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The Impact of Psychological Empowerment on Innovative Work Behavior: The Mediating Effect of Knowledge Sharing

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Abstract

The current research reflects intention in evaluating the influence of psychological empowerment on innovative work behavior while simultaneously exploring the mediating function of sharing knowledge behavior in this connection. Quantitative data was gathered using a cross-sectional approach. A theoretical model that links psychological empowerment, innovative work practices, and knowledge sharing as a mediating variable is developed and evaluated in the study. Data was gathered from academic staff members working at private universities in Peshawar using well-structured questionnaires. This study is essential for informing faculty development initiatives, offering insights into the professional growth and creativity of academic staff in a competitive landscape. These findings have significance for higher education institutions (HEIs) looking to empower their academic staff psychologically in order to tap into their inventive capacities. Moreover, it provides guidance for human resource development, allowing administrators to customize training programs fostering faculty empowerment and knowledge sharing, thereby acting as a bridge between academia and industry, facilitating knowledge transfer and collaborative efforts between private universities and industry stakeholders to implement best practices and engage in further research.

KEYWORDS: Innovative work behavior, knowledge sharing, psychological empowerment.

Introduction

Adapting to evolving circumstances, organizations heavily depend on the inventive actions of their workforce (Yasir and Majid, 2020). According to Amankwaa *et al.*, , (2019), Newman, *et al.*, (2018), Hughes, *et al.*, , (2018) and innovation stands as a crucial wellspring for organizational prosperity, competitive edge, and enduring triumph within the dynamic and fiercely competitive business landscape of today. Furthermore, Beard and Burger (2017), and Hollywood *et al*., (2016) Chen *et al.*, (2022) suggest that innovation fosters less tension-filled workplaces, heightened efficiency, and enhanced work caliber through the creation of fresh competitive approaches to conducting business activities, surmounting challenges, addressing market demands, and refining the

current organizational framework. Thus, portray by (Negassi *et a*l., 2019), in order to attain sustainability for future, organizational employees must engage in IWB.

Established research asserts that behaving innovatively, employees reflect formulation and execution of new and beneficial (Scot and Bruce, 1994), serves as a driving force for organizational innovation. Consequently, Cai *etal.,* (2018) pointed to factors that stands important in influencing employees' innovative behavior becomes of paramount significance.

According to (Sun et al., , 2015) and Zhang *et al.,(*2018) Numerous empirical investigations have affirmed that employees driven by psychological empowerment are inclined to partake in innovative behavior.

Drawing from Velthouse and Thomas' model, Spreitzer (1995) delineated psychological empowerment as a motivational construct encompassing four facets: competence, autonomy, significance, and effectiveness. Conger and Kanungo (1988), Thomas and Velthouse(1990) indicated that entities have dedicated ample endeavors in amplifying their employees' psychological empowerment, acknowledging its intrinsic nature, and fostering employee involvement in managerial practices (Mainiero, 1986).

Psychological empowerment not only constitutes a significant factor in moulding employees' innovative behavior at work, but also underpins the knowledge necessary for innovating products, services, and business strategies, among other things. Thus, a valid assertion can be made that innovation shares a strong connection with knowledge and its dissemination within organizations. Dong et al., (2017) noted that knowledge acquiring through sharing of ideas heightens the degree of innovative behavior. Innovative work behavior (IWB) revolves around the conception and implementing original thinking to enhance the execution of duties assigned to employees (Yuan and Woodman, 2010). Radaelli et. al (2014) indicated that knowledge sharing between employees enables entities to exchange priceless ideas and skills, which are essential in coming up with creative solutions to completing duties at work. As an endeavor to enrich the existing body of literature, on the influence of psychological empowerment on Innovative Work Behavior (IWB) is tested with the inclusion of knowledge sharing playing a role of mediator. Although the importance of knowledge sharing among faculty members is widely recognized, there exist a scant research in this area specifically inside university environments. Even though many studies have sought to analyze the causes of workers' innovative work behavior (such as the findings of Yuan and Woodman, 2010), the unresolved nature of both individual and environmental causes highlights the need for more research (Afsar et al., ,2015). According to Thomas and Velthouse (1990), the multidimensional nature of psychological empowerment, it is indispensable to scrutinize the connections between its discrete dimensions and innovative behavior. Such an investigation gains significance due to the contextual specificity of the dimensions of psychological empowerment, which might exhibit variations across diverse cultures, geographic regions, industries, and job roles (Hancer, 2005; Hancer, George, & Kim, 2005).

The main goal of this research is to examine the influence of physical exercise (PE) on an individual's work behavior at work. Furthermore, the objective of this study is to evaluate the mediating effect sharing of knowledge on the relationship between PE and IWB.

Investing significantly in the knowledge and skills of university educators is crucial for countries aiming at economic efficiency. In Pakistan, the Higher Education Commission (HEC) is actively fostering a culture of innovative behavior among faculty members in Higher Educational Institutions (HEIs), aligning with global research emphasizing the pivotal role of educators in driving knowledge and innovation. This research, centered on investigating innovative work behavior in Pakistani HEIs, seeks to assist private universities in nurturing creative students, contributing to intellectual advancement, and empowering faculty members to establish robust links with the industrial sector for economic uplift.

Based on the above consideration, the present study addresses the following four research objectives:

(1) to investigate the impact of knowledge Sharing on innovative Work Behavior.

(2) to investigate the effect of knowledge Sharing on Psychological Empowerment.

(3) to Examine the influence of Psychological Empowerment on Innovative Work Behavior

(4) to examine the mediating role of Knowledge Sharing on the relationship between Psychological Empowerment and innovative Work Behavior.

The ensuing sections of the work are structured in the following fashion. The initial phase of this research involves doing a comprehensive literature review to elucidate and delineate the constructs under investigation, as well as to determine the interrelationships among them. Subsequently, the three hypothesis are presented. Subsequently, the approach employed in the empirical investigation is delineated. Ultimately, the findings are presented and afterwards analyzed.

Innovative Work Behavior

In a study by Midgley and Dowling (1978), innovativeness is explored as a lens through which to comprehend the actions of individuals who actively seek resolutions to challenges, possess a keenness for problem-solving in their work environment, and demonstrate receptivity and enthusiasm towards change. Innovative Behavior at work includes both the development of new ideas and their subsequent incorporation into actual use (Birdi et al., 2016). Within an organizational context, individuals with innovative traits play pivotal role in achieving milestones for an organization (Amabile, 1988). The behavioral facet of innovation, often seen as a combination of motivational and cognitive processes (Janssen et al., 1997). This phenomenon is observed through the execution of certain actions. As a means of comprehending the diverse behaviors essential for augmenting an organization's overall innovativeness the notion of Individual behaving innovatively was established by Scott and Bruce (1994) According to Yuan and Woodman (2010) innovative work behavior at work the conscious introduction or application of practical ideas by individual employees within their

work setting. In essence, innovation can be understood as the successful implementation of imaginative ideas., resulting in enhanced organizational performance (Akram et al., 2018).

