



Structure of Relationships Between the University Organizational Image and Student Loyalty

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The aim of this research is to contrast an explanatory model of how the perceived organizational image of a university center (faculty) influences its students' loyalty. The data is obtained from a structured survey of students in Spain, obtaining a sample of 224 valid questionnaires. The methodology used is exploratory and confirmatory factor analysis to validate the measurement scales and the estimation of the model is carried out by applying Structural Equation Modeling (SEM). The results show that organizational image is the key variable to influence students' decision to continue taking new courses at the center, as well as to recommend it to other people. It is observed that the greater students' positive perception of the organizational image is, the greater their satisfaction with the center will be, which results in a higher level of loyalty to the center in which they study. However, their identification levels with the center is not a relevant variable in the process of increasing loyalty.

Keywords: organizational image, university, loyalty, satisfaction, S-U identification, higher education

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INTRODUCTION

At present, there are several factors regarding different aspects that significantly increase competition among university centers in Spain, as well as in many other countries; attracting new students, attracting financial resources, etc. Among these factors is the decreasing birth rate that leads universities to have to compete for students, the globalization of the economy (Altbach, 2004), the economic crisis of the last decade, European convergence and the Declaration of Bologna, free movement of students and the emergence of private centers in educational markets. Therefore, in this context, the organizational image/University or Faculty image is established as one of the main intangible assets of an educational institution (Šontaite and Bakanauskas, 2011; Stergiou and Tsikliras, 2014; Collins and Park, 2016; Plewa et al., 2016).

In fact, there are many benefits associated with organizational image (Pérez and Torres, 2017: 128): it improves the functioning and competitiveness of the university organization (Treadwell and Harrison, 1994; McPherson and Schapiro, 1998; Druteikiene, 2011; Blázquez and Peretti, 2012), it contributes to achieving student loyalty and improving their satisfaction (Helgesen and Nesset, 2007; Stevens et al., 2008; Polat, 2011), it attracts and retains human resources and produces a positive response in workers (Treadwell and Harrison, 1994; Nolan and Harold, 2010).

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Taking into account the benefits produced by organizational image, it becomes a very important intangible asset to attract and retain/loyalty from the best students (Helgesen and Nesset, 2007; Stevens et al., 2008; Polat, 2011). Therefore, it is essential to establish, manage and maintain an image that enables to create a competitive advantage and to differentiate itself from the competition in current markets (Paramewaran and Glowacka, 1995).

There is a wide variety of studies focused on the University image from different perspectives (Arpan et al., 2003; Magierski and Kassouf, 2003; Kazoleas et al., 2011; Pérez and Torres, 2017). However, there are fewer that study the relationship of this concept with others, such as student satisfaction and loyalty (Beerli et al., 2002; Beerli and Díaz, 2003; Helgesen and Nesset, 2007; Brown and Mazzarol, 2009; Cervera et al., 2012; Chandra et al., 2019; Hassan and Shamsudin, 2019). For this reason, a greater research effort is required regarding this concept and in particular how this concept influences student loyalty. According to Cervera et al. (2012: 8), "the University image constitutes an emerging research topic..., since academic research on this topic has traditionally been focused on the study of the issuer..., overlooking those approaches whose object of study was focused on the receptor."

Following this line of work, the aim of this research is to contrast an explanatory model of how the organizational image perceived by the students of a university center influences their loyalty to the center, as well as their Student-University (S-U) identification. In order to achieve this objective and corroborate the proposed working hypotheses, the data was collected from a structured questionnaire that was completed by 224 students from a University Center in Spain. The Structural Equation Modeling technique is applied to contrast the proposed hypotheses.

The novelty of this study lies in analyzing the structure of relationships between the organizational image as a multidimensional construct (orientation/training, reputation, aesthetic/affective) in loyalty, considering satisfaction and S-U identification as intermediate constructs. Understanding this structure will allow university center managers to know which dimension/s of the organizational image to focus their efforts on in order to improve their students' satisfaction and consequently increase their loyalty toward the center.

The paper is structured as follows. After this introduction, the theoretical framework that supports the research is introduced and the working hypotheses are presented in Literature Review and Hypotheses section. The methodology is described in Methodology section; sample, questionnaire and data analysis. The empirical results are shown below. Finally, the results are discussed, the main conclusions are drawn and the limitations of the research are discussed.

LITERATURE REVIEW AND HYPOTHESES

Organizational Image

One of the first definitions of organizational image was proposed by Kotler (1975), with both a beliefs and attitudes approach regarding an organization; the sum of beliefs, ideas

and impressions that a person has on an object (Kotler and Fox, 1995). Beerli et al. (2002) subsequently state that it is a rational and emotional assessment and interpretation that a person makes of the organization, in which two components are integrated: cognitive (beliefs) and affective (emotions and feelings) components. Along the same lines, Kazoleas et al. (2011) states that the image is generated in subjects. Therefore, there can be as many images as there are subjects and they consider that this is the result of the interpretation made by the subjects regarding the information or disinformation provided. Following this trend, Polat (2011) defines it as the vision, representation or impression that people form in their minds based on the information or data of an organization, obtained from the interaction with the elements or components of the organization. In the university context, the university organizational image was defined by Nguyen and Leblanc (2001) as the perceived image that its students have according to their ideas, interests and personal, social and background experiences. Students make a rational and emotional assessment of the tangible and intangible attributes of the organization.

Taking into account the large number of approaches to define organizational image, it is revealed that it is a complex and multidimensional concept (Nguyen and Le Blanc, 2002; Arpan et al., 2003; Beerli and Díaz, 2003), as it is based on the perception and differentiating and comparative assessment of the characteristics of an organization, which is carried out by a person (Günalan and Ceylan, 2014). In this regard, the image will be influenced by the beliefs, stereotypes, ideas, significant behaviors and impressions that a person has of an organization (Kotler and Andreasen, 2008). Specifically, Arpan et al. (2003) mentioned three factors: academic factors, athletic factors and the extent of news coverage of the university.

Regarding the organizational image components, there is currently no consensus. This research follows the approach of Beerli et al. (2002) and the following are considered cognitive and affective components: university orientation and training, reputation, overcrowding, accessibility, age, affective.

In this context, the following hypothesis is proposed:

H1: The perceived image of the Faculty is a multidimensional construct with cognitive and affective components.

