which reflects this cognitive trade-off is that provided by Zeithaml (1988:14), who defines it as a "consumer's overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given." The relaxing of economic logic, maintaining the rationality of individuals in their decisions and decision-making under conditions of perfect competitions and complete information, means that this rational cognitive assessment is based on expected benefits and sacrifices (Bach et al., 1987), which are effectively perceived to materialize once the exchange has taken place. Thus, the difference between expected perceived value and price can be interpreted as the consumer's incentive to go through with the transaction (Anderson et al., 2009). The value in use perceived is generated in the consumer's private sphere once the exchange has taken place (Grönroos and Voima, 2013), and it is the consumer who captures or destroys the value contained in the good (Gruen and Hofstetter, 2010).

From this conventional perspective, with its underlying vision of an exchange of product for money, the utility derived from consumption of a good was seen as inherently linked to the physical properties and attributes of that good. Value was thus

a value judgment as to the technical quality of the product and the price paid (Cravens et al., 1988; Monroe, 1990).

This initial concept of consumer value is part of a one-dimensional value construct (Sánchez-Fernández and Iniesta-Bonilla, 2007), i.e., a single latent feature or construct underlies a set of items (Hattie, 1985), and it can be measured through its valuation by the consumer.

Value Through Relationships/Extension of the Concept of Value and Its Scope

The conceptual forerunners of the relational vision of value lie mainly in studies by authors from the Nordic School in the fields of industrial marketing (Webster, 1992; Anderson, 1995; Gassenheimer et al., 1998) and services marketing (Gummesson, 1987, 1996; Grönroos, 1994, 1995; Berry, 1995).

These authors questioned the idea that organizations only generate value through transactions on the goods and services markets, and identified the potential of organizations for generating value through relationships forged with consumers (Wilson and Jantrania, 1994; Ravald and Grönroos, 1996).

This raising of the profile of relational assets extended the concept of value, incorporating a new, more interactive, more experiential perspective. Lanning (1998) defines value in terms of the result of the experiences arising from the relationship with an organization, taking competition into consideration. For their part, Ravald and Grönroos (1996) integrate relational value with the utilitarian value provided by goods and services, and see overall value as a combination of the two (total episode value). Lindgreen and Wynstra (2005) distinguish between two research lines: One which focuses on the value of goods and services and the other on relationships.

This new cognitive-affective approach to value, which is rooted in the psychology of consumer behavior, incorporates a new, hedonic component into the concept of value. As stated by Holbrook and Hirschman (1982), up to the 1980s the literature on value focused exclusively on a utilitarian understanding of the concept. The hedonic and utilitarian components the specific development of different multi-dimension all models of value drawn up by various authors. They include Holbrook (1994, 1999), which identifies four dimensions of value: economic, social, hedonic, and altruistic. Wilson and Jantrania (1994) describe three dimensions of value: economic, psychological or behavioral, and strategic components of relationships. Babin et al. (1994) classify the dimensions into utilitarian value (functional, rational, instrumental, and cognitive) and hedonic (affective, experiential, and non-instrumental). Sheth et al. (1991) identify 5 dimensions: social, emotional, functional, epistemic, and conditional value. This last model was subsequently adapted by various authors in particular contexts (Sweeney and Soutar, 2001; Pura, 2005). Batra and Ahtola (1991) incorporate further components, other than the hedonic and the utilitarian, which they call "thinking and feeling."

Although these models have the advantage that they are closer to the true complexity of the value construct from the viewpoint of the consumer stakeholder, given that they incorporate intangible, intrinsic, emotional factors, there does

not seem to be any agreement among researchers as to what dimensions should be considered as forming part of value or as to how it should be measured. However, assuming that both hedonic and utilitarian components must be taken into account as attitude components, it is clear that an affective component of emotional value needs to be incorporated into the value construct (Lemmink et al., 1998).

The relational perspective focused initially on customer/supplier relationships and subsequently broadened its focus to consider the potential for generating value arising from different stakeholders in their interactions in networks (Payne et al., 2001; Payne and Frow, 2017). The forerunners of this more global take on the relational perspective argued that organizations cannot meet the needs of their clients and maintain stable relationships with them if their cooperation with other parties involved is not equally sound and based on the same relationship principles. This broadens the relational network to all the various actors involved, in a multi-stakeholder approach (Christopher et al., 1991; Kotler, 1992; Gummesson, 1996).

Value in Use/Service Dominant Logic

The traditional concept of value was based on good-dominant logic, in which value is contained in the product itself or in the relational assets and the ability to create value, and indeed the responsibility for doing so, falls to organizations, which capture part of that value through price. However, more recent concept of value given active role to consumers and other stakeholders which involves them in the value creation process. Competitive logic (Prahalad and Ramaswamy, 2004), service-science (Maglio and Spohrer, 2008; Spohrer et al., 2008), and service-dominant logic (Vargo and Lusch, 2004, 2008a, 2016) share the approach of placing consumers (or other stakeholders) at the heart of the value creation process, as the main actor(s) in that process. Of all these approaches, the last has probably enjoyed greatest development in terms of a multi-stakeholder perspective.

Service-dominant logic as an alternative theoretical framework for explaining the creation of value is guided by the basic principle that “service” (the term is used in the singular to distinguish it from goods/services), understood as the application of knowledge and skills for the benefit of a third party, is the basis of all exchanges in the economy (Vargo and Lusch, 2004). Reciprocal exchanges of “service” for “service” (knowledge and skills) to the benefit of a third party and the integration of the resources of each party give rise to the creation of joint value, or the joint creation of value (Vargo and Lusch, 2008b, 2009, 2014). From this perspective, stakeholders take part in the process, given that their resources and the application of their knowledge and skills for the benefit of a third party benefit them in terms by giving them access to the resources and applied knowledge and skills of others, since the exchanges involved are reciprocal. This helps them attain their goals (Macdonald et al., 2016; Ranjan and Read, 2016). By developing this logic Vargo and Lusch (2016:7) see joint-creation as “a process where actors are involved in resource integration and service exchange, enabled and constrained by endogenously generated institutions and institutional arrangements, establishing nested and interlocking service ecosystems of actors.”

In this paradigm shift, value ceases to be created and determined mainly by organizations and comes to be jointly created. This means that value is created jointly by multiple stakeholders who cooperate in the process (Bhattacharya and Korschun, 2008; Vargo, 2009; Voima et al., 2010, 2011; Frow and Payne, 2011; Grönroos, 2011). Value is created in networks and not just the consumer but all the stakeholders involved in jointly creating it take part in the exchange and integration of resources, with each contributing to the welfare of the others (Vargo and Lusch, 2016). By contrast with the conventional logic of the exchange of goods, service-dominant logic focuses exchanges in terms of value and extends the prospective, going beyond a dyadic vision (consumer/provider) to form a multi-stakeholder perspective (Vargo and Lusch, 2008a; Vargo et al., 2008). This vision, which stresses cooperation between different actors in the process of joint creation, had already been posited in the relational perspective (Sheth and Parvatiyar, 1995) and backed up by other approaches such as the value constellation approach (Norman and Ramírez, 1994), the network perspective (Håkansson and Snehota, 1995), and service science (Maglio and Spohrer, 2008). A close concept is the shared value creation proposed by Porter and Kramer (2011). This value proposition is very close to the stakeholder approach and quite consistent with cooperative principles and values.

Another major difference between service-dominant logic and the more conventional perspective is the priority given to value-in-use (Vargo and Lusch, 2004), in detriment to the importance previously attributed to value in exchange. Value-in-use started out as a utilitarian approach to value which arises for users during the process of consumption, but the current notion of value-in-use stems from idea that value is jointly created through the integration of operand and operant resources and the exchange of service. Value-in-use does not depend exclusively on the knowledge, skills and resources of an organization but on those of all the stakeholders involved in the value creation process and in the individual way in which they are integrated through activities and interactions for the joint creation of value (McColl-Kennedy et al., 2012).

With this perspective of value-in-use, Vargo and Lusch (2008b) find that value is always uniquely and phenomenologically determined by the beneficiary. Value is idiosyncratic and therefore unique to and determined by each individual. This goes beyond the concept of the intrinsic value of products and services determined by the qualities and/or properties that enable them to meet needs. It is therefore not predetermined in the exchange process, but jointly created in use by all the stakeholders in the system (Vargo and Lusch, 2016). By contrast with earlier concepts of value, Macdonald et al. (2016) argue that value does not emerge exclusively in the process of use that can be experienced throughout the process of relationships and interactions.

The use of the term “value-in-use” by some authors has changed, in the belief that the concept of value-in-context better reflects the way in which value should be understood in the context of the beneficiary’s world and emphasizing that aspect (Chandler and Vargo, 2011).

TABLE 1 | From a perspective of value-in-exchange to one of value-in-use.

