

Investigating the Effect of Knowledge Management on Employee Performance via Employee Empowerment and Supervisory Support

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Abstract: This study aims to identify the relationship between knowledge management and employee performance. This relationship has also been examined through the mediator, i.e., employee empowerment and supervision support, which moderates the relationship between knowledge management and employee empowerment. As a research study for developing markets, the current study evaluated these underexplored relationships in public sector universities in Khyber Pakhtunkhwa, Pakistan. Structural equation modelling modelings have been used to examine the hypothesis by collecting survey data from 290 employees. According to the findings of this study, giving employees control in the workplace can improve employee performance.

Furthermore, it was also examined whether empowering employees in the workplace positively relates to knowledge management. All hypothesised relationships came out statistically significant. These findings may be helpful for firms that highlight the importance of employee empowerment in achieving higher employee performance through knowledge management. The current study adds to the knowledge management literature in emerging countries like Pakistan by putting the current study's approach to the test.

Keywords: Knowledge management, employees' empowerment, employee performance, and employee supervision support.

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1. Introduction

This insight can be beneficial for individuals and corporations alike. It's like a mental framework that allows you to make sense of all that data and transform it into knowledge (Karamitri et al., 2020). Today's management literature, concepts, ideas, and actions are based on knowledge management. Due to the multiplicative effect of acquiring information through interaction, various entities where individuals collaborate might profit from its manifestation and amplification (Sanguankaew& Rackham, 2019).

Knowledge is a significant asset since it enhances employees' skills and drives them to deliver their best work, which is advantageous for both the firm and its employees. Employees who leave a company or switch departments take their knowledge and skills with them. In today's constantly changing economic structure, knowledge management has replaced traditional issues as the principal focus for every large organization (Pellegrini et al., 2020). When discussing knowledge management, it is essential to analyze in depth the technology that facilitates knowledge management and the individuals who apply knowledge with the aid of these instruments, as without either, the performance of knowledge management is worthless.

Knowledge management can influence various significant outcomes, such as employee performance (Buil et al., 2019). As employees' level of autonomy increases, their capacity to make decisions that benefit both the company and their careers improves, which motivates them to work harder and contributes to the company's success. According to research (Shaikh et al., 2017), State employees can work individually or in teams to fulfil the organization's objectives.

Numerous variables, including legal, organizational, behavioural, structural, financial, and environmental limits, limit the scope and efficacy of empowerment policies and practices in private and governmental sectors. The employees of an organization should care profoundly about and participate in numerous forms of empowerment (Yin et al., 2019). It is vital for managers at all levels and departments to participate in empowerment, as it helps the entire organization.

The apparent objective of any organization is successful and effective management, and the most potent and essential source of this form of management is supervision. Knowledge management and the amount of management assistance are vital to the success of any organization. The intention to depart would decrease with supervisor support, according to (Kang & Kang, 2016). When employees are given more autonomy and responsibility, they are more likely to succeed without the assistance of their superiors, which has a favourable effect on their attitudes and feelings about the organization as a whole. This study examines the moderating influence of supervisory assistance on the indirect link between knowledge management and employee performance at public institutions in Khyber Pakhtunkhwa, Pakistan.

This study addresses important gaps in the knowledge management literature by developing and validating a conceptual framework that accounts for the limitations of past studies (Haji et al., 2021). Previous research has paid limited attention to the function of employee empowerment as a mediator between knowledge management and employee performance (Sunarsi et al., 2021), despite the significance of this link.

2. Literature review and development of hypotheses

This study aims to investigate and learn about the influence of knowledge management on employee performance from the standpoint of employee empowerment.

2.1. Knowledge management and employee performance

The world began its journey into the industrial age in the 18th century; today, as it transitions from the industrial to the knowledge age, firms are eager to enhance their expertise to remain competitive (Rastegar&Hakaki, 2020). Each corporation acknowledged the worth of its employees and began thinking about how to use their experience to greater use by creating new concepts and products (Rastegar&Hakaki, 2020). Knowledge management is a continuous process that outlines the framework within which employees consult one another and their superiors when they are stuck on a task, as well as how they ultimately apply this information to their work (Soto-Acosta et

al., 2018). Management generates fresh concepts and encourages employees to do the same by detailing strategies that expand their knowledge base.