Consequences of the Perceived Organizational Image

Relationship Between Organizational Image and Loyalty

Jacoby and Kyner (1973) propose that loyalty can be defined by taking into account two perspectives, on the one hand, the attitudinal perspective and on the other hand, the behavioral perspective. Thus, Dick and Basu (1994) define customer loyalty as the relationship between the relative attitude and repetitive purchase pattern. In this regard, many investigations carried out consider this dual perspective in very different contexts (Söderlund, 1998; Homburg and Giering, 2001; Rodríguez et al., 2020; López-Sanz et al., 2021). The important role of loyalty for the survival of educational institutions is evident (Helgesen and Nesset, 2007). In this regard, if a student with loyalty is

achieved, he/she can attract others by positive word-of-mouth communication and maintain a lasting relationship with the university institution. In the university education context, there are studies that corroborate the relationship between University image and loyalty (Martensen et al., 1999; Nguyen and Leblanc, 2001; Beerli et al., 2002; Beerli and Díaz, 2003; Alves and Raposo, 2010). Therefore, the following hypothesis can be proposed:

H2: The perceived image of the Faculty influences loyalty toward it directly and positively.

Relationship Between Organizational Image and Satisfaction

Satisfaction is a complex concept that depends on the context of analysis where it is involved (Giese and Cote, 2000), therefore, there are many definitions. In this research context, the definition pecifically proposed in the educational field by Elliot and Healy (2001) is taken into account "it is a short-term attitude that results from assessing their experience with the educational service received". Thus, a comparison between expectations and results is produced (Oliver, 1980; Anderson, 1994) and all aspects that make up a relationship are evaluated, including image (Sanzo et al., 2003). This relationship is empirically supported in the literature in the University image context (Martensen et al., 1999; Nguyen and Leblanc, 2001; Beerli et al., 2002; Helgesen and Nesset, 2007; Alves and Raposo, 2010). Thus, the following hypothesis is proposed:

H3: The image perceived by the students of the Faculty influences their satisfaction with the service received directly and positively.

Relationship Between Organizational Image and S-U (Student-University) Identification

The concept of S-U identification is investigated from different areas of knowledge following a personal or social perspective (Fernandes et al., 2009). In this research, we are interested in the study of the relationship between people (students) and organization (University). According to Tesser et al. (1988), students will be attracted to a university when they perceive that it has characteristics similar to their own and with which they are capable of sharing feelings, opinions or values. It refers to the student's psychological attachment to his University.

This concept is defined by Ashforth and Mael (1989) as the recognition, manifestation of affinities and the attraction that comes from a process of internalization and incorporation of beliefs, values and attitudes of a social group. Subsequently, they define it as "one's perception of belonging to an organization, where the person is defined in terms of the organization of which he/she is a member" (Mael and Ashforth, 1992: 104). Bhattacharya and Sen (2003) define it as the cognitive state of connection and proximity of a consumer (student) with an organization. According to these authors, this state is generated as a result of a process of comparison between personal identity and that of the organization carried out by the consumer (student). If the student perceives that he/she shares the same traits, values and attributes with the organization, he begins

to define his own self-concept based on his relationship with the organization.

Several studies analyse the relationship between the perceived image of the organization or some of its dimensions with SU identification (Dutton et al., 1994; Bhattacharya et al., 1995; Kreiner and Ashforth, 2004; Ahearne et al., 2005; Cornwell and Coote, 2005). For all these reasons, the following hypotheses can be proposed:

H4: The image perceived by the students of the Faculty influences their identification with it directly and positively.

On the other hand, Marín and Ruiz (2007) confirm that this cognitive state will influence the affective states of the consumer regarding the organization, and as a result, their loyalty. As a consequence of the above, universities want to create and maintain this identification as strong as possible as a means of strengthening loyalty to the university.

H7: S-U identification of students with the Faculty influences their loyalty toward it directly and positively.

Relationship of Satisfaction With Loyalty and S-U Identification

(Dermanov and Eklöf, 2001) state that obtaining customer satisfaction involves certain consequences that condition their future activity, a student who is satisfied with the service received may develop various attitudes and behaviors that are indicative of loyalty (Marzo et al., 2005). In this regard, students who are satisfied with the service can show their intention to return (Patterson et al., 1997; Athiayaman, 2000; Lervik and Johnson, 2003) and will certainly recommend it to others (Mavondo and Zaman, 2000; Tsarenko and Mavondo, 2001). Many authors corroborate that satisfaction is an antecedent to student loyalty (Alves and Raposo, 2004; Gonçalves et al., 2004; Schertzer and Schertzer, 2004; Taylor et al., 2004; Tsarenko et al., 2004; Marzo et al., 2005). Thus, the following hypotheses are proposed:

H5: The satisfaction perceived by the students influences their loyalty to the Faculty directly and positively.

H6: The satisfaction perceived by the students influences their S-U Identification with the Faculty directly and positively.

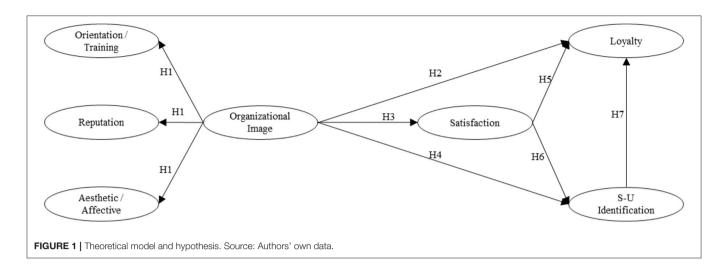
To summarize, in Figure 1 the "path diagram" is shown.

METHODOLOGY

Universe Study, Questionnaire and Measurement

The target population is 1,486 students enrolled at a University Center in Spain and who are studying Finance and Accounting, Business Administration, Tourism and the Double Degree in Business Administration and Tourism.

A structured questionnaire was designed to measure the constructs included in the model. Some of the most relevant measurement scales in the literature were taken as reference and adapted to the specific characteristics of the target population. The use of items used in other investigations enables to fulfill the internal validity requirement. Organizational image (25 items) is



a scale adapted from Cervera et al. (2012) and Pérez and Torres (2017), which are an adaptation from the Beerli and Díaz (2003) scale and Beerli et al. (2002). Satisfaction (3 items), which is a scale of Schlesinger et al. (2014), adapted from Fornell (1992). Loyalty (4 items) is a scale adapted from Cervera et al. (2012), which is an adaptation from the scale of Martensen et al. (1999) and Hennig et al. (2001) and Student-Faculty Identification (S-U) (6 items), which is a scale adapted from Cervera et al. (2012) and is an adaptation from the scale of Mael and Ashforth (1992) and Bhattacharya et al. (1995). A 5-point Likert scale was used, with 1 being "totally disagree" and 5 "totally agree".