Value in exchange perspective/ Goods-dominant nature of exchange	Value in use perspective/ Service-dominant logic
<ul style="list-style-type: none"> • Value is created by organizations, which determine it • Value is contained in products/services • Organizations delivers value • Organizations capture part of the value created through the price of the goods and services that they provide • Concept of value: trade-off between benefits and sacrifices • Dyadic exchanges (consumer/provider) • Consumer is passive recipient of value • Underlying utilitarian and economic perspective • Roots in economic theory and cognitive psychology • One-dimensional value construct • Market transactions are the key factor • The emotional dimension of value is not taken into account • Prevalence of value-in-exchange 	<ul style="list-style-type: none"> • Value is jointly created through the integration of resources and the exchange of service. Reciprocal. • Value is determined by the beneficiary and experienced in use. • Value creation is the responsibility of the consumer, the provider and other stakeholders in the system, who partly control the process. • Phenomenological perception of value. • Multi-stakeholder perspective. • Underlying cognitive-affective approach. • Roots in behavioral economics and consumer-behavior psychology. • Multidimensional value construct with utilitarian and hedonic components (emotional dimension). • The service for service exchange and the integration of resources are the key factor. • Prevalence of value-in-use.

Source: own work.

Value creation has been seen as a process that increases the welfare of beneficiaries and benefits them in some way (Grönroos, 2008; cf. Vargo et al., 2008; Nordin et al., 2011), but it must be considered that the value creation process could also take a negative direction if value is destroyed rather than created (e.g., Echeverri and Skålén, 2011).

The above points reveal that the value construct has evolved substantially over the past few decades. Although part of the focus of the research arises in order to explore and explain consumer value, the concept of co-creation makes it possible to explain the creation of value as a broader and more participatory process that accommodates the different stakeholders (Ind and Coates, 2013; Alves et al., 2016). This view of creating value through the participation and interaction of different stakeholders can find adherence in the stakeholder literature (view Table 1).

The evolution of the value construct provides a better, deeper understanding of it and should therefore have an impact in both industry and the academic world, in terms of how value is measured and quantified. Based on these ideas, the next section discusses economic and financial accounting and posits that it provides insufficient information from the viewpoint of value with various beneficiaries (stakeholders).

LIMITATIONS ON THE MEASURING OF STAKEHOLDER VALUE THROUGH FINANCIAL- ECONOMIC ACCOUNTING

Effectively measuring the value that emerges from an organization *via* its relationships and interactions with its various stakeholders is a critical area of management. There

seems to be widespread agreement that the management of organizations should be directed generally toward creating value, but when it comes to turning that generic assertion into specifics there is no consensus on points such as: the perspective from which the value should be studied (owners, consumers, employees, stakeholders, society, nations, etc), who creates it, what exactly value is, what is valuable, where value lies, how it should be quantified, who values what, and even whether value should be interpreted in terms of content or as a process of new value creation. We reflect on these aspects below.

The phenomenon of value creation by organizations can be explained in part in terms of market transactions. Classical economics provides tools for analyzing and quantifying that value, and accounting measurements are an essential part of the process of monetizing the value created by any organization (International Accounting Standard Board [IASB], 2018).

Economic and financial accounting acknowledges, measures, and presents information on the transactions carried out by an organization. Making accounting measurements requires two things: A unit of measurement and a model of measurement. The unit of measurement is currency, about which there is very little argument. However, the choice of a model of measurement has been the subject of debate throughout the development of accounting theory. Preferences have shifted from a model based on historical cost to the fair-value-based model that currently enjoys the broadest acceptance among accounting rule-makers in the international setting. Thus, International Financial Reporting Standards indicate that “fair value” is the price received on selling an asset, or the price to be paid to transfer a liability, in an orderly transaction between market participants on the date of measurement (International Accounting Standard Board [IASB], 2011).

The discussions concerning the validity of the current model of measurement go beyond technical arguments and into the field of epistemology, which takes them well beyond the scope of this paper. However, in the interests of research it is worth pointing out that the factors underlying the choice of a model of measurement include who is the target of the information and what business model companies use. According to the Conceptual Framework for Financial Reporting (International Accounting Standard Board [IASB], 2018), the group that makes most use of financial statements is that of investors, lenders, and other current and potential creditors. The information reported must therefore be useful to those users in the sense that it must give a true picture of the economic and financial circumstances of organizations. However, it is worth pointing out that those circumstances are themselves merely a representation of the underlying business model, which is linked reciprocally with the model of measurement chosen. The fair value model rests on a number of assumptions in line with economic orthodoxy as set out in IFRS 13 (International Accounting Standard Board [IASB], 2011), which move it away from the necessary requirements to support accounting for stakeholders.

In terms of the goal of assessing and quantifying stakeholder value, economic and financial accounting seems to have various limitations as a form of measurement.

- (1) It reduces value to that which is generated from market transactions, and fails to consider non-market transactions where payment does not take an explicit monetary form. Nor does it consider the fact that exchanges of value are not necessarily limited to goods, services, and cash but may include time, energy, and emotions, or the fact that there may be networking.
- (2) It expresses value solely in economic and financial terms. If it is accepted that both hedonic and utilitarian considerations need to be taken into account as components of attitude, in the value construct, then an affective component of emotional value needs to be factored in and considered in valuation.
- (3) It directs the information reported at a single stakeholder group. The concept of organizations as entities that generate value through and for all their stakeholders (Freeman, 1984; Freeman et al., 2010; Harrison et al., 2020) requires the value received by each stakeholder to be identified. Value must thus be understood and measured from the perspective of the various parties that benefit from it.

There is no denying that economic value is a fundamental dimension in the measuring of value, or that financial/economic accounting is a good instrument for that purpose. However, given its value-centered perspective, economic and financial accounting does not seem to be a suitable way of expressing stakeholder value, because it suffers from a lack of alignment in terms of both the perspective from which value is studied and the items and dimensions that must be taken into account.

To make up for this lack of information, organizations supplement economic information with sustainability reports, such as the Global Reporting Initiative, integrated reports, SA8000 (Hughes et al., 2014; Morioka et al., 2016) or through accounting systems social (Gray, 2001; Richmond et al., 2003; Gray et al., 2014). However, these systems also have limitations in presenting information qualitatively in some cases and/or not taking into account the emotional dimension of the value.

SOCIO-EMOTIONAL VALUE

Given the points set out above and the fact that there is no place for the emotional dimension of value in current value measurement systems, this section proposes a way of measuring it. Out of the various systems available in social accounting, we have opted for an integrated social value model (Retolaza et al., 2016), given that such models have been proven to be applicable to organizations of all types (Retolaza and San-Jose, 2021).

This model is based on four assumptions: Action research, stakeholder theory, the phenomenological perspective and fair value based on fuzzy logic. For more details, see publications that discuss social accounting (Retolaza et al., 2013, 2014, 2015, 2016).

The social accounting model seeks to provide conceptual support which is sound enough to enable progress to be made toward more comprehensive measurements of value. It thus

enables the various categories or ecosystems of value identified to date to be brought to light. Those categories are outlined below.

Market Social Value

This is an initial approach to measuring social value and its distribution. It is calculated as per the proposal set out by Gonzalo and Pérez (2017), using value added analysis, and by the GRI4 (Global Reporting Initiative [GRI], 2013) in regard to value created and distributed. It reflects the social value that arises from market transactions between a company, its clients, the public administration, and other resource providers. It is an improvement on the information provided by organizations concerning value distributed to their various stakeholders, but the value identified is solely financial and restricted to that which arises from transactions on the market. Despite its narrow vision of stakeholder groups and value made visible, it has the advantage of making it easier to obtain the information needed for calculations, given that it is based on data already identified and collected by organizations, which can be found in their accounting records.

In general, this analysis takes on board the value creation principles of the neoclassical perspective. The creation of value is independent from its distribution. Value creation is focused on generating surpluses for owners (shareholders). Value for other stakeholders is brought to light by applying the shareholder's financial value perspective to stakeholders as a whole, without making any broader interpretation of value, perhaps from the perspective of stakeholders themselves.

Non-market Social Value

This is another category or ecosystem of value, and as such it can help bring to light social value more accurately. It identifies the social value that arises from transactions between the company and its stakeholders which are not made on the market. It is particularly useful for organizations where the value generated and distributed comes mainly from non-market mechanisms (Sandel, 2012).

It is measured from the perspective of stakeholders, i.e., the groups of individuals and organizations for which an organization generates or may generate value. From a phenomenological perspective, it is stakeholders who identify the sources or variables of value, so dialog with the various stakeholders is required to obtain the information needed. In this case there is often no market value, so value variables expressed in general terms need to be reformulated as indicators associated with outputs measurable by the organization. Once the relevant proxies have been selected, those outputs can be measured in monetary units.

Emotional Value

When the social accounting model was initially developed (Retolaza et al., 2016) it identified this category of value and noted its importance, but the emotional dimension of value was not quantified because it required a different measuring procedure, given that it was not only subjective but also intangible. This led to it initially been considered for my descriptive, covering the circumstances and emotions of the

various stakeholders. However, the qualitative nature of the information collected made it difficult to integrate into the other categories identified and valued in monetary terms. However, despite the difficulties of its measurement, the entities considered that said value should be taken into consideration if it was desired to identify the totality of the perceived value, in all its dimensions and forms. What is measured is managed (Kaplan and Norton, 1992) and if a complete and exhaustive measurement of the value generated and distributed to the stakeholders was not carried out, it could hardly be managed as a whole. Incomplete measurement of socio-emotional value, ignoring emotional value, could act as a deterrent to implement management approaches centered on persons or on social approaches.