For the organisation's benefit, the best employees should be transferred to different teams to learn new skills and expertise. Knowledge workers favour knowledge-intensive professions requiring decision-making because they value autonomy in achieving their primary goals as employees: creating and transmitting new information (Iqbal et al., 2019). Employers seek out and hire persons with specialised skills and knowledge who can respond to and carry out their roles efficiently and effectively (Mustapa & Mahmood, 2016). In the 20th century, management sought individuals who could execute physical and mechanical jobs. Hence, we also referred to them as "blue collar" employees. According to, work has developed over the twenty-first century (Daneshvar et al., 2020). In order to achieve a product that is intellectually sound in the modern workplace, information must be utilised as input. Therefore, professionals in the twenty-first century must be able to demonstrate performance by applying their knowledge to their assigned work or assignment. It has been suggested in the literature that knowledge management and employee performance are crucial to the success of any organisation (Handzic, 2017). This indicates that in Khyber Pakhtunkhwa, Pakistan, few significant studies have been undertaken on the relationship between knowledge management and the productivity of public university employees. We hypothesize:

H1. *Knowledge management and employee performance have a positive and significant relationship.*

2.2. Knowledge management and employee empowerment

Knowledge management's primary objective is to constantly impart knowledge and skills to organizational staff and compel employees to display a pragmatic approach to their work to fulfil the organization's objectives (Almajali et al., 2016). Management of operations must consider delegating authority so that employees can, in some instances, make decisions that increase the organization's efficiency and effectiveness (Almajali et al., 2016; Friedman et al., 2005). Knowledge management also demands a unique structure in which leaders prioritize mutual trust to ensure that distributing responsibility does not result in bad outcomes and that employees can maximize the organization's output due to their higher level of autonomy.

Empowering employees enhances a company's capacity to foster and utilize its employees' skills. People believe empowering employees would encourage them to develop inventive ideas to better the organization. Ekowati et al. (2021) propose that giving employees a more prominent voice in decision-making and access to pertinent data can improve corporate outcomes. Soon, management will have to fight for skilled employees who can accomplish jobs swiftly and effectively. The only way for management to retain these employees is to provide them greater autonomy, allowing them to carry out their duties without being micromanaged or subject to any formalized framework (Davenport, 2001). Knowledge is the cornerstone of employee empowerment and freedom of action and involvement (Abualoush et al., 2018). In this context, the value of knowledge is viewed as a crucial tenet of employee empowerment. To wit: (Haghighi et al., 2014) Workers in states with greater autonomy over their decisions are more knowledgeable and skilful in their field. Since then, public universities in Khyber Pakhtunkhwa have made few meaningful attempts to quantify the impact of knowledge management and employee empowerment.

Building on this stream of literature, we argue that:

H2. *Knowledge management and employee empowerment have a significant positive relationship.*

2.3. Employee empowerment and employee performance

When executives have faith in their employees to solve problems and accomplish projects independently, morale increases, this is a delegation of tasks and a call to action for employees to pool the corporate database's resources for everyone's benefit. Particularly challenging will be making decisions that rationally support distributing authority from higher to lower organisational levels (Abou Elnaga & Imran, 2014).

It is a person with extensive training and experience who works at the highest levels. To reach the ultimate purpose of their job, which is the development and transmission of new information, knowledge workers make decisions requiring a high level of theoretical and analytic understanding. Despite the relevance of employee

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empowerment and employee performance, few additional studies based on genuine research have been found. Such an investigation was undertaken on dockworkers at three major Chinese ports (Bose & Emirates, 2018). Another study (Sensoca & Philips, 2011) examined the topic of middle management empowerment in the healthcare industry of Mexico (2011).