As intellectual capital continues to gain prominence across diverse business sectors, it is foreseeable that both researchers and practitioners in the realm of human resource development (HRD) will actively promote the display of innovative behavior amid employees within the Higher Education (HE) sector. Bos-Nehles *et al* (2017) and Brewer and Brewer(2010) noted that this encouragement is becoming increasingly essential due to the evolving nature of the sector, making it reliant on individuals with innovative capabilities. The concept of Individual Innovative Behavior (IIB) holds substantial value as a resource, contributing to the sustained survival of organizations over the long term (Shanker *et al.,* 2017).

Psychological Empowerment

The origin of psychological empowered people can be attributed to the empowerment management theory. Laschinger et al., (2009) indicated that as the empowerment management theory progressed, numerous scholars began recognizing the significance of exploring empowerment through the lens of an individual's internal perspective, which proved more meaningful compared to other viewpoints Psychological empowerment, as perceived by the proponents, encompasses the psychological reactions and cognitive motives that individuals undergo in response to the methods and practices implemented within an organisation.In this study, we utilize the conceptualization of psychological empowerment as proposed by Spreitzer According to (Spreitzer, 1995) psychological empowerment is the manifestation of an individual's inherent motivation towards tasks or their orientation within their work role. She further discussed that the formation of this orientation is determined by cognitive perceptions that are impacted by the environment, rather than being inherent traits that originate exclusively from an individual's personality (Spreitzer, 1995).

According to the research conducted by Thomas and Velthouse (1990) as well as Spreitzer (1995a, 1995b), it has been established that persons who encounter empowerment are more inclined to exercise greater influence over their colleagues inside the workplace. They possess an elevated sense of impact and are acknowledged by their colleagues as individuals capable of achieving goals that significantly influence their work setting. Individuals empowered on a psychological level demonstrate increased creativity, resilience, and a proactive approach to their job responsibilities. Additionally, propounded (Bogler and Somech 2004) and (Rinehart and Short 1994) these individuals demonstrate elevated levels of job dedication, job satisfaction, engagement in organizational citizenship Behavior, and the maintenance of a happy mental state.

Previous studies, according to (Kundu and Kumar 2017) and (Suifan *et al.,* 2018) have demonstrated that employees who are empowered psychologically has a efficacious impact on employees' emotional engagement and creativity, as well as on organizational performance. Spreitzer's research findings demonstrated a positive association between psychological empowerment and decentralized decision-making in organizational contexts, enabling employees at lower hierarchical levels to engage actively in the decision-making process (Spreitzer, 1995).

Knowledge Sharing

Within the realm of educational management, the exploration of sharing of knowledge has garnered substantial attention, primarily attributed to its potential for fostering innovation and creativity among individuals at various hierarchical levels within an organization. The process of knowledge sharing serves as a pivotal mechanism to shift the learning process from an individual-focused endeavor to a holistic, organizational endeavor. This transformative process facilitates the conversion of individual insights and learning into a collective, organizational knowledge pool (Nissen *et al.,* 2014)

The idea of sharing knowledge is thoroughly examined in the field of management research. The aforementioned procedure holds significant importance within the field of knowledge management, as it serves as a foundational step towards the efficient application of knowledge. According to (Mirzaee and Ghaffari 2018) and(van den Hooff and de Ridder, 2004) the concept of knowledge sharing is predominantly conceptualized as a Behavioral occurrence, characterized by the reciprocal transmission of knowledge, which includes information, skills, and expertise, among persons . Knowledge sharing among employees in organizational environments encompasses the transfer of useful implicit or explicit knowledge. This approach not only facilitates the generation of new knowledge but also adds to the growth of organizational knowledge, consequently producing advantages for the company. Sharing knowledge is a cardinal factor in augmenting innovation, acting at both the individual (Kim and Park, 2017) and organizational (Lin, 2007; Michna, 2018; Pittino *et al.,* 2018) levels.

The exchange of information plays a crucial role within the context of higher education institutions, facilitating the transfer of knowledge, skills, and experiences among individuals within the organisation. According to previous studies (Al-Kurdi *et al.,* 2018; Fullwood & Rowley, 2017; Fullwood *et al.,* 2013), communication in academia occurs through various channels, encompassing both vertical and lateral modes. These avenues include scholarly seminars, gatherings, teaching events, email exchanges, research publications, networking, informal and formal web platforms, workshops, and collaborative teamwork. The act of information sharing is of great importance, since it yields advantages for both the organization and its personnel (Haas & Hansen, 2007; Sedighi *et al.,* 2018). From an organizational standpoint, the act of sharing knowledge has been found to result in various positive outcomes. These include the promotion of entrepreneurial orientation (Pittino *et al.,* 2018), the improvement of financial

output (Oyemomi et al., , 2019), the facilitation of developing new product (Stock *et al.,* 2021), the optimization of processes (Mcharek et al., ,2018), and the enhancement of organizational absorptive capacity (Rafique *et al.,* 2018).

From an employee perspective, the act of sharing knowledge has been found to yield various positive outcomes. These include an increase in inventiveness (Zulfiqar, 2019), an enhancement of problem-solving aptitude (Metzger *et al.,* 2019), an elevation in in employee engagement (Aslam et al., , 2018), the perception of absorptive capacity (Kang & Lee, 2017), an amelioration in job performance (Kuzu & Özilhan, 2014), the provision of opportunities for professional growth (Metzger *et al.,* 2019), the refinement of decision-making proficiencies (Durand *et al.,* 2021), and an upsurge in job satisfaction (Rafique & Mahmood)

Literature Review and Hypothesis Development

Knowledge Sharing and Innovative Work Behavior

As indicated by (Michna 2018; Pittino) and (Zhao *et al.,* 2020) and the individual level as evidenced by (Anser et al., , 2020; Kim and Park, 2017; Mura *et al.,* 2013; Radaelli *et al.,* 2014; Rao Jada *et al.,* 2019) the extant literature provides robust support for the idea that sharing of knowledge with each other aids in shaping and augmenting innovation, operating at both the organizational level. The relevance of this can be ascribed to the pivotal function that knowledge plays in paving a way for innovative behavior at work innovation. The utilization of expert information, which includes a comprehensive understanding of past solutions and historical events, forms the basis and acts as a source of inspiration for the development of innovative ways. By engaging in the practice of information sharing among colleagues, the cumulative reservoir of knowledge possessed by employees is expanded, thereby augmenting the probability of novel ideas arising.