To make progress in the assessment and quantification of emotional value and in integrating it with the other categories in the model, a proposal for measuring it was put forward at a summer course at the University of the Basque Country (UPV/EHU) (Retolaza and Ruiz-Roqueñi, 2018) and subsequently published (Ruiz-Roqueñi, 2020) in the special issue of the *CIRIEC Journal* in 2020 ("Special Issue n°100 about Social Accounting, 2020").

This proposal consists of using an index that operates as a correcting factor, enabling market and non-market social value already calculated to be adjusted up or down (Guasch, 2015). The underlying perspective is that monetary values already identified in market and non-market transactions do not accurately reflect the full value generated for the various stakeholders. For example, the value that two specialists get from their relationship with an organization may differ depending on the emotions generated by their interactions with it, even though the market social value quantified in terms of net salary may be identical for them both. Thus, although the market social value received by the two specialists with identical salaries is the same, to establish the experienced value a correction factor would need to be applied to adjust and salary up or down depending on their experiences. The final outcome of this measure of value reflects the duality of human beings (utilitarianism/hedonism).

The correction factor could be: (1) unique and applicable to the full, aggregate market and non-market social; and (2) multiple, which would entail identifying a correction factor for each stakeholder group, or more precisely identifying a separate correction factor for each value variables identified by each stakeholder group.

The scale of measurement of the SERVQUAL model (Parasuraman et al., 1988, 1991) adapted to each organization was used to obtain correction factors. As well as identifying the factor(s) involved, a range must be set (upper and lower bounds) so that the extent to which the factor corrects the value can be specified. To calculate this, an adapted questionnaire was designed using the SERVQUAL scale, with an additional question to identify the weight of emotional value relative to other values, with a view to determining the range (Ruiz-Roqueñi, 2020).

The information needed to calculate the correction factor and the range must be provided by a representative sample of the population under study. In this case, that means the

recipients of the value, i.e., stakeholders. A representative sample of stakeholders needs to be used for the results to be statistically reliable.

As an improvement on this proposal, we propose here that the Net Promoter Score (NPS) developed by Reichheld (2003, 2004) and consultancy firm Bain & Company be used as an alternative to the SERVQUAL model to calculate the correction factor to be applied to each value variable identified and each group of stakeholders.

The two measurements are based on different constructs in terms of standard of service and satisfaction (Bolton and Drew, 1991; Cronin and Taylor, 1992; Bansal and Taylor, 1999). But they are linked and the literature contains many publications in which these two concepts are used as synonyms. Thus, the links between the standard of service construct and satisfaction are not yet clear. Some studies see two-way link between them (Oliver, 1993; Iacobucci et al., 1994) and others find one-way link (Bitner, 1990; Patterson and Johnson, 1993). The fact that the dominant theory behind their conceptualization is the same in both cases (the disconfirmation paradigm) helps to establish similarities between them (Day, 1977; Swan and Martin, 1981). They both consider the viewpoint of clients as a core idea. The literature also recognizes that both concepts stem from the performance of the service being measured against a standard, i.e., predictive expectations in the case of satisfaction and the desired standard of service in the case of quality. So although they are different, the similarities between the two concepts make them suitable for use in the goal pursued here of incorporating the hedonic dimension of value not reflected in market and non-market social value measurements, given that both constructs contain both affective and cognitive components.

Our proposal is motivated, however, by technical, and especially operational, considerations. By contrast with the SERVQUAL model, which is conceptualized as a multidimensional construct of standard of service, NPS is a tool for measuring satisfaction and loyalty. It is designed as a one-dimensional construct that varies on a continuous line from unfavorable to favorable or from zero to high in terms of probability of recommendation. This makes it simpler to use than the previous model. One of the criticisms leveled at the SERVQUAL model is that it is hard to implement. Multidimensional constructs provide a holistic representation of a complex phenomenon, but their main drawback is that they are hard to implement in practice. By contrast, the Net Promoter Score (NPS) has been broadly used by managers at a great many businesses, and over time has come to be used for different purposes, e.g., as part of the performance measurement system at organizations (Faltejisková et al., 2016).

Socio-Emotional Value

The adding together of the values obtained in different categories or ecosystems of value is referred to as "socio-emotional value." It incorporates three different types of value measured with a single unit of measurement.

MATERIALS AND METHODS

The study focuses on a single intervention, using the case study method (Yin, 2014). This method was chosen for its proven effectiveness in developing new theoretical and practical knowledge which is checkable and can be empirically validated (Eisenhardt and Graebner, 2007).

The organization selected as a case study for measuring emotional value was UCAN. This organization has 126 members and has been in existence for over a century. Its corporate purposes include “promoting and organizing services and actions of general interest to farming cooperatives, to cater for the needs of and foster development and effectiveness in the management of food and agriculture cooperatives” (UCAN, 2021).

Union of Food and Agriculture Cooperatives of Navarre was chosen for several reasons: It is medium-sized and its area of operation is Navarre, which made it easier for us to contact the organization and its stakeholders. Secondly, there was its track record: this structure of food and agriculture cooperatives in Navarre is a benchmark throughout Spain. Thirdly, a key element for the success of the project was that the management of the organization became closely involved in it. This was essential for the practical implementation of the method for measuring social value at the organization. Finally, UCAN had been using an integrated social value social accounting model since 2016 (Retolaza et al., 2016) to qualify shareholder value. Even more importantly, it had already calculated emotional value in monetary terms in that year.

The ongoing pursuit of excellence spurs the management of the organization to explore new measures for successful operation and demonstrate to stakeholders that it makes a contribution to society, as required under its founding purposes. The interests of the management therefore coincided with those of this investigation, which seeks to validate the model in terms of practical applicability. Identifying any practical problems that might arise in its implementation and detecting and implementing potential improvements enables the model to become consolidated and validated, with a view to extending its use to organizations of other types.

Socio-emotional value was measured in three phases.

- (1) Identification of market social value. The market value is obtained from the transfer of the information contained in the profit and loss statement to determine the value created and distributed to the different stakeholders from market transactions between a company and its stakeholder groups. This value also incorporates the value generated in transactions through purchases from suppliers.
- (2) Calculation of non-market social value. The social accounting model measures this *via* a six-step process: (1) setting up of a team and approval of a timeline; (2) identification of the stakeholders for whom the organization is assumed to generate value; (3) identification of value variables, in the sense of points in which the organization generates value for third parties; (4) intersubjective quantification of the outputs linked

to each value variable through proxies; (5) integration of results to give what we refer to as the integrated social value; and (6) feedback and continuous improvement.

- (3) Measuring of emotional value. It is the value determined and experienced by the person in their relationship with an entity and that is not included in the market price or fair value. It can come from sources such as: satisfaction of the stakeholders in their relationship with the entity, security offered by the entity, or in the case of agricultural cooperatives due to their impact on actions to stop depopulation, make visible the role of farmer and rancher or the conservation and maintenance of the land, among others.

Each phase of the process requires different, specific information. The basis for the calculations in phase 1 comprised the financial and economic information reported by the organization and accounting information from its suppliers, obtained *via* the SABI database.

In phase 2 much of the information required was obtained through interviews. Interviews are an effective research tool when a complex analysis using detailed information is required. They also create a relaxed atmosphere that is conducive to data collection (Patton, 2002) and are particularly useful when tackling problems that require in-depth study. Twenty-one interviews were held with representative members of each stakeholder group, between February and March 2020.

The information for phase 3 came from questionnaires. Information representative of each stakeholder needed to be obtained so, given the size of the study population, questionnaires were sent to everyone in it between December 15, 2020 and January 15, 2021. The answers obtained allowed reaching a level of confidence higher than 80%, with a margin of error of 5%.

RESULTS

The goal was to express the emotional value of UCAN in monetary terms, so first of all the social value generated by the organization's market and non-market operations was calculated, with a view to determining its integrated social value per annum. Once this figure was obtained, the correction factor was applied to each variable identified in the integrated social value to obtain the emotional value.

The market social value of UCAN was calculated on the basis of financial performance data, which in this case means wages, social security contributions, taxes, withholdings and profit/loss for the year. With that data, it was found that UCAN generated a value for society (stakeholders) of €299,814 from direct market transactions in 2020, with returns to the public administration of €122,743. The organization's suppliers were analyzed in the same way, and the amount in indirect market social value attributable to UCAN was taken as the relative value of their invoicing. Thus, the social value generated indirectly through purchases from suppliers was

€162.657, and the returns for the public administration were €82.389.

After all the relevant steps had been performed, the non-market social value was calculated to be €2424883.

The market social value generated (€462471) was integrated with the non-market social value (€2424883) to give the integrated social value generated by the organization. For UCAN (2021), this resulted in a figure of €2887354.

