frontiers | Frontiers in Education

TYPE Original Research
PUBLISHED 14 September 2022
DOI 10.3389/feduc.2022.929697

OPEN ACCESS

EDITED BY
Jorge Membrillo-Hernandez,
Monterrey Institute of Technology and Higher Education, Mexico

REVIEWED BY
Hafiez Sofyani,
Muhammadiyah University of Yogyakarta, Indonesia
Khaira Fachrudin,
University of North Sumatra, Indonesia

*CORRESPONDENCE
Anggraini Sukmawati
anggrainism@apps.ipb.ac.id

SPECIALTY SECTION
This article was submitted to Higher Education, a section of the journal Frontiers in Education

RECEIVED 27 April 2022
ACCEPTED 01 August 2022
PUBLISHED 14 September 2022

CITATION
Ramaditya M, Maarif MS, Affandi J and Sukmawati A (2022) Reinventing talent management: How to maximize performance in higher education. *Front. Educ.* 7:929697. doi: 10.3389/feduc.2022.929697

Reinventing talent management: How to maximize performance in higher education

Muhammad Ramaditya[1], Mohamad Syamsul Maarif[1], Joko Affandi[1] and Anggraini Sukmawati[2]*

[1]School of Business, IPB University, Bogor, Indonesia, [2]Faculty of Economic and Management, IPB University, Bogor, Indonesia

Talent management is considered a new organizational priority in managing people that both academicians and practitioners discuss. The purpose of this research was to examine the role of talent management (TM), knowledge management (KM), university transformation (UT), and academic climate (AC) in increasing the performance of private higher education institutions (PHEIs). This research applied a quantitative approach by collecting data from 382 lecturers who worked at various private universities in Indonesia. Online questionnaires were used to collect the data using a stratified random sampling method. Then these data were analyzed using Structural Equation Modeling–Partial Least Square. The findings indicated that systematic application of talent management and knowledge management, university transformation, and academic climate in PHEIs improves organizational performance. Developing a plan to transform their talent and the business process is the key to emphasizing its importance in shaping the character and quality of PHEIs. The practical implication, PHEIs must offer a conducive academic climate for talented lecturers. The study offers a value-add to the resource-based view theory, managing talent and knowledge as essential resources for organizational transformation to maximize organizational performance.

KEYWORDS

academic climate, human resource management, higher education performance, knowledge management, talent management, university transformation, strategic management

Introduction

Nobody would have expected that era of change could have created such a global change and uncertainty. According to Deschamps et al. (2020), the success of any organization depends on its ability to adapt to the changing business environment. For instance, era of change at places of work alters everything leading to the emergence of

a new team with unprecedented new talent (Diezmann, 2018). The challenge of this era of change has had a tremendous impact, especially on private higher education (*PHEIs*) because the funding for its activities comes from self-financing (Santoso, 2022). There is a decrease in the number of private universities in Indonesia which decreased from 2018 to 2020 due to several factors such as bankruptcy and mergers and acquisitions (Hidayat, 2020). The education sector is mainly concerned about technological developments and demands for the quality of graduates. However, higher education management faces challenges in planning and implementing the best strategy to sustain talents (Veiga et al., 2019). This shows the need for universities to transform by redesigning structures, systems, shared values, strategies, skills, and styles (Ravanfar, 2015).

The key to molding higher education performance involves managing two primary sources of organizational competitive advantage: knowledge and talent (Abdullah et al., 2020). Talent and knowledge management help improve rankings and profits (Hazelkorn, 2017). By utilizing organizational strategies with highly skilled employees, the talent management process is crucial to higher education institutions' long-term growth and success as an industry (Ming et al., 2016). Knowledge management is viewed as an integrated approach allowing organizations to meet the demands to increase competitiveness (Oktavia et al., 2017), which further results in high-quality educational outputs (Rambe and Mbeo, 2017). Therefore, a combination of talent and knowledge management helps transform and achieve improved academic performance and competitiveness (Kim et al., 2014).

Indonesia has been a G20 member and was seen as a rising nation in Asia with huge economic size and promise. Indonesia thus attends the G20 to represent a collection of emerging nations, Southeast Asia, and the Islamic world. In addition to having the potential to be a gift, the demographic benefit may also provide challenges. It all depends on whether people who are of working age (between the age of 28–45 years) will be productive when given access to proper training and education. Changes in higher education performance standards are required to meet workforce demand (Voet, 2014). Indonesia's higher education needs to create a transformation plan to adapt to the radical calls and attribute them to their operating environment by maximizing available resources (Abad-Segura et al., 2020). Also, higher education must recruit high-quality lecturers to help with the teaching and learning process, and innovation and provide solutions to the turbulent changes in the education environment (Farooq et al., 2017). Studies indicate that private universities strive for their financial resources, talented employees, high-quality lecturers, innovative research, good reputation, and status in national and international rankings (Sułkowski et al., 2019). As a result, these institutions must reconsider their governance and evaluate how they adapt to a quickly changing market (Vlachopoulos, 2021).

Previous studies have documented various findings on talent management in organizations (King and Vaiman, 2019; Narayanan et al., 2019; Whysall et al., 2019; Harsch and Festing, 2020). Although it is believed to have consequences on competitiveness (Kim et al., 2014; Harsch and Festing, 2020) and performance in general (Collings et al., 2019), this study covered some issues that have received less attention in the past. For instance, previous studies on talent management did not collect enough information on higher education performance (Farooq et al., 2017; Maghdomi and Keikha, 2017; Mohammed et al., 2020). Therefore, this study adds to the contribution of talent management in universities to prepare for higher performance and educational rankings. Besides, it elaborates on applying systematic talent management in an organization to support policies and strategies for change in higher education (Erasmus et al., 2017).

Some studies claim a solid link between talent and knowledge management (Sparrow and Makram, 2015; Osigwelem, 2017; Miiro and Otham, 2018; Mohammed, 2018; Paisey and Paisey, 2018; Abdullah et al., 2020). However, there is a lack of studies examining the relationship between talent management, knowledge management, university transformation, and academic climate. Thus, this study uncovers talent management as a unique organizational strategy mechanism that affects knowledge management, university transformation, and the intellectual environment of higher performance education. The application of talent management and other components can predict faculty members' research performance, leadership, teaching, and educational atmosphere for university performance (Maghdomi and Keikha, 2017). This study was conducted in Southeast Asia, where most higher learning institutions cannot perform well in the QS World University Ranking due to a lack of talent. The governments provide funding programs that have been carried out as initiatives to strengthen competence and insight or industrial experience for lecturers to improve the quality of the learning process and create quality human resources. But the results have not been seen because there is no comprehensive talent management practice in place. This article aims at giving insight into how private higher education institutions can survive by improving their performance. And also offers a value addition to the resource-based view theory, managing talent, and knowledge as essential resources for organizational transformation to maximize organizational performance. **Figure 1** shows the conceptual model of the study.

Theoretical background and hypothesis development

The resource-based view theory (RBV) used in this study emphasizes the importance of resources and capabilities in creating a competitive advantage. The approach provides a new

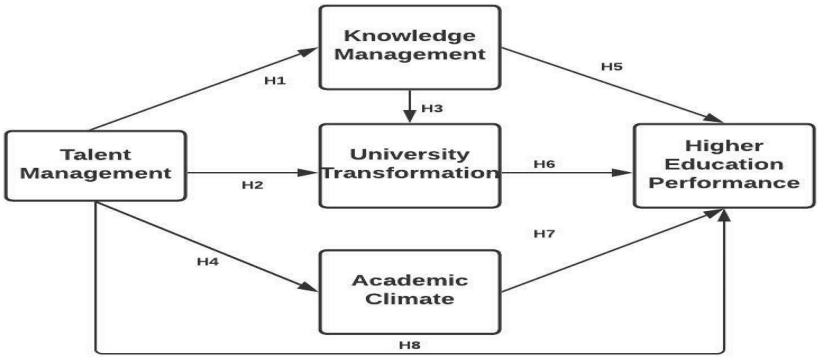

FIGURE 1
Conceptual model of the study.

explanation of talent management practice in organizations. In the 1990s, strategic organizational management shifted from an external focus to an internal focus (Wright et al., 1994). The external focus is based on the industry's strengths, weaknesses, opportunities, and threats. In contrast, the internal focus directs managerial attention to identifying assets, competencies, and capabilities to create a competitive advantage (Wright et al., 1994). Today, most of knowledge talent management methods are based on the resource-based model. Identifying and developing talent in human resource roles in organizations with several complicated positions in the global labor market provides a significant competitive advantage and increased performance (Muntean, 2014). The theory of resource-based view (RBV) is linked with talent management to create a sustainable competitive advantage, increasing customer satisfaction by showing their commitment to the organization (Al-Azzam and Al-Quraan, 2018).

