

The moderating role of organizational Culture on the relationship between talent Management and creativity & innovativeness in the context of public-sector Universities KP, Pakistan

By

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Abstract

Scholars in the 21st century debate the impact of talent management on quality education and research in universities, particularly in non-Western countries like Pakistan, where institutions face pressure to adapt and compete amid challenges in talent scarcity. This research aimed to assess the impact of talent management on creativity & innovativeness in public universities of Khyber Pakhtunkhwa Pakistan. The study's quantitative approach utilized a survey alongside descriptive and inferential statistical analyses to evaluate and test the formulated hypotheses. In this research, distributed questionnaires were 475, of which 378 were usable questionnaires, and a 79.57% response rate was calculated for the required study. The results depict that there is a positive relationship among the variables. Further, it was also confirmed from Hierarchical Multiple Regression that organizational culture has a significant moderating impact on the relationship between Creativity & innovativeness, and talent management. The findings have significance for researchers and academics in terms of aligning talent management strategies with organizational strategic goals and developing employee engagement standards to overcome the challenges of implementing talent management techniques at public universities of Khyber Pakhtunkhwa. A detailed exploration of the study's practical and theoretical implications is undertaken.

Keywords: Talent management, Organizational culture, Creativity & innovativeness.

Introduction

In this age of knowledge economy, talent management (TM) is one of the talking points and basic tools to invest in developing human capital rather than the acquisition of massive tangible assets like land, buildings, plants, etc (Dhanalakshmi & Gurunathan, 2014; Taamneh et al., 2021). Universities, in particular, and business firms, in general, have been forced to compete with one another for highly skilled workers around the world as a direct result of globalization and the opening of new markets. A prominent 'McKinsey consulting firm declared talent management as a 'war of talents, at the start of the year 2000. (Chambers et al., 1998; Hartmann et al., 2010; Omotunde & Alegbeleye, 2021). After that, TM became a primary solution for handling many of the critical challenges that are currently faced by businesses and has gained massive attention from scholars around the globe (Yeung & Berman, 1997; Ruppe, 2006; Lewis

& Heckman, 2006; Chugh & Bhatnagar, 2006; Beechler & Woodward, 2009; Collings et al., 2011; Abeuova & Muratbekova-Touron, 2019; Abdullahi, Raman & Solarin, 2022). Universities and other higher education institutions are important from a strategic perspective, and there is evidence that research-based education pays off in areas close to the technological frontier of the world (Aghion, Dewatripont, Hoxby, Mas-Colell, & Sapir, 2010; Kwon, & Jang, 2022). Khattak (2012) argued that nations and governments prioritize education in their public policies which leads to economic growth of the nations. Most importantly, they generate highly skilled personnel through higher education. As it becomes one of the organization's key competencies. Talent management serves as a strategic differentiator for the organization in comparison to its counterparts (Ashton & Morton, 2005). For instance, an organization can undertake much more effective, innovative, and profitable initiatives, if, it has the right people in key roles at the right time. In spite of, the significance of talent management, a number of educational institutions lack people both in terms of quantity and quality (Fabunmi & Isah, 2004; Abdullah & Abubakar, 2017; Mohamed Jais, Yahaya, & Ghani, 2021), which leads towards a much-discussed decline in educational standards at many universities (Abdullah & Abubakar, 2017).

Money, men, and machines serve as essential tangible and intangible assets for universities, facilitating effective talent management and contributing to their overall capital growth, enabling the achievement of educational goals. People are the main resources of organizations which play an important role (Kahinde, 2012). Human resources of the institutions are referred to as factors of production because men working in the institution have different values to perform their particular tasks. Concurrently, firms give more value to talented workers (Kahinde, 2012). Intellectual capital regarded the human resource as an intangible resource that is associated with the people. These tangible and intangible resources like money, markets, men, and physical assets together boost up total value of the business in the market (Armstrong, 2011). Expertise in talent management means putting the right people in the right jobs (Devine, 2008). Also, this guarantees that personnel are using their abilities to the fullest for the institution's greatest chance of success. Talent management means selecting, attracting, retaining, and also developing the employee's organizations. Both the private and public sector organizations acquire the right staff for the right job which meets the relatively new area to establish their priorities (Baheshtiffar, 2011). As organizations like universities increase talent management is more critical and gains importance across countries in both business practices and literature. Since it is claimed that to gain institutional strategic success, talent management is the top priority for fast-growing economies (Hartmann et al., 2010).

