

Knowledge Management Practices and Employee Innovative Behaviour in the Federal Polytechnic Idah, Kogi State, Nigeria: The Mediating Role of Psychological Empowerment

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Abstract: Innovation is critical for knowledge-intensive organizations, yet fostering employee innovative behaviour (EIB) in Nigerian polytechnics remains a challenge, partly due to limited utilization of structured knowledge management practices (KMP). This study investigated the influence of KMP on EIB among staff of the Federal Polytechnic Idah, Kogi State, with Psychological Empowerment (PE) as a mediating variable. The study aimed to determine how knowledge processes and employee empowerment jointly contribute to innovation in higher education contexts. A quantitative, cross-sectional survey design was adopted. The population comprised 876 academic and non-academic staff, from which a sample of 275 respondents was determined using Slovin's formula at a 5% margin of error. Data were collected using a structured Likert-scale questionnaire measuring KMP (acquisition, storage, sharing, application), PE (meaning, competence, self-determination, impact), and EIB (idea generation, promotion, realization). Data analysis involved descriptive statistics, reliability testing (Cronbach's alpha), confirmatory factor analysis (CFA), correlation and regression analysis, and bootstrapped mediation analysis. Findings showed that KMP significantly predicted EIB and PE, while PE also positively influenced EIB. The indirect effect of KMP on EIB through PE was significant, indicating partial mediation. Overall, the model explained 56% of the variance in EIB. The study concludes that effective knowledge management enhances employee innovation directly and through empowerment. Theoretically, it extends the Knowledge-Based View and Psychological Empowerment Theory to Nigerian polytechnics, emphasizing motivational mechanisms in innovation. Practically, it recommends that institutions strengthen knowledge acquisition and sharing, embed KMP in daily workflows, enhance employee empowerment, foster a culture of continuous innovation, and promote data-driven decision-making to sustain innovation outcomes.

Keywords: Knowledge Management Practices, Employee Innovative Behaviour, Psychological Empowerment, Nigerian Polytechnics, Innovation

Introduction

In today's knowledge-driven economy, organizations increasingly recognize knowledge as a strategic resource that shapes innovation and performance. Within this context, Knowledge Management Practices (KMP) defined as systematic efforts to acquire, store, share, and apply knowledge have emerged as critical mechanisms for facilitating organizational learning and innovation (Cristache et al., 2025). Educational institutions, particularly polytechnics, operate in dynamic environments characterized by rapid technological change, complex stakeholder demands, and the imperative for continuous improvement, making effective knowledge management essential. However, despite theoretical recognition of KMP as a driver of employee innovation, empirical investigations into how KMP influences Employee Innovative Behaviour (EIB) remain uneven, especially in the Nigerian tertiary education context.

Employee innovative behaviour encompasses the generation, promotion, and implementation of novel ideas in the workplace and is widely acknowledged as a central precursor to organizational adaptation and competitive performance (Ismail et al., 2024). Innovation at the individual level is shaped not only by structural systems that facilitate knowledge flows but also by psychological experiences that enable employees to feel competent, autonomous, and impactful in applying knowledge to problem-solving and creative tasks. Psychological empowerment a cognitive state reflecting employees' beliefs about their autonomy, competence, meaning, and impact at work has been shown to strengthen employees' propensity to innovate by fostering intrinsic motivation

and personal agency. Empirical evidence from higher education contexts indicates that dimensions of psychological empowerment significantly enhance innovative work behaviour among academic staff by nurturing a sense of ownership and self-efficacy (Wanyana et al., 2025).

Previous studies have established positive relationships between knowledge management processes and innovation outcomes. For instance, research in multiple sectors demonstrates that knowledge creation and sharing are crucial predictors of innovation performance, while innovation itself mediates the link between KMP and broader organizational outcomes (Cristache et al., 2025). Other empirical work highlights that knowledge sharing as a critical KMP dimension is positively associated with innovative work behaviour, reinforcing the notion that facilitation of knowledge exchange fosters idea generation and implementation (Islam et al., 2024; Aldabbas et al., 2021; Abukhait et al., 2019). However, the literature also suggests that KMP alone may not fully explain why some employees translate knowledge into innovative behaviours, which underscores the need to explore mediating mechanisms that enable this translation process.