Universities are knowledge-based organizations whose performance is mainly dependent on the teaching staff's expertise, competence, and excellence (Priyadarshini et al., 2016). According to the company's resource-based view, organizations must have valuable, rare, and non-replaceable resources to gain a competitive edge (Barney, 1991). Moreover, competition is growing in the higher education sector, and universities must attract and retain their valuable human resources to effectively adapt to the status of the job market (Anastasia et al., 2018). The RBV theory is essential for understanding knowledge management because it emphasizes that knowledge can represent capabilities, know-how, and organizational information. Creating and transferring this knowledge can lead to a competitive advantage (Hassan and Raziq, 2019). RBV theory enables knowledge transfer by promoting sustainable success at the individual level and across organizational units (Harzing et al., 2016). Strategy for dealing with human capital focuses on a more comprehensive approach to assist the organizations in maintaining a competitive advantage, not just on the necessity of employing, developing, and motivating employees (Suseno and Pinnington, 2017). Talented human resource is an essential factor in ensuring the success of any quality management efforts in the organization (Pantouvakis and Karakasnaki, 2017).

Talent management

Talent management is an integrated planning process, recruiting, developing, managing, and compensating employees (Sparrow and Makram, 2015). It is also defined as the process of recruiting, training, managing, developing, appraising, and maintaining the organization's most valuable talent (Polinia, 2017). Subsequently, knowledge management also contributes to organizational strategy formulation because of its vital role in decision making (Holsapple and Singh, 2001). There are three phases of decision making in complex situations; intelligence, conception, and selection processes.

The talent management process plays an important role in supporting knowledge creation strategies such as fostering knowledge creation and sharing knowledge (Whelan and Carcary, 2011). When the popularity of knowledge management in higher education increases, organizational knowledge in a higher education environment which allows it to become a learning organization can realize a competitive advantage in providing sustainable organizational performance (Karim and Majid, 2019). Successful employee knowledge needs to be transferred to improve talent management programs (Urbancová and Vnoucková, 2015).

Previous research describes the relationship between talent management practices in terms of talent identification. Therefore, talent development and talent culture seem to play an important role toward organizational knowledge transformation (Annakis et al., 2014). A study conducted on talent attraction and retention is strongly related to the degree to which organizations are accepted as having a change, quality, and technology-based culture, and is characterized

by support for creativity, open communication, effective knowledge management, and core values of respect and integrity (Kontoghiorghes, 2015). According to Mohammed (2018), the organizational strategy had a positive and significant impact on the talent and knowledge management processes in Australia's higher education sector. Talent management practices such as training and development, rewards and recognition have an effective influence on organizational performance (Kaliannan et al., 2016). Therefore, the talent management process is essential in supporting knowledge creation strategies and improved management (Whelan and Carcary, 2011; Kok and Lin, 2018). Based on the above, this leads to the following hypothesis:

> Hypothesis 1: Talent management is positively related to knowledge management.

Universities need to continually develop their talent to prepare effective knowledge management mechanisms, such as building networks to interact between individual talents to win the competition socially. Therefore, universities are interested in concentrating on talent-based knowledge management practices to gain a competitive transformation (Keat and Lin, 2017). Higher education transformation comes from the meaning of organizational transformation or change. This concept has existed since the 1970s until today. Higher education institutions must change to match the demands of technology to facilitate communication within the system itself and with the outside world (Farooq et al., 2017).

Higher education institutions need to rebrand, redesign, and restructure to suit the competitive changes in structures, systems, processes, staff, and norms (Voet, 2014). The relationship between talent management practices in talent development, talent retention, and non-financial reward plays an essential role in university transformation (Farooq et al., 2017). Therefore, we hypothesize as follows:

> Hypothesis 2: Talent management is positively related to university transformation.

Knowledge management

Knowledge management is a topic that is often in demand for research in the last 10 years (Quarchioni et al., 2020). Knowledge is a core competency, the primary source of competitive advantage and value creation for every organization worldwide (Liu et al., 2018). Knowledge management involves represented capabilities, know-how, and organizational information, creating and transferring expertise that results in competitive advantage (Hassan and Raziq, 2019).

In higher education, knowledge is generated from various activities such as teaching and learning processes, examinations, evaluations, counseling, training, research, consulting, and activity management (Dhamdhere, 2015). Organizational knowledge creates a competitive performance advantage (Karim and Majid, 2019). Many studies describe that knowledge is vital as a sustainable competitive advantage in higher education (Kanwal et al., 2019; Martins et al., 2019; Wu et al., 2019). Knowledge management involves represented capabilities, know-how, and organizational information, creating, and transferring expertise that results in competitive advantage (Hassan and Raziq, 2019). Organizational knowledge creates a competitive transformation (Karim and Majid, 2019). As a result, we come up with the following hypothesis:

> Hypothesis 3: Knowledge management is positively related to university transformation.

Academic climate

Academic climate includes atmosphere, culture, values, resources, social networks, and organizational, instructional, and interpersonal dimensions (Loukas and Murphy, 2007). Talent management aims to create sustainable organizational performance and outstanding performance following its operational and strategic objectives (Al Aina et al., 2020). Talent management has been expressed in the systematic perception of attracting, screening, and selecting suitable talent and engaging, developing, leading, and retaining talent. High-performing employees ensure a continuous flow of talent that can maintain their productivity (Thunnissen and Buttiens, 2017).

Talent management is possible in a conducive environment, and its provision is the responsibility of institutional leadership (Baporikar and Smith, 2019). On the other hand, institutional leadership refers to the top and middle management in universities who carry out management functions and inspire to realize the vision and mission of the university (Filho et al., 2020). In addition to being academics in their own right, they can inspire others by creating, supporting, and sustaining an environment for talent to thrive (Mohamed Jais et al., 2021). Consequently, we propose the following hypothesis:

> Hypothesis 4: Talent management is positively related to academic climate.

Higher education performance

The talent management strategy impacts an organization's performance (Powell et al., 2013; Miiro et al., 2016). The teaching and educational climate components have the most predictive function for university research performance (Maghdomi and Keikha, 2017). A study on talent attraction and retention presents the degree to which organizations are accepted as having support for climate, open communication, and core values (Kontoghiorghes, 2015).

Through practical knowledge management, universities can improve their processes and services such as teaching, learning, research, curriculum development, administration, and strategic planning (Ahmad et al., 2017), which in turn can improve the performance of these universities (Masa'deh et al., 2017). Several previous studies have proved the positive impact of knowledge management and organizational performance (Kianto et al., 2014; Dhamdhere, 2015; Fullwood et al., 2013; Ngah and Bontis, 2016; Shahzad et al., 2016; Rehman and Iqbal, 2020). Taking the above into account, we hypothesize:

> Hypothesis 5: Knowledge management is positively related to higher education performance.