According to Slavin (1996), the successful acquisition of new knowledge from a cognitive psychology standpoint requires the learner to engage in cognitive restructuring or elaboration. The act of sharing knowledge elicits cognitive processes, since the individual receiving the knowledge must engage in connecting and integrating the newly obtained information with their pre-existing knowledge. As a result, the practice of sharing knowledge stimulates introspection regarding one's existing knowledge, encompassing the processes of verifying and reinterpreting it. According to Radaelli *et al.,* (2014), the act of sharing knowledge facilitates the recombination and re-elaboration of existing knowledge, which in turn stimulates the creation and implementation of novel ideas. A study conducted in Poland has demonstrated that the exchange of tacit information leaves a beneficial impact on team creativity. This result corroborates with the research conducted by Kucharska and Kowalczyk (2016a), which explicitly focuses on team members. This highlights the importance of sharing knowledge in stimulating cognitive processes that contribute to increased creativity and innovation within teams.

The Social Exchange Theory (SET), first established by Blau (1964), is a prominent conceptual framework utilised to examine the correlation between information exchange and the innovative activity exhibited by individuals who follow. The Social Exchange Theory (SET) is grounded on the concept of reciprocity norms, which suggest that an individual's Behavior within a reciprocal relationship is contingent upon the Behavior exhibited by the other party involved. From this perspective, it is imperative to ensure a congruence between the cost, encompassing the temporal and cognitive resources required for generating novel insights, and the benefits in the form of institutional incentives provided by universities. According to Kankanhalli *et al.,* (2005), it is imperative to establish this alignment in order to effectively encourage faculty members to actively engage in knowledge sharing practices.

Hypothesis 1: The association between Knowledge sharing and innovative work Behavior is significantly positive.

Knowledge Sharing and Psychological Empowerment

According to Spreitzer (1995), Psychological Empowerment (PE) can be characterized as the enhancement of inherent motivation towards tasks, which is manifested through four cognitive dimensions that indicate an individual's alignment with their job role: competence, influence, meaning, and self-determination (p. 1443). The idea of empowerment has garnered significant attention from researchers because of its relevance and importance for both organizations and individuals (Liden *et al.,* 2000). The act of sharing knowledge (KS) among individuals within an organization contributes to the improvement of employees' competencies and competence (Nisula and Kianto, 2016). According to Lee (2015), individuals who actively participate in information sharing activities are more likely to develop a sense of self-perception characterized by capability, competence, and value. This, in turn, contributes to their motivation and dedication in the workplace. According to Conger and Kanungo (1988), empowerment serves as a technique that enhances employees' motivation with regards to their acquired skills. As a result, it can be inferred that individuals who exhibit elevated levels of motivation experience a psychological state of empowerment (Amundsen and Martinsen, 2015), which in turn increases their likelihood of making valuable contributions to the overall effectiveness of the organization (D'Innocenzo et al., , 2016). In line with above mentioned rationale, we formulated the hypothesis that:

Hypothesis 2:The act of sharing knowledge is positively related to psychological empowerment

Psychological Empowerment and innovative work behavior

Psychological empowerment theory posits that individuals who experience a sense of empowerment demonstrate an engaged approach to their work, hence fostering a conducive environment for engaging in innovative Behaviors. Schermuly *et al.,* (2013) found that workers who undergo psychological empowerment effectively address motivational obstacles while participating in the innovation process.

According to Mumford and Gustafson (1988), creative actions encompasses developing original ideas and the subsequent application in practical settings. Therefore, the manifestation of innovative Behavior in the workplace encompasses the amalgamation of both creativity and innovation (Janssen, 2000). Considering that creativity is an essential element of innovative work Behavior (IWB), it is justifiable to propose that psychological empowerment might potentially impact the relationship between psychological empowerment and workers' IWB. Employees that demonstrate psychological empowerment, as outlined by the principles of psychological empowerment theory, tend to have a proactive mindset towards their job responsibilities. This proactive mindset, in turn, fosters their involvement in innovative Behaviors. According to Schermuly *et al.,* (2013), persons possessing psychological empowerment show inclination to overcome motivational obstacles encountered throughout the process of innovation. Mumford and Gustafson (1988) propose that ingenuity is distinguished by the production of novel concepts and their subsequent implementation in pragmatic settings. Therefore, "Innovative work Behavior" (IWB) encompasses the combined aspects of creativity and innovation (Janssen, 2000). Considering that creativity is a vital component of innovative work Behavior (IWB), it is justifiable to propose that the relationship between psychological empowerment and employees' IWB may be impacted by psychological empowerment. Empowerment as a notion is expected to have an impact on the manner in which employees direct their creative and innovative efforts within their respective job positions.

According to (Deci, 1975; Ryan, 1982) and (Ryan, Mims, & Koestner, 1983; Deci, Connell, & Ryan, 1989) the utilisation of Cognitive Evaluation Theory (CET) as a theoretical framework in research has yielded findings indicating that intrinsic motivation, specifically psychological empowerment, acts as a crucial role in facilitating individuals' discernment of autonomy, competence, meaning, and feedback within their professional settings. The engagement of individuals in Innovative Work Behavior (IWB) is influenced by these aspects, as demonstrated by previous studies (Yidong & Xinxin, 2013; Javed, Khan, Bashir, & Arjoon, 2017a). The paradigm known as the Cognitive Evaluation Theory (CET) posits that employees engage in the evaluation of outer stimuli in order to influence their subsequent Behavioral responses (Ryan, 1980, 1982; Deci & Ryan, 1985). Likewise, during innovative process employees are engaged in the assessment of external factors to determine the presence of a favorable setting for their innovative work Behavior. According to Yidong and Xinxin (2013), when employees perceive a supportive culture, it serves as a motivating factor for their engagement in IWB.

Amabile's (1988) study provided evidence to support the notion that intrinsic motivators exerted a substantial impact on the ideation process inside organizational settings. The motivators examined in this study included several elements such as the perception of significance, feelings of competence, self-determination, and effect. These characteristics help in improving individuals' capacity to execute ideas and offer valuable recommendations for initiating change. According to Seibert, Wang, and Courtright (2011), this factor had a role in creating a favorable atmosphere for fostering creativity. Investigations in previous scholarly works reflect the connection between organizational conditions, such as employee autonomy, control, and a sense of ownership, and the presence of innovation (Amabile *et al.,* 1996). This highlights the significance of intrinsic motivation in influencing the creative and innovative contributions made by employees, as well as the ways in which elements like as autonomy and a sense of ownership cultivate an atmosphere that promotes innovative thought and Behavior.

It has been constantly argued by scholars that employees are more inclined to participate in innovative work when they are granted the liberty and independence to select their method towards a particular task (Amabile & Gitomer, 1984; Sun, Zhang, Qi, & Chen, 2012). According to Javed *et al.,* (2017a), the generation of new ideas is a non-routine process that necessitates individuals to go beyond established operating processes. The facilitation of this process is enabled by a state of psychological empowerment and strong conviction, which is further reinforced by the provision of enough support and resources required for the implementation of these concepts.