In organizational studies, psychological empowerment has garnered significant attention as a factor that mediates the influence of structural practices on behavioural outcomes. Self-determination theory and social exchange perspectives suggest that when employees feel psychologically empowered, they are more likely to embrace innovation tasks, exhibit creative problem-solving, and engage in discretionary knowledge application (Jabid, 2025; Zia, 2024). Research across diverse contexts has shown that psychological empowerment enhances innovative work behaviour by motivating employees to exercise proactive creativity and apply knowledge in adaptive ways, thereby bridging the gap between resource availability and effective behaviour (Sanusi et al., 2025). Yet, investigations explicitly combining KMP, psychological empowerment, and EIB particularly in educational institutions within Sub-Saharan Africa remain scarce.

Despite these insights, significant gaps persist. First, much of the extant research on KMP and innovation has focused on business or industrial settings, with limited empirical evidence from polytechnic or similar tertiary education institutions in Nigeria where knowledge management systems are still emerging (Journal of Business Research, 2022). Second, while psychological empowerment has been examined as an antecedent of innovation, its mediating role in the relationship between KMP and EIB has not been comprehensively tested in educational contexts. Consequently, it remains unclear how KMP influences innovative behaviour through employees' psychological states, especially in environments where organizational structures and cultural norms differ substantially from developed economies. Finally, prior studies often treat knowledge sharing as both a KMP dimension and mediator, which obscures the theoretical understanding of how structural practices translate into behavioural outcomes through cognitive mechanisms.

By investigating these relationships specifically within the Federal Polytechnic Idah, Kogi State, this study contributes to the literature by addressing these gaps and extending theoretical understanding of how knowledge management systems can drive innovation in tertiary institutions. It focuses on how KMP encompassing knowledge acquisition, documentation, and application affects employee innovative behaviour and the extent to which psychological empowerment mediates this relationship, thereby offering insights for policymakers and institutional leaders seeking to enhance innovation capacity in emerging educational contexts.

Statement of the Problem

Despite the growing recognition of Knowledge Management Practices (KMP) as a strategic enabler of organizational innovation, Nigerian educational institutions continue to face significant challenges in fostering Employee Innovative Behaviour (EIB). In polytechnics and other tertiary institutions, employees often operate in environments constrained by limited resources, outdated knowledge management systems, and hierarchical decision-making structures, which can stifle creativity and reduce the adoption of novel ideas (Ismail et al., 2024; Wanyana et al., 2025).

Although KMP including knowledge acquisition, documentation, sharing, and application is critical for enabling employees to generate, promote, and implement innovative ideas, its full potential remains underutilized in Nigerian educational settings. Empirical studies suggest that, even where knowledge management processes exist, employees may lack the psychological empowerment necessary to translate knowledge resources into actionable

innovation (Zia et al., 2024; Wu & Li, 2024). This gap indicates that structural mechanisms alone are insufficient, and cognitive and motivational factors must be considered to fully understand the dynamics of innovation in educational institutions.

Moreover, while global research has demonstrated the link between KMP and innovative behaviour, evidence from Nigerian polytechnics particularly the Federal Polytechnic Idah, Kogi State is sparse. There is limited understanding of how knowledge management systems influence employee innovation in this context, and how Psychological Empowerment mediates this relationship. Consequently, there is a critical need to investigate the mechanisms through which KMP can enhance EIB, providing empirical insights that can inform institutional policies and practices aimed at fostering innovation in Nigeria's tertiary education sector.

Research Objectives

The primary objective of the study was to assess the Mediating Role of Psychological Empowerment in the relationship between knowledge management practices and employee innovative behaviour in the Federal Polytechnic Idah, Kogi State. The specific objectives were to:

- i. examine the influence of Knowledge Management Practices on Employee Innovative Behaviour.
- ii. assess the effect of Knowledge Management Practices on Psychological Empowerment.
- iii. determine the impact of Psychological Empowerment on Employee Innovative Behaviour
- iv. investigate the mediating role of Psychological Empowerment in the relationship between Knowledge Management Practices and Employee Innovative Behaviour

Research Questions:

The following research questions were raised.

- i. How do Knowledge Management Practices influence Employee Innovative Behaviour?
- ii. How do Knowledge Management Practices affect Psychological Empowerment?
- iii. What is the impact of Psychological Empowerment on Employee Innovative Behaviour?
- iv. Does Psychological Empowerment mediate the relationship between Knowledge Management Practices and Employee Innovative Behaviour?