Simultaneously, Innovation affects all the internal and external factors of institutions, from the methodology of operations to the objectives of strategy and execution actions plan (Ortega et al., 2015; Ye et al., 2015; Talonen & Hakkarainen, 2014; Chen, Lee, & Ahlstrom, 2021; Pandita, 2021). It also explains the fundamentals of methodology for the development and long survival of individuals as well as for organizations (Raytcheva & Hermel, 2010) and played an important role as one of the drivers of development and economic growth significantly, creation of employment and improvement of life (Banerjee & Thakurta, 2013; Maghsoudi et al., 2015; Thunnissen, van Arensbergen, van den Brink, 2021). It also revamps the base of knowledge and reasonable differentiation results (Singh & Aggarwal, 2017). According to the research conducted by Bedi (2019) decision-making management is under the umbrella of innovation. Based on the findings of existing research Saunila (2017) measurement of innovation performance of direct connection with the service of operational performance. The definition of innovativeness stated by De Leede and Looise (2005) is a radical and conscious change in current products and processes to achieve competitors. Becker and Matthews (2008) indicated the innovativeness of an organization as a novelty creation, which when implemented

and exploited, turns out to be a viable value. Over the past few decades, non-western countries have emerged as remarkable innovation hubs (Jain et al., 2012). Contrarily, the chance is not shown up by innovation. The existing intent management of intangible resources, such as intellect and knowledge, ease innovation introduction and right development (Varis & Littunen, 2010; Odugbesan, Aghazadeh, Al Qaralleh, & Sogeke, 2022). Hence, the current and future institutions' capabilities are also connected with the employees' learning collectively (Khandekar & Sharma, 2005; Vosburgh, 2022).

Chaturvedi et al. (2022) attempt to explain innovation as a talent-management outcome in a non-western country, as an organization comprises around 45% substantial proportion of our talented energy and an important component of the economic development of the country. According to the work of Deloitte (2010) non-western countries mainly face difficulties, specifically, the organizations belonging to the upstream sector led to an increase the talent management practices activity and exploration, low organizational awareness, lack of entry-level talent, low attraction towards organization, good foreign possibilities, bad government insight, cyclical organization, workforce aging, etc. It is frequently believed in HR practices, that the competence and development of all important organisations is to hire competitive talents. But this belief is a mistake. Indeed, to bridge the gap there is a need for strategic talent management (STM) (Schreuder & Noorman, 2019). Chaturvedi et al. (2022) describe the validity scale by constructing talent management and also understand its association with the innovation of organization, creativity, context, and innovation skill practices and considering key talent management and found that the study showed the significant impact of talent management practices on HR outcomes. In this study, the researcher employs the process of the moderation model as explained and developed by (Hayes, 2013). The moderation influence is explained by Hayes (2013) as “an interaction effect of two variables, the independent X and the moderating M, on a third dependent variable Y”. The purpose of this study is to investigate the impact of talent management practices on HR outcomes and to examine the moderation effect of organizational culture on the HR outcomes of the public-sector universities in Khyber Pakhtunkhwa Pakistan (KP). In addition, the study also determines whether public-sector universities of Khyber Pakhtunkhwa Pakistan promote talent management practices or not.

Problem Statement

Three compelling factors have driven universities to embark on this current research, with additional motivations bolstering their pursuit. Firstly, a noticeable dearth of Talent Management (TM) research in non-Western countries (Abdalla & Al-homoud, 1995; Al-Athari & Zairi, 2002; Aladwan et al., 2014) stands out, as the majority of TM studies have predominantly emanated from Western nations (Cappelli, 2008; McDonnell et al., 2011; Jones et al., 2012; Collings et al., 2015; Mousa & Ayoubi, 2019), with relatively limited attention on non-Western contexts like Pakistan (Cooke et al., 2014; Taamneh et al., 2021). Secondly, universities are actively engaged in enhancing their reputation and securing a competitive edge by attracting and retaining top-tier academic talents who significantly contribute to the overall educational and research quality (Gilliot et al., 2002; Lorange, 2006; Edwards & Smith, 2010; Al-Sada et al., 2017; Lombardi et al., 2017; Neri & Wilkins, 2019). Lastly, it is noteworthy that teaching faculty frequently seek opportunities in different institutions, showing a dynamic job market where they continuously explore better prospects (Clunies, 2007).

Objective of the Study

- To analyze the relationship among talent management, organizational culture, creativity & innovativeness, in the public universities of K.P.K Pakistan.
- To identify the effect of talent management on creativity & innovativeness in public universities of K.P.K Pakistan.

- To measure the moderating role of organizational culture in the relationship of talent management with creativity & innovativeness in public universities of K.P.K Pakistan.

Questions of the study

- How talent management and organizational culture are related to creativity & innovativeness?
- How does talent management influence creativity & innovativeness?
- How would organizational culture act as a moderator in the relationship of talent management with creativity & innovativeness?