Additionally, Alge, Ballinger, Tangirala, and Oakley (2006) emphasized that people that are empowered have a higher degree of autonomy to produce novel and unique ideas. Furthermore, they demonstrated an increased level of assurance regarding the significance of their ideas within the organizational context. According to Amabile (1988), empowerment was found to have a matching effect of diminishing employees' perception of external constraints and limitations imposed by factors and regulations. The feeling of empowerment facilitated individuals in actively making constructive contributions to the dynamics of their workstation (Block, 1987; Randolph, 1995).Organizational employees reporting a deep sense of significance and strong resolution reflects high motivation vigor which aids them to actively participate in the development of innovative ideas. The individuals' intrinsic motivation stemmed from the value and meaning they ascribed to their contributions, together with their unwavering dedication to their pursuits.

Furthermore, Sinha, Priyadarshi, and Kumar (2016) argue that psychological empowerment encompasses other dimensions, such as competence, control, autonomy, and the belief in creating an impact, which serve as motivators for employees to actively

execute their ideas within the organizational context. This underscores the significant impact of these elements of empowerment in driving people to transform their innovative ideas into concrete actions and results.

Therefore, it is justifiable to expect a favorable correlation among psychological empowerment and Innovative Work Behavior (IWB). Moreover, a substantial body of empirical research from prior investigations substantiates this concept, as scholars have continuously illustrated that psychological empowerment effectively augments individual work Behavior (Zhang & Bartol, 2010; Seibert, Wang, & Courtright, 2011; Singh & Sarkar, 2012; Çekmecelioglu & Özbag, 2016). This research highlights the correlation between experiencing a sense of empowerment and actively participating in innovative Behaviors within the organizational setting.

H3: Psychological empowerment has a positive influence on innovative work Behavior.

Mediating Role of Knowledge Sharing

The process of knowledge sharing is distinguished by a cultural environment of social engagement, wherein there is a dissemination of employee knowledge, experiences, and skills inside a certain department or organisation (Lin, 2007, p. 136).According to (Davenport & Prusak, 1998, p.5) knowledge is a dynamic amalgamation of structured experiences, personal standards, contextual knowledge, and expert viewpoints, which collectively serve as a foundation for assessing and assimilating novel experiences and information. The knowledge structure described by Kmieciak (2021) is of significant importance in facilitating the development of innovation. As a result, maintaining a current understanding of the latest information empowers individuals to participate in creative endeavors that influence the inventive Behavior of employees (Battistelli *et al.,* 2019).

According to Anser *et al.,* (2020), the act of exchanging information among individuals plays a significant role in enhancing the skills, expertise, and capacities of colleagues. This, in turn, creates an environment that is favorable to developing innovative Behavior. The act of sharing of knowledge among individuals in a collaborative environment not only facilitates personal development but also enhances the collective capacities required for promoting innovation within the organizational framework.

According to Slavin (1996), cognitive psychology suggests that humans need to undergo cognitive restructuring or elaboration in order to successfully incorporate new knowledge. In the present framework, the act of sharing knowledge assumes a pivotal function by facilitating individuals in the cognitive restructuring process. When individuals participate in the act of information sharing, their primary responsibility is to establish connections and integrate newly acquired knowledge with their previous understanding. This procedure facilitates individuals in the refinement of their cognitive frameworks and the integration of novel insights with their preexisting knowledge, consequently augmenting their comprehensive comprehension and proficiency in a specific field.

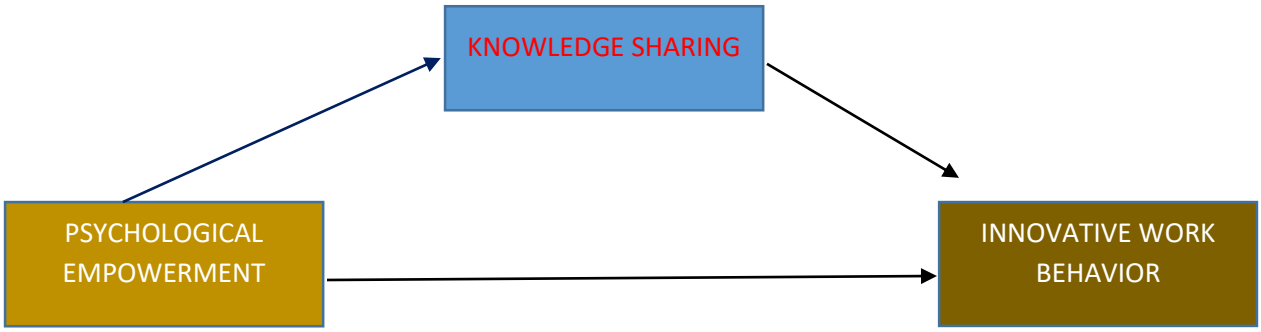
The act of sharing knowledge has a significant and far-reaching impact on the psychological well-being of individuals in the workforce. Kang, Lee, and Kim (2017) posit that there exists a prevailing anticipation that individuals who experience psychological empowerment are inclined to exhibit heightened levels of engagement in knowledge sharing and innovative work Behavior within various entities, encompassing enterprises, organizations, and institutions. Individuals who are psychologically empowered tend to exhibit higher levels of self-assurance in their professional endeavors, leading to potential improvements in their creative thinking and problem-solving skills (Kelley *et al.,* 1996). The increased self-assurance and enhanced cognitive capacities of these empowered individuals are factors that contribute to the demonstration of a more advanced level of inventive Behavior. The intricate relationship among psychological empowerment, information sharing, and innovative work Behavior highlights the multifaceted and impactful dynamics inside the organizational setting.

The Social Cognitive Theory (SCT) offers valuable insights into the complex dynamics of cognitive processes, Behavioral components, environmental factors, and personal characteristics that contribute to an individual's self-motivation and Behaviors within the context of an organization (Crothers, Hughes, & Morine, 2008). in order to exhibit innovative Behavior. The Social Cognitive Theory (SCT) paradigm highlights the complex connections between cognitive processes, Behaviors, and contextual elements that jointly influence an individual's ability to innovate within an organizational setting.

Hypothesis 4: **Knowledge sharing (KS) serves as a mediator in the association between Psychological**

Empowerment and Innovative Work Behavior.