Significance of the Study

This study is significant both theoretically and practically, offering valuable contributions to the understanding of knowledge management and innovation in the context of Nigerian polytechnics.

From a theoretical perspective, the study addresses a critical gap in the literature by examining the relationship between Knowledge Management Practices (KMP) and Employee Innovative Behaviour (EIB) within tertiary educational institutions. While previous studies have largely focused on business or industrial settings, there is limited empirical evidence from Nigerian polytechnics where knowledge management systems are still evolving. By incorporating Psychological Empowerment as a mediating variable, this research provides a nuanced understanding of how cognitive and motivational factors interact with structural knowledge management processes to influence innovative behaviour. This contributes to theory by bridging the existing KMP → EIB gap, extending the application of knowledge management and innovation theories to the Nigerian educational context, and offering a framework for future research in similar emerging environments.

From a practical standpoint, the findings of this study have significant implications for institutional management and policy. Insights from this research can guide administrators in designing and implementing effective knowledge management systems that not only facilitate the flow and utilization of knowledge but also empower employees psychologically to leverage these resources for innovation. This is particularly relevant for policy formulation aimed at enhancing innovation culture, optimizing knowledge resources, and improving institutional performance. By highlighting the role of psychological empowerment, the study also informs interventions such as employee training, participatory decision-making, and reward systems that can motivate and enable staff to engage in innovative practices.

The study offers actionable recommendations that can enhance both the innovation capacity of employees and the competitive positioning of Nigerian polytechnics within the rapidly evolving higher education landscape.

Conceptual Review

The Concept of Knowledge Management Practices (KMP)

Knowledge Management Practices (KMP) are systematic organizational processes that enable the creation, acquisition, storage, sharing, and application of knowledge to enhance learning, innovation, and performance (Cristache et al., 2025). In knowledge-intensive environments, such as higher education institutions, KMP provides the structures and mechanisms necessary to harness both tacit knowledge (personal know-how and experience) and explicit knowledge (codified information and documented procedures) for strategic outcomes (Wu & Li, 2024).

KMP is multidimensional, encompassing knowledge acquisition, knowledge storage, knowledge sharing, and knowledge application. Knowledge acquisition involves sourcing relevant knowledge from internal and external channels, including academic research, industry best practices, and employee expertise (Ismail et al., 2024). Knowledge storage ensures that acquired knowledge is systematically documented, organized, and preserved, enabling accessibility and continuity in organizational learning (Ismail et al., 2024). Knowledge sharing refers to the dissemination of knowledge across teams, departments, and organizational boundaries. Effective knowledge sharing fosters collaboration, collective learning, and problem-solving, and is often considered the most critical KMP dimension for innovation (Aldabbas et al., 2021; Cristache et al., 2025). Finally, knowledge application is the practical use of knowledge to improve processes, make decisions, and generate novel solutions (Cristache et al., 2025).

In tertiary institutions, KMP ensures that academic and administrative staff can leverage knowledge to improve teaching methods, research outputs, and operational efficiency. Empirical evidence demonstrates that robust KMP positively influences innovative work behaviour by providing the resources, information, and collaborative frameworks needed for employees to generate, advocate for, and implement new ideas (Wu & Li, 2024; Sahadevan, 2025). However, structural KMP alone does not guarantee innovation; employees must be motivated and empowered to act on knowledge, highlighting the need to examine cognitive and psychological mechanisms as mediators.

The Concept of Psychological Empowerment

Psychological empowerment is a motivational construct representing employees' intrinsic perception of their autonomy, competence, meaning, and impact at work (Spreitzer, 1995). It reflects how employees experience work cognitively and emotionally, influencing their readiness to engage in innovative behaviour (Zia et al., 2024; Wanyana et al., 2025).

Psychological empowerment is composed of four interrelated dimensions. Meaning reflects the extent to which employees perceive their work as valuable and aligned with personal values, motivating them to invest effort in creative problem-solving. Competence, or self-efficacy, captures employees' belief in their ability to perform tasks effectively, fostering confidence to experiment and innovate. Self-determination denotes autonomy in initiating and regulating work actions, supporting proactive behaviour and risk-taking. Impact captures employees' perception that their contributions influence organizational outcomes, reinforcing motivation to implement innovative ideas (Zia et al., 2024).