Review of Literature

As a result of social evolution, the word TM now encompasses a wide range of connotations that are reflected in significant HR trends in contemporary societies. Selecting and attracting the most intelligent and talented individuals, as well as identifying and evaluating criteria indicative of managerial success, were early areas of concentration in the process of hiring, especially for top-management positions (Miner, 1973). As the overtime HR sector has evolved, however, more exact definitions have emerged. Collings and Mellahi (2009) provide a typical, albeit ponderous, definition. They define TM as “actions and procedures that systematically identify key positions that differently contribute to the organization's long-term competitive advantage, the creation of a talent pool of high-performing incumbents and high-potential to fill these roles, as well as the creation of a unique human resource architecture to make it easier to find qualified candidates for these positions, as well as to guarantee that they will maintain their dedication to the organization" (p. 304). The same authors acknowledge that the first step in the implementation of TM systems should be to identify essential organizational positions or roles that are mission critical. This presupposes that there is a readiness to recognize the existence of strategic positions inside organizations as opposed to ones that are not strategic. A presumption behind this strategy is the need to cultivate talent pools from which to fill these roles. Management of recruiting, then, is driven by the needs of the position at hand and is carried out via a mix of " external recruitment and internal development" (p. 308). To get the most out of their potential and reduce employee turnover, firms should encourage employee job motivation, extra-role performance, and organizational commitment as stressed by the authors.

A more 'global' dimension of talent management (also known as Global Talent Management, or GTM) has arisen in tandem with the increasing globalization of enterprises. According to Vaiman, Scullion, and Collings (2012) GTM refers to organizational initiatives that contribute to cultivating, selecting, attracting, and retaining the best individuals in the most crucial roles across the globe. In their study, Stahl et al. (2012) aimed to determine which GTM principles ought to be established and implemented in order to guarantee the most effective organizational growth and success. The authors gathered information from 33 MNCs with headquarters in 11 countries and conducted in-depth analyses of 18 of them. The writers chose their targets based on the organizations' stellar track records in both business and employment. In their research, the authors distinguished between the inclusive approach and differentiated approach i.e., available to all employees and limited to high-potential employees respectively. As a general conclusion, the findings recommend that businesses refrain from blindly imitating the strategies employed by successful competitors. Instead, businesses should make sure their TM practices are in line with their overall ethos and strategy. The authors highlight six guiding principles for effective GTM: (1) a balancing of global and local demands; (2) employer branding through distinction; (3) cultural embedding; (4) internal consistency; (5) management engagement; and (6) alignment with strategy.

Consequently, it is clear that both concepts and practices are converging, but it is still crucial for businesses to adopt "best" practices according to the circumstances in which they operate.

Although "best practices" are helpful, in the end, it is up to each individual company to implement global talent management (GTM) strategies that are the "best fit." The significance of expatriation is another important aspect of GTM to remember. In this regard, Shen and Hall (2009) defined global talent management as the process of coordinating the deployment of skills and the management of talent for employees stationed abroad. However, no less importantly, it is imperative that the repatriation process that is not underestimated be managed in a way that is beneficial to both the individual and the organization.

In conclusion, the concept that maximizing people's skills is a source of ongoing competitive advantage has been the driving force of TM theories (Scullion et al., 2010). Because of this, TM has become closely associated with HRM practices in businesses with the ultimate goal of improving company output (Farndale, Scullion, & Sparrow, 2010). While many large corporations have implemented TM tactics, medium and small businesses have been slower to do so. The depicted conception of TM is consistent with such results-oriented tendencies. We believe it is our opinion that HR managers, senior managers, and line managers, of their firms all of whom may have different views on the sources of competitive advantage—need to reach a consensus on what constitutes "talent," in agreement with (Dries & Pepermans, 2012).