Conceptual Model



Methodology Sample and Procedures

Methodology

Knowledge-based economies, including those in industrialized nations, owe a great deal of their economic and social progress to the contributions of their research institutes. The primary objective of the Higher Education Commission (HEC) in Pakistan is to enhance the teaching and research quality culture within Higher Educational Institutions (HEIs), with the aim of attaining a lasting competitive advantage. As indicated by (Mahmood, 2016) the primary emphasis lies in cultivating the innovative Behavior of faculty members, encompassing not only the development of effective teaching and learning practises but also the pursuit of academic and practical research inside educational institutions

Population, Sample and Data Collection

The study's target group comprised the academic staff members who are employed by private universities in Peshawar. These universities are ABASYN University, CECOS University of Information Technology and Emerging Sciences, City University of Science & Information Technology, Qurtuba University, Iqra National University and Sarhad University of Science and Information Technology. These universities are actively involved in promoting interdisciplinary teaching and research in the fields of natural and social sciences, technology, and engineering.

Sample size determined through "ten times rule" introduced by Hair, Ringle, and Sarstedt (2011) a widely utilized method in prior scholarly works (Kock & Hadaya, 2018). This rule posits that the sample size ought to exceed 10 times the maximum number of inner or outer model links directed at any latent variable within the overall model. Through convenience sampling, survey questionnaires were distributed among faculty of private universities, utilizing efforts of business graduate students. A total of 320 surveys were disseminated, and about 300 questionnaires were returned, indicating a response rate of 90 percent. Following the exclusion of 20 surveys that were either incomplete or invalid, a total of 300 questionnaires were maintained for the purpose of statistical analysis. Considering the study model presented, the sample size provided appears to be adequately suitable for the application of Structural Equation Model (SEM) in examining the intricate path model, as recommended by Kline (2010).

The frequency table in the research report provides significant insights into the demographic data of the study participants. In terms of age, the majority of respondents fall within the 25-35 years bracket, constituting 66.0% of the total sample. The 36-45 years age group makes up 29.9%, while only a small percentage, 4.1%, belong to the 46-55 years category. Gender distribution indicates a slight male majority, with 70.4%, while females account for 29.6% of the sample. Regarding educational qualifications, the majority have MPhil/MS degrees (52.9%), followed by those with Master's degrees (21.0%), and PhD holders (26.1%). When considering tenure, a significant portion of respondents have been in their positions for 6-10 years (73.2%), while smaller percentages have 11-15 years (18.6%), 16-20 years (7.2%), or 21-25 years (1.0%) of experience. In terms of job titles, the highest percentage, 52.6%, holds the position of Lecturer, followed by Assistant Professors (25.4%), and other positions like Associate Professors (5.2%), Professors (6.5%), and Chairmen (10.3%). The total number of participants in the study is 291, and the percentages in each category sum up to 100%, offering a comprehensive overview of the demographic composition of the research sample. (see Table 1)

Table1. Respondents' demographics

Age	Frequency	Percent
25-35 years	192	66.0
36-45 years	87	29.9
46-55 years	12	4.1
Gender	Frequency	Percent
Male	205	70.4
Female	86	29.6
Education	Frequency	Percent
Master	61	21.0
MPhil/MS	154	52.9
PhD	76	26.1
Tenure	Frequency	Percent
6-10 years	213	73.2
11-15 years	54	18.6
16-20 years	21	7.2
21-25 years	3	1.0
Job Title	Frequency	Percent
Lecturer	153	52.6
Assistant Professor	74	25.4
Associate Professor	15	5.2
Professor	19	6.5
Chairman	30	10.3
Total	291	100.0

Measures

The hypothesis verification method encompasses three primary variables: psychological empowerment, knowledge sharing, and innovative work Behavior. In order to assess the aforementioned attributes, the research used a Likert scale consisting of five points, ranging from 1 (strongly disagree) to 5 (strongly agree). The scale assessing innovative work Behavior, consisting of nine items, was employed in the research conducted by De Jong and Den Hartog (2010). Psychological empowerment was assessed using a 12-item scale, as reported by Spreitzer (1995). The scale comprises four sub-dimensions, namely meaning, competence, self-determination, and impact. The tool has a high level of validity. The study conducted by Spreitzer and Quinn (2001) demonstrated a robust level of test- es were employed to assess all dimensions under investigation. The Cronbach's α coefficients of the scales in this study were found to be significantly higher than the acceptable threshold of 0.70, as suggested by Nunnally and Bernstein (1994).According to Lichtenthaler et al., (2018), The eight-item scale utilised in the Knowledge Sharing Behavior (KSB which was adapted from the previous research conducted by Mura et al., (2013).

Data Analysis Procedure

This current research study employs a quantitative technique and incorporates a cross-sectional research design. The process of analysing data is performed via the SmartPLS 4.0 software package.The selected approach for this study is Partial Least Squares Structural Equation Modelling (PLS-SEM), a widely recognized approach that is considered appropriate for conducting studies in the fields of business, management, and social sciences. PLS-SEM is particularly advantageous in handling situations when the sample size is small and the data does not follow a normal distribution, since it efficiently addresses both challenges (Hair et al., , 2014). Partial

Least Squares Structural Equation Modelling (PLS-SEM) offers notable benefits in the examination of established theories and the handling of intricate model structures (Ringle etal., 2018; Fernandes, 2012). The analysis consists of two primary stages: firstly, the specification of the measurement model to ensure the incorporation of constructs with strong indicator loading, convergent validity, composite reliability (CR), and discriminant validity; and secondly, the evaluation of the structural model by examining the significance of path coefficients through bootstrapping. The mediation analysis in this study utilises the method presented by Preacher and Hayes (2008), which is known for its rigorous approach. This method is particularly suitable for the partial least squares structural equation modelling (PLS-SEM) technique, as supported by previous research (Hair et al., , 2013; Hayes, 2009). It is worth mentioning that in the realm of Knowledge Management (KM), there has been a significant utilisation of Partial Least Squares Structural Equation Modelling (PLS-SEM) for the purpose of data analysis, as evidenced by several recent empirical research (e.g., Shujahat et al., 2018; Valaei et al., , 2017; Wang, Sharma, and Cao, 2016; Wang, Wang, Cao, and Ye, 2016).

Common Method Bias

According to Cohen (1988) The concept of variance in the context of CMB (common method bias) refers to the extent to which the observed variance can be attributed to the measurement method itself, rather than being a reflection of the underlying constructs that the measurements are intended to represent .The questionnaire survey is widely regarded as a primary area of concern. The estimation of CMB was initially conducted using Harman's single factor approach, wherein the first factor was determined to have a cutoff value below 50% (specifically, 36.26%) (Harman, 1976). The results obtained reflects that Common Method Bias(CMB) is improbable to elicit significant apprehension. The results of this test offer support for the assertion that the data collected in the present investigation is not affected by common technique bias.