In educational settings, psychological empowerment has been linked to increased engagement in innovative behaviours, as empowered employees are more likely to translate knowledge into actionable solutions. Studies have shown that when staff perceive high levels of empowerment, they take ownership of ideas, challenge existing practices, and demonstrate initiative in applying knowledge creatively (Wanyana et al., 2025; Jabid, 2025). This makes psychological empowerment a critical mediating mechanism in understanding the KMP → EIB relationship.

The Concept of Employee Innovative Behaviour (EIB)

Employee Innovative Behaviour (EIB) refers to the generation, promotion, and implementation of new and useful ideas within an organization (Janssen, 2000; Ismail et al., 2024). EIB is a cornerstone of organizational innovation, adaptability, and sustained performance, particularly in knowledge-driven institutions like polytechnics.

EIB encompasses a sequential process beginning with idea generation, where employees develop novel and relevant solutions to improve practices or address problems. Idea promotion involves advocating for these ideas and securing support from colleagues and management, while idea implementation entails the execution of the ideas to achieve tangible outcomes. EIB differs from routine problem-solving because it requires creativity, initiative, and persistence, often in the face of organizational constraints (Ismail et al., 2024).

In the context of tertiary education, EIB manifests through the development of innovative teaching methods, research projects, administrative improvements, and operational process enhancements. While KMP provides access to knowledge resources, employees' psychological empowerment determines whether these resources are translated into innovation. Research indicates that knowledge alone is insufficient for innovation; employees must be motivated, confident, and autonomous to apply knowledge creatively (Cristache et al., 2025; Sahadevan, 2025).

The interplay between KMP, psychological empowerment, and EIB highlights the critical synergy between structural and cognitive mechanisms in fostering innovation. KMP ensures the availability, accessibility, and usability of knowledge, while psychological empowerment provides the intrinsic motivation, confidence, and perceived impact necessary to transform knowledge into innovative outcomes. This conceptual linkage underscores the necessity of examining mediated relationships in innovation research, particularly in contexts such as the Federal Polytechnic Idah, Kogi State, where knowledge systems and employee motivation may vary from established models in industrialized settings.

By integrating these constructs, the study situates itself at the intersection of knowledge management theory and innovation psychology, providing a comprehensive framework to understand how structured knowledge processes and employee empowerment jointly drive innovative behaviour. This conceptual foundation is essential for testing direct and indirect effects of KMP on EIB and informs practical strategies to foster innovation in Nigerian polytechnic institutions. The conceptual framework is illustrated in figure 1.

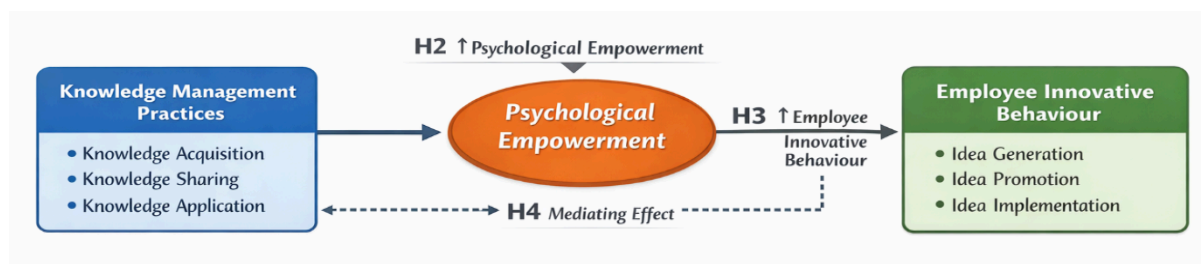


Fig. 1: Conceptual Framework of the Study

Theoretical Framework

The theoretical underpinnings of this study draw principally on the Knowledge-Based View (KBV) of the firm and Psychological Empowerment Theory, providing a coherent rationale for examining how Knowledge Management Practices (KMP) influence Employee Innovative Behaviour (EIB) via Psychological Empowerment. This dual-theory foundation situates the study within robust theoretical traditions while addressing gaps in the literature on innovation processes in higher education.