The data collection process was carried out on-line during May through the GoogleForms platform. A sample of 224 valid questionnaires (response rate of 15.07%) was obtained, which implies a sampling error of 6% for a confidence level of 95%, $Z=1.96,\ p=q=0.50.$ Regarding the profile of the respondent, of the 224 respondents, 144 belong to the female gender and 80 to the male, and are part of an age range that goes from 18 years to 43, with the average age being 22.44 years (standard deviation of 3.75). As the data are cross-sectional, obtained from a single source, the Common Method Bias (CMB) was verified by applying The Harman single-factor test (Podsakoff and Organ, 1986); the non-existence of the common method problem in this research is confirmed.

Data Analysis

To perform the descriptive and exploratory factor analysis of the data, the statistical programme SPSS 19.0 (Statistical Package for the Social Sciences) and AMOS 20.0 (Analysis of Moment Structures) software were used for confirmatory factor analysis of the scales and estimation of the causal model proposed.

Validation of the Measurement Model

Following, Anderson and Gerbing (1988), the psychometric properties of the scales were analyzed. Firstly, the reliability of the scales is analyzed; the item-total correlation should take values> 0.3 (Nurosis, 1993) and Cronbach's alpha> 0.7

(Nunnally, 1979). Regarding the Unidimensionality that allows to identify the dimensions of the scales, it was validated in two stages: (1) Exploratory Factor Analysis (EFA) of principal components with varimax rotation (Bagozzi and Baumgartner, 1994), (2) Confirmatory Factor Analysis (CFA), which allows to examine the measurement model (reliability and validity of measures), the structural model and the global model of each of the scales.

The following are considered minimum levels: (1) the loadings> 0.05 (Hair et al., 1999) and the percentage of the explained variance> 50%, (2) to examine the fit of the structural measurement model, the critical Ratio for regression weight must exceed ± 1.96 and the standard regression weight (β)> 0.5 (Jöreskog and Sörbom, 1993), (3) to examine the global model, the goodness-of-fit indices of the model are observed (Joreskog and Sörbom, 1988; Mangin and Mallou, 2006): values above 0.9 are recommended (Hair et al., 1999) for the comparative fit index (CFI), goodness of fit index (GFI), normed fit index (NFI), adjusted goodness of fit index (AGFI). The robustness of mean squared error approximation index (RMSEA), according to Steiger (1990), Browne and Cudeck (1993), should be < 0.08 and values between 2 and 3 are recommended (Jöreskog and Sörbom, 1993) for Normalized χ^2 (χ^2 /df). To finish, the reliability is estimated again through composite reliability (CR) > 0.7 and extracted variance (AVE) > 0.5.

Estimation of Structural Equation Modeling (SEM)

The Structural Equation Modeling (SEM) technique or covariance structure model is used to test the causal relationships proposed in the theoretical model. To estimate the parameters, the Method of Maximum Likelihood (ML) was used and the bootstrap technique (5,000 samples) was applied taking into account the absence of normality. The methodology proposed by Mangin and Mallou (2006) is followed: parameter estimation, adjustment evaluation, respecification of the model and interpretation of results. To evaluate the structural and global model, the indices already mentioned in the validation of the scale and (β) standard

regression weight (critical coefficient> ± 1.96) are considered. R^2 measures the variance of the construct that is explained by the model.

RESULTS

Measurement Model

The analysis applied to check the reliability of the scales indicates an adequate internal consistency of the scales; correlation-total item> 0.3, not being necessary to eliminate any item and Cronbach's alpha is higher than the recommended minimum of 0.7. An EFA was applied (maximum likelihood extraction method and Varimax rotation) to check for unidimensionality. All measurement scales are unidimensional except for the organizational image scale, which has three factors that explain 57.43%> 50% and Loadings> 0.5 (recommended minimums) (Table 1).

The analysis of unidimensionality is continued since the EFA is exploratory and the CFA is applied. In the specific case of the organizational image scale (multidimensional in the EFA), following, Hair et al. (1999), a strategy of rival models is developed (**Table 2**). Model 2 (oblique) of 1st order has a better adjustment than model 1 and 2 (orthogonal). It is then re-specified to improve the adjustment (Model 3) and compared to a 2nd order model (Model 4). The results confirm the multidimensionality of the scale, the optimal measurement model is model 4 of 2nd order.

Table 3 shows the AFC results of the scales. Items IM1, 3, 16 and 21 are eliminated as they do not have significant factor loadings. The rest of the items have $\beta>0.50$ and are significant (critical coefficient> ± 1.96). The models have good measures of absolute, incremental and parsimony adjustment as all the indicators are within the generally accepted limits.

Reliability is measured through average variance (AV) that must be >0.5 and composite reliability (CR) > 0.7 (**Table 3**) (Bagozzi and Yi, 1988; Hair et al., 1999). The content validity was ensured by the literature review carried out, as well as by the pre-test performed. It is concluded that there is convergent validity since $\beta > 0.5$ and statistically significant (t-student> ± 1.96) and AVE> 0.5.

Discriminant validity is confirmed. It was analyzed by examining three indicators: (1) confirmed if Cronbach's alpha of each scale is higher than any of the correlations between that scale and the rest, which was proved and (2) whether interfactor correlations are less than the square root of the average variance extracted (Fornell and Larcker, 1981, Chin, 1988), (3) none of the confidence intervals contains the unit (Bagozzi and Yi, 1988). Taking into account the results, discriminant validity is confirmed (**Table 4**).

Analysis of the Structural Models

The research hypotheses were tested (**Figure 2**). The structural model has good adjustment measures; all the indices are higher than the recommended minimum values. The standardized coefficients (β) that show the weights of the direct effects of one variable on another and the direction (hypothesis) are all

significant at the p < 0.001, 0.01 and 0.05 level. R^2 indicates the amount of variance of the constructs that is explained by the model. The model explains 71.8% of loyalty and 16.4% of the S-U identification construct. All hypotheses are corroborated.

DISCUSSION

The results of the Structural Model (**Figure 2**) support the explanatory capacity of the proposed theoretical model. The student loyalty dimension has an $R^2 = 0.718$; considering the criteria proposed by Hu and Bentler (1995), it is> 0.67 therefore, its explanatory capacity is strong. All the hypotheses proposed are corroborated with significant β (p> 0.001, 0.01 and 0.05), β that indicate the relative importance of the dependent variable. The background variables of loyalty and that make up the explanatory capacity of the model are image, satisfaction and S-U identification.