Emotional value was calculated by applying a correction factor obtained from the NPS to each value variable and each stakeholder group identified in the previous phase, this resulted in a figure of €2298633. The correction factor is therefore not unique, but rather a separate correction factor is applied for each stakeholder group and for each value variable.

The results for socio-emotional value, broken down by categories or ecosystems of value and their distribution across the different stakeholder groups of UCAN (2021) are shown in the following table (view **Table 2**).

DISCUSSION AND CONCLUSION

This study looks at how the meaning of the concept of value has changed over time from an economics-based perspective represented by value in exchange through a transition phase to a new perspective characterized by value in use or contextual value. That evolution of the concept of value is reflected, albeit independently, in the way in which value is measured, and this has various implications.

Firstly, it is worth highlighting that under the value-in-use approach (given that value is jointly created in the context of a value ecosystem involving various actors), the measuring of value entails identifying the value in use of each actor. This means a shift toward a multi-stakeholder perspective of value. In the classical economics-based approach, value is created mainly by organizations.

Secondly, increasing knowledge of the concept of value has enabled at least one more component to be incorporated into the value construct: the hedonic component. In combination with the classical, utilitarian component this provides a better, more comprehensive vision of value. The narrow perspective of value in classical economics, where there is no place for the emotional dimension, contrasts with this new perspective in which

the emotional dimension is a valuable element, so tools for measuring it are needed.

Thirdly, there is no denying that economic value is a fundamental dimension in the measuring of value, or that financial/economic accounting is a good instrument for that purpose. However, that instrument seems to suffer from limitations when it comes to measuring and quantifying stakeholder value, so it would be useful to develop an accounting system for quantifying stakeholder value and all its dimensions, including emotional value.

Fourthly, the social accounting model used [that of integrated social value (Retolaza et al., 2016)] extends conventional ways of measuring performance at organizations and highlights both the generation of value and its distribution. This makes it possible to reflect on the effects of performance measurement at organizations on two levels: (1) in terms of the excellence (or failure) of management; and (2) in terms of how far it contributes to or hampers the welfare of stakeholders.

The practical implementation of the model proposed at UCAN provides a more comprehensive vision of the value generated by that organization. The data obtained reveals that part of the value emerging from the organization is not shown in economic/financial accounting. UCAN is a social organization, so much of the value that it generates is not reflected in market transactions. Finally, the data shows that most of the emotional value created comes from its interactions with its members. It is true to say that the concept of emotional value applies to all stakeholder groups, but it is particularly significant for those which participate in and are involved with the organization most strongly.

From a management viewpoint, this study makes two contributions.

First, it helps to develop social accounting by providing a new, more complete tool for measuring value that incorporates the measuring of its emotional dimension. This enables managers to measure emotional value in a relatively simple fashion, so that it can subsequently be included along with other value ecosystems in a single, monetary unit of measurement.

Second, it extends the possible ways of measuring performance at organizations. This provides more comprehensive information on the value that they generate, organized into three value ecosystems (market value, non-market value and emotional value). That information can be used by managers for communication, strategy and control

TABLE 2 | Socio-emotional value.

	Society	Public administration	Suppliers	Employees	Investors	Social organizations	Members
Market social value	€462471	€205131	€150164	€230892	€9185		€299814
Non-market social value	€2424883	€161113	€5715	€636		€180982,5	€2322083
Integrated social value	€2887354	€366244	€140251	€231528	€9185	€180982,5	€2621897
Emotional value	€2298633	€16040				€12778	€2269815
Socio-emotional value	€ 5185987	€ 382.284	€140251	€231528	€9185	€ 193760,50	€ 4891712

Source: own work.

purposes. It also provides information to the various actors involved to confirm the contribution of each organization to the attainment of overall social goals, by creating greater welfare for stakeholders as a whole within the value generation system of each organization.

The design of tools for measuring emotional value is still at a very early stage, so the proposal set out here must be seen in the context of exploratory research. Thus, the limitations of the study can be attributed largely to the inductive design of the model and to the fact that it analyses only a single case study. The implementation of the emotional value measuring tool at UCAN confirms its applicability from a practical viewpoint. However, it remains to be seen whether the use of the tool can be extended to organizations of all types, and how suitable the value correction factor chosen is.

The practical approach taken in this study means that the choice of value quantification instruments was limited by cost factors and by the resources required for measuring, without prejudice to the rigor of the analysis conducted. Future research could work on improving the model. Accordingly, reputation could be considered as a correction factor. Specific analyses of the link between financial/economic performance and social performance suggest that reputation could be a significant

mediating factor in a positive link between measurements of these two types of performance (Orlitzky et al., 2003).

Another potential line of future research is the extension of the conceptualization and measuring of emotional value individually for each stakeholder group, through the generation of *ad hoc* value constructs for specific stakeholders, e.g., customers or employees.

Finally, looking at the concept of value in terms of jointly created value opens up new lines of argument in stakeholder theory by admitting the possibility of increases in overall value without collusion with other stakeholders.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

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Linking emotion regulation strategies to employee motivation: The mediating role of guanxi harmony in the Chinese context

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This study examined the mediating role of guanxi harmony, a concept of interpersonal relationships specific to the Chinese context, between leaders' emotion regulation strategies and employee motivation. Data were drawn from 489 on-the-job MBA students with enough management experience from thirteen different types of cities in China. The study tested the model using hierarchical regression. The results showed that the reappraisal strategy was positively related to employee motivation and the suppression strategy was negatively related to employee motivation in the Chinese context. Guanxi harmony played a partially mediating role between reappraisal and employee motivation, and played a fully mediating role between suppression and employee motivation. These findings suggest that in the Chinese context, guanxi harmony between leaders and employees has a positive effect on employee motivation, and when leaders apply appropriate emotion regulation strategies, they can achieve guanxi harmony and promote employee motivation.

KEYWORDS

employee motivation, guanxi harmony, leadership, reappraisal, suppression

Introduction

Employee motivation is one of the essential qualities of effective leadership (e.g., transformational leadership, [Hamstra et al., 2014](#); entrepreneurial leadership, [Mehmood et al., 2021](#)). Employee motivation can help employees not only mobilize their efforts, transcend their interests, and work together for organizational goals, but it can also provide them with more security, reduce the stress and pressure brought on by unpredictable internal and external situations, assist them in coping with setbacks, and improve their resilience ([Han et al., 2016](#)). Therefore, employee motivation is

increasingly essential in complex organizational situations. Leaders with motivational qualities can portray a clear and vivid vision, inspire their higher-level needs through communication with employees, and pursue more worthy goals. Specifically, when leaders successfully motivate employees, employees can emphasize the interests of the organization. Specifically, when leaders successfully motivate employees, employees may stress the organization's interests. Employees tend to have more positive emotions, higher work efficiency, and workplace innovation to help the organization reach qualifying goals and maintain organizational harmony. Employee job autonomy should also be improved, so that employees can be more proactive and better cope with setbacks and negative emotions (Abu Orabi, 2016).

Most existing research has focused on the consequences of employee motivation, with few studies examining its antecedents. The antecedents of employee motivation have previously been classified into two aspects: the organizational factors, such as characteristics of the job (e.g., job autonomy; Engert and Baumgartner, 2016) and organizational context (e.g., organizational culture; Engert and Baumgartner, 2016); and the individual factors, such as personalities of leaders and emotions (Ghani et al., 2016; Alam, 2020). Emotions, as a link between people, play a critical role in the interaction process of employee motivation between the leaders and their subordinate employees (Gooty et al., 2010). Although the previous studies have emphasized the importance of emotions (Kaplan et al., 2014), there are limited studies on how to use emotions to increase employee motivation.

The leader's emotions have a direct impact on the emotional state of the entire team, as well as the behaviors and work efficiency of employees (Bhullar, 2012). Ideal leadership emotions can inspire ideal employee emotions, and leaders can positively motivate employees through the interaction between leaders and employees, positively affecting employees' work behaviors and their work effectiveness (Kaplan et al., 2014; Li et al., 2020). When leaders experience negative emotions due to various challenges, stress or adverse events (Aycan and Shelia, 2018), they may show their feelings through facial expressions, tone of voice and body movements, which are then perceived by employees (Li et al., 2020), affecting employees' emotions or motivation, and impairing employee and organizational performance (Wang et al., 2017). In this situation, leaders need to use emotion regulation strategies to manage their own and their employees' emotions in order to mitigate the harmful impact of negative emotions on employee productivity and organizational effectiveness (Ayoko and Callan, 2010; Li et al., 2020). Usually, negative emotions will prompt leaders to apply emotion regulation strategies to express survival-adapted behaviors, with reappraisal and suppression being the two most common types of emotion regulation strategies applied by individuals (Dixon-Gordon et al., 2015). Reappraisal reduces or transforms the individual's negative emotions by

reappraising adverse events. In contrast, suppression lowers the impact of negative emotions on the individual's psychology and behavior by preventing negative emotions from being expressed. Eventually, individuals who applied appropriate emotion regulation strategies could reduce the impairment to interpersonal interaction or the negative emotional infection they spread to others due to the inappropriate expression of negative emotions (Giombini, 2015).