The research above has shown that an empowered workforce yields superior results. Therefore, there have been few meaningful studies on the influence of employee empowerment on performance in the public universities of Khyber Pakhtunkhwa, Pakistan. We thus hypothesize:

H3. *Employee empowerment has a significant positive relationship with employee performance.*

2.4. Mediating role of employee empowerment between knowledge management and employee performance

Knowledge management is primarily concerned with facilitating committed individuals ready to exhibit performance. Employees who remain with a company for an extended period gain significant knowledge and insight. Employees that demonstrate commitment and zeal for the company are occasionally entrusted with more responsibilities. Researchers (Choi et al., 2016) examined a model to analyse transformational leadership's direct and indirect benefits on employee empowerment, job satisfaction, and the mediating function of empowerment. Positive relationships were discovered between leadership and employment agency and job happiness. Alternatively, (Zaraket et al., 2018) contend that empowered employees are more dedicated to their organisations. Empowering employees is believed to be a moderating element between knowledge management and employee performance based on the preceding discussion and evidence from past studies and experts' opinions (Seibert et al., 2011).

H4. *Employee empowerment mediates the relationship between knowledge management and employee performance.*

2.5. Employee supervision support as a moderator

Employees are determined to gain knowledge from their superiors. A leader's most significant contribution to a team is inspiring its members to approach their responsibilities enthusiastically (Williams et al., 2018). Most employees seek guidance from their bosses on administrative concerns and career progression opportunities (Hughes, 2010). The most vulnerable employees will benefit the most from a helpful boss if they are the most likely to encounter stress and mental health issues at work (Beddoe et al., 2016). As the critical determinant of employee productivity in most organisations, subordinates perceive the treatment they receive from their superiors as a measure of both supervisory and organisational approbation. Even if employees have been granted autonomy over their work, they may require a direction from their managers before proceeding with a project (Zhao, 2003). The ability of management to display knowledge and encouragement can considerably impact how employees perceive and respond to their superiors, resulting in a more favourable workplace. Several research studies have demonstrated that supervisor support moderates the effects of high-commitment HRM on employee stress in the workplace (Kang & Kang, 2016). In this instance, empowering employees positively impact the firm's knowledge management practises. Academics have devoted less attention to this field of study, but it is evident that managers have a significant impact on the success of their teams; hence, a closer examination is necessary. This study aims to predict the outcome by examining the relationship between knowledge management and staff supervision. In other words, this study aims to determine if managers can influence the relationship between knowledge management and employee agency.

H5. *Employee supervision support moderates the relationship between knowledge management and employee empowerment positively.*

To summarise our discussion the below Fig. 1 encapsulates the interconnectedness among the key variables of our study.