Transformation in Universities requires organizational values, culture, structure, and routines (Spee, 2020). The results of previous studies show a positive relationship between talent management and university transformation in enhancing performance (Miiro and Otham, 2018). University transformation is the actual changing performance for higher education. Transformation is a strategy that requires a mindset, with many decisions and actions of a consistent nature directed at changing the business model and strategy of the organization's performance. The concept of university transformation mutually reinforces organizational achievement that increases performance (Azman et al., 2016). With the above review, we develop the following hypothesis:

> Hypothesis 6: University transformation is positively related to higher education performance.

A supportive environment indicates the overall support employees perceive as helping them successfully perform their job (Suifan, 2015). The relationship between the academic climate is believed to support organizational performance (Ingram, 2016; Musah et al., 2016). This study intends to contribute to the literature on student well-being and performance concerning the academic climate. Differences were observed in climate perception and academic performance in different classroom contexts. There were classes with a good climate associated with good university performance, and, conversely, students who scored low for perceived climate were associated with poor academic performance. However, strong correlations were observed between performance, well-being, and climate (Rania et al., 2014). Accordingly, we develop the following hypothesis:

> Hypothesis 7: Academic climate is positively related to higher education performance.

Talent management focusing on social capital-building practices is positively related to performance (Tatoglu et al., 2016). As proposed by prior studies, talent management has a significant association with higher education performance and is a critical source of high indicator for knowledge creation and information sharing (Whelan and Carcary, 2011; Kok and Lin, 2018). However, the impact of knowledge and talent management practices on organizational performance has not been thoroughly investigated (Kok and Lin, 2018). Previous research has also stated a positive relationship between talent management and higher education performance (Bradley, 2016; Hilman and Abubakar, 2017; Hongal and Kinange, 2020). As a consequence, we propose the following hypothesis:

> Hypothesis 8: Talent management is positively related to higher education performance.

Materials and methods

The design of this study was quantitative with descriptive and correlational explanations. Notably, Indonesia has many islands, making it impossible to collect data from the entire population due to resource and time constraints. According to Hair et al. (2010), the "10-times rule" method, which is based on the idea that the sample size should be greater than 10 times the maximum number of inner or outer model links pointing at any latent variable in the model, is a commonly used minimum sample size estimation method in PLS-SEM.

The higher education in Jakarta and its environmental area was chosen because the capital area is often a reference for the progress of higher education in Indonesia. In particular, the capital city was chosen because a lot of quality private universities are centralized in the area such as Binus University, Tarumanegara University, and Atma Jaya University that already entered QS Ranking. This research collected data from 382 lecturers who worked at various private universities. Online questionnaires were used to collect the data using a stratified random sampling method (proportional), with respondents divided into groupings of tertiary institutions in the form of universities with top tier to low accreditation as shown in **Table 1**. With a proportional or proportional distribution, the sample size for each level depends on the number of units in that level. Respondents are lecturers at the university who already have functional positions. Primary data were obtained directly from the lecturers as many as 376 respondents using the Slovin formula with a total population of 16,360, 95% confidence level, and 5% margin of error. The advantage of comparable allocation is the practicality of processing and tabulating survey results.

TABLE 1 Number of private higher education lecturers.

Institution	Accreditation	Lecture no	Calculation	Number of strata
University	A	2.613	(2.613/16.360)*376	60
University	B	12.600	(12.600/16/360)*376	289
University	C	1.147	(1.147/16.360)*376	27
Total		16.360		376
Number of respondents		376		376

Source: Human Resource Data Higher Education Service in Indonesia Capital City, 2021.

The respondents comprised 46.3% male and 53.7% female private university lecturers aged between 28 and 55 years. In addition, their level of education was Masters and Ph.D. holders with average occupation tenure of 5–10 years. Considering the time limitations, the study further used a cross-sectional design. The data were collected using a five-point Likert scale, one representing "strongly disagree" and five representing "strongly agree." A pilot study was undertaken to ensure that the questionnaire was valid for larger-scale research; we used Cronbach's alpha to establish the reliability, which is acceptable above the threshold of 0.7 (Hair, 1998; Gliem and Gliem, 2003). The questionnaire had been psychometrically validated and specifically designed for use within organizations. To ensure that the data are free from common method bias, we carry out a series of procedures to remedy it. First, we ensure that the questionnaire is anonymous to increase the objectivity of respondents' answers. Furthermore, a comprehensive collinearity test using PLS-SEM was used to investigate the common method variance (CMV) (Kock, 2017). No item has a variance inflation factor (VIF) > 3.3, according to the findings of the entire collinearity test, which demonstrates that CMV is not a severe danger to the data (Kock, 2017).

Measurement

Regarding the independent variable, a three-item scale developed by Mohammed (2018) was used to measure Talent Management (TM). In this regard, talent management was represented by several indicators, including talent development, talent retention, and non-financial rewards (Mohammed, 2018). Talent development is based on various sub-constructs such as social dominance, organizational excellence, performance management, identifying talent, and leadership development (Burnes and Cooke, 2012). Talent retention is measured through performance satisfaction, employee empowerment, and employee motivation (Mohammed, 2018).

The two constructs of knowledge transfer and knowledge sharing include knowledge management (KM) as a second dependent variable based on qualitative study (Mohammed, 2018). The university transformation questionnaire and its sub-dimensions were taken from Mehdi Ravanfar (2015) and Singh and Jain (2013). The four sub-constructs created from the above study include structure, strategy, shared values, and systems. The academic climate (AC) was adopted from Abdelmotaleb et al. (2013), representing lecture quality, curriculum, physical facilities, and managerial environment. The higher education performance (HEP) variable is a synchronized vital performance indicator by the ministry of education that has two subconstructs, namely, internal performance (input, process) and external performance (output, outcome) (Directorate General of Higher Education, 2020).

The test findings showed that all item values had a loading factor > 50, providing preliminary evidence for the measurement model's convergent validity. Composite reliability, which ranges from 0.76 to 0.96, indicates how construct indicators are expressed as part of latent variables. The results were higher than the suggested value of 0.7 (Hair et al., 2010). Subsequently, the average variance extracted (AVE) reflects the total number of variants in the indicator reflecting latent constructs; it met the recommended threshold of 0.5 in the study, indicating convergent validity (Fornell and Larcker, 1981; Hair et al., 2010). Following that, we looked at discriminant validity as proof of distinguishing between measures of distinct constructs (Hubley, 2014). **Table 2** indicates that the resulting correlation can test discriminant validity using the Fornell–Larcker criterion, which compares the AVE root value to the correlation between variables. Because the roots of AVE were all greater than the correlation between variables in the model, discriminant validity was acceptable (Hair et al., 2010).

Results

Outer model evaluation

Cronbach's alpha test results are given in **Table 1** for $TM = 0.826$; $AC = 0.845$; $KM = 0.867$; $UT = 0.92$; $AC = 0.850$. The tests incorporated in the multivariate factual examination include factor loadings, convergent validity, discriminant validity checks, and assessment of the structural equations model through evaluation of the explained variance (R^2), predictive relevance (Q^2), *t*-test (5,000 bootstrapping), and effect size (f^2) (Cohen, 1988; Hair et al., 2014). The examination was established using structural equation model–partial least

TABLE 2 Measurement variables.

Measurement		
Variable indicator		**Source**
Talent management	Talent attraction, talent development, and talent retention	Lyria et al., 2015; AlKerdawy, 2016; Nakhate, 2016; Mohammed et al., 2019
	Talent development	
	Talent retention	
Knowledge management	Knowledge transfer	Rhodes et al., 2008
	Knowledge creation	Li et al., 2009
University transformation	Structure, system, process, strategy, and foundation support	Ravanfar, 2015
Academic climate	Lecture, physical, subjects, and managerial environment	Abdelmotaleb et al., 2013
Higher education environment	Input, process, output, and outcome	BANPT, 2019

TABLE 3 Measurement model.