Regarding organizational image, H1 is corroborated, perceived image is a multidimensional construct with cognitive and affective components. In this research, the structure is made up of three dimensions, orientation/training, reputation and aesthetic/affective, the first two with a high explanatory capacity in the model ($R^2 = 0.816$ and 0.675, respectively) and aesthetic/affective has a good capacity with an $R^2 = 0.469$. These results are corroborated in the study by Beerli and Díaz (2003). There are many investigations that corroborate that it is a multidimensional concept, although they do differ in their dimensions. Nguyen and Leblanc (2001) point out two components; functional (tangible characteristics) and emotional (psychological aspects such as feelings and attitudes toward the organization). For Beerli et al. (2002), there are two components, cognitive image (beliefs/knowledge about the organization) and affective image (feelings, emotions and benefits sought). Galiniené et al. (2009) identify three; cognitive image, emotionalaffective image, general image and Nolan and Harold (2010) provide two, instrumental attributes and symbolic meanings.

This construct (organizational image) influences directly (β = 0.325, p < 0.001) (hypothesis H2) and indirectly (β = 0.400) in building student loyalty through satisfaction (hypothesis H3) with β = 0.656, p <0.001 and SU identification (hypothesis H4) (β = 0.269, p < 0.01). The causal relationship proposed by hypothesis H2 (image \rightarrow loyalty) is also corroborated by the investigations carried out by (Martensen et al., 1999; Nguyen and Leblanc, 2001; Beerli et al., 2002; Beerli and Díaz, 2003; Alves and Raposo, 2010). The relationship between image \rightarrow satisfaction is corroborated by Martensen et al. (1999), Nguyen and Leblanc (2001), Beerli et al. (2002), Helgesen and Nesset (2007), Alves and Raposo (2010). Finally, the relationship between image \rightarrow S-U identification is corroborated among others, by Dutton et al. (1994), Bhattacharya et al. (1995), Kreiner and Ashforth (2004), Ahearne et al. (2005), Cornwell and Coote (2005).

Regarding satisfaction, it influences loyalty directly ($\beta = 0.552$, p < 0.001) (H5) and indirectly and weakly through the S-U identification construct with $\beta = 0.174$, p < 0.05. These relationships are also corroborated by other empirical investigations such as Alves and Raposo (2004), Gonçalves et al.

TABLE 1 | Descriptive findings and exploratory factor analysis (reliability and validity of scales).

Factors		Scale items ^a	Mean	(s.d.) ^b	Exploratory factor analysis (loadings)					
					Factor 1	Factor 2	Factor 3	Bartlett's test of Sphericity Kaiser-Meyer_Oklin index ^c		
Organizational Image Scale	Orientation/training (α Cronbach: 0.909)	IM1 IM2	3.19 2.90	0.99 1.08	0.685 0.761			χ ² (sig.): 4077.787 (0.000) KMO: 0.923		
		IM4 IM5	2.94 2.93	1.09 1.01	0.662 0.666			Measure of simple adequacy: (0.878-0.875)		
		IM6	2.50	1.10	0.568			% Variance: 57.432		
		IM9	3.00	0.94	0.714					
		IM10	2.69	1.09	0.567					
		IM11	2.87	0.98	0.424					
		IM16	2.99	1.11	0.416					
		IM19	2.47	1.03	0.557					
		IM20	2.50	1.06	0.510					
		IM21	2.94	0.98	0.426					
	Reputation (α Cronbach: 0.914)	IM7	2.28	0.95		0.558				
		IM8	2.75	1.01		0.518				
		IM12	2.14	0.96		0.699				
		IM13	2.33	0.99		0.673				
		IM14	1.75	0.95		0.851				
		IM15	2.04	1.08		0.754				
		IM17	1.70	0.93		0.782				
		IM18	1.89	1.02		0.776				
	Aesthetic/affective (α Cronbach: 0.873)	IM3	3.49	0.92			0.569			
		IM22	3.36	0.91			0.830			
		IM23	2.55	0.94			0.713			
		IM24	2.64	1.00			0.690			
		IM25	2.96	1.06			0.845			
	Own value	114120	2.00	1.00	6.033	5.525	3.949			
	% variance factor explained				22.345	20.461	14.626			
	% cumulative explained variance				22.345	42.806	57.432			
Satisfaction (α Cro		S1	3.19	1.14		0.933		χ ² (sig.): 478.371 (0.000)		
		S2	3.00	1.06		0.902		KMO: 0.747		
		S3	3.15	1.15		0.937		Measure of simple adequacy: (0.721–0.710)		
								% Variance: 85.405		
oyalty (α Cronbac	ch: 0.914)	L1	2.44	1.17		0.859		χ^2 (sig.): 640.756 (0.000)		
		L2	2.80	1.14		0.921		KMO: 0.840		
		L3	3.09	1.12		0.860		Measure of simple adequacy: (0.879–0.806)		
		L4	2.85	1.14		0.925		% Variance: 79.537		
S-U Identification ((α Cronbach: 0.876)	SU1	2.22	1.13		0.771		χ^2 (sig.): 689.363 (0.000)		
		SU2	2.93	1.23		0.718		KMO: 0.859		
		SU3	2.54	1.20		0.681		Measure of simple		
		SU4	2.59	1.18		0.859		adequacy: (0.871-0.899)		
		SU5	2.51	1.15		0.884		% Variance: 62.433		
		SU6	2.90	1.24		0.808				

^aThe items listed in this table have been summarized for ease of presentation and comprehension; ^bs.d[:] Standard deviation.

 $^{^{}c}$ Tests that show that the data obtained through the questionnaire are adequate to perform the factor analysis [requirements: Bartlett's Sphericity Test χ^{2} (sig. < 0.5), KMO > 0.7 median, > 0.8 y > 0.9 muy bueno, MSA = unacceptable for values below 0.5]. Source: Authors' own data.

TABLE 2 | Fit índices for image scale.

Models	χ²	df	χ^2 (df)	Р	GFI	AGFI	PGFI	TLI	CFI	RMSEA
Model 1 (1 variable—25 items)	1356.094	275	4.931	0.000	0.630	0.562	0.533	0.674	0.701	0.133
Model 2-1st order (3 variables-25 items) (orthogonal)	1250.349	275	4.547	0.000	0.686	0.629	0.581	0.706	0.730	0.126
Model 2-1st order (3 variables-25 items) (Oblique)	945.028	272	3.474	0.000	0.724	0.670	0.606	0.795	0.814	0.105
Model 3 (model 2 re-specified-3 variables-21 items)	425.850	179	2.379	0.000	0.843	0.798	0.653	0.908	0.922	0.079
Model 4—2nd order (model 2 re-specified—3 variables-21 items)	412.373	178	2.317	0.000	0.849	0.804	0.654	0.912	0.926	0.077

Source: Authors' own data.

TABLE 3 | Reliability and confirmatory factor analysis.