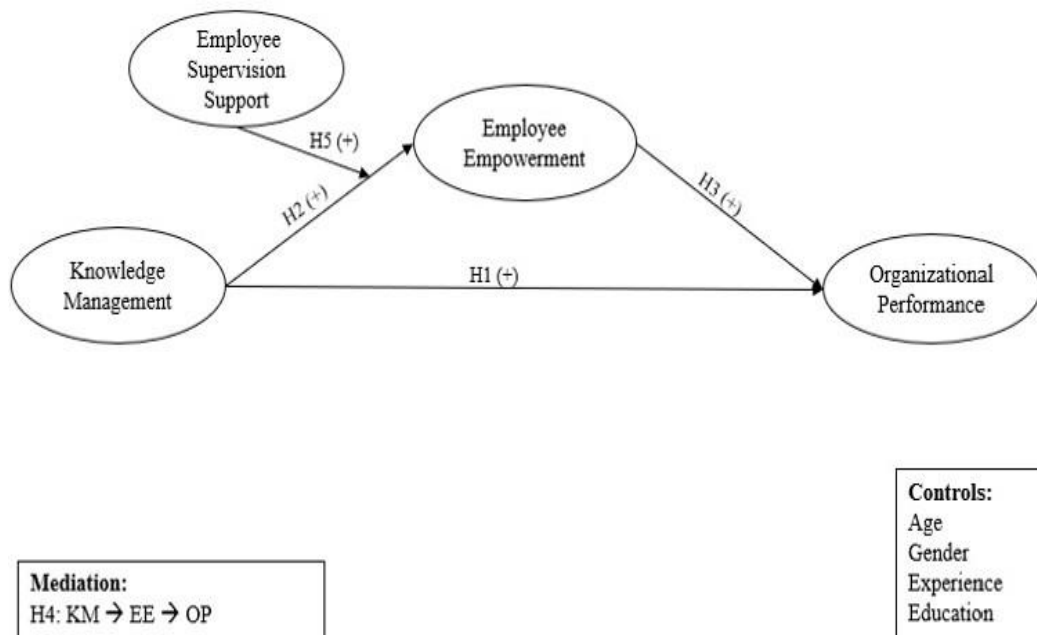


Fig 1. Conceptual model

3. Method

3.1. Participants and sampling method

Geographically, the study focused on the province of Khyber Pakhtunkhwa in Pakistan, notably the public universities of Peshawar, Mardan, and Kohat. We honed in on public university administrators, faculty, and employees as our target audience. For this investigation, 290 questionnaires were utilized. According to a rule of thumb proposed by Nunnally (1967), ten observations are needed for each indicator variable to define a minimum sample size criterion.

It was requested that ministerial staff, officers, and faculty members of public universities in the cities of Peshawar, Mardan, and Kohat, Khyber Pakhtunkhwa, Pakistan, complete the questionnaire and send their comments. Self-administered surveys were mailed out with a cover letter describing the study's objectives and the significance of the respondents' responses.

3.2. Measures

A survey was conducted to collect primary data. The current study's questionnaire had five sections, the first of which was a demographic aspect, followed by 07 items on knowledge management (Zailani & Kumar, 2011) the second section, 07 items on employee empowerment (Awamleh, 2013) as the third section, 09 items of employee performance (Rodwell et al., 1998) as the fourth section, and 06 items of employee supervision support (Zhang & Wang, 2021) as the last section. To measure the independent and dependent relationship "Likert Scale" has been used. The measurement model, structural model, and Cronbach's alpha were all employed in this investigation.

4. Data analysis

This study's objective is to examine the relationship between knowledge management and employee performance (respectively, the independent and dependent variables); moreover, this study must examine the role of employee empowerment as a mediator of the relationship between knowledge management and employee performance, as well as the moderating effect of employee supervision support on the relationship between knowledge management and employee empowerment. When a researcher aims to study the correlations between numerous variables simultaneously, the most effective and appropriate estimation method is structured equation modelling (Hair et al., 2019).

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4.1. Demographic Analysis

Demographic characteristics revealed that male respondents made up 72.7 percent of the 290 respondents, while female respondents made up 27.2 percent. The highest recorded qualification with maximum of 46.8 percent of Master's/MS/M.Phil.degree. The present positions of the respondents were examined, it was discovered that 31.0 percent were ministerial staff and 18.6 percent were faculty members. A detailed analysis of the demographics is presented in Table 1.

Table 1. Demographic statistics

		Frequency	Percentage
Gender	Male	211	72.7
	Female	79	27.2
Age	25-30 years	75	25.8
	31-40 years	124	42.7
	41-50 years	67	23.1
	51-60 years	24	8.2
Experience	1-5 years	78	26.8
	6-15 years	124	42.7
	16-25 years	72	24.8
	26-35 years	16	5.5
Designation	Ministerial Staff	90	31.0
	Teaching Assist	66	22.7
	Officers	80	27.5
	Faculty Members	54	18.6
Qualification	Intermediate	23	7.9
	Bachelors	98	33.7
	Masters/MS/M.Phil.	136	46.8
	PhD or Higher	33	11.3

4.2. Measurement model

Path Model comprises Structural and Measurement Models (Hair et al., 2021). The structural model, also known as an internal model, reflects the relationship between latent variables. The outer model comprises the measurement model and indicators that reflect the interrelationships among the latent variables (constructs) (Hair et al., 2021). The four pillars of the study's structural approach are knowledge management, employee empowerment, supervisory support, and employee performance. Below is the measurement framework for the study. The measurement model analysis of our investigation is given in Fig.