Culture may influence the usage of emotion regulation strategies of leaders. There are significant cultural differences in the usage of emotion regulation strategies between Western cultures (e.g., the United States, Canada, and Australia) and Eastern cultures (e.g., China, Japan, and Korea; Kitayama and Uskul, 2011). Individuals cultures with individualistic value orientation in Western pursue independence and autonomy, and express their emotions more frequently. Suppression is considered to lead to more potentially adverse outcomes (e.g., anxiety, depression) due to its characteristics of suppressing emotions, which do not truly relieve negative emotions. Therefore, suppression is not regarded as an optimal emotion regulation strategy in Western cultures (Le and Impett, 2013). However, individuals with collectivist value orientation in Eastern cultures are more likely to apply the strategy of suppression. They believe that a harmonious collective requires tolerance and coordination with each other, so they often control their emotional expression to pursue the collective goal of harmonious relationships to achieve interpersonal harmony and collective goals (Wei et al., 2013). Although Eastern leaders prefer to use suppression, it remains to be verified whether this kind of emotion regulation strategy is conducive to transformational leadership and whether it can effectively improve employee motivations affected by negative emotions.

Furthermore, the mechanisms by which emotion regulation affects employee motivation may differ from cultures (Kitayama and Uskul, 2011). In Western cultures, business activities are primarily institutional or organizational that leaders influence employees' work attitudes and behaviors based on rules or laws (Dasborough et al., 2009). However, in Eastern cultures, harmonious interpersonal relationships and the establishment of interpersonal and emotional relationships among individuals are emphasized. Business activities in Eastern cultures rely on interpersonal interaction, using a more "humanistic" rather than "legal" approach (Wang et al., 2008; Wu et al., 2020). Especially in China, *guanxi*, a Chinese idea of interpersonal relationships, has a profound impact on Chinese economic activity in every way (Chen et al., 2013). When disagreements emerge, this "humanistic" style of interpersonal interaction would be an ideal resolution strategy to handle them because leaders can inspire or get enough support from their team members to accomplish team and organizational goals if they have *guanxi* harmony with them (Walumbwa et al., 2005). The *guanxi* harmony requires individuals to have high-level emotion regulation ability to effectively understand and manage their own and

others' emotions, thereby maintaining good relationships with others. Thus, in Eastern cultures, interpersonal relationships may play an important intermediary role in the mechanism of emotion regulation affecting employee motivation.

In sum, the present study will explore the impact of different emotion regulation strategies of leaders on employee motivation in the Chinese context and clarify whether and how interpersonal relationships can play an important mediating role between emotion regulation and employee motivation.

Theoretical background and hypotheses

Emotion regulation strategies and employee motivation

The Emotion As Social Information (EASI) model can provide a theoretical basis for how leaders influence employee motivation through emotions (Van Kleef, 2009). Based on the social function of emotions and the information processing system of decision making, the model categorizes the emotional information processing of individuals toward others in two ways: emotional response and inferential processing. Emotional response refers to the emotional effect that the expresser directly stimulates the observer's emotional state. The EASI model has been supported and applied in leadership studies (Côté, 2014). Based on the EASI model, the mechanism of the effect of emotion regulation strategies on employee motivation can be explained by way of emotional response. When encountering setbacks, the positive emotions of the leader will impact the employees, giving them a sense of security and boosting their confidence in handling challenges. This will lead to more positive emotions in the team members, which will motivate the employees. Accordingly, the leader's negative emotions will damage the employees' motivation by emotional infection and lowering their confidence (Visser et al., 2013). When negative emotions appear, leaders may apply different emotional regulation strategies, such as suppression and reappraisal, to reduce or change the current negative emotions, so that leaders can weaken or eliminate the negative impact of emotions on ongoing work (Hülshager et al., 2014).

Emotion regulation strategies can reduce the individual's perception and experience of failure, and promote improving and recovering the individual's mental state. Previous study showed that when leaders and employees regulate their emotions, they can significantly improve leader-member exchange and promote work effectiveness (Richards and Hackett, 2012). Gross (1998) divided emotion regulation strategies into two types: reappraisal and suppression (Gross, 1998). Reappraisal refers to the process by which individuals change their understanding of a situation to change their

emotional response to reduce negative emotions or to transform negative emotions into positive emotions. Suppression refers to the process by which individuals suppress their emotional response to reduce the adverse effects of negative emotions. Evidence from research conducted in Western countries suggested that the reappraisal emphasized the individual's reconsideration of the current event and, therefore, cognitively changed the understanding and the attitude of the emotional events, altering the individual's emotional response accordingly (Mohammed et al., 2021). Successful reappraisal can reduce negative emotions significantly and can even transform negative emotions into positive emotions (Richards and Gross, 2000; Robinson et al., 2021). Therefore, it is more likely to motivate employees intrinsically to perform their current job and achieve employee motivation. In contrast, the component of suppression regarding the suppression of natural emotional experiences leads individuals to generate a series of stress responses in individuals. Suppressing negative emotions that have existed and been experienced can lead to the blockage of normal outgoing pathways; thus, it could aggravate the negative emotional experiences, increase emotional pressure, produce emotional exhaustion, and cause resource imbalance and burnout (Schaubroeck and Jones, 2000; Ruan et al., 2020). Therefore, a suppression strategy may diminish leadership effectiveness (Dasborough, 2006).

Different cultures may influence the use of emotion regulation strategies. Western cultures consider suppression as a negative emotion regulation strategy and do not promote its use (Butler et al., 2007). Eastern cultures with collectivist values, however, tend to use suppression strategy more frequently (Kitayama and Uskul, 2011). They consider suppression as a strategy that facilitates harmonious collective goals by suppressing the expression of negative emotions, with the underlying concept of humility and consideration for others, to achieve a harmonious human-computer relationship satisfaction in the group (Le and Impett, 2013). Usually, positive emotions are often required for leaders to influence and motivate employees (Wijewardena et al., 2017), whereas suppression is more likely to only suppress and reduce negative emotions without increasing the positive emotions required for motivation. So although suppression has many benefits and has been even actively used in Eastern cultures (Butler et al., 2007), it may not be an effective strategy to promote employee motivation. On the other hand, reappraisal could convert negative emotions into positive emotions. Reappraisal refers to interventions before the complete process of emotional response and can be effective in changing the subsequent path of emotional evolution; that is, reappraisal can change the understanding of emotional events, avoiding negative emotions due to subconscious reactions and shifting negative emotions to positive emotional expressions. Thus, reappraisal is an adaptive emotion regulation strategy that adapts to the demands of the environment (Brewer et al., 2016), which is more likely to be

an effective strategy to promote employee motivation. So we hypothesized that:

H1: Reappraisal is positively related to employee motivation.

H2: Suppression is negatively related to employee motivation.

The mediating role of guanxi

Human relations theory emphasized the important role of interpersonal relationships in HRM (Methot et al., 2018). Bono and Ilies (2006) found that harmonious interpersonal relationships with superiors and subordinates could facilitate communication and interaction, allowing employees to freely express their true thoughts; Thiel et al. (2015) found that good interpersonal relationships could improve employees' moods, promote changes in their positive emotions, and relieve work stress (Thiel et al., 2015); Barba-Sánchez and Molina Ramírez also found the key role of entrepreneurs' social relationships in community groups as well as in economic activities (Barba-Sánchez and Molina Ramírez, 2015; Molina-Ramírez and Barba-Sánchez, 2021). The Chinese culture has both the collectivist spirit of Eastern culture and a unique cultural characteristic based on this culture – "guanxi" (Chen and Chen, 2009). Guanxi is the concept that uses networks of interpersonal connections to secure interests in personal and organizational relationships, and is important to the interpersonal and inter-organizational dynamics of Chinese society (Luo et al., 2016). The practice of guanxi has its roots in Confucianism, which nurtures a wide range of collectivist cultures, which is manifested in the importance of interpersonal networks. In Chinese society, guanxi is so pervasive that it is involved in all aspects of social and organizational life (Park and Luo, 2001; Li et al., 2019); also, it is the lifeblood of interpersonal and business behaviors in human resource management (Chen et al., 2013). In Chinese culture, business tends to be driven more by interpersonal interactions than by corporate systems, especially in organizations where employees place more value on interpersonal relationships and have a greater desire to integrate into the collective and communicate with others. To realize employee motivation needs to stimulate employees' intrinsic motivation, which often requires employees' internal recognition of the leader and the content of motivation; that is, leaders need to obtain employees' support when motivating employees (Cuadrado et al., 2014). Guanxi harmony, the important humanistic approach in business activities, is crucial in obtaining employees' internal support and inducing their internal recognition (Lam et al., 2015), so we need to consider the important role of guanxi harmony in the relationship between emotion regulation and employee motivation.