Human resource outcomes of talent management are a primary focus of the present research since they are a key enabler of outcomes at the organizational level (Chaturvedi, 2021). To remain creative and competitive, organizations should make a concerted effort to develop, acquire, and retain creative people (Cook, 1998). Brand (1998) suggests that Organizations recognize the importance of attracting and developing their intellectual capital, which means they should seek out and hire people who are well-versed in their fields, creative in their problem-solving approaches, and committed to working tirelessly to achieve their goals. He contends that organizations should hire smart people, who know a lot, can think of new ways to do things, and are willing to work hard to reach their goals. Talent management has been shown to have a positive and vital correlation with worker and organizational level outcomes like creative thinking and originality, competency development, flexible workplaces, financial results, and organizational culture, best employers in Asia study (Hewitt Associate's, 2003). Similarly, Bounfour and Miyagawa (2015) noted that the primary driver of innovation expansion i.e., intangibles like talent management have emerged as a key accelerating factor. Effective talent management results in superior output, which in turn encourages the development of fresh talent and facilitates the establishment of a system to recognize and reward its members. It's a boon to innovation, too. As quoted by Rezaei et al. (2018) "Knowledge management has a positive correlation with organizational innovation." This research aims to clarify the meaning of Hewitt's (2003) quoted terms "creativity," and "innovation," in the context of talent management. Innovation in the organization is described by the individual as creativity and reward which was hold by organizational culture in the organization. Talented people are well-educated that's effected the organizations' credibility technically improve performance and act in a key roles. It also explains the types of culture are job-related variables, motivation, and managerial creativity that changed developing techniques to increase the creativity of employees within an organization (Zeraatkar, Roudneshin, & Sobhanallahi, 2020).

Study population

Populations of the study include all the elements of the research study through which all the researchers draw their conclusions (Blumberg et al., 2014). The population of the study contains all the faculty members of Khyber Pakhtunkhwa, having a total university of 32. The geographical area of the Khyber Pakhtunkhwa is 101,741 km² / (39,282 sq mi). Distributed

questionnaires were 475, of which 378 were usable questionnaires, and a 79.57% response rate was calculated for the required study.

Sampling Technique and Sample Size

To gather data, the current investigation utilized a convenient sampling method which is non-probability technique. Convenience sampling is especially useful in exploratory studies or preliminary research phases, providing a quick and accessible means to gather data and generate initial insights. Additionally, in certain settings where obtaining a random sample is impractical, such as in clinical or educational environments, convenience sampling may be the most realistic and viable option. The sample size is determined through the formula given by (Yamane, 1967). The nature of this investigation is quantitative. Quantitative research is that which attempts to answer a query by analyzing quantitative data, i.e., data presented in the form of figures and numbers (Hashim, 2013; Taylor, 1998). The questionnaire was constructed using the Likert 5-Point Scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree). To determine the effect of the variables, SPSS was used to analyze the data.

Data Collection Instrument

For the independent variable (Talent Management), facets are included, 05 items are related to the Talent management system, 05 items are related to Key roles or Positions, 05 items are related to Attracting Talent, 05 items are related to Developing Talent, 06 items are related to Succession and Retention, 06 items are related to Performance Management and Reward, 06 items are related to Identification of talent Pool, 06 items are related to Executive commitment and engagement and adapted from (Yuniati et al., 2021; Vermeeren, 2014; Al Aina & Atan 2020; Abdollahbeigi et al., 2017; Tiwari & Shrivastava, 2013; Mngomezulu et al., 2015; Ibrar & Khan, 2015; Albrecht & Marty, 2020). On the other hand, Moderating variable (Organizational Culture) and dependent variables HR outcomes (Creativity and Innovativeness), 07 items are related to Organizational Culture, 05 items are related to Creativity and Innovativeness (Sabri, Ilyas, & Amjad, 2011; Anggiani, 2020; Calantone et al., 2002).