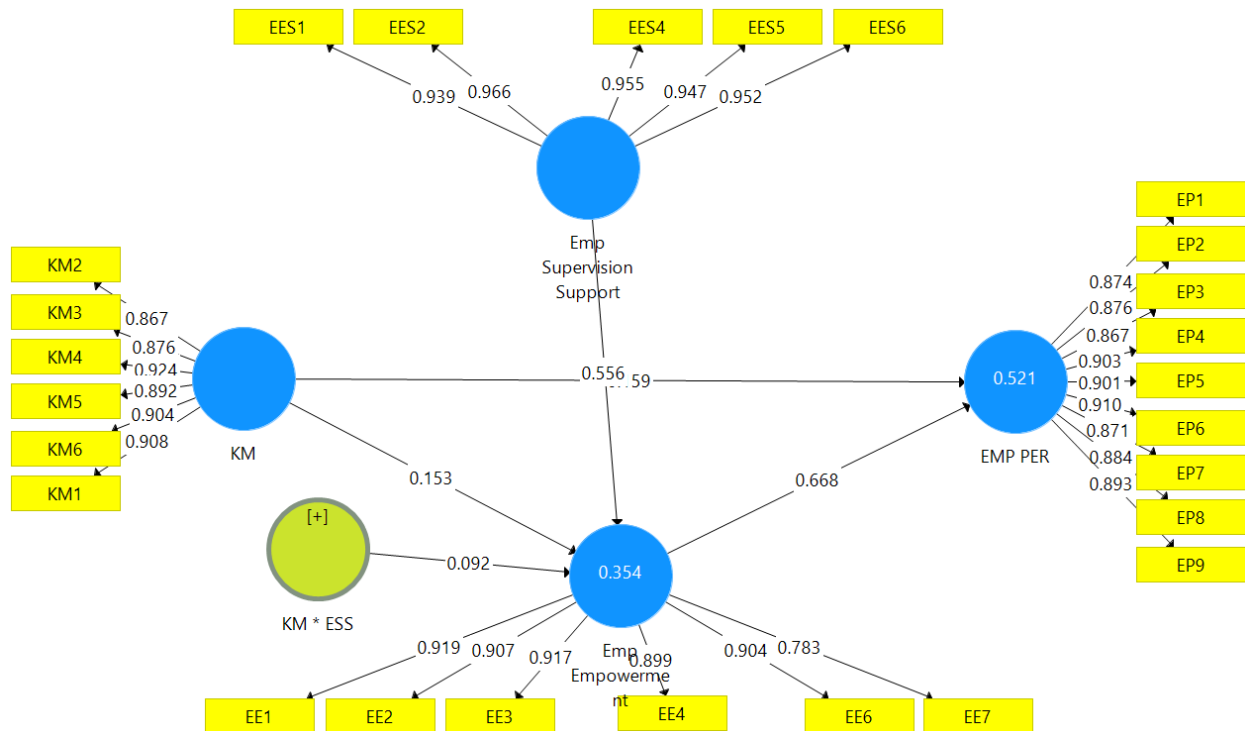


Fig 2. Measurement model analysis

4.3. Reliability of the constructs

Knowledge management, employee empowerment, employee supervision support and employee performance questionnaires were employed in this research designed (Al-Edenat & Alhawamdeh, 2018; Biasutti & Heba, 2012; Eisenberger et al., 2002; Rodwell et al., 1998). Once the questionnaire analysis was completed, and according to the cronbach's alpha analysis, the value of cronbach's alpha should be greater than 0.70 (Hair et al., 2014), each scale that has been used in this study had its Cronbach alpha value computed, and any scale whose value was less than 0.7 was removed from further analysis, and correlations between corrected items must be between 0.35 and 0.80 (Netemeyer et al., 2003). In the current study, the values of the coefficient alpha were under investigation and were greater than .7, which suggests that these variables had good reliability estimates. Similarly, all the items-total correlation were found to be corrected and the values were greater than 0.35. All the item-total correlation of the current study were greater than 0.35, in that case no items were changed.

Discriminant validity test - HTMT

According to (Hair et al., 2019) for discriminant validity, the hetrotrait-monotrait (HTMT) method was used. The results of HTMT can be shown in table 3, all the values of this study were less than 0.85, as well as the HTMT inference threshold was less than 1. As a result, the discriminant validity of the method is confirmed.