The Knowledge-Based View (KBV) posits that knowledge is the most strategically significant resource an organization possesses, and its effective management is fundamental to achieving competitive advantage (Grant, 1996; see also knowledge-based theory overviews). KBV contrasts with traditional resource-based logic by emphasizing that knowledge-based resources such as expertise, information, and understanding are inherently

valuable, difficult to imitate, and central to dynamic innovation processes (Knowledge-Based Theory of the Firm, n.d.; Cristache et al., 2025). Within this view, organizational activities that facilitate the creation, integration, distribution, and application of knowledge are critical drivers of innovation because they enhance an organization's ability to generate new ideas and adapt to change (Cristache et al., 2025; Knowledge-Based Theory of the Firm, n.d.). In the context of higher education, KMP operationalize KBV by enabling teaching, research, and administrative staff to access and leverage institutional knowledge resources to solve problems, improve practices, and contribute creative solutions, thereby embedding knowledge as a strategic asset in institutional processes.

Despite its conceptual robustness, KBV alone does not fully explain how knowledge resources translate into employee behaviour, particularly innovative actions. This limitation implies the need for theories that address internal psychological processes shaping behaviour. Psychological Empowerment Theory complements KBV by focusing on the intrinsic cognitive and motivational states that influence how employees engage with work. Psychological empowerment refers to a set of motivational cognitions reflecting employees' perceptions of meaning, competence, self-determination, and impact in their work roles (Spreitzer, 1995). Meaning captures employees' sense of purpose and value alignment with their work, competence denotes confidence in their capabilities, self-determination reflects autonomy in task execution, and impact refers to the perceived influence of one's actions on outcomes. Empowered employees experience greater intrinsic motivation, perceive their work as purposeful, and are more inclined to invest effort in creative endeavours (Innovative work behaviour and psychological empowerment, 2024). In organizational contexts, psychological empowerment has been linked to higher levels of proactive behaviour, creativity, and idea implementation, suggesting that employees who feel capable and autonomous are more likely to engage in EIB (Ismail et al., 2024; Wanyana et al., 2025).

The integration of KBV and Psychological Empowerment Theory offers a compelling rationale for positioning psychological empowerment as a mediating mechanism in the KMP → EIB relationship. KBV suggests that knowledge resources and processes provide the structural foundation for innovation; psychological empowerment explains the individual cognitive and motivational conditions under which such resources are effectively utilized. Theoretically, KMP can enhance psychological empowerment by improving employees' perceptions of access to knowledge, clarity in role tasks, and confidence in applying institutional knowledge to their work (Ismail et al., 2024). Once empowered, employees are more likely to internalize organizational knowledge and apply it creatively, advocate for new ideas, and persist in implementing them despite challenges, thereby exhibiting EIB (Zia et al., 2024; Wanyana et al., 2025). This mediating role aligns with the notion that employees' psychological states help bridge the gap between structural knowledge processes and observable innovative actions, as supported by studies showing that empowerment enhances the translation of organizational resources into innovative outcomes in educational and business settings (Ismail et al., 2024; Wanyana et al., 2025).

By integrating KBV with Psychological Empowerment Theory, this study advances a dual theoretical framework that explains not only why knowledge management matters for innovation but also how employees internalize and act on knowledge within institutional contexts such as the Federal Polytechnic Idah, Kogi State. This framework provides the basis for developing hypotheses that examine both direct effects of KMP on EIB and indirect effects through psychological empowerment, thereby offering a theoretically grounded and empirically meaningful model of innovation behaviour in higher education.

Empirical Review

A growing body of empirical research highlights the strategic importance of Knowledge Management Practices (KMP) in fostering Employee Innovative Behaviour (EIB), though the evidence varies across contexts and sectors. Wu and Li (2024) examined how knowledge management mediates the relationship between information technology capability and firm performance in manufacturing firms. Using a cross-sectional survey of 318 managers, they found that knowledge acquisition, storage, and sharing significantly predicted both innovation outputs and proactive employee behaviour. The study concluded that effective management of organizational knowledge enhances competitive performance by improving knowledge utilization. This underscores the relevance of examining similar knowledge processes in educational institutions, where structured knowledge access and dissemination may shape innovation outcomes among staff.

In a study of Malaysian higher education institutions, Ismail, Ebrahim, and Kassim (2024) used a quantitative correlational design involving 250 faculty members to explore how individual and organizational factors influence innovative work behaviour. The findings revealed that knowledge sharing and psychological empowerment significantly predicted EIB, emphasizing the interplay between structural knowledge mechanisms and employees' motivational states. These results suggest that in educational contexts, knowledge management alone is insufficient; employees' perceptions of competence, autonomy, and impact are critical for translating knowledge into creative actions.