Measurement Model Assessment

To evaluate the suitability of the measurement model, an analysis was performed to ascertain the reliability and validity of all the constructs employed in the model. The assessment of reliability, namely the measurement of inter-item consistency, was conducted using Cronbach's alpha (α) and composite reliability (CR). According to the findings presented in Table 2, it can be observed that all of the constructs examined in the study exhibited Alpha and CR values beyond the threshold of 0.7. This outcome provides assurance regarding the reliability of the constructs under investigation, as supported by previous research conducted by Chin (2010) and Hair et al., (2019). The assessment of collinearity among the constructs was conducted using the variance inflation factor (VIF). The assessment of convergent validity was conducted by utilising the average variance extracted (AVE). Furthermore, in order to assess the convergent validity of the constructs at the item level, we acquired item loadings. According to Hair et al., (2010), all of the constructions had item loadings exceeding 0.7. In order to assess convergent validity at the construct level, the researchers measured the average variance extracted (AVE). The AVE values for all constructs exceeded the minimum acceptable threshold of 0.5, as recommended by Hair et al., (2014). In their study, Henseler et al., (2016) observed that the hetrotrait and monotrait ratio (HTMT ratio) shown superior performance in assessing discriminant validity when compared to alternative approaches such as the Fornell-Larcker criterion. Consequently, the HTMT ratio was employed as a means to evaluate the extent of discriminant validity.

Table 2. Reliability and validity

Construct	α	Indicator	Loading	VIF	CR	AVE
Innovative Work Behavior	.904	IWB1	0.541	1.352	0.910	0.571
		IWB2	0.740	1.945		
		IWB3	0.783	2.123		
		IWB4	0.827	2.691		
		IWB5	0.788	2.429		
		IWB6	0.745	2.097		
		IWB7	0.795	2.687		
		IWB8	0.799	2.787		
		IWB9	0.747	2.212		
Knowledge Sharing	.864	KS1	0.643	1.765	0.873	0.517
		KS2	0.759	2.387		
		KS3	0.765	2.492		
		KS4	0.796	2.483		
		KS5	0.727	2.243		

		KS6	0.785	2.118		
		KS7	0.604	1.976		
		KS8	0.646	1.901		
Psychological Empowerment	.914	PE1	0.619	1.841	0.918	0.517
		PE10	0.762	2.412		
		PE11	0.637	1.968		
		PE12	0.718	2.352		
		PE2	0.726	2.250		
		PE3	0.764	2.229		
		PE4	0.662	1.758		
		PE5	0.720	1.891		
		PE6	0.733	2.081		
		PE7	0.743	2.368		
		PE8	0.769	3.056		
		PE9	0.752	2.511		

Note(s) PE=Psychological Empowerment, KS= Knowledge Sharing, IWB= Innovative Work Behavior, VIF=Variance Inflation Extract, CR=Composite Reliability, AVE= Average variance Extract

Table 3 Fornell & Larcker Criteria

	IWB	KS	PE
IWB	***0.756***		
KS	0.714	***0.719***	
PE	0.461	0.419	***0.719***

	PE9	0.752	2.511	

Note(s) PE=Psychological Empowerment, KS= Knowledge Sharing, IWB= Innovative Work Behavior,

Bold and Italics represents the Square- root of AVE

Table 4 Discriminant Validity HTMT

	IWB	KS	PE
IWB			
KS	0.803		
PE	0.508	0.476	

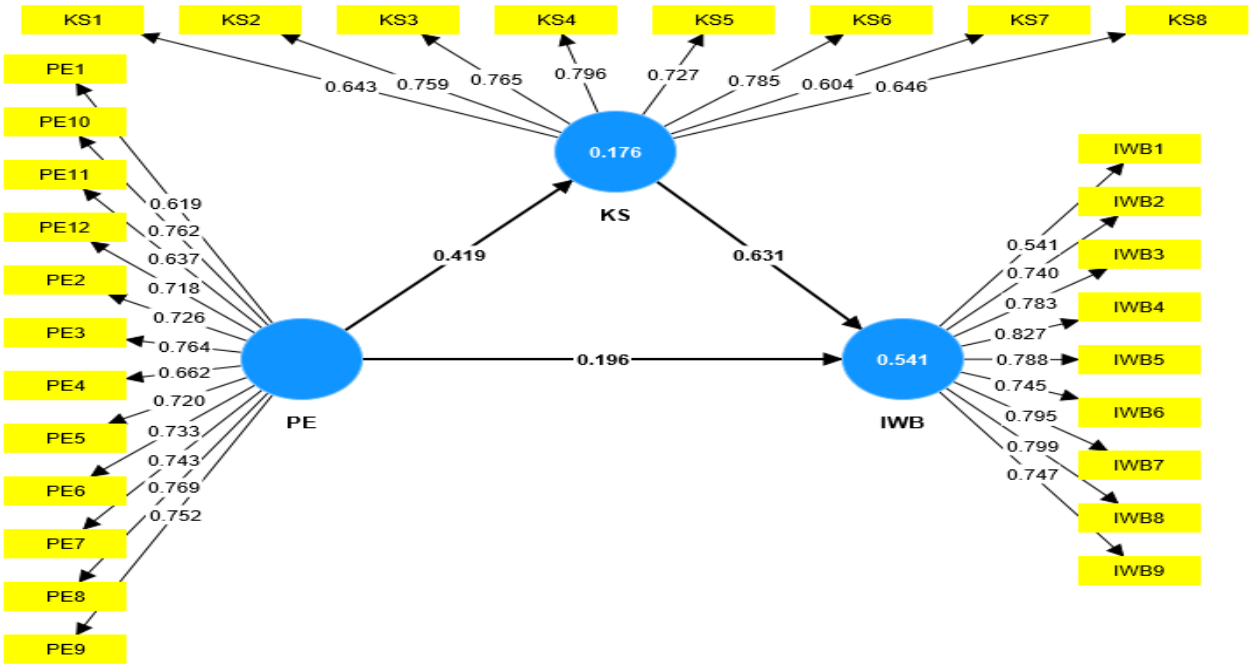


Figure 1 Measurement Model

Structural Model

The structural model examined the relationships, both direct and indirect, between the constructs. The initial hypothesis, which posited a relationship between Knowledge Sharing and innovative work Behavior, was found to be supported (β 0.631; $p < 0.001$). In a similar vein, the second hypothesis positing a correlation between Psychological empowerment and innovative work Behavior was also observed to be statistically significant (β 0.196; $p < 0.001$). The study observed a substantial relationship between Psychological empowerment and Knowledge Sharing, as hypothesized in hypothesis 3 (β 0.419; $p < 0.001$). To assess the convergent validity of the constructs at the item level, item loadings were obtained (see to

Table 5. Structural Model

Hypothesis	β	SE	T	P	Results
HI: KS -> IWB	0.631	0.038	16.750	0.000	Supported
H2: PE -> IWB	0.196	0.049	4.012	0.000	Supported
H3: PE -> KS	0.419	0.047	9.016	0.000	Supported

Note(s) β = Beta Coefficients= Standard Error, T=t statistics PE=Psychological Empowerment, KS= Knowledge Sharing, IWB= Innovative Work Behavior