Reappraisal has significant positive implications in the face of conflict or adversity in both Western and Eastern cultures (Hua et al., 2015; Brewer et al., 2016). Reappraisal can help leaders understand or rationalize negative or challenging events in a more positive way when experiencing negative emotions such as frustration and disgust (Liu et al., 2021). Previous studies showed that reappraisal can reduce the experience and appropriate behavioral expression activated by negative emotions, without causing a loss of the individual's limited cognitive resources and is less likely to trigger physiological reactions in employees. By weakening the individual's negative emotional experience and increasing the positive emotional experience, the individual could have a more positive attitude toward the events, and could positively influence the rest of the individuals of the collective, thereby achieving a positive perception of the current situation for the entire collective (Goldin et al., 2008). This change from negative to positive attitudes is different from the suppression strategy that it is an internal cognitive change, that is, individuals will be more likely to accept the current situation so that the negative emotions will be weakened, or even individuals could be aware of the positive aspect of the current event so that the positive emotions will be increased (Brewer et al., 2016). Therefore, reappraisal could facilitate the resolution of interpersonal friction in the current situation. When applying reappraisal strategy, employees will try to rationalize more negative emotions and to understand the leader's demands and reactions, and once the employees reach the enough rationalization of the negative emotions, they will generate fewer negative emotions and reduce internal emotional inconsistency, decreasing the depletion of psychological resources and the level of emotional exhaustion. In addition, such cognitive changes help employees focus more on self-goals and less on others' evaluations, reduce frictional conflicts among team members, make employees to have more positive emotions and higher life satisfaction, and thus enhance psychological identification among team members which contributes to the deeper connections among interpersonal relationships (Hu et al., 2014). So psychological identification generated by reappraisal is likely to promote interpersonal harmony and employee motivation. Thus, we proposed the hypothesis that:

H3: The positive relationship between reappraisal and employee motivation will be mediated by guanxi harmony.

Different from reappraisal, East-West differences suggest that culture can have a significant impact on the use of suppression strategy. As discussed earlier, for Western individuals, suppression is often perceived as a maladaptive emotion regulation strategy (Brewer et al., 2016), while for Eastern individuals, suppression is not regarded as a negative emotion regulation strategy, but this strategy may even be perceived as contributing to interpersonal harmony and be

expected to be applied to reduce the negative effect of negative emotions on the collective (Wei et al., 2013). A comparative study showed that the correlation between suppression and negative emotions in the Western cultural context is stronger than that in the Eastern cultural context (Hu et al., 2014). This suggested that the suppression strategy could bring some positive effects and was recognized to a certain extent in Eastern cultures.

In consideration of the complex effects of suppression in Eastern cultures, we need to explore its specific role in human resource management. Because if suppression can be potentially detrimental to leadership and we still use it in accordance with cultural habits, it can undermine leadership effectiveness. In Eastern cultures, the core of the suppression strategy is the repression of negative emotions, which can reduce negative emotions to some extent by suppressing negative emotional experiences and expressions, and temporarily restoring emotions to ensure the advancement of work (Soto et al., 2011). That is, compared to Western cultures, Chinese people are more able to benefit from the suppression strategy in terms of emotions; however, this emotional gain comes at the cost of more cognitive resources (Yuan et al., 2015), which can be potentially damaging to interpersonal relationships (Ferguson, 2012; Nam et al., 2018). According to resource conservation theory (COR, Hobfoll, 1989), the cognitive resources available to individuals are limited, there is competition for resources between different matters, and individuals will tend to allocate fewer resources to other matters in order to conserve resources for the matters they concern (Hobfoll et al., 2018). While the suppression strategy does not completely attenuate their stressful experiences, it could deplete limited individual resources in the process of suppressing the individuals' real emotions, generate resource-protective behaviors such as decreased-proactive behaviors, and thus tend to reduce the resources which should be allocated to interpersonal relationships. And consequently, the interpersonal connections will be impaired, that is, it is impossible to create a deep trust relationship between individuals based on a sense of security (Ito and Brotheridge, 2003). Also, this stressful and negative emotional experience will further make individuals to apply expression depression strategy, which is detrimental to communication and exchange among leaders, colleagues, and subordinates, leading to interpersonal conflict in the long run.

The importance of guanxi in the Chinese business environment is well recognized that guanxi not only has an important impact on business affairs, but also on cooperative interactions (Cai et al., 2016), cognition and emotions of business members (Zhou et al., 2020). This means that guanxi could positively influence cooperation and altruistic behaviors among employees by affecting attitudes toward others and trust among people, facilitating resource exchange, strengthening favor exchange, solidifying status acquisition, and cognition and emotions (Bian, 1997). If the guanxi between leaders

and employees is deeply damaged, the attitudes and trust of employees toward leaders will correspondingly be impaired. The influence of leaders on employees will tend to remain at the stage of institutional and authoritative obedience, instead of being able to stimulate employees' internal identity, thus making it difficult for leaders to have the desired influence and emotional motivation on employees. So we proposed the hypothesis that:

H4: The negative relationship between suppression and employee motivation will be mediated by guanxi harmony.

The research theoretical model is depicted in **Figure 1**.

Materials and methods

Participants

We recruited participants through posters or online advertisements from three universities in East China. Followed by previous studies (Ding et al., 2017). We had recruited 500 on-the-job Master of Business Administration students who had enough practical and management experience to participate in the present study. The participants came from thirteen various cities in China (i.e., first-tier cities such as Beijing and Shanghai, second-tier cities such as Changzhou, and third-tier cities such as Wuhu). After excluding the subjects whose answering time is too fast (less than 30 s) and/or with missing items, we collected 489 effective samples, and the questionnaire recovery rate is 97.8%. **Table 1** shows the demographic description of the sample.

Measures

All items of measurement were adapted from prior validated scales, but some items were slightly changed to fit the current research context. Since we conducted the survey in China, we first translated the questionnaire from English to Chinese by two researchers from different backgrounds (i.e., management and psychology), following the standard forward-backward procedures (Van de Vijver and Leung, 2021). Then, a professional translator unfamiliar with the study was invited to translate the Chinese version back into English. No significant semantic differences were found between the translated questionnaire and the original English version.

Emotion regulation strategies

We used of Emotion Regulation Questionnaire (ERQ; Gross, 1998) to measure the emotion regulation strategies of leaders. This questionnaire concluded ten items which were used to measure the individual's use of emotion regulation

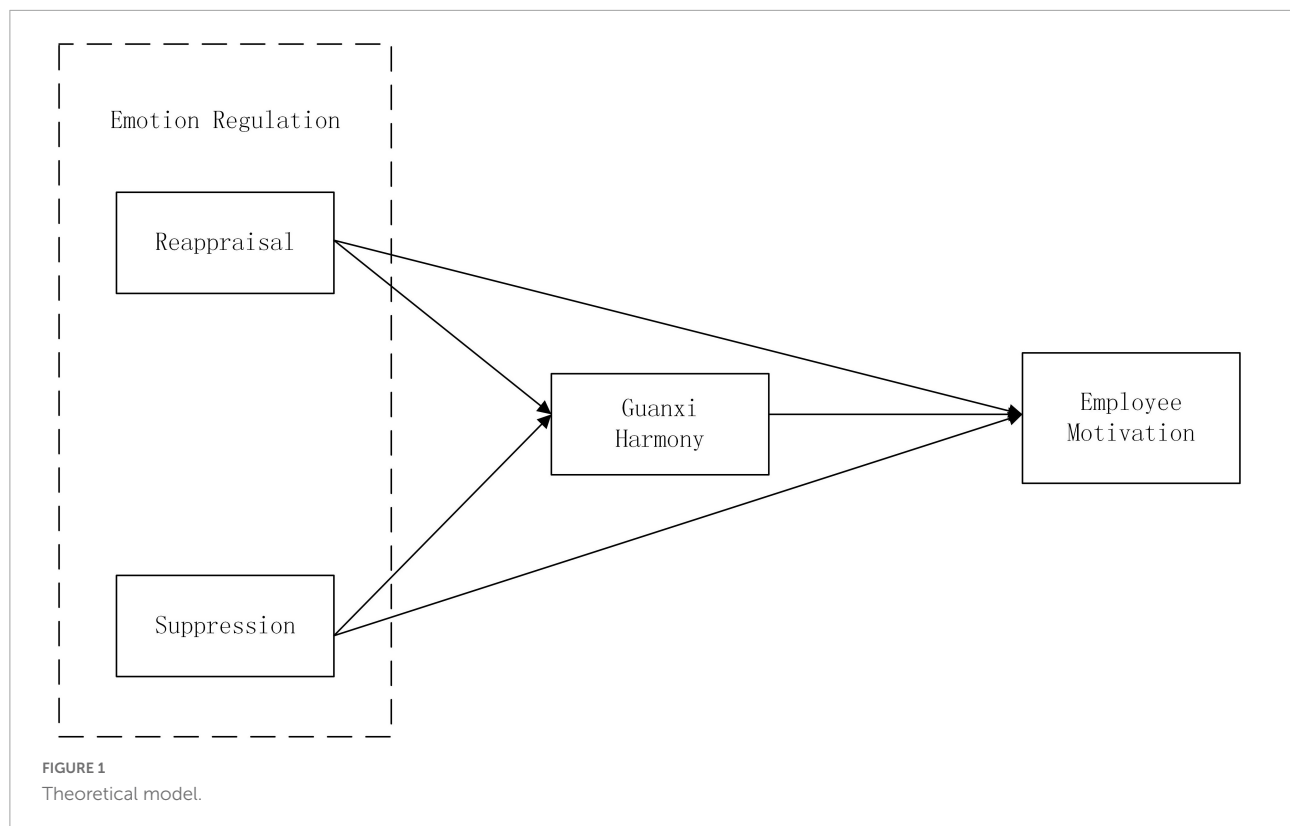


TABLE 1 Demographic information of sample.