Construct	Item	Factor	CR	AVE	CA	Source
TM	TM1	0.935	0.923	0.801	0.874	Lyria et al., 2015; AlKerdawy, 2016; Nakhate, 2016; Mohammed et al., 2019
	TM2	0.803				
	TM3	0.940				
KM	KM1	0.935	0.937	0.882	0.867	Rhodes et al., 2008; Li et al., 2009
	KM2	0.943				
UT	UT1	0.959	0.962	0.927	0.921	Ravanfar, 2015
	UT2	0.966				
AC	AC1	0.762	0.905	0.762	0.845	Abdelmotaleb et al., 2013
	AC2	0.925				
	AC3	0.921				
HEP	HEP1	0.936	0.930	0.870	0.850	BANPT, 2019
	HEP2	0.929				

squares (Smart PLS v.3.2.8) IBM and SPSS v.21 software (Hair et al., 2017).

The convergent validity of the construct is still acceptable if the average variance retrieved is greater than 0.4 and composite reliability is higher than 0.6 (Fornell and Larcker, 1981; Lam, 2012; Hair et al., 2017). As shown in **Table 1**, all-composite reliability values are more than 0.80, indicating that all the five constructs (TM, KM, AC, UT, and HEP) are valid measurements. **Table 3** shows that when the value of T is within the range of 1.96, the link between factors is insignificant at 95%. When $T > 1.96$, the relationship between factors is substantial at the 95% confidence level. As a result, **Table 3** reveals that the relationships between all variables are significant.

Inner model evaluation and hypothesis testing

After the measurement model of PLS analysis, the structural equations model was calculated (Hair et al., 2017). As indicated in **Table 3**, the direct effect model was measured. Four criteria were used to examine both direct and indirect effects of structural equation models. (R^2) for endogenous latent variables are evaluated to determine the amount of variance in each construct, and impact size (f^2), estimate significance (Q^2), and path coefficient assessments (Hair et al., 2014). In a direct effect structural equations model, analysis was conducted to determine the impact of the 5,000 bootstrapped samples from the first 382 examples to offer point measurements of the change and estimate their significance (Hair et al., 2017).

The R^2 value describes the percentage of variation in endogenous variables that external factors may clarify (Hair et al., 2014). Although a satisfactory value of R^2 depends on the study setting (Cohen, 1988), values of 0.702, 0.744, and 0.490 express high, high, and moderate education performance, respectively. The R^2 value for an endogenous variable for the direct effect model is 0.762, implying that TM, KM, UT, and AC predict a 76.2% change in higher education performance. Moreover, in **Table 5** the R^2 for university transformation is 0.744, indicating that TM and KM explained 74.4% of the difference in university transformation. Also, a cross-validated redundancy measure (Q^2) was used to assess the research model's estimated relevance (Stone, 1974; Hair et al., 2017).

There was support for sufficient estimates significance of the direct effect model. **Figure 2** and **Table 4** show the values of Q^2 greater than zero ($Q^2 = 0.652$) for the endogenous latent variable the direct TM, KM, UT, and AC, recommending satisfactory predictive relevance of the model (Hair et al., 2017). From the **Table 6** results also support the H1, H2, H3, H4, H5,

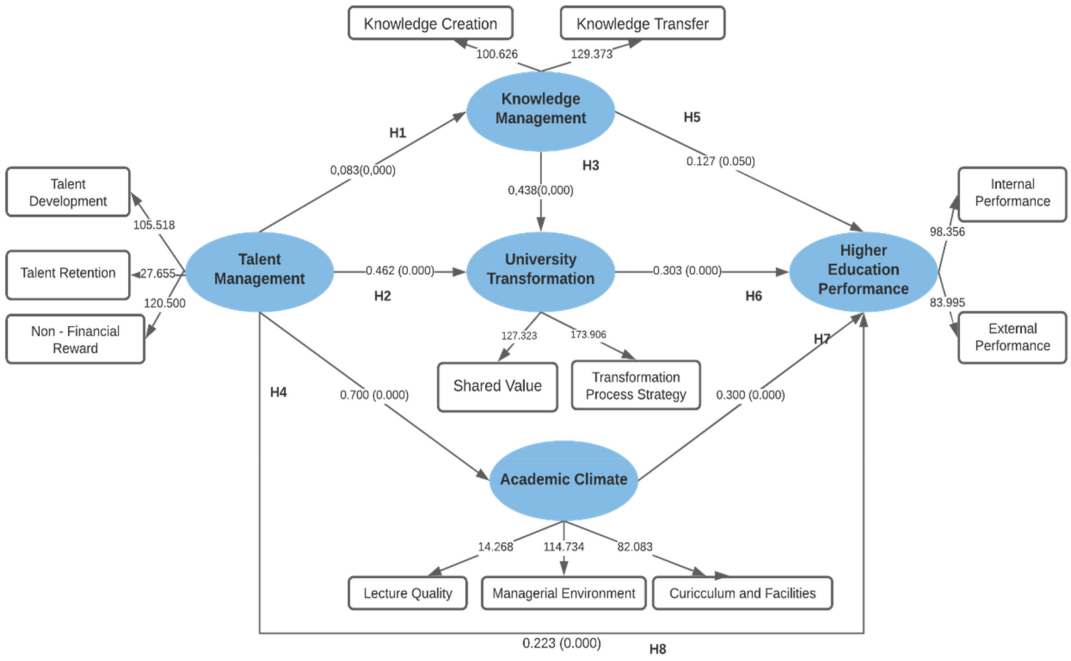

FIGURE 2
Structural equation model.

TABLE 4 Discriminant validity Fornell-Larcker criterion.

Discriminant validity Fornell-Larcker criterion

Construct	1	2	3	4	5
AC	0.873				
HEP	0.787	0.933			
KM	0.714	0.777	0.939		
TM	0.700	0.790	0.838	0.895	
UT	0.796	0.831	0.825	0.829	0.963

N = 382; items displayed in boldface represents the square root of the average variance extracted (AVE).

H6, H7, H8, and H9 the direct effect of TM to knowledge management (b = 0.838, t = 34.378, $p < 0.000$), TM to university transformation (b = 0.462, t = 8.544, $p < 0.000$), KM to university transformation (b = 0.462, t = 8.544, $p < 0.000$), TM to academic climate (b = 0.700, t = 19.995, $p < 0.000$), KM to higher education performance (b = 0.140, t = 1.963, $p < 0.050$), UT to higher education performance (b = 0.306, t = 3.925, $p < 0.000$), AC to higher education performance (b = 0.265, t = 5.438, $p < 0.000$), and TM to higher education performance (b = 0.206, t = 5.438, $p < 0.000$) all were positive and significant.

The effect size (F^2) is the direct influence of the independent (exogenous) variable on the dependent (endogenous) variable to determine how large the impact of the exogenous variable is on the endogenous variable (Cohen, 1988). Hair et al. (2017) describe (f^2) estimations with small, medium, and significant

TABLE 5 Coefficient of determination in the partial least square method.

Construct	R^2	R^2 adjusted	Q^2
Knowledge management	0.702	0.701	0.613
University transformation	0.744	0.743	0.677
Academic climate	0,490	0,489	0.357
Higher education performance	0.762	0.760	0.652

effects as 0.016, 0.050, and 0.077, respectively. Table 3 reveals that the impact size of TM on higher education performance is 0.223, 0.127 for KM, and 0.303 for university transformation to higher education performance. As a result, the exogenous constructs' impact on endogenous constructs is modest and high, respectively (Cohen, 1988).

Discussion

The primary purpose of this study was to examine the relationship between talent management, knowledge management, university transformation, and academic climate with higher education performance in the context of the private education sector in Indonesia. The results revealed through structural equation modeling that the components of development, retention by giving a non-financial reward, creating, transferring knowledge, structure, strategy, shared

TABLE 6 Results of the structural equations model.