Scales		β	CR	AV	Confirmatory factory analysis/Composite reliability test	Scales	β	CR	AV	Confirmatory factory analysis/Composite reliability test
Organizational image	Orientation/ training		0.89	0.48	χ^2 (df5) = 412.373 (p = 0.000), GFI = 0.849, AGFI	Satisfation		0.93	0.81	χ^2 (df5) = 100.650 (p = 0.001), GFI = 0.940, AGFI
	IM2	0.672			= 0.804, CFI $= 0.926RMSEA = 0.077$	S1	0.901			= 0.910, CFI = 0.981, RMSEA = 0.054
	IM4	0.744			χ^2 Normalized(χ^2 /df) =	S2	0.824			χ^2 Normalized(χ^2 /df) =
	IM5	0.743			2.317	S3	0.927			1.650
	IM6	0.71								
	IM9	0.755								
	IM10	0.669								
	IM11	0.652								
	IM19	0.777								
	IM20	0.654								
	Reputation		0.91	0.57		S-U		0.86	0.51	
	IM7	0.803				Identification				
	IM8	0.635				SU1	0.751			
	IM12	0.799				SU2	0.606			
	IM13	0.797				SU3	0.602			
	IM14	0.797				SU4	0.889			
	IM15	0.738				SU5	0.878			
	IM17	0.691				SU6	0.731			
	IM18	0.723								
	Aesthetic/ affective		0.86	0.62		Loyalty		0.93	0.76	
	IM22	0.648				L1	0.794			
	IM23	0.888				L2	0.906			
	IM24	0.861				L3	0.809			
	IM25	0.69				L4	0.906			

 β , standard regression weight; CR, composite reliability; AV, average variance.

p < 0.001.

Source: Authors' own data.

(2004), Schertzer and Schertzer (2004), Taylor et al. (2004), Tsarenko et al. (2004), Marzo et al. (2005). The explanatory capacity of satisfaction is good with an $R^2=0.431$. Finally, the explanatory capacity of S-U identification is low ($R^2=0.164$) and its influence on loyalty is also low ($R^2=0.098$), $R^2=0.098$, $R^2=0.098$).

CONCLUSIONS AND IMPLICATIONS

The structural model proposed and empirically validated allows us to understand how students' loyalty (attitudinal and

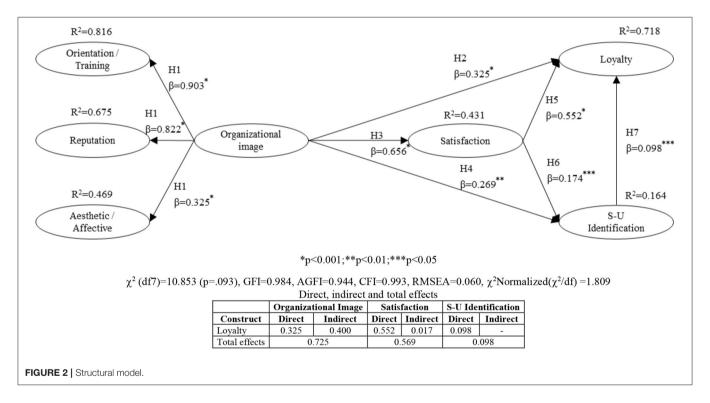
behavioral) toward the university center where they study is formed. The results empirically show that the organizational image with a total effect on the model of 0.725 on organizational loyalty is the key variable to influence students' decision to continue taking new studies at the center, as well as to recommend it to other people. Therefore, the greater the positive perception of the organizational image of the university center is, the greater their satisfaction with the center will be, which results in an increase in student loyalty to the center in which they study. However, their identification levels that are made

TABLE 4 | Correlation matrix and discriminant validity.

	Square root AV	(1)	(2)	(3)	(4)	(5)	(6)
Orientation/training (1)	0.69	0.909 ^a	0.752 ^b	0.605	0.598	0.650	0.329
Reputation (2)	0.75		0.914	0.554	0.494	0.585	0.303
Aesthetic/affective (3)	0.78			0.873	0.517	0.534	0.348
Satisfaction (4)	0.9				0.914	0.800	0.350
						0.114° (0.198-0.478)	0.698 (0.202-0.634)
S-U identification (5)	0.71					0.914	0.416
							0.127
							(0.221-0.493)
Loyalty (6)	0.87						0.876

^a Shown in bold on the main diagonal are the Cronbach's alpha for each scale, which should be higher than the correlation between that scale and the rest.

Source: Authors' own data.



operational through the attitude of being able to defend it and feel part of it are not configured as a relevant variable in the process of increasing loyalty levels.

These results have major implications for university center managers who want to retain their current students and attract potential students. So, in order to increase loyalty, they must focus their efforts on improving the image of the center and students' satisfaction. They must pay special attention to improving the guidance that the educational center has toward its stakeholders, society, company and especially toward its students, as well as improving the training quality it provides and working on it so that it is perceived by the student. They should also focus their efforts on improving its reputation, understood

as prestige among its stakeholders. And finally, improve both physical aspects of the university center and emotional aspects related to image.

Finally, this research has two limitations. The first one refers to the fact that the model has been contrasted based on the opinions of the students of a specific university center in Spain. This limits the generalization of the results to a certain extent, which leads to proposing as a future line of research, to extend the study to other university centers, both within Spain and in other countries in order to compare results and contrast the model. The second limitation is related to the cross section of the research, as it was carried out at a specific point in time, so it would be interesting to carry out the study longitudinally to observe possible variations

b Inter-scale correlation.

^c The squared correlation between pairs of factors (less than AVE) and confidence interval for the estimated correlations, ±twice the standard error, does not include the value of 1. All significant at p <0.01.

in students' perceptions over time. A third limitation is the use of a structured questionnaire that limits the responses of the respondents to the questions asked. However, we have overcome this limitation by calculating the Common Method Bias.

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 from the participants was not required to participate in 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. JÁ-G, MdR-R, CO, and AD-S: conceptualization, investigation, methodology, formal analysis, writing—original draft, preparation, and writing—review and editing. All authors have read and agreed to the published version of the manuscript.