Conceptual Framework of the study

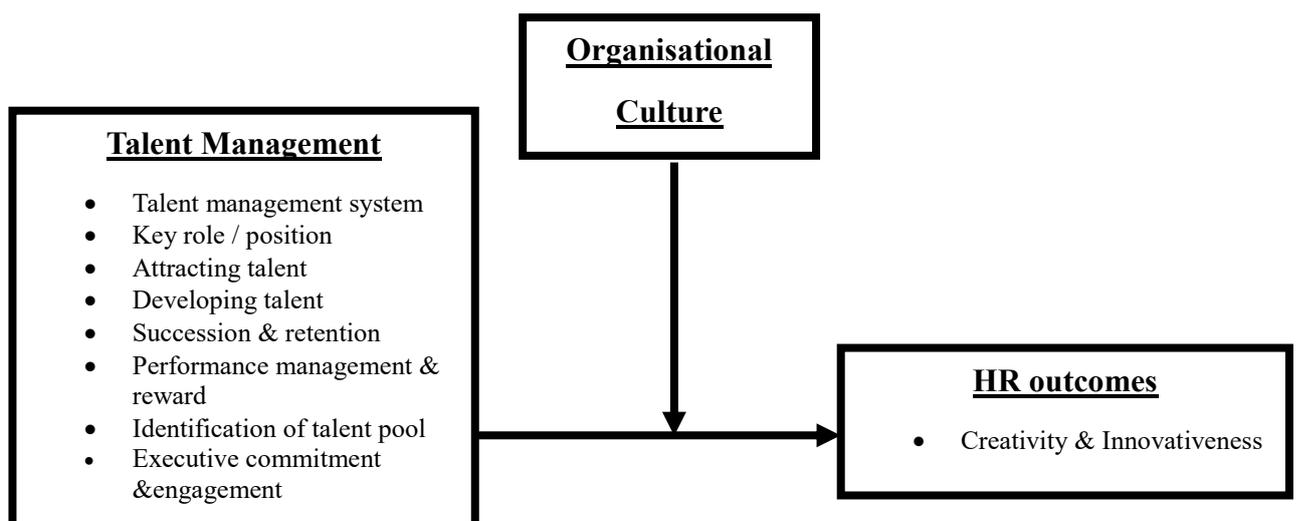


Figure 2.1 Present study research model

Study Hypotheses

H1: There is a positive significant relationship among talent management, organizational culture, creativity & innovativeness.

H2: There is a significant positive effect of talent management on creativity & innovativeness.

H3: There is a significant effect of organizational culture as a moderator in the relationship of talent management with creativity & innovativeness.

Data Analysis Techniques

SPSS-25 and factor analysis were employed to analyze the data, as they are the most powerful and widely used methods for doing so. The questionnaires used to compile the data for the present investigation were distributed in a survey format. In the present quantitative research, Validity, Reliability, Normality, Hierarchical Multiple Regression, and Pearson's Correlation are among the most important Analysis tools, that were utilized for interpreting the results i.e., talent management, organizational culture, creativity & innovation.

RESULTS AND FINDINGS

Table 1: Data Normality

	N	Min	Max	Mean	Std. Devi:	Skewness	Kurtosis		
	Stat:	Stat:	Stat:	Stat:	Stat:	Stat:	Std. Er:	Stat:	Std. Er:
Talent management	378	3.32	4.98	4.1150	.38707	.308	.125	-.984	.250
Organizational Culture	378	3.57	5.00	4.3711	.40157	.219	.125	-1.094	.250
Creativity & Innovativeness	378	2.40	5.00	4.2952	.47587	-.291	.125	.819	.250
Valid N (Listwise)	378								

The normality results are depicted in table 1, the variable with the lowest Skewness (-.291) is Creativity and innovativeness and their (M=4.2952, SD=0.47587), whereas the variable organizational culture with the highest Skewness (.219) and their (M = 4.3711, SD= 0.40157). On the other hand, talent management has the lowest Kurtosis (-.984) and their (M = 4.1150, SD =.38707). So, Skewness and Kurtosis are reported in the given range and are normal (Field, 2013).

Validity of the instrument

Table 2: Exploratory Factor Analysis (EFA)

Variables	KMO	BTS	Sig	Total No: of Factors Based on Eigen Values
Talent Management	.773	16357.290	0.000	13
Organizational culture	.849	669.199	0.000	1
Creativity & Innovativeness	.726	376.985	0.000	1

Results depict that all of the variables' KMO values exceeded the 0.5 threshold with the BTS mentioned above, all of the variables' p-values were below the 0.05 threshold, and the total variance explained elaborated results depicted a total of for talent management has 13 factors, organizational culture has 1 factor, for creativity and innovativeness has a 1 factor, based on their Eigen values. Also, all the items' results depicted that factor loadings were greater than the threshold for the factor analysis (Pallant, 2010; Field, 2013).

Table 3: Data Reliability

Variables	Cronbach's Alpha	N of Items
Talent Management	.923	44
Organizational culture	.790	7
Creativity & innovativeness	.701	5

For further data analysis reliability or consistency is ensured by the data reliability (Field, 2013). In social sciences, investigating the reliability of parametric data Cronbach's alpha is employed for internal consistency of the data. Cronbach's alpha has a threshold value of ".6 or .7," which means that if the value of Cronbach's alpha is ".6 or .7" or higher, the instrument is said to be reliable (Gaur & Gaur, 2006; Pallant, 2010). The data depicted that Cronbach's alpha values for the variable's talent management, organizational culture, and creativity and innovativeness are "0.923, 0.790, and 0.701" for 44 items, 7 items, and 5 items, respectively. So, it is evident that the scale used to assess organizational culture, talent management, creativity, and innovation will provide reliable results (Gaur & Gaur, 2006; Pallant, 2010).

Table 4: Correlation Analysis

Correlations		TM	OC	CAI
TM	Pearson Correlation	1	.349**	.614**
	Sig. (2-tailed)		.000	.000
	N	378	378	378
OC	Pearson Correlation	.349**	1	.341**
	Sig. (2-tailed)	.000		.000
	N	378	378	378
CAI	Pearson Correlation	.614**	.341**	1
	Sig. (2-tailed)	.000	.000	
	N	378	378	378

The variables in the current investigation are bivariate, and Pearson's Correlation was applied. The correlation values are positive which is revealed by the results, and threshold results for

the probability are less than 5%. Results elaborated that the correlation value of talent management and creativity & innovativeness is maximum. In a nutshell result elaborated that talent management is directly and significantly proportional to creativity & innovativeness and organizational culture, hence, H1 of the study is accepted.