Relationship between variables of research	SD	*T*-value	Direct effect	*p*-values	F^2
TM → KM	0,024	34,378	0.838	0,000	2,352
TM → UT	0,056	8,544	0,462	0,000	0,248
KM → UT	0,057	8,018	0,438	0,000	0,224
TM → AC	0,035	19,995	0.700	0,000	0.961
KM → HEP	0,065	1,963	0,140	0,050	0,016
UT → HEP	0,080	3,925	0,306	0,000	0,077
AC → HEP	0,058	5,438	0,265	0,000	0,134
TM → HEP	0,063	3,565	0,206	0,000	0,050

value, lecture quality, curriculum, facilities, and managerial environment helps in achieving high performance in education. It also clarifies the role of talent management in enhancing knowledge management, university transformation, and academic climate in private universities, which lead to increased higher education performance. The results also successfully justified the gap in the previous study (Bolander et al., 2017; Erasmus et al., 2017; Farooq et al., 2017; Maghdomi and Keikha, 2017; Miiro and Otham, 2018; Mohammed, 2018; Mohammed et al., 2020) by showing the significant relationship between talent management, knowledge management, university transformation, academic climate, and higher performance in education.

Hazelkorn (2017), Masa'deh et al. (2017), Rambe and Mbeo (2017), Paisey and Paisey (2018), and Karim and Majid (2019) observed the importance of managing talent and knowledge in enhancing higher education performance in the modern globalization era. The study indicated that skills and knowledge management are significant factors in achieving higher education performance. Moreover, Ravanfar (2015) and Ingram (2016) demonstrated that transforming a private university by redesigning structures, systems, shared values, and strategies, and creating academic climate styles impacting organizational performance. This study also supports previous investigations that the educational climate in higher education improves overall students' performance and satisfaction (Mcmurray et al., 2004; Musah et al., 2016). Additionally, academic climate determines the study and research environment where lecturers and students feel satisfied or dissatisfied. Since satisfaction affects employee efficiency, it is assumed that academic climate is directly related to organizational performance (Shahin et al., 2014). Thus, academic climate influences human behavior in organizations by impacting their performance, satisfaction, and attitudes.

This study has provided a theoretical implication by giving further empirical evidence on resource-based view theory, where talent and knowledge management have been hypothesized as a resource for university transformation. Similarly, the results showed that university transformation involves ongoing direction reviews, structure, systems, strategies, values, personnel competencies, and skills to adapt to the changing organizational environment to promote growth and new knowledge (Burnes and Cooke, 2012; Canterino et al., 2018). Previous studies also emphasize three main managerial drivers related to the transformation process: communication, mobilizing process strategy, and evaluating structure (Battilana et al., 2010).

Since talent and knowledge management studies, university transformation, and academic climate are limited in the RBV literature, the outcomes of this study may contribute to the literature and provide a basis for future studies. Besides, most higher education institutions in Indonesia are privately owned. Therefore, investing in employee resources for talent and knowledge management and creating university transformation is highly challenging. As indicated by the outcomes, it is proposed that private university leaders provide mechanisms in which students and lecturers receive all essential information (Acosta et al., 2018). Subsequently, private universities are recommended to support the procedure of creating and transforming information to achieve a competitive advantage and build robust structures.

Private universities must create strategies to boost significant performance growth by offering a conducive academic climate with talented lecturers. This is because talent development is a crucial strategic approach to promoting transformation and performance. The suggested private universities' development plan involves hosting recognitions and rewards, providing feedback, mentorship, and acknowledging the contribution of lecturers. Private universities also need to build innovative standards and structures to align learning to the changing students' needs. Furthermore, these universities should create a system that promotes interdepartmental collaboration to determine the best strategies for retaining lecturer talents (Narayanan et al., 2019; Mohammed et al., 2020).

Talent management requires a supportive higher education academic climate. To achieve high performance, universities should create an environment that supports their lecturers' creativity (Ingram, 2016). The superiority of universities in attracting talent depends on the climate and reputation (Abdullah et al., 2020). Hence, the academic climate can support intrinsic motivation by developing skills (Van den Broek et al., 2018). Developing a plan to transform their talent and the business process is a priority for the sustainable performance

in higher education. The role of talent management, knowledge management, and the academic climate of higher education is the key to emphasizing its importance in shaping the character and quality of higher education.

Leaders in private higher education are responsible for talent management in universities (not just the HR management department). When talent management is seen only as a HR function, then the leadership abdicates responsibility. Leaders in private universities should feel a responsibility to develop their talents, not just look at the result. One way to get started is to form a committee chaired by the chief executive who also includes the head of the human resource division. In addition, spread the urgency of talent management implementation in higher education. Because not all department heads believe that developing talent is an important part of their job.

Higher education in Indonesia needs to stop hiding potential talent. Hoarding lecturers who have great potential is an ongoing problem because leaders or heads of relevant sections are very protective of their own best talents or are not given the opportunity and also create a plan to develop future leadership skills. Smart leaders create systems for developing norms that treat high-potential talent as a potential higher education resource.

Managerial implications

This study explores the strategies including academic climate, talent management, knowledge management, and university transformation. This can be used to improve success in higher education. In talent management, it is expected that private universities can carry out talent development with programs to improve career development policies, maintain work balance, pay attention to working conditions, conduct training, improve lecturers' skills and competencies, and create development programs that utilize the skills of lecturers. Furthermore, talent retention programs need to be developed to keep qualified lecturers from leaving the organization. Several things that need to be done by private universities are to have a competitive compensation system, strive to maintain talented lecturers, and always maintain employee motivation by providing challenges to maintain the rhythm of working at the university. In addition, the role of non-financial award for talents is also needed.

Conclusion

Implementing talent management, knowledge management, university transformation, and academic climate significantly improves higher education performance. Universities can follow the strategic design in this study to achieve superior performance in higher education.

This study provides a new strategic perspective to comprehending performance, emphasizing that university leaders are in charge of managing talent and having the mindset (mindset) of the talent management implementation team in universities, mapping and developing the high potential lecturers, developing future leadership skills, and performance management of higher education talent needed to be implemented. This study also provides recommendations for maximizing the role of human resource management to increase potential and achieve higher education performance.

Limitations and future directions

The study was faced with various limitations, showing the need for further investigations. First, the sample size was limited to private universities based in Indonesia. Therefore, future studies should use a broader representation of higher education institutions in other geographic locations. Second, this study used a single data source and a cross-sectional design, leading to a common bias, and generalization between variables. Future studies, then, should use a longitudinal design to obtain data from various sources. Also, a longitudinal approach with a larger sample should be considered to improve generalizability. Future research could include interviews with a representative sample of different stakeholders (i.e., owners, customers, government, and associations) to obtain more information. Second, it focuses on a single country context, which may limit its generalizability. Exploring the same problem in a multi-country context will be interesting and important.

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 to participate in this study was not required from the participants 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.

Funding

This Research is supported by the Indonesia Endowment Fund for Education (LPDP) as scholarship provider from the Ministry of Finance, Indonesia.

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.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/feduc.2022.929697/full#supplementary-material

References

Abad-Segura, E., González-Zamar, M. D., Infante-Moro, J. C., and García, G. R. (2020). Sustainable management of digital transformation in higher education: Global research trends. *Sustainability* 12:2107. doi: 10.3390/su12052107

Abdelmotaleb, Moustafa, Saha, and Sudhir. (2013). The role of academic self-efficacy as a mediator variable between perceived academic climate and academic performance. *J. Educ. Learn.* 2, 117–129. doi: 10.5539/jel.v2n3p117

Abdullah, M. A., Hafeez, B. A., and Gururajan, R. (2020). "Talent management as a core source of innovation and social development in higher education," in *Innovations in Higher Education - Cases on Transforming and Advancing Practice [Working Title]*, eds D. Parrish and J. Joyce-McCoach (Norderstedt: Books on Demand), doi: 10.5772/intechopen.81377

Acosta, A. S., Crespo, A. H., and Agudo, J. C. (2018). Effect of market orientation, network capability and entrepreneurial orientation on international performance of small and medium enterprises (SMEs). *Int. Bus. Rev.* 27, 1128–1140. doi: 10.1016/j.ibusrev.2018.04.004

Ahmad, N., Lodhi, M. S., Zaman, K., and Naseem, I. (2017). Knowledge management: A gateway for organizational performance. *J. Knowl. Econ.* 8, 859–876. doi: 10.1007/s13132-015-0282-3

Al Aina, Riham, Atan, and Tarik. (2020). The impact of implementing talent management practices on sustainable organizational performance. *Sustainability* 12:8372. doi: 10.3390/su12208372

Al-Azzam, Z., and Al-Quraan, A. (2018). T1 – How knowledge management mediates the strategic role of talent management in enhancing customers' satisfaction. *SSRN Electron. J.* doi: 10.2139/ssrn.3364693

AlKerdawy, M. M. A. (2016). The relationship between human resource management ambidexterity and talent management: The moderating role of electronic human resource management. *Int. Bus. Res.* 9:80. doi: 10.5539/ibr.v9n6p80

Anastasia, M., Lytras, M. D., and Papadopoulou, D., and Marouli, C. (2018). *Active Learning Strategies in Higher Education*. Bingley: Emerald Group Publishing.