Table 2. Validity Analysis

	1	2	3	4
1. Employee performance				
2. Employee empowerment	0.736			
3. Employee supervision support	0.549	0.593		
4. Knowledge Management	0.320	0.237	0.182	

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4.4. Structural Model

Fig3 depicts the structural model of the research with control variables. For testing the hypothesis, a full model was run using 5000 randomly chosen samples with replacement in a bootstrapping procedure. This process will examine and explore the direct and indirect relationships among the variables.

The R^2 value indicates the endogenous components of the structural model that explain variance (Hair et al., 2019). The significance of employee performance is 0.521, and the magnitude of employee empowerment is 0.354. According to (Cohen, 1992), if the R^2 value is 0.12 or less, that means low effect size, a medium effect size value between 0.13 and 0.2, and a large effect size value of 0.26 or more. The construct of current study had higher R^2 .

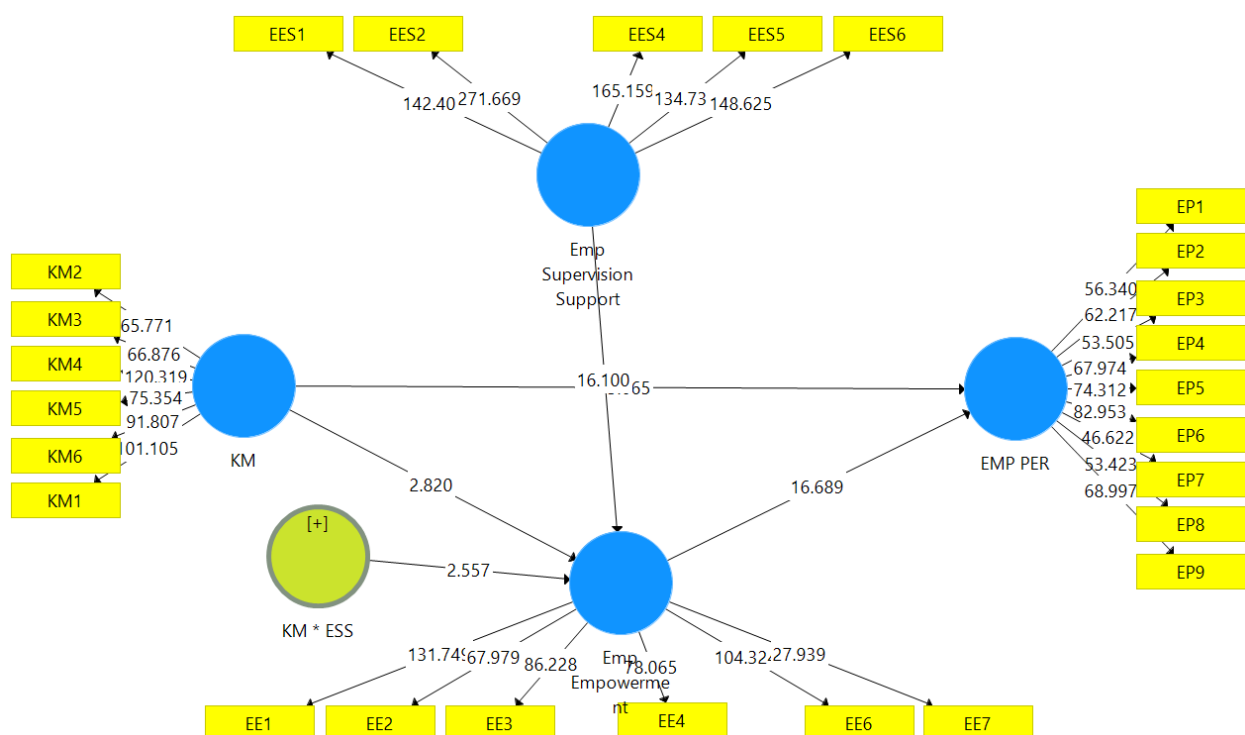


Fig 3. Structural Model

4.5. Hypothesis testing for direct relationships

The table below displays the outcomes of tests that directly test the premise of the hypothesis. H1 proposed a relationship between knowledge management and workplace productivity. Knowledge management is hypothesised to increase workplace efficiency. The sample mean is 0.158, the standard deviation is 0.043, and the t-statistic is 3.673, demonstrating that knowledge management and employee performance are positively related. Consequently, the first hypothesis (H 1) was supported.