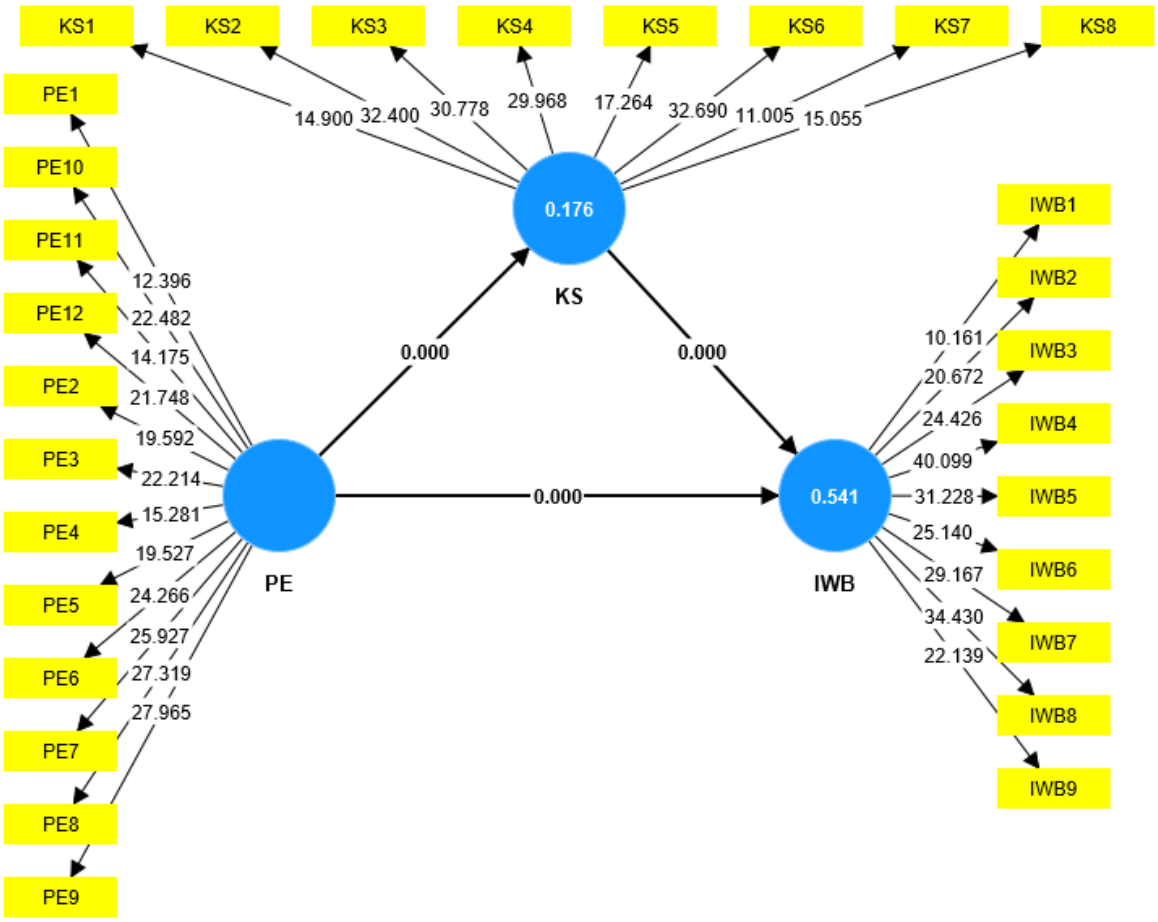


Figure 2 Structural Model

Mediation Analysis

A mediation study was performed to gauge the mediating effect of knowledge sharing (KS) on the association between psychological empowerment (PE) and innovative work Behavior (IWB). Findings of the research reflects statistically significant indirect relationship between Psychological Empowerment (PE) and Innovative Work Behavior (IWB).The results of the regression analysis revealed a beta coefficient of 0.265, suggesting a positive effect. This coefficient was accompanied by a t-value of 7.798, which was determined to be statistically significant at a p-value of less than 0.000. The statistical analysis revealed a substantial and positive relationship between physical education (PE) and the use of interactive whiteboard (IWB) (β=0.461, t=9.56, p<.000). The inclusion of a mediator has led to the sustained importance of the impact of physical exercise (PE) on the use of interactive whiteboards (IWBs), as demonstrated by a beta coefficient of 0.196, a t-value of 4.012, and a p-value below 0.001. The results of this study indicate that knowledge sharing (KS) has a supportive role and partially mediates the relationship between psychological empowerment (PE) and innovative work Behavior (IWB). Thus, the hypothesis H4 was found to be supported.

Table 6 Direct & indirect Effects

Total Effects(PE -> IWB)			Direct Effects(PE -> IWB)				Indirect Effect of PE on IWB					
Coefficient	T	p	Coefficient	T	p	Hypothesis	Coefficient	SE	T	P	95% Confidence Interval	
											Lower	upper
0.461	9.560	0.000	0.196	4.012	0.000	H3:PE -> KS -> IWB	0.265	0.034	7.798	0.000	0.558	.704

Validating Higher Order Construct

In the present investigation, we defined Psychological Empowerment (PE) as a reflective construct at a higher level, encompassing four distinct constructs at a lower level: competence, self-determination, meaning, and influence. In order to prove the validity of the higher-order construct, a thorough assessment was done. The results of this assessment indicated that all indicators for

PE demonstrated factor loadings that beyond the recommended level of 0.50 (Hair et al., , 2010). Furthermore, none of the items needed to be eliminated from the analysis. The investigation of reliability, utilising both Cronbach's alpha and composite reliability, produced data that exceeded the recommended threshold of 0.70 (Wasko and Faraj, 2005), indicating a high level of reliability (Hensler et al., , 2016). The study confirmed the convergent validity by observing that the Average Variance Extracted (AVE) for the construct of interest surpassed the criterion of 0.50. Discriminant validity was evaluated using two methods: the square root of Average Variance Extracted (AVE) as proposed by Fornell and Larcker (1981), and the Heterotrait-Monotrait Ratio (HTMT). The results indicated that the square root of AVE for the construct PE was higher than its correlations with other constructs, thus confirming discriminant validity. Additionally, the HTMT ratios were found to be below the threshold of 0.90, further supporting the discriminant validity of the construct. As a result, our research has effectively demonstrated the discriminant validity of the higher-order concept of PE, thereby establishing a strong basis for further investigations (Hair et al., , 2010; Wasko and Faraj, 2005; Hensler et al., , 2016; Fornell & Larcker, 1981). Please refer to Tables 5, 6, and 7.