Table 5: Simple linear regression (Model-I)

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	F	Sig.
1	.614 ^a	.377	.375	.37616	227.347	.000 ^b

Prior to conducting moderation analysis, simple linear regression statistics are used. The results showed that there is a 37.7% change in creativity and innovativeness due to talent management, and the whole model is significant as the probability statistics satisfy the threshold at a 95% confidence interval. Hence, H2 is supported by the study.

Table 6: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.190	.207		5.752	.000
1 TM	.755	.050	.614	15.078	.000

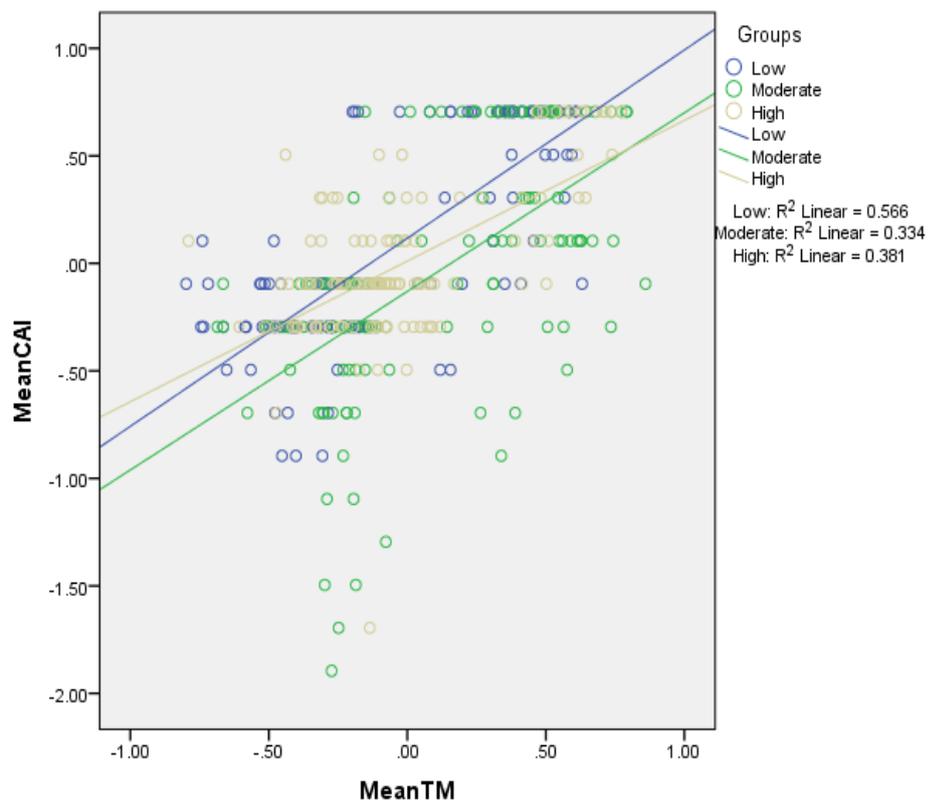
The results of the model coefficient depicted that talent management has a beta value of 0.755. This means that when talent management changes by one unit, creativity, and innovativeness changes by 0.755 units, with $t = 6.950$ and $p < 0.05$.

Table 7: Multiple Hierarchical Regression (Model-II)

Variables	Coeff:	SE(B)	R ²	R ² Change	Model Summary(P)	T	P
Constant	4.2727	.0203	.4093	.0142	.0000	210.1030	.0000
Organizational culture	.2024	.0513				3.9438	.0001
Talent Management	.6560	.0536				12.2492	.0000
(Organizational culture*Talent Management) Int	.4180	.1395				2.9953	.0029

The results depicted that $R^2 = .4093$ with $p < 0.05$, which means that talent management causes a 40.93% variation in creativity and innovativeness. The model as a whole is statistically significant at the 95% confidence level. Organizational culture is used in the present study as a moderator on the relationship between talent management and creativity & innovativeness. Support for Hypothesis H3 was found by using the reported change in R^2 as a basis for evaluating the moderating effect, as stated by (Jaccard et al., 1989). The results of the study of moderation depict that the value of R^2 change = 0.0142, with $p < 0.05$. The beta score of talent management (independent variable) is 0.6560 with $p < 0.05$, beta score of organizational culture (moderator) is 0.2024 with $p < 0.05$ explained by the model coefficient. Results explained that with the one unit change in talent management, there will be a 0.6560 unit variation in creativity