Variables	Measurements	N (%)
Gender	Male	222 (45.4)
	Female	267 (54.6)
Age (years)	< 30	105 (21.4)
	31–35	331 (67.7)
	36–40	36 (7.3)
	> 40	17 (3.4)
Income (RMB/year)	< 50,000	130 (26.6)
	50,001–100,000	165 (33.7)
	100,001–150,000	132 (27.0)
	150,001–200,000	41 (8.4)
	> 200,000	21 (4.3)

strategies. The questionnaire contained two dimensions which represented two types of strategies. The dimension of reappraisal reflected that individuals regulated their emotions by changing their cognition, concluding six items such as “When I want to feel less negative emotion, I change the way I am thinking about the situation.” The dimension of suppression reflected that individuals regulated their emotions by suppressing their emotions, concluding four items such as “I control my emotions by not expressing them.” All items were measured on a Likert 5-point scale, ranging from “Strongly disagree” to “Strongly agree.”

Guanxi harmony

We used the dimension of guanxi harmony of the Swift Guanxi Questionnaire to measure the status of guanxi harmony between the leaders and employees (Sun et al., 2019). This dimension concluded three items which were used to measure the degree of harmony of one’s guanxi, such as “I maintain harmony with each other at work.” All items were measured on a Likert 5-point scale, ranging from “Not at all” to “Frequently.”

Employee motivation

We used the dimension of inspiration motivation of the Multifactor Leadership Questionnaire (MLQ; Antonakis et al., 2003) to measure the employee motivation of the leaders. This questionnaire concluded four items which could help us to measure the capability of employee motivation from the leader’s self-assessment, such as “Articulates a compelling vision of the future.” All items were measured on a Likert 5-point scale, ranging from “Not at all” to “Frequently.”

Control variables

Based on previous research, we considered some demographic factors that may potentially impact the model as control variables to be included in the model calculation. For example, female leaders exhibit higher employee motivation than male leaders in transformational leadership style (Eagly et al., 2003). Age is positively related to transformational leadership, where employee motivation is measured as an

TABLE 2 Model fit values.

Model	χ^2	df	χ^2/df	CFI	TLI	SRMR	RMSEA
Four-factor model (reappraisal, suppression guanxi harmony, employee motivation)	281.681	113	2.492	0.955	0.945	0.046	0.055
Model with a common latent factor	193.928	97	1.999	0.974	0.963	0.034	0.045

χ^2 , Chi-square; df, degree of freedom; CFI, comparative fit index; TLI, Tucker-Lewis index; RMSEA, root mean square error of approximation; SRMR, standardized root mean square residual.

important component of transformational leadership (Naber and Moffett, 2017). Although there was no direct evidence of the correlation between job-related variables such as income and position and employee motivation, we considered income as a control variable due to its significant correlation with mood and leadership style (Magaard et al., 2017). Therefore, we controlled for demographic variables such as gender, age, and income in the research model. These control variables were coded as ordinal categorical variables, in which: for gender, “1” = male, “2” = female; for age, “1” = 30 years and below, “2” = 31–35 years, “3” = 36–40 years, “4” = over 40 years; for income per year, “1” = RMB 50,000 and below, “2” = RMB 50,001–100,000, “3” = RMB 100,001–150,000, “4” = RMB 150,001–200,000, “5” = RMB 200,000 and above.

Analysis and results

Common method bias

Considering that we collected the data of our variables from a single source at a similar time, they may be affected by common method bias. Therefore, we used two methods to test for common method bias in this study. We first followed Harman's single-factor test utilizing an exploratory factor analysis *via* SPSS 24.0. The results yielded four factors with eigenvalues greater than 1.0, and the first factor merely explained 31.082% of the variance ($KMO = 0.857$, $\chi^2 = 3787.042$, $p < 0.001$), which did not exceed the cut-off value of 50%. Besides, we used the common latent factor method to determine common method bias as it is found to be a better and reliable method (Podsakoff et al., 2003). We compared the fit values of the four-factor model with the model that included a common latent factor by Mplus 7.0. The results in Table 2 showed that the goodness of fit of the model with the common method latent factor did not improve significantly compared to the four-factor model (CFI and TLI increased by less than 0.1 and RMSEA decreased by no more than 0.05). This indicated that there is no serious common method bias in this study.

Measurement model

To assess the measurement model of this study, we conducted reliability and validity tests. First, we used the

TABLE 3 Results of confirmatory factor analysis.

Construct	Items	Loading	Cronbach's α	AVE	CR
Reappraisal	6	0.568	0.856	0.510	0.860
		0.663			
		0.638			
		0.820			
		0.772			
Suppression	4	0.790	0.801	0.504	0.803
		0.689			
		0.713			
		0.722			
		0.716			
Guanxi harmony	3	0.689	0.811	0.560	0.817
		0.820			
		0.807			
Employee Motivation	4	0.727	0.883	0.664	0.887
		0.793			
		0.897			
		0.832			

SD, standard deviation; CR, composite reliability; AVE, average variance extracted.

constructs' Cronbach's α , composite reliability (CR), and average variance extracted (AVE) to assess the reliability and convergent validity. As shown in Table 3, the Cronbach's α of all the constructs was significantly higher than the recommended value of 0.7 (Fornell and Larcker, 1981), which indicated that the measurement model of this study showed good reliability. The factor loadings of all items were higher than the threshold of 0.5 (Hair et al., 2010), and the CR ranged from 0.803 to 0.887, which was higher than the recommended threshold of 0.7, and the values of AVE ranged from 0.504 to 0.664, and all were above the recommended value of 0.5 (Fornell and Larcker, 1981). This indicated that the model in this study showed good convergent validity. Then, we further assessed the discriminant validity of the model. According to the results in Table 4, the square roots of the AVEs for all constructs were greater than the corresponding correlations between the constructs, which indicated that the present measurement model had good discriminant validity (Fornell and Larcker, 1981).

Additionally, the results of model fit values in Table 2 showed that our four-factor measurement model had a good model fit. The Chi-square by degree of freedom (χ^2/df) = 2.492, comparative fit index (CFI) = 0.955, Tucker-Lewis index

(TLI) = 0.945, root mean square error of approximation (RMSEA) = 0.055, and standardized root mean square residual (SRMR) = 0.046 were all met the recommended level (Hair et al., 2013).

Correlation analysis

The means, standard deviations, and correlations of the variables were given in Table 4. Table 4 showed that reappraisal was significantly positively correlated with guanxi harmony ($r = 0.308$, $p < 0.001$) and employee motivation ($r = 0.367$, $p < 0.001$). Suppression was significantly negatively correlated with guanxi harmony ($r = 0.133$, $p < 0.01$) and employee motivation ($r = 0.122$, $p < 0.01$); and guanxi harmony was significantly positively correlated with employee motivation ($r = 0.503$, $p < 0.001$). This provided a preliminary verification for the hypotheses testing that followed.

Test of hypotheses

Test of main effects

We used hierarchical regression through SPSS 24.0 to analyze the influential relationships between reappraisal,

suppression and guanxi harmony, and employee motivation, and the results of the analysis are shown in Table 5. We first tested the effect of emotion regulation strategies on employee motivation. After controlling for the demographic variables of gender, age, and annual income, we used employee motivation as the dependent variable, and we added two dimensions of the independent variable emotion regulation, reappraisal and suppression, to Model 6 and Model 8, respectively. According to the results in Table 5, reappraisal had a significant positive effect on employee motivation (Model 6, $\beta = 0.341$, $p < 0.001$) and suppression had a significant negative effect on employee motivation (Model 8, $\beta = -0.097$, $p < 0.01$). Therefore, H1 and H2 were supported.

Test of mediation

To examine the mediating role of guanxi harmony among reappraisal, suppression, and employee motivation, we added reappraisal and guanxi harmony to Model 7, and suppression and guanxi harmony to Model 9. As shown in Model 7, it can be seen that guanxi harmony had a significant positive effect on employee motivation ($\beta = 0.416$, $p < 0.001$), and the association between reappraisal and employee motivation was still significant ($\beta = 0.219$, $p < 0.001$),

TABLE 4 Means, standard deviations and correlations.