Annakis, D. J., Dass, D. M., and Isa, A. (2014). Exploring factors that influence talent management competency of academics in Malaysian GLC's and non-government universities. *J. Int. Bus. Econ.* 2, 163–185. doi: 10.15640/jibe.v2n4a9

Azman, N., Sirat, M., and Pang, V. (2016). Managing and mobilising talent in Malaysia: Issues, challenges and policy implications for Malaysian universities. *J. High Educ. Policy Manag.* 38, 316–332. doi: 10.1080/1360080X.2016.1174406

BANPT (2019). *Akreditasi Perguruan Tinggi: Kriteria Dan Prosedur Iapt 3.0*. Jakarta: Banpt.

Baporikar, N., and Smith, A. (2019). Talent management in higher education institution. *Int. J. Appl. Manag. Sci. Eng.* 6, 36–57. doi: 10.4018/ijamse.2019070103

Barney, J. (1991). Firm resources and sustained competitive advantage. *J. Manage.* 17, 99–120. doi: 10.1177/014920639101700108

Battilana, J., Gilmartin, M., Sengul, M., Pache, A.-C., and Alexander, J. A. (2010). Leadership competencies for implementing planned organizational change. *Leadersh. Q.* 21, 422–438. doi: 10.1016/j.leaqua.2010.03.007

Bolander, P., Werr, A., and Asplund, K. (2017). The practice of talent management: A framework and typology. *Pers. Rev.* 46, 1523–1551. doi: 10.1108/PR-02-2016-0037

Bradley, A. (2016). Talent management for universities. *Aust. Univ. Rev.* 58, 13–19.

Burnes, B., and Cooke, B. (2012). Review Article: The past, present and future of organization development: Taking the long view. *Hum. Relat.* 65, 1395–1429. doi: 10.1177/0018726712450058

Canterino, F., Cirella, S., and Shani, A. B. (2018). Leading organizational transformation: an action research study. *J. Manag. Psychol.* 33, 15–28. doi: 10.1108/JMP-12-2016-0393

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New York, NY: Routledge Academic.

Collings, D. G., Mellahi, K., and Cascio, W. F. (2019). Global talent management and performance in multinational enterprises: A multilevel perspective. *J. Manag.* 45, 540–566. doi: 10.1177/0149206318757018

Deschamps, N., Bovis, B., Jonk, G., Gaberman, I., and Aurik, J. C. (2020). *The future of change, a new formula for a new era*. Chicago, IL: Kearney.

Dhamdhere, S. N. (2015). Importance of knowledge management in higher education. *Inst. Turkish Online J. Distance Educ.* 16, 161–183. doi: 10.17718/tojde.34392

Diezmann, C. (2018). Understanding research strategies to improve ERA performance in Australian universities: circumventing secrecy to achieve success. *J. High. Educ. Policy Manag.* 40, 1–21. doi: 10.1080/1360080X.2018.1428411

Directorate General of Higher Education (2020). *Free Learning Guidebook - Merdeka Campus*. New Delhi: Ministry of Education and Culture.

Erasmus, B., Naidoo, L., and Joubert, P. (2017). Talent management implementation at an open distance e-learning higher educational institution: The views of senior line managers. *Int. Rev. Res. Open Distance Learn.* 18, 83–98. doi: 10.19173/irrodl.v18i3.2957

Farooq, M., Othman, A., Nordin, M. S., and Ibrahim, M. B. (2017). Analysing the relationship between sustainable leadership, talent management and organization health as predictors of university transformation. *J. Posit. Manag.* 8:32. doi: 10.12775/JPM.2017.003

Filho, W. L., Eustachio, J. H. P. P., Caldana, A. C. F., Will, M., Salvia, A. L., Rampasso, I. S., et al. (2020). Sustainability leadership in higher education institutions: An overview of challenges. *Sustainability* 12:3761. doi: 10.3390/su12093761

Fornell, C. G., and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *J. Market. Res.*, 18, 39–50. doi: 10.1177/002224378101800104

Fullwood, R., Rowley, J., and Delbridge, R. (2013). Knowledge sharing amongst academics in UK universities. *J. Knowl. Manag.* 17, 123–136. doi: 10.1108/13673271311300831

Gliem, J. A., and Gliem, R. R. (2003). "Calculating, interpreting, and reporting cronbach's alpha reliability coefficient for Likert-type scales," in *Proceedings of the Midwest Research-to-Practice Conference in Adult, Continuing, and Community*, Muncie.

Hair, J. F. Jr., (1998). *Multivariate data analysis with readings.* Englewood Cliffs, NJ: Prentice-Hall.

Hair, J. F., Hult, G. T. M., Ringle, C. M., and Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM),* 2nd Edn. Thousand Oaks, CA: Sage Publications Inc.

Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E. (2010). *Multivariate Data Analysis*, 7th Edn. Upper Saddle River, NJ: Prentice Hall.

Hair, J. F., Hult, G. T. M., Ringle, C. M., and Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural*. Thousand Oaks, CA: SAGE.

Harsch, K., and Festing, M. (2020). Dynamic talent management capabilities and organizational agility—A qualitative exploration. *Hum. Resour. Manag.* 59, 43–61. doi: 10.1002/hrm.21972

Harzing, A. W., Pudelko, M., and Sebastian, R. B. (2016). The bridging role of expatriates and inpatriates in knowledge transfer in multinational corporations. *Hum. Resour. Manag.* 55, 679–695. doi: 10.1002/hrm.21681

Hassan, N., and Raziq, A. (2019). Effects of knowledge management practices on innovation in SMEs. *Manag. Sci. Lett.* 9, 997–1008. doi: 10.5267/j.msl.2019.4.005

Hazelkorn, E. (2017). *Rankings and Higher Education: Reframing Relationships Within and Between States*. Oxford: Centre for Global Higher Education.

Hidayat, R. (2020). Investasi sumberdaya dan kapabilitas perguruan tinggi untuk mencapai keunggulan bersaing secara berkelanjutan pada era disrupsi. *SEGMEN J. Manajemen Bisnis* 16. ***.

Hilman, H., and Abubakar, A. (2017). Strategic talent management and university performance: A theoretical perspective. Eur. *J. Bus. Manag.* 9, 2222–2839.