& innovativeness, and a beta score of organizational culture revealed that with the one unit change in moderator, there will be a 0.2024 unit variation in creativity & innovativeness and at last the beta value of interaction term (talent management *organizational culture) explained that with the one unit change in interaction term, there is 0.4180 unit variation in the dependent variable. Here the study results also confirm the moderation criteria given by (Aiken & West, 1991). as a compulsory part for a moderator to act as moderator, explained significant interaction by the same authors. The results also shed light or depict the nature of the effect that occurs when a moderator is included in the model, which has a buffering effect. i.e., the inclusion of organizational culture as a moderator decreases the effect of talent management on creativity & innovativeness.



According to Aicken and West (1991) researchers need to classify the moderator into one of three groups before examining the conditional effects of the moderator on the dependent variable (Low organizational culture, Moderate organizational culture, and High organizational culture). The conditional effects of groups showed that a low organizational culture is shown by the blue line, a moderate one by the green line, and a low one by the yellow line. The low organizational culture had an R2 value of 0.566, and its underroot revealed a correlation of 0.752 between talent management and creativity & innovation. The R2 value for a moderate organizational culture is 0.334, with a correlation of 0.577 between talent management and creativity and innovativeness, and the value for a high organizational culture is 0.381, with an elaborated under root correlation of 0.617.

Discussion

In the contemporary era, a knowledge economy emphasizes the value of talent management (TM) one of the talking points about basic tools of institutions like tangible and intangible

assets to manage employees and focuses on the human capital rather than physical capital (Dhanalakshmi & Gurunathan, 2014).

Researchers moved on to inferential statistics once all the assumptions of descriptive statistics had been met. In the current research, a parametric test called Pearson's Correlation is used to check the relationship between the study variables and meet the first research objective. Because the r-value is positive and $p < 0.05$, the results showed that there is a positive and significant relationship between talent management, creativity and innovation, and organizational culture. Based on these findings' hypothesis one "H1" is accepted. This means that the effective use of talent management along with a supportive culture will enhance the university's competitive advantage and retain their seniors to build up quality education and research and to show the separate entity from the other universities. So, higher education institutions should have to focus on investing the talent management by changing their HR policies regarding the importance of talent management, organizational culture, and its positive influence on creativity & innovativeness that brings a significant change in the institutions to achieve their competitive advantage. The study's findings are in line with (Rezaei et al. 2018; Hewitt Associate's 2003; Chaturvedi et al., 2022) and support the theory i.e., Theory of Miner, (1973).

The study's second objective was to evaluate the impact of talent management on creativity and innovation. The researcher used simple linear regression to examine the impact of talent management on creativity and innovation. The results showed that talent management has a significant influence on creativity and innovation, with $R^2 = 37.7\%$ and $p < 0.05$ level of confidence. The beta value revealed a positive influence because $\beta = 0.755$, which means that for every unit change in talent management, there is a "0.755" unit change in creativity and innovativeness. Hypothesis two "H2" is accepted based on the findings. The research's findings corroborated with (Hewitt Associate's 2003; Chaturvedi, 2021; Bounfour & Miyagawa, 2015; Srivastava & Chaturvedi 2014; Rezaei et al., 2018; Chaturvedi, et al., 2022).

The third purpose of this study was to determine the moderating effect of organizational culture on the relationship between talent management, creativity, and innovativeness. Multiple hierarchical regression was performed and the process file (Model-1) in the present investigation (Hayes, 2013). $R^2 = 40.93\%$ and $p < 0.05$ indicated that the whole model strongly influences originality and innovativeness. Results of moderation analysis indicated that organizational culture acts as a moderator (buffering effect) on the relationship between talent management and creativity and innovativeness because R^2 change = 0.0142 with $p < 0.05$ for the variable talent management, β value = 0.6560 with $p < 0.05$ for the variable organizational culture, and β value = 0.2024 with $p < 0.05$ for the interaction term (talent management*organizational culture) also confirm moderation (Aiken & West 1991). The findings demonstrated that the presence of organizational culture as a moderator mitigated the impact of talent management on creativity and innovativeness. Based on current evidence, the third hypothesis, H3, is accepted.

The conditional effects of the moderator and independent variable on the dependent variable are also examined by the researcher. Aiken and West (1991) employed an interaction plot to study conditional effects, and their findings showed that organizational culture had high, moderate, and low organizational culture effects. The present study also identifies that organizational culture acts as a buffering moderator in between talent management and HR outcomes i.e., Creativity and innovativeness, but showed a significant moderation effect with creativity & innovativeness, meaning that talent management brought innovativeness performance in universities.