REFERENCES

- Ahearne, M., Bhattacharya, C., and Gruen, T. (2005). Antecedents and consequences of customer–company identification: expanding the role of relationship marketing. J. Appl. Psychol. 90, 574–585. doi:10.1037/0021-9010.90.3.574
- Altbach, P. G. (2004). Globalisation and the university: myths and realities in an unequal world. *Tertiary Educ. Manag.* 10, 3–25. doi:10.1080/13583883.2004.9967114
- Alves, H., and Raposo, M. (2004). La medición de la satisfacción en la enseñanza universitaria: el ejemplo de la Universidade da Beira Interior. *Int. Rev. Public Nonprofit Market.* 1, 73–88. doi: 10.1007/BF02896618
- Alves, H., and Raposo, M. (2010). The influence of university image on student behavior. *Int. J. Educ. Manag.* 24, 73–85. doi: 10.1108/09513541011013060
- Anderson, E. W. (1994). Cross-category variation in customer satisfaction and retention. Mark. Lett. 5, 19–30. doi: 10.1007/BF00993955
- Anderson, J., and Gerbing, D. W. (1988). Structural equation modelling in practice: a review and recommended two-step approach. *Psychol. Bull.* 103, 411–423. doi: 10.1037/0033-2909.103.3.411
- Arpan, L., Raney, A., and Zivnuska, S. (2003). A cognitive approach to understanding university image. Corp. Commun. 8, 97–113. doi: 10.1108/1356328031047535
- Ashforth, B. E., and Mael, F. A. (1989). Social identity theory and the organization. *Acad. Manag. Rev.* 14, 20–39. doi: 10.5465/amr.1989.4278999
- Athiayaman, A. (2000). "Perceived service quality in the higher education sector: an empirical analysis," in *Proceedings of the Conference de ANZMAC*, Gold Coast, 28 November—1 December 2000.
- Bagozzi, R. P., and Yi, Y. (1988). On the evaluation of structural equation models. *J. Acad. Mark. Sci.* 16, 74–94. doi: 10.1007/BF02723327
- Bagozzi, R. Y. B., and Baumgartner, P. J. H. (1994). The evaluation of structural equation models and hypothesis testing. *Prin. Mark. Res.* 1, 386–419.
- Beerli, A., and Díaz, G. (2003). Los Efectos de la Imagen Percibida de la Universidad en la Satisfacción de los Estudiantes. Rev. Esp. Investig. Mark. ESIC 7, 7–25
- Beerli, A., Díaz, G., and Pérez, P. (2002). The configuration of the university image and its relationship with the satisfaction of students. J. Educ. Admin. 40, 486–505. doi: 10.1108/09578230210440311
- Bhattacharya, C., and Sen, S. (2003). Consumer-company identification: a framework for understanding consumers' relationships with companies. J. Mark. 67, 76–88. doi: 10.1509/jmkg.67.2.76.18609
- Bhattacharya, C. B., Rao, H., and Glynn, M. A. (1995). Understanding the bond of identification: an investigation of its correlates among art museum members. J. Mark. 59, 46–57. doi: 10.1177/002224299505900404
- Blázquez, M., and Peretti, M. (2012). Modelo para gestionar la sustentabilidad de las organizaciones a través de la rentabilidad, adaptabilidad e imagen. *Estud. Gerenc.* 28, 40–50. doi: 10.1016/S0123-5923(12)70006-2

- Brown, R., and Mazzarol, T. (2009). The importance of institutional image to student satisfaction and loyalty within higher education. *Higher Educ.* 58, 81–95. doi: 10.1007/s10734-008-9183-8
- Browne, M. W., and Cudeck, R. (1993). Alternative Ways of Assessing Model Fit. Testing Structural Equation Models. Thousand Oaks, CA: Sage Focus Editions, 136–162.
- Cervera, A., Schlesinger, W., Mesta, M. Á., and Sánchez, R. (2012). Medición de la imagen de la universidad y sus efectos sobre la identificación y lealtad del egresado: una aproximación desde el modelo de Beerli y Díaz (2003). *Rev. Españ. Investig. Mark. ESIC* 16, 7–29. doi: 10.1016/S1138-1442(14)60012-7
- Chandra, T., Hafni, L., Chandra, S., Purwati, A. A., and Chandra, J. (2019). The influence of service quality, university image on student satisfaction and student loyalty. *Benchmark. Int. J.* 26, 1533–1549. doi: 10.1108/BIJ-07-2018-0212
- Chin, W. W. (1988). "The partial least squares approach to structural equation modeling," in *Modern Business Research Methods*, eds G. A. Marcoulides (Mahwah, NJ: Lawrence Erlbaum Associates), 295–336.
- Collins, F. L., and Park, G. S. (2016). Ranking and the multiplication of reputation: reflections from the frontier of globalizing higher education. *High. Educ.* 72, 115–129. doi: 10.1007/s10734-015-9941-3
- Cornwell, B., and Coote, L. (2005). Corporate sponsorship of a cause: the role of identification in purchase intent. J. Bus. Res. 58, 268–276. doi:10.1016/S0148-2963(03)00135-8
- Dermanov, V., and Eklöf, J. (2001). "Using aggregate customer satisfaction index—challenges and problems of comparison with special reference to Russia," in AA. VV. Proceedings of the 6th TQM World Congress, Saint Petersburg, 315–434. doi: 10.1080/09544120100000034
- Dick, A. S., and Basu, K. (1994). Customer loyalty: toward an integrated conceptual framework. J. Acad. Mark. Sci. 22, 99–113. doi: 10.1177/0092070394222001
- Druteikiene, G. (2011). "University image: essence, meaning, theoretical and empirical investigation," in *Global Conference on Business and Finance Proceedings*, Vol. 6, No. 2, pp. 167–174.
- Dutton, J., Dukerich, J., and Harquail, C. (1994). Organizational images and member identification. Admin. Sci. Q. 39, 239–263. doi: 10.2307/2393235
- Elliot, K. M., and Healy, M. A. (2001). Key factors influencing student satisfaction related to recruitment and retention. J. Mark. High. Educ. 10, 1–11. doi: 10.1300/J050v10n04_01
- Fernandes, M. E. R., Marques, A. L., and Carrieri, A. P. (2009). Identidade organizacional e os componentes do processo de identificação: uma proposta de integração. *Cadernos EBAPE BR* 7, 687–703. doi: 10.1590/S1679-39512009000400011
- Fornell, C. (1992). A national customer satisfaction barometer: the Swedish experience. *J. Mark.* 56, 6–21. doi: 10.1177/002224299205600103
- Fornell, C., and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. J. Mark. Res. 18, 39–50. doi: 10.1177/002224378101800104

Galiniené, B., Marcinskas, A., Miskinis, A., and Druteikiene, G. (2009). The impact of study quality on the image of higher education institution. *Inform. Mokslal* 48, 68–81. doi: 10.15388/Im.2009.0.3330