Variables	Mean	SD	Reappraisal	Suppression	Guanxi harmony	Employee motivation	Gender	Age	Income/year
Reappraisal	5.528	0.813	0.714						
Suppression	3.689	1.185	-0.050	0.710					
Guanxi harmony	3.710	0.770	0.308**	-0.133**	0.748				
Employee motivation	4.141	0.755	0.367***	-0.122**	0.503***	0.815			
Gender	NA	NA	0.055	-0.238**	-0.116*	0.060	NA		
Age	NA	NA	0.067	0.113*	0.143**	0.103*	-0.165***	NA	
Income/year	NA	NA	0.005	-0.088	0.058	0.034	-0.012	0.078	NA

NA, not applicable. The square roots of AVE are the numbers in the diagonal row. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

TABLE 5 Results of hierarchical regression analysis.

Variable	Guanxi harmony				Employee motivation					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Gender	-0.147*	-0.180**	-0.210**	-0.237**	-0.067	-0.105	-0.030	-0.119	-0.019	-0.055
Age	0.032**	0.026*	0.036**	0.029**	0.024*	0.016	0.006	0.027*	0.010	0.007
Income/year	0.034	0.034	0.021	0.022	0.018	0.018	0.004	0.008	-0.002	0.000
Reappraisal		0.292***		0.285***		0.341***	0.219***			0.220***
Suppression			-0.116***	-0.107***				-0.097**	-0.041	-0.043
Guanxi harmony							0.416***		0.478***	0.405***
F	5.268**	17.362***	7.881***	17.125***	2.149	20.757***	42.251***	4.339**	33.635***	35.820***
R ²	0.032	0.125	0.061	0.151	0.013	0.146	0.304	0.035	0.258	0.295
ΔR^2		0.093	-0.064	0.090		0.133	0.158	-0.269	0.223	0.037

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

but the coefficient decreased from 0.341 to 0.219, indicating that guanxi harmony partially mediated the relationship between reappraisal and employee motivation, and H3 was supported. Similarly, as shown by Model 9, guanxi harmony had a significant positive effect on employee motivation ($\beta = 0.478$, $p < 0.001$), but the association between suppression and employee motivation was no longer significant ($\beta = -0.041$, $p > 0.05$), indicating that guanxi harmony fully mediated the association between suppression and employee motivation, and H4 was supported.

To further test the indirect association between emotion regulation strategies, guanxi harmony and employee motivation, mediation analysis using PROCESS macro (model 4) was conducted with 5,000 bootstrapped resamples, following the procedures recommended by Hayes (Hayes et al., 2017). The results showed that guanxi harmony had a significant mediating effect in the relationship between reappraisal [$\beta = 0.164$, 95% bias-corrected bootstrapped confidence interval (CI) = 0.078, 0.176], and suppression ($\beta = -0.042$, 95% bias-corrected bootstrapped CI = -0.077 , -0.011) and employee motivation, further supporting H3 and H4. The mediating effect was verified as the values of CI around the indirect effect did not contain zero.

Discussion

Our results confirmed all the hypotheses. First, we verified that different types of emotion regulation strategies affect employee motivation differently. We found that suppression is still detrimental to employee motivation even in the Chinese context, whereas reappraisal can improve employee motivation. That is, although suppression can have some benefits for emotion regulation in the Chinese culture (Yeung and Fung, 2012), it is detrimental to employee motivation. However, it is noteworthy that although suppression had a negative effect on employee motivation, its intensity was lower than reappraisal, which might indicate that although suppression was not conducive to employee motivation, its damage was not so severe. This may be related to the unique cultural context of the East where the widespread use of suppression and its many benefits have muted the detrimental effects of this strategy on employee motivation.

Second, we verified the mediating role of guanxi harmony in the relationship between emotion regulation strategies and employee motivation. We found that suppression impaired employee motivation by damaging interpersonal relationships, whereas reappraisal promoted employee motivation by facilitating interpersonal relationships. This validated the importance of interpersonal coordination in Chinese culture. Although Western countries emphasize promoting leadership through institutions and other aspects

of laws, the human factor of relationships plays an important role in human resource management in Chinese culture. It implied that leaders need to draw on the important power of interpersonal relationships if they tend to influence employee motivation through emotions. And although in many perceptions, individuals in Eastern cultures tend to use suppression to maintain interpersonal relationships, the results of this study found that this tendency was not always beneficial to interpersonal coordination and in fact suppression was detrimental to interpersonal relationships, which is similar to the conclusions approved in Western countries (Zhao and Zhao, 2015). Fortunately, the intensity with which suppression damaged interpersonal relationships and the intensity with which the interpersonal relationships further damaged employee motivation is not so severe (Wei et al., 2013). Therefore, the differences between different cultures regarding the influence of emotion regulation strategies on employee motivation may lie in the type and intensity of the emotion regulation strategies applied (Ding et al., 2017).

Theoretical implications

First, the EASI model emphasized the importance of emotion on motivation, but little research has been done from the perspective of emotion regulation. It is usual for leaders to have emotional fluctuations in the face of challenging environments, the key to keeping the work effective is how to reduce the negative impact of emotions. We integrated the EASI model with COR theory to explore the different effects of two emotion regulation strategies (i.e., reappraisal and suppression) on employee motivation. By introducing emotion regulation strategies from proactive and interventional perspectives, we can expand the applicability of the theory and provide a theoretical path for using emotion regulation strategies to increase employee motivation.

Second, previous studies on the emotion-related processes of leaders influencing employees have mainly been conducted from a psychological perspective (Gable and Harmon-Jones, 2010). Recently, attention has been paid to the social factor of interpersonal emotion regulation of leaders in Western contexts, which provides a new path to understanding how leaders influence followers (Vasquez et al., 2021). The present study then supplemented this affective influence process with evidence from Eastern contexts. This study introduced the important interpersonal concept of guanxi harmony, which is emphasized in traditional Chinese and oriental cultures, and verified the important mediating role of guanxi in the process of different types of emotion regulation strategies affecting employee motivation. This study

further validates the important role of *guanxi* in the Chinese business environment and expands its role as an important mediator in the cross-level influence of leaders on employees, especially in the process of affective influence, which enriches the studies on the mechanisms of *guanxi* in the influence of leaders on employees in the Eastern cultural context.

Third, our findings appear to support a generational shift in the outcomes of Chinese people's use of emotion regulation strategies. Previous studies have shown that traditional Chinese culture not only encourages suppression as an emotion regulation strategy, but also can benefit from such strategy (Yuan et al., 2015; Zhou et al., 2016), even in terms of interpersonal harmony (Wei et al., 2013), which differs significantly from the negative attitudes toward suppression and its negative influential outcomes of Western cultures (Soto et al., 2011; Nam et al., 2018). However, a growing body of recent research on suppression and social functions has found consistency between Chinese and Western findings that Chinese youth may have more difficulty benefiting from suppression strategies (Kwon and Kim, 2019; Yeung and Wong, 2020). Consistently, the results of the present study show a negative effect of suppression on *guanxi* and employee motivation, as well as a negative correlation between suppression and age, supporting the idea that Chinese young adults are developing cross-cultural consistency with Westerners in emotion regulation strategies.

Management implications

First, we found that although leaders in Eastern cultures tended to apply a suppression strategy at work to reduce the impact of negative emotions, in reality, such strategy is detrimental to employee motivation and this damage is achieved by damaging interpersonal relationships. That is, even though the suppression strategy can have some benefits in Eastern cultures (Soto et al., 2011; Nam et al., 2018), it harms interpersonal coordination of collective and employee motivation. Therefore, leaders should avoid using the suppression strategy when facing negative or motivation-required situations.

Second, in contrast to the unrecommended use of the suppression strategy, we found that reappraisal is an effective strategy that can lead to enhanced interpersonal relationships and employee motivation. Based on the different effects of different emotion regulation strategies on employee motivation, appropriate emotion regulation training should be included in corporate practices to enhance leadership, and leaders should be trained and encouraged to use appropriate emotion regulation strategies proactively (e.g., reappraisal) in situations that require motivation.

Finally, the findings of this study further demonstrate the importance of interpersonal relationships in human resource management in the Chinese context. That is, well-coordinated interpersonal relationships promote motivation but poor interpersonal relationships undermine motivation. Although the importance of institutional factors is emphasized in organizations, the important power of human factors cannot be ignored in the Chinese context (Hmieleski and Baron, 2009; Li et al., 2019). Therefore, in the management activities, leaders should pay more attention to the cultivation and coordination of interpersonal relationships in order to facilitate employee motivation and promote work efficiency.

Conclusion

We found that different emotion regulation strategies of leaders can have opposite direct effects on employee motivation. Moreover, *guanxi* harmony, a culturally specific interpersonal phenomenon in China, mediates this effect of emotion regulation strategies and employee motivation. Our findings expand the study of leadership effectiveness from the perspective of emotion regulation and interpersonal relationships, and provide constructive suggestions for leaders to improve leadership effectiveness in organizations.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving human participants were reviewed and approved by Institutional Review Board of the School of Business (No. AHUT 20210701 001). The patients/participants provided their written informed consent to participate in this study.

Author contributions

WZ and LC designed the concept of the manuscript, collected data, wrote and revised the manuscript, and finally approved the version to be published. YH edited the language of the manuscript. SG analyzed and interpreted the data. WZ, SG, and YH co-drafted the manuscript. JL and MS supervised the data gathering process. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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