H2 suggested a connection between KM and employee autonomy. It has been hypothesised that knowledge management benefits worker autonomy. The correlation between the two variables was $t = 2.838$ (Mean of the Sample = 0.15, Standard Deviation = 0.054). Consequently, the second hypothesis was valid.

As hypothesised in Hypothesis 3, employee empowerment correlates positively with output. T-statistic = 16.489 for independent variable mean comparison (mean of sample: 0.672, standard deviation: 0.041). This provides support for H3 as a feasible hypothesis. The results of these direct interactions are shown in Table 3.

Table 3. Direct relationships

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Emp Empowerment -> EMP PER	0.668	0.672	0.041	16.489	0
Emp Supervision Support -> Emp Empowerment	0.556	0.558	0.033	16.805	0
KM -> EMP PER	0.159	0.158	0.043	3.673	0
KM -> Emp Empowerment	0.153	0.15	0.054	2.838	0.005
KM * ESS -> Emp Empowerment	0.092	0.09	0.036	2.568	0.011

4.6 Testing the mediation effect of employee empowerment

To ensure the reliability of the mediation study, a bootstrap test must be conducted (X. Zhao et al., 2010). Occasionally, the restrictions of the Sobel test can be circumvented with mediation analysis (Sobel, 1982). According to numerous researchers (Hair et al., 2018). This is evidenced by (Baron & Kenny, 1986). The analysis was simplified by bootstrapping techniques, while the heavy lifting was performed using Smart PLS.

The fourth hypothesis studied the role of an employment agency in the association between knowledge management and productivity. Empowering employees was hypothesised as a link between knowledge management and productivity. H4 was validated as the correct hypothesis based on discriminatory statistics (Mean = 0.101, SD = 0.037, and $t = 2.754$).

4.7. Testing the moderating role of employee supervision support

Baron and Kenny (1986) suggest utilising bootstrapping to resample data to determine the moderation test. Using the same method, it was determined whether or not supervisory support for knowledge management and employee empowerment functions as a moderator in this study.

It was hypothesised that employee supervision would attenuate the relationship between knowledge management and worker empowerment (Hypothesis 5). The relationship between knowledge management and employee autonomy was hypothesised to be moderated by the availability of supportive supervisory structures. The results indicated a moderated approach that was statistically significant (Sample Mean = 0.061, Standard Deviation = 0.025, and t statistic = 2.507). The fifth hypothesis is accepted. Table 4 displays the findings of the moderation analysis conducted for this inquiry.

Table 4. Moderation analysis

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
KM * ESS -> Emp Empowerment -> EMP PER	0.062	0.061	0.025	2.507	0.012

5. Discussion and Conclusion

This study investigates how knowledge management influences workplace productivity. Knowledge management acted as the independent variable in this study. The dependent variables of the current study were employee performance, empowerment, and supervisory support.

Though the focus of this study was on how knowledge management may be used to produce organizational policy, it has the extra benefit of encouraging and enabling employee decision-making that is in the business's best

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interests. Researchers have discovered a link between knowledge management and productivity (Sunarsi et al., 2021).

The contribution of management to an organization's success is an empowered staff that makes practical, constructive decisions for the business's benefit. When employees can communicate their issues openly with management, a pleasant environment permeates the company (Abualoush et al., 2018).

Accordingly, the framework and underlying theory of aptitude, motivation, and opportunity are utilized in the present study (AMO). This hypothesis is consistent with the contemporary occurrence of when and how knowledge management boosts an individual's motivation by providing them with the opportunity to gain power and assist their supervisors while performing their duties, resulting in improved employee performance.

These findings imply that organizations gain a substantial competitive advantage when they choose the right individual for the position, provide them with responsibility, and permit them to use their initiative and discretion to produce good results. This illustrates that empowering employees has a significant impact on public college productivity.

The empowerment of employees serves as a link between knowledge management and employee performance. The quality of supervision mediates the relationship between knowledge management and employment agency in this study.

Therefore, knowledge management and employee empowerment can be viewed as independent but interconnected employee performance drivers in the public university sector. To enhance staff performance, the university administration should investigate extending acceptance and investment in knowledge management.

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