- Giese, J. L., and Cote, J. A. (2000). Defining consumer satisfaction. *Acad. Mark. Sci. Rev.* 1, 1–22.
- Gonçalves, C., Souza, R., and Ignacio, A. (2004). "Satisfaction, quality royalty, value and expectations in higher education institutions: an empirical study," in Proceedings of Second World Conference on POM and 15th Annual POM Conference, Cancun, 30 April—3 May 2004.
- Günalan, M., and Ceylan, A. (2014). The mediator role of organizational image on the relationship between jealousy and turnover intention: a study on health workers. J. Soc. Sci. Inst. 17, 133–156.
- Hair, J. F., Anderson, R. E., Tatham, R. L., and Black, W. C. (1999). Análisis multivariante (5th Ed.). Madrid: Prentice Hall.
- Hassan, S., and Shamsudin, M. F. M. F. (2019). Measuring the effect of service quality and corporate image on student satisfaction and loyalty in higher learning institutes of technical and vocational education and training. *Int.* J. Eng. Adv. Technol. 8, 533–538. doi: 10.35940/ijeat.E1077.0585C19
- Helgesen, O., and Nesset, E. (2007). Images, satisfaction and antecedents: drivers ofstudent loyalty? A case study of a Norwegian University College. Corp. Reput. Rev. 10, 38–59. doi: 10.1057/palgrave.crr.1550037
- Hennig, T., Langer, M. F., and Hansen, U. (2001). Modeling and managing student loyalty: an approach based on the concept of relationship quality. *J. Serv. Res.* 3, 331–344. doi: 10.1177/109467050134006
- Homburg, C., and Giering, A. (2001). Personal characteristics as moderators of the relationship between customer satisfaction and loyalty—an empirical analysis. *Psychol. Mark.* 18, 43–66. doi: 10.1002/1520-6793(200101)18:1<43::AID-MAR3>3.0.CO;2-I
- Hu, L., and Bentler, P. M. (1995). "Evaluating model fit," in Structural Equation Modelling: Concepts, Issues and Applications, eds R. H. Hoyle (London: Sage), 76–99.
- Jacoby, J., and Kyner, D. B. (1973). Brand loyalty vs. repeat purchasing behavior. J. Mark. Res. 10, 1–9. doi: 10.1177/002224377301000101
- Joreskog, K. G., and Sörbom, D. (1988). PRELIS: A Preprocessor for LISREL. Mooresville, IN: Scientific Software.
- Jöreskog, K. G., and Sörbom, D. (1993). LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language. Mooresville, IN: Scientific Software International.
- Kazoleas, D., Kim, Y. Y., and Moffit, M. (2011). Institutional image: a case study. Corp. Commun. Int. J. 6, 205–216. doi: 10.1108/EUM0000000006148
- Kotler, P. (1975). Marketing for Non-Profit Organizations. New Jersey: Editorial Prentice-Hall.
- Kotler, P., and Andreasen, A. (2008). Positioning the Organization: Strategic Marketing for Nonprofit Organizations. Hoboken, NJ: Editorial Prentice-Hall.
- Kotler, P., and Fox, K. (1995). Strategic Marketing for Educational Institutions. Second Edition. Hoboken, NJ: Prentice-Hall.
- Kreiner, G., and Ashforth, B. (2004). Evidence toward an expanded model of organizational identification. J. Organ. Behav. 25, 1–27. doi: 10.1002/job.234
- Lervik, L., and Johnson, M. D. (2003). Service equity, satisfaction and royalty: from transaction-specific to cumulative evaluations. J. Serv. Res. 5, 184–195. doi: 10.1177/1094670502238914
- López-Sanz, J. M., Penelas-Leguía, A., Gutiérrez-Rodríguez, P., and Cuesta-Valiño, P. (2021). Sustainable development and consumer behavior in rural tourism the importance of image and loyalty for host communities. Sustainability 13:4763. doi: 10.3390/su13094763
- Mael, F., and Ashforth, B. E. (1992). Alumni and their alma mater: a partial test of the reformulated model of organizational identification. *J. Organ. Behav.* 13, 103–123. doi: 10.1002/job.4030130202
- Magierski, D., and Kassouf, N. (2003). Análise da imagen organizacional de universidades por meio da matriz familiaridadefavorabilidade. RAM 4, 26–37.
- Mangin, J. P. L., and Mallou, J. V. (2006). Modelización con estructuras de covarianzas en ciencias sociales. Temas esenciales, avanzados y aportaciones especiales. Spain: Netbiblo.
- Marín, L., and Ruiz, S. (2007). La identificación del consumidor con la empresa: más allá del marketing de relaciones. *Univ. Bus. Rev.* 1, 62–75.
- Martensen, A., Gronholdt, L., Eskildsen, J., and Kristensen, K. (1999). "Measuring student oriented quality in higher education: appli-cation of the ECSI methodology," in Conference Proceedings from TQM for Higher Education