Table 7: **Factor Loadings, Reliability and AVE for HOC (PE)**

	Outer loadings	Alpha	CR	AVE
Meaning <- PE	0.860	0.877	0.922	0.571
competence <- PE	0.866			
impact <- PE	0.822			
Self Determination <- PE	0.869			
PE9	0.752	2.511		

Note PE=Psychological Empowerment

Table 8: **Discriminant Validity HTMT**

	IWB	KS	PE
PE	0.508	0.476	

Note PE=Psychological Empowerment

Table 9: Forner and Larcker Criterion

	IWB	KS	PE
PE	0.461	0.421	0.855

Results and Discussion

The main objective of this research is to evaluate the influence of psychological empowerment (PE) on the expression of innovative work behavior (IWB) among academic professionals employed in private educational institutions. The present study introduces a constructed model and does empirical analysis to illustrate a positive association between physical activity (PE) and individual well-being (IWB). This study presents a formulated model and conducts empirical testing to demonstrate a favorable correlation between physical exercise (PE) and individual well-being (IWB). Furthermore, this study delves deeply into the intermediary function of knowledge sharing (KS) in the association between PE and IWB. In order to examine the direct and indirect correlations, the study formulates and empirically evaluates four hypotheses, all of which are found to be supported by the data.

Hypothesis 1 (H1) proposes that there exists a positive association between employee empowerment (PE) and idea generation Behavior (IWB). This suggests that intrinsic motivation, a core component of employee empowerment, plays a substantial role in encouraging staff members to actively engage in the creation of novel ideas. The current results offer validation for prior research conducted by Chang *et al.,* (2015) and Fu *et al.,* (2015).Drawing on research of Sangar and Rangnekar (2014) and Tsai (2018), it is suggested that when employees are empowered with decision-making autonomy, they are better equipped to generate novel ideas, mitigate risks, and enhance productivity, fostering innovation both at the individual and organizational levels.

Hypothesis 2 (H2) establishes a significant indirect relationship between KS and PE, indicating that knowledge sharing acts as a precursor to elevating employee motivation, i.e., PE. The findings presented in this study are consistent with prior investigations conducted by Amundsen and Martinsen (2015) as well as D'Innocenzo *et al.,* (2016).

Moreover, the findings of this investigation are consistent with other scholarly inquiries accomplished by (Liu and Phillips (2011); Hau *et al.,* (2013); Yesil and Dereli (2013); Lin (2007); and Kuo et al., 2014 Liao, Fei, and Chen (2007). These scholars have consistently shown that the act of sharing knowledge among employees positively influences their ability to innovate and contributes to overall organizational innovation. This study provides more evidence for the indirect correlation between information sharing and innovation, confirming the positive impact of knowledge sharing practices on faculty innovation within educational settings, as proposed by Cheng (2012).

This study provides a significant contribution to the current body of knowledge regarding the intricate interplay between psychological empowerment, knowledge sharing, and innovative work Behavior among academic scholars employed in private institutions. The results highlight the importance of cultivating intrinsic motivation and facilitating information exchange as strategies to enhance innovation in both academic and organizational contexts.

Managerial Implications

In order to explore the underlying causing employees to engage in innovative Behavior, this research paper examines the psychological empowerment components. Understanding these mechanisms is crucial for administrators and practitioners aiming to harness empowerment as a means to enhance workforce innovation. To foster these psychological processes, managers should implement strategies that promote productive task conflicts while mitigating relationship conflicts, thereby bolstering employees' psychological empowerment and their confidence in participating in decision-making processes. Moreover, to encourage knowledge sharing, managers should create conditions where knowledge contributors trust that knowledge receivers will use information responsibly, employing mechanisms such as mentoring, job rotations, and intra- and inter-departmental collaboration to reduce conflicts and build interpersonal trust. This paper also reconciles conflicting views on the determinants of employee innovation, emphasizing the importance of addressing both individual psychological factors and organizational structures. Furthermore, it is possible for managers to augment innovative Behavior through the cultivation of self-confidence, which originates from an empowered disposition and positive psychological empowerment. In addition, cultivating a work environment characterised by openness and support, where employees are encouraged to exercise autonomy in decision-making and offer their ideas,leaving optimistic waves on employee self-assurance. This can facilitate the development of innovative solutions, enhance business performance, and build a culture of innovation. The literature supports the premise that enabling and encouraging individuals to be creative and challenged at work enhances innovative behavior, irrespective of job-related stress (Huijun & Wei, 2010; Li & Wu, 2011; Zhang & Bartol, 2010; Teng et al., 2020).

Limitations and Recommendations for Future Research

It is essential to consider the limitations of this research when examining the results. Due to the cross-sectional nature of the data used in this analysis, causal connections could not be established. Despite taking the required steps to account for Common Method Variance (CMV), this study encountered problems common to cross-sectional designs. In order to overcome this constraint, it is advisable for future research endeavours to give way to longitudinal data to further substantiate these findings.

The second limitation is the use of a cross-sectional study approach, which may restrict our capacity to infer relationships' causes. Despite receiving criticism, cross-sectional designs continue to provide useful insights, as highlighted by Spector (2019), particularly in the disciplines of organizational psychology and Behavioral literature.

The third constraint is from the study's specific sample, which consisted of employees from private universities in Peshawar, Pakistan, who were put to the test to see if the hypothesised research model worked. The limitation of focusing solely on one specific industry and country gives rise to inquiries over the applicability and generalizability of the findings to different sectors and countries. To address this issue, future research should include samples from multiple businesses and cultural backgrounds to acquire a deeper knowledge of the hypothesised linkages, improving conclusions and providing robust practical implications.

In a nutshell, our research has shown that the relationship between psychological empowerment and innovative behavior at work is impacted knowledge sharing as a mediator. Nevertheless, it is crucial to acknowledge that there might exist alternative mediation mechanisms that could offer in depth comprehension of the influence of psychological empowerment on innovative Behavior. Hence, it is advisable for researchers to explore supplementary mediation mechanisms employing alternative theoretical frameworks, such as job crafting and trust as moderating variables, in order to ascertain the most effective mechanism for elucidating the association between psychological empowerment and ingenuity.

Conclusion

In conclusion, this research aims to evaluate the influence of psychological empowerment (PE) on innovative work behavior (IWB) among academic professionals in private educational institutions. The constructed model, empirically analyzed, illustrates a positive association between PE and individual well-being (IWB). The study further explores the intermediary role of knowledge sharing (KS) in the PE-IWB association. Four hypotheses are formulated and empirically tested, all supported by the data. Hypothesis 1 confirms a positive association between employee

empowerment (PE) and idea generation behavior (IWB), aligning with prior research. Hypothesis 2 establishes a significant indirect relationship between knowledge sharing (KS) and PE, consistent with existing literature. These findings contribute to understanding the complex interplay between psychological empowerment, knowledge sharing, and innovative work behavior among academic scholars in private institutions. The study underscores the importance of intrinsic motivation and knowledge exchange in fostering innovation in academic and organizational settings.

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