Holsapple, C., and Singh, M. (2001). Knowledge chain model: Activities for competitiveness. *Expert. Syst. Appl.* 20, 77–98. doi: 10.1016/S0957-4174(00)00050-6

Hongal, P., and Kinange, D. U. (2020). A study on talent management and its impact on organization performance – an empirical review. *Int. J. Eng. Manag. Res.* 10, 64–71. doi: 10.31033/ijemr.10.1.12

Hubley, A. M. (2014). "Discriminant Validity," in *Encyclopedia of Quality of Life and Well-Being Research*, ed. A. C. Michalos (Dordrecht: Springer). doi: 10.1007/978-94-007-0753-5_751

Ingram, T. (2016). Relationships between talent management and organizational performance: The role of climate for creativity. *Entrep. Bus. Econ. Rev.* 4, 195–205. doi: 10.15678/EBER.2016.040315

Kaliannan, M., Abraham, M., and Ponnusamy, V. (2016). Effective talent management in Malaysian SMES: a proposed framework. *J. Dev. Areas* 50, 393–401. doi: 10.1353/jda.2016.0071

Kanwal, S., Nunes, M. B., and Arif, M. (2019). Knowledge management practice in South Asian higher education institutions. *IFLA J.* 45, 309–321. doi: 10.1177/0340035219876958

Karim, D. N., and Majid, A. H. A. (2019). "Barriers to knowledge sharing among academics in tertiary institutions, in *Proceedings of the First International Conference on Materials Engineering and Management - Management Section (ICMEMm 2018)*. (Indonesia: University Hasanuddin). doi: 10.2991/icmemm-18.2019.1

Keat, K. K., and Lin, A. (2017). "Mediation effects of knowledge management in the relationship between managing talent and private colleges performance," in *Proceedings of the 3rd international conference on advanced research in business and social sciences,* 289–296.

Kianto, A., Ritala, P., Spender, J. C., and Vanhala, M. (2014). The interaction of intellectual capital assets and knowledge management practices in organizational value creation. *J. Intellect. Cap.* 15, 362–375. doi: 10.1108/JIC-05-2014-0059

Kim, Y., Williams, R., Rothwell, W. J., and Penaloza, P. (2014). A strategic model for technical talent management: a model based on a qualitative case study. *Perform. Improv. Q.* 26, 93–121. doi: 10.1002/piq.21159

King, K. A., and Vaiman, V. (2019). Enabling effective talent management through a macro-contingent approach: A framework for research and practice. *BRQ Bus. Res. Q.* 22, 194–206. doi: 10.1016/j.brq.2019.04.005

Kock, N. (2017). "Common method bias: A full collinearity assessment method for PLS-SEM BT," in *Partial Least Squares Path Modeling: Basic Concepts, Methodological Issues and Applications*, eds H. Latan and R. Noonan (Cham: Springer), 245–257. doi: 10.1007/978-3-319-64069-3_11

Kok, K. K., and Lin, A. (2018). The relationship between knowledge management and organizational performance of malaysian private colleges: A mediating role of managing talent practices. *Adv. Econ. Bus.* 6, 81–89. doi: 10.13189/aeb.2018.060201

Kontoghiorghes, C. (2015). Linking high performance organizational culture and talent management: satisfaction/motivation and organizational commitment as mediators. *Int. J. Hum. Resour. Manag.* 27, 1–21. doi: 10.1080/09585192.2015.1075572

Lam, L. W. (2012). Impact of competitiveness on salespeople's commitment and performance. *J. Bus. Res.* 65, 1328–1334. doi: 10.1016/j.jbusres.2011.10.026

Li, Y.-H., Huang, J.-W., and Tsai, M.-T. (2009). 'Entrepreneurial orientation and firm performance: The role of knowledge creation process'. *Indus. Market. Manag.* 38, 440–449. doi: 10.1016/j.indmarman.2008.02.004

Liu, Y., Chan, C., Zhao, C., and Liu, C. (2018). Unpacking knowledge management practices in China: Do institution, national and organizational culture matter? *J. Knowl. Manag.* 23, 619–643.

Loukas, A., and Murphy, J. L. (2007). Middle school student perceptions of school climate: Examining protective functions on subsequent adjustment problems. *J. Sch. Psychol.* 45, 293–309. doi: 10.1016/j.jsp.2006.10.001

Lyria, R., Namusonge, G., and Karanja, K. (2015). *Effect of talent management on organizational performance in companies listed in nairobi securities exchange in kenya.* Ph.D. thesis. Juja: Jomo Kenyatta University of Agriculture and Technology.

Maghdomi, M., and Keikha, A. (2017). Talent management system and its effect on the research performance of universities. *Int. J. Econ. Perspect.* 11, 1223–1229.

Martins, V. W. B., Rampasso, I. S., Anholon, R., Quelhas, O. L. G., and Leal Filho, W. (2019). Knowledge management in the context of sustainability: Literature review and opportunities for future. *J. Clean. Prod.* 229, 489–500. doi: 10.1016/j.jclepro.2019.04.354

Masa'deh, R., Shannak, R., Maqableh, M., and Tarhini, A. (2017). The Impact of Knowledge Management on Job Performance in Higher Education: The Case of the University of Jorand. *J. Enterp. Inf. Manag.* 30, 244–262. doi: 10.1108/JEIM-09-2015-0087

Mcmurray, A., Scott, D., and Pace, R. (2004). The relationship between organizational commitment and organizational climate in manufacturing. *Hum. Resour. Dev. Q.* 15, 473–488. doi: 10.1002/hrdq.1116

Mehdi Ravanfar, M. (2015). *Analyzing organizational structure based on 7s model of mckinsey. Global journal of management and business research.* Available online at: https://journalofbusiness.org/index.php/GJMBR/article/view/1792

Miiro, F., Azam, O., Mohamad, S. N., and Mohd, B. I. (2016). a Measurement Model of Talent Management Practices Among University Staff in Central Region of Uganda. *J. Posit. Manag.* 7, 3–19. doi: 10.12775/JPM.2016.013

Miiro, F., and Otham, A. (2018). *Talent management practices a trajectory and ingenuity in higher education institutions: A meta-analysis review of literature.* Berlin: Springer Proc Complex.

Ming, C. W., Didik, N., and Siti, Z. (2016). Integrating The talent management program as a new concept to develop a sustainable resource at Heis. *Int. J. Organ. Innov.* 8, 146–160.

Mohammed, A. A. (2018). *An Investigation Into the Relationship Between Talent Management Processes and Knowledge Management Processes: A Case of the Higher Education Sector in Queensland, Australia*. Ph.D. thesis. Darling Heights, QLD: University of Southern Queensland Australia.

Mohammed, A. A., Baig, A. H., and Gururajan, R. (2019). The effect of talent management processes on knowledge creation. *J. Ind. Collab.* 1, 132–152. doi: 10.1108/jiuc-05-2019-0010

Mohammed, A. A., Baig, A. H., and Gururajan, R. (2020). An examination of talent management processes in Australian higher education. *Int. J. Product. Perform. Manag.* 69, 1271–1299. doi: 10.1108/IJPPM-10-2018-0352

Mohamed Jais, I. R., Yahaya, N., and Ghani, E. K. (2021). Talent management in higher education institutions: Developing leadership competencies. *J. Educ. E-Learn. Res.* 8, 8–15. doi: 10.20448/JOURNAL.509.2021.81.8.15

Muntean, S. (2014). Talent management and its contributions to the performance of the multinational organizations. *Manag. Econ.* 3:300.

Musah, M. B., Ali, H. M., Vazhathodi al-Hudawi, S. H., Tahir, L. M., Daud, K. B., Said, H. B., et al. (2016). Organisational climate as a predictor of workforce performance in the Malaysian higher education institutions. *Qual. Assur. Educ.* 24, 416–438. doi: 10.1108/QAE-10-2014-0048

Nakhate, V. (2016). Critical Assessment of Fredrick Herzberg's Theory of Motivation with Reference to Changing Perception of Indian Pharma Field Force in Pune Region. *Int. J. Bus. Manag.* 4, 182–190.

Narayanan, A., Rajithakumar, S., and Menon, M. (2019). Talent management and employee retention: An integrative research framework. *Hum. Resour. Dev. Rev.* 18, 228–247. doi: 10.1177/1534484318812159

Ngah, R., and Bontis, N. (2016). Knowledge management capabilities and organizational performance in roads and transport authority of Dubai: The mediating role of learning organization. *Knowl. Process. Manage.* 23, 184–193.