- Institutions. Higher Education Institutions and the Issue of Total Quality Verona 30-31
- Marzo, M., Pedraja, M., and Rivera, M. P. (2005). A new management element of universities: satisfaction with the offered courses. *Int. J. Educ. Manag.* 19, 505–526. doi: 10.1108/09513540510617454
- Mavondo, F., and Zaman, M. (2000). "Student Satisfaction with Tertiary Institution and Recommending it to Prospective Students," in ANZMAC (Aust and New Zealand Marketing Academy Conference) 2000 Visionary Marketing for the 21st Centry: Facing the Challenge (Griffith University), 787–792.
- McPherson, M., and Schapiro, M. (1998). *The Student Aid Game*. New Jersey: Princeton University Press. doi: 10.1515/9780691230917
- Nguyen, N., and Le Blanc, G. (2002). Contact personnel, physical environment and the perceived corporate image of intangible services by new clients. *Int. J. Serv. Ind. Manag.* 13, 242–262. doi: 10.1108/09564230210431965
- Nguyen, N., and Leblanc, G. (2001). Corporate image and corporate reputation in customers' retention decisions in services. *J. Retail. Consum. Serv.* 8, 227–236. doi: 10.1016/S0969-6989(00)00029-1
- Nolan, K. P., and Harold, C. M. (2010). Fit with what? The influence of multiple self-concept images on organizational attraction. J. Occup. Organ. Psychol. 83, 645–662. doi: 10.1348/096317909X465452
- Nunnally, J. C. (1979). Psychometric theory: 2nd edn. Appl. Psychol. Meas. 3, 279–280. doi: 10.1177/014662167900300216
- Nurosis, M. J. (1993). SPSS. Statistical Data Analysis. Chicago, IL: Spss Inc.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *J. Mark. Res.* 17, 460–469. doi: 10.1177/002224378001700405
- Paramewaran, R., and Glowacka, A. E. (1995). University image: an information processing perspective, J. Mark. Higher Educ. 6, 41–56. doi: 10.1300/1050v06n02 04
- Patterson, P. G., Johnson, L. W., and Spreng, R. A. (1997). Modelling the determinants of customer satisfaction for business-to-business professional services. *J. Acad. Mark. Sci.* 25, 4–17. doi: 10.1007/BF02 894505
- Pérez, J. P., and Torres, E. M. (2017). Evaluation of the organizational image of a university in a higher education institution. *Contad. Admin.* 62, 123–140. doi: 10.1016/j.cya.2016.01.007
- Plewa, C., Ho, J., Conduit, J., and Karpen, I. O. (2016). Reputation in higher education: a fuzzy set analysis of resource configurations. *J. Bus. Res.* 69, 3087–3095. doi: 10.1016/j.jbusres.2016.01.024
- Podsakoff, P. M., and Organ, D. W. (1986). Self-reports in organizational research: problems and prospects. J. Manag. 12, 531–544. doi: 10.1177/014920638601200408
- Polat, S. (2011). The relationship between university students' academic achievement and perceived organizational image. Educ. Sci.: Theory Pract. 11, 257–262.
- Rodríguez, P. G., Villarreal, R., Valiño, P. C., and Blozis, S. (2020). A PLS-SEM approach to understanding E-SQ, E-Satisfaction and E-Loyalty for fashion E-Retailers in Spain. J. Retail. Consum. Serv. 57, 102201. doi:10.1016/j.jretconser.2020.102201
- Sanzo, M. J., Santos, M. L., Vázquez, R., and Álvarez, L. I. (2003). The effect of market orientation on buyer–seller relationship satisfaction. *Ind. Mark. Manag.* 32, 327–345. doi: 10.1016/S0019-8501(01)00200-0
- Schertzer, C. B., and Schertzer, S. M. (2004). Student satisfaction and retention: a conceptual model. J. Mark. High. Educ. 14, 79–91. doi: 10.1300/J050v14n01_05
- Schlesinger, W., Cervera, C., and Calderón, H. (2014). El papel de la confianza, la imagen y los valores compartidos en la creación de valor y lealtad: aplicación a la relación egresado-universidad. Rev. Españ. Invest. Mark. ESIC 18, 126–139. doi: 10.1016/j.reimke.2014.06.001
- Söderlund, M. (1998). Customer satisfaction and its consequences on customer behavior revisited. Int. J. Serv. Ind. Manag. 9, 169–188. doi: 10.1108/09564239810210532
- Šontaite, M., and Bakanauskas, A. P. (2011). Measurement model of corporate reputation at higher education institutions: Customers' perspective. *Manag. Organ. Syst. Res.* 59, 115–130.
- Steiger, J. H. (1990). Structural model evaluation and modification: an interval estimation approach. Multiv. Behav. Res. 25, 173–180. doi:10.1207/s15327906mbr2502_4

Stergiou, K. I., and Tsikliras, A. C. (2014). Global university reputation and rankings: insights from culturomics. *Ethics Sci. Environ. Politics* 13,193–202. doi: 10.3354/esep00140

- Stevens, R. E., McConkey, C. W., Cole, H. S., and Clow, K. E. (2008).
 College image: a strategic marketing dilemma. Serv. Mark. Q. 29, 99–113.
 doi: 10.1080/15332960802126005
- Taylor, S. A., Celuch, K., and Goodwin, S. (2004). The importance of brand equity to customer loyalty. J. Product Brand Manag. 13, 217–227. doi: 10.1108/10610420410546934
- Tesser, A., Millar, M., and Moore, J. (1988). Some affective consequences of social comparison and reflection processes: the pain and pleasure of being close. J. Personal. Soc. Psychol. 54, 49–61. doi: 10.1037/0022-3514.54.1.49
- Treadwell, D., and Harrison, T. (1994). Conceptualizing and assessing organizational image: model, images, commitment, and communication. *Commun. Monographs* 61, 63–85. doi: 10.1080/03637759409376323
- Tsarenko, Y., and Mavondo, F. T. (2001). "Resources and capabilities as determinants of student satisfaction: Do foreign and local students differ?" in *Bridging Marketing Theory and Practice Conference Proceedings*, eds S. Chetty, and B. Collins (Australian and New Zealand Marketing Academy), 1–1.
- Tsarenko, Y., Mavondo, F. T., and Gabbot, M. (2004). International and local student satisfaction: resources and capabilities

perspective. J. Mark. High. Educ. 14, 41-60. doi: 10.1300/J050v14n 01 03

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APPENDIX

APPENDIX | Measurement scales.

Organizational Image

IM1—It is a Faculty that is closely-related to its students

IM2-It is a Faculty oriented and concerned by its students

IM3—A good atmosphere is perceived in the Faculty

IM4-This Faculty has a good team of teaching staff, highly qualified and up-to-date (Quality of teaching staff)

IM5—It is a Faculty that provides good training

IM6-It is a faculty that provides practical training

IM7—This Faculty is recognized for its educational quality

IM8—The complementary courses offered by this Faculty are excellent

IM9-In general terms, teaching at the Faculty is good

IM10-Student information systems are good

IM11-It is a Faculty that is closely-related to society

IM12-It is a Faculty with prestige

IM13—The Faculty has a good reputation

IM14—This faculty has a good infrastructure (building) or facilities

IM15—This faculty has good material resources

IM16—This Faculty has a wide range of degrees

IM17-It is a modern Faculty

IM18-It is an Innovative Faculty

IM19-I perceive a good quality of the services provided in this Faculty

IM20—This Faculty has good administrative management

IM21-This Faculty shares Social Responsibility activities

IM22-It is a pleasant Faculty

IM23-It is a stimulating Faculty

IM24-It is a dynamic faculty

IM25-It is a cheerful Faculty

Satisfaction

S1-Your decision to have chosen the Faculty was the right one

S2-Your experience at the Faculty has met the expectations you had

S3-In general, you are satisfied with your decision of having chosen the Faculty to study

S-U Identification

SU1-When someone criticizes the Faculty you take it as a personal insult

SU2-You are interested in what people think about the Faculty

SU3-When you talk about the Faculty, you normally say "we"

SU4-When the Faculty is successful, you feel as if you have also been successful

 $\ensuremath{\mathsf{SU5}}\xspace-\ensuremath{\mathsf{When}}$ someone praises the Faculty, you take it as a personal compliment

 $\ensuremath{\mathsf{SU6}}\xspace-\ensuremath{\mathsf{It}}$ bothers you that some media news criticizes the Faculty

Loyalty

L1—If you had to take other courses, conferences or professional improvement studies, you would surely consider the Faculty as your first option

L2-If someone asked you for advice, you would recommend the Faculty

L3-If you had the opportunity, you would discuss positive things about the Faculty with your friends and family

L4-You would encourage family and friends to study at this Faculty

Deleted items are shown in italics.