Conclusion

Universities worldwide face the problem of talent management scarcity in Western countries along with non-western countries which leads to low-quality education and research and losing their senior faculty members. In order to handle these problems talent management practices, provide the platform as well as the best solutions to get better HR outcomes through their skilled employees.

To fulfill the first objective, which was to examine the relationship between talent management, creativity & innovativeness, and organizational culture, the researcher performed a correlation analysis. The conclusion is that there is a positive and substantial association between the factors examined. So, based on the data, the first objective of the study has been met. To achieve the second objective of the study, which was to determine the influence of talent management on creativity and inventiveness, simple linear regression was used. The second objective of the study is attained as a result of the conclusive findings that talent management has a major impact on creativity and innovation.

To investigate the moderating influence of organizational culture on the link of talent management with creativity and innovativeness, the researcher conducted a moderation analysis using Hayes' process file. The findings concluded that there is a major role of organizational culture as a moderator in the interaction of talent management with creativity and innovativeness, achieving objective three of the research. The completion of the first and second objectives leads to the conclusion that talent management plays a significant role in gaining an advantage from their skilled faculty members in public-sector institutions KP. Managers, administration, policymakers, and academics should therefore prioritize talent management operations both practically and academically.

From the results of the third objective, it can also be said that when skilled employees are brought into universities, there is more innovation and creativity in their academic work, research, and universities' overall performance. Findings also showed that universities' cultures didn't support or weaken the effect of talented employees, didn't keep their seniors, and didn't have a better replacement for universities.

Future Recommendations

A supportive culture enhances the organization's performance and competitiveness. In particular, the same talent management techniques should be used by universities in Pakistan to raise standards and act as an enterprise knowledge repository to help institutions perform better at both the international and national levels, which would also raise their academicians and research levels. Therefore, it is also concluded that talent management practices achieved through HR outcomes, HRM policies, and a supportive culture increase an organization's competitiveness, performance, and senior retention. To thrive in the knowledge economy, higher education institutions (HEIs) must increase performance to meet short- and long-term objectives. This can only be accomplished by valuing knowledge, enhancing the learning environment, building a subsidized culture, and elevating it above the resources of all institutions as a primary asset to utilize talent management practices to achieve HR outcomes. Furthermore, the study proposed an ideal model suggesting future researchers extend sample size which is the basic limitation here along with the longitudinal approach to extend study findings in other industries as well. Empirical work is required to explore the influence of organizational trust, and talent perception congruence concerning employee retention in future

studies as a mediator to understand commitment toward institutions (Gohar, 2021; Abdullah & Abubakar, 2017).

Study implication

Overall, the study's findings contributed to a better understanding of the concepts of talent management, corporate culture, and creativity and innovation. These findings are extremely important to scholars, higher education institutions, and academicians.

Theoretical Implications

The current paper analyses the moderating effects of organizational culture to support the relationship between talent management and HR outcomes of public-sector universities in emerging economies like Pakistan, this study introduces the theory of Miner (1973) along with the underlying theories. By drawing connections to Miner's work, the author not only aligns their research within a historical context but also demonstrates a nuanced understanding of the foundational principles. This contributes significantly to the theory by providing a comprehensive and contextualized framework for the contemporary study. Through this strategic connection, the author leverages Miner's insights to illuminate new dimensions, offering a deeper comprehension of the subject matter and fostering a more nuanced theoretical advancement. Furthermore, a review of the relevant literature revealed that a number of studies explain how organizational members' behaviors and capabilities, as well as organizational human resource development-related practices, contribute to the improvement of HR outcomes in public-sector universities in developing economies. Yet, there is still a link that needs to be developed in order to establish a knowledge of how human behaviors and organizational HR-related practices promote the augmentations of HR outcomes, particularly when contextualizing public-sector organizations in developing countries.

Practical Implications

This research paper suggests that the top management and administration of public universities should acknowledge the various possibilities that have been constructed by the networks of relationships between the institution's members. The top management of public-sector universities, as well as the administrations, managers, and policymakers at these organizations, are also encouraged by this study to recognize the numerous scenarios that have been created as a result of relationships between organizational members that have developed through networks. (Gilliot et al., 2002; Lorange, 2006; Edwards & Smith, 2010; Al-Sada et al., 2017; Lombardi et al., 2017; Neri & Wilkins, 2019). Organizations should also react to a wide range of information and social stimuli coming from both inside and outside the institutions to adopt innovative talent management practices, which is a prerequisite for enhancing the HR results of an organization.

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