Oktavia, T., Spits, W. H. L. H., and Adi, S. (2017). Integration Model of Knowledge Management and Social Media for Higher Education. *Telkomnika* 15, 678–685. doi: 10.12928/telkomnika.v15i2.3491

Osigwelem, K. U. (2017). *Exploring the application of profile theory based strategy for managing talent positioning in a nigerian higher education institution.* Ph.D. thesis. Sunderland: University of Sunderland.

Paisey, C., and Paisey, N. J. (2018). Talent management in academia: the effect of discipline and context on recruitment. *Stud. High. Educ.* 43, 1196–1214. doi: 10.1080/03075079.2016.1239251

Pantouvakis, A., and Karakasnaki, M. (2017). Role of the human talent in total quality management–performance relationship: an investigation in the transport sector. *Total Qual. Manag. Bus. Excell.* 28, 959–973. doi: 10.1080/14783363.2017.1303873

Polinia, A. C. (2017). *Managers' Responses to Formal and Informal Talent Management Practices: An Exploratory Mixed Methods Study*. San Diego, CA: University of San Diego.

Powell, M., Duberley, J., Exworthy, M., Macfarlane, F., and Moss, P. (2013). Has the British National Health Service (NHS) got talent? A process evaluation of the NHS talent management strategy? *Policy Stud.* 34, 291–309. doi: 10.1080/01442872.2013.798533

Priyadarshini, C., Mamidenna, S., and Sayeed, O. (2016). Identifying dimensions of employer attractiveness in Indian universities: an approach towards scale development. *J. Asia Bus. Stud.* 10, 183–193. doi: 10.1108/JABS-02-2015-0023

Quarchioni, S., Paternostro, S., and Trovarelli, F. (2020). Knowledge management in higher education: A literature review and further research avenues. *Knowl. Manag. Res. Pract.* 20, 1–16. doi: 10.1080/14778238.2020.1730717

Rambe, P., and Mbeo, M. (2017). Technology-enhanced knowledge management framework for retaining research knowledge among University Academics. *J. Econ. Behav. Stud.* 9:189. doi: 10.22610/jebs.v9i1.1572

Rania, N., Siri, A., Bagnasco, A., Aleo, G., and Sasso, L. (2014). Academic climate, well-being and academic performance in a university degree course. *J. Nurs. Manag.* 22, 751–760. doi: 10.1111/j.1365-2834.2012.01471.x

Ravanfar, M. M. (2015). Analyzing Organizational Structure based on 7s model of McKinsey. *Int. J. Acad. Res. Bus. Soc. Sci.* 5:1591. doi: 10.6007/IJARBSS/v5-i5/1591

Rehman, U. U., and Iqbal, A. (2020). Nexus of knowledge-oriented leadership, knowledge management, innovation and organizational performance in higher education. *Bus. Process. Manage.* 28, 1731–1758.

Rhodes, J., Hung, R., Lok, P., Ya-Hui Lien, B., and Wu, C.-M. (2008). 'Factors influencing organizational knowledge transfer: implication for corporate performance'. *J. Knowl. Manag.* 12, 84–100. doi: 10.1108/13673270810875886

Santoso, H. (2022). *Bantu dapat tambahan pendanaan, PTS butuh kembangkan pembiayaan mandiri. Suara merdeka.* Available online at: https://www.suaramerdeka.com/pendidikan/pr-042

Shahin, A., Shabani, N. J., and Khazaei, P. J. (2014). Developing a model for the influence of perceived organizational climate on organizational citizenship behaviour and organizational performance based on balanced score card. *Int. J. Product. Perform. Manag.* 63, 290–307. doi: 10.1108/IJPPM-03-2013-0044

Shahzad, K., Bajwa, S. U., Siddiqi, A. F. I., Ahmid, F., and Sultani, A. R. (2016). Integrating knowledge management (KM) strategies and processes to enhance organizational creativity and performance: An empirical investigation. *J. Model Manag.* 11, 154–179. doi: 10.1108/JM2-07-2014-0061

Singh, J., and Jain, M. (2013). A study of employees' job satisfaction and its impact on their performance. *J. Indian Res.* 1, 105–111.

Sparrow, P., and Makram, H. (2015). What is the value of talent management? Building value-driven processes within a talent management architecture. *Hum. Resour. Manag. Rev.* 25, 249–263. doi: 10.1016/j.hrmr.2015.04.002

Spee, J. C. (2020). Transformation and resilience at the university of redlands. *J. Manag. Inq.* 29, 139–144. doi: 10.1177/1056492619866262

Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *J. R. Stat. Soc. Ser. B* 36, 111–147. doi: 10.1111/j.2517-6161.1974.tb00994.x

Suifan, T. S. (2015). The Impact of organizational climate and psychological capital on organizational citizenship behavior. *Int. J. Bus. Manag.* 11:224. doi: 10.5539/ijbm.v11n1p224

Sułkowski, Ł., Fijałkowska, J., and Dzimińska, M. (2019). Mergers in higher education institutions: a proposal of a novel conceptual model. *Manag. Fin.* 45, 1469–1487. doi: 10.1108/MF-01-2018-0048

Suseno, Y., and Pinnington, A. H. (2017). The war for talent: human capital challenges for professional service firms. *Asia Pacific. Bus. Rev.* 23, 205–229. doi: 10.1080/13602381.2017.1287830

Tatoglu, E., Glaister, A. J., and Demirbag, M. (2016). Talent management motives and practices in an emerging et: A comparison between MNEs and local firms. *J. World Bus.* 51, 278–293. doi: 10.1016/j.jwb.2015.11.001

Thunnissen, M., and Buttiens, D. (2017). Talent management in public sector organizations: A study on the impact of contextual factors on the TM approach in flemish and dutch public sector organizations. *Public Pers. Manage.* 46, 391–418. doi: 10.1177/0091026017721570

Urbancová, H., and Vnoucková, L. (2015). Application of talent and knowledge management in the Czech and Slovak Republics: First empirical approaches. *Econ. Ann.* 60, 105–137. doi: 10.2298/EKA1505105U

Van den Broek, J., Boselie, P., and Paauwe, J. (2018). Cooperative innovation through a talent management pool: A qualitative study on coopetition in healthcare. *Eur. Manag. J.* 36, 135–144. doi: 10.1016/j.emj.2017.03.012

Veiga, ÁL., Beuron, T. A., Brandli, L. L., Damke, L. I, Pereira, R. S., and Klein, L. L. (2019). Barriers to innovation and sustainability in universities: an international comparison. *Int. J. Sustain. High. Educ.* 20, 805–821. doi: 10.1108/IJSHE-02-2019-0067

Vlachopoulos, D. (2021). Organizational change management in higher education through the lens of executive coaches. *Educ. Sci.* 11:269. doi: 10.3390/educsci11060269

Voet, V. J. (2014). The effectiveness and specificity of change management in a public organization: Transformational leadership and a bureaucratic organizational structure. *Eur. Manag. J.* 32, 373–382. doi: 10.1016/j.emj.2013.10.001

Whelan, E., and Carcary, M. (2011). Integrating talent and knowledge management: Where are the benefits? *J. Knowl. Manag.* 15, 675–687. doi: 10.1108/13673271111152018

Whysall, Z., Owtram, M., and Brittain, S. (2019). The new talent management challenges of Industry 4.0. *J. Manag. Dev.* 38, 118–129. doi: 10.1108/JMD-06-2018-0181

Wright, P. M., McMahan, G. C., and McWilliams, A. (1994). Human resources and sustained competitive advantage: a resource-based perspective. *Int. J. Hum. Resour. Manag.* 5, 301–326. doi: 10.1080/09585199400000020

Wu, J., Lo, M. F., and Ng, A. W. (2019). "Knowledge management and sustainable development," in *Encyclopedia of sustainability in higher education,* ed. W. Leal Filho (Cham: Springer), doi: 10.1007/978-3-319-63951-2_175-1