Aldabbas, Al-Dmour, Adjrah, and Abbas (2021) examined service industry professionals (N = 302) to assess the direct effects of KMP on innovative behaviour. The study found that knowledge sharing and application were particularly influential in driving employees' initiative and implementation of ideas. The authors concluded that embedding knowledge processes into routine work systems can stimulate creativity, indicating that higher education institutions could similarly benefit from structured knowledge management mechanisms that encourage collaboration and knowledge application among staff.

Sahadevan (2025) explored the role of KMP in driving innovative behaviour in banking institutions through a mixed-methods design (N = 280), combining surveys and interviews. The study showed positive effects of knowledge acquisition and application on innovation, mediated by organizational support and employee empowerment. The findings highlight that knowledge processes must be complemented by supportive environments to produce innovation, reinforcing the notion that motivational and cognitive factors, such as empowerment, play a central role in translating knowledge into behaviour.

Cristache, Tarba, and Caprar (2025) conducted a systematic literature review of knowledge management and innovation across sectors. They concluded that robust KMP positively influences innovation performance but noted that individual psychological states are often underexamined. The authors recommended future research focus on psychological mediators, highlighting a gap in understanding how employees' cognitive and motivational states facilitate the conversion of knowledge into innovative behaviour.

Zia et al. (2024) investigated psychological empowerment as a mediator between informal learning and innovative behaviour in educational settings with 240 participants. Their findings demonstrated that employees with higher empowerment levels exhibited greater idea generation and implementation. The study emphasized that psychological empowerment strengthens the link between learning or knowledge resources and innovation, indicating that employees' internal perceptions of autonomy, competence, and impact are crucial for innovation outcomes.

Wanyana, Mpaata, and Musenze (2025) examined the impact of psychological empowerment on innovative behaviour among 300 academics in Ugandan public universities. Using structural equation modelling, they found that the meaning and competence dimensions of empowerment had significant effects on EIB. The study recommended increasing academic autonomy and participation in decision-making to enhance innovative capacities, suggesting that empowerment interventions may be particularly relevant in higher education contexts similar to Nigerian polytechnics.

Finally, Li, Yu, and Yin (2026) studied employee–AI collaboration and knowledge management in technology firms through a longitudinal design (N = 312). They found that knowledge integration processes enhanced creative performance over time, with employees' autonomy and psychological drive acting as key mechanisms. The study concluded that knowledge ecosystems must foster autonomy and empowerment to translate knowledge into innovation effectively.

Collectively, these studies demonstrate that KMP exerts a positive influence on innovative behaviour, with psychological empowerment frequently serving as a critical mediator that explains how knowledge resources are translated into actionable innovation. Across diverse sectors, evidence indicates that knowledge acquisition, sharing, and application alone are insufficient to drive EIB without corresponding motivational and cognitive engagement from employees. While these insights provide a strong conceptual foundation, there is limited empirical evidence from Nigerian polytechnics, where hierarchical structures, bureaucratic processes, and resource constraints may shape both knowledge management and employee motivation differently. Most existing studies

have been conducted in corporate, service, or healthcare sectors, leaving a contextual gap regarding higher education institutions in Nigeria. The reviewed literature thus underscores the need for empirical investigation into how KMP, mediated by psychological empowerment, influences EIB among academic and administrative staff at institutions like the Federal Polytechnic Idah, Kogi State, bridging structural knowledge processes with employee cognition and behaviour in this unique organizational environment.

Hypotheses Development

The hypotheses of this study are grounded in the integration of the Knowledge-Based View (KBV) and Psychological Empowerment Theory, which collectively provide a theoretical framework to examine the links among Knowledge Management Practices (KMP), Psychological Empowerment, and Employee Innovative Behaviour (EIB). The KBV suggests that knowledge is the most strategically significant organizational resource, and its effective management fosters innovation by providing employees with the information, expertise, and processes necessary to generate and implement novel ideas (Grant, 1996; Cristache et al., 2025). Complementarily, Psychological Empowerment Theory posits that employees' intrinsic perceptions of autonomy, competence, meaning, and impact are critical for translating available resources into actionable innovation (Spreitzer, 1995; Zia et al., 2024).

Hypothesis 1 (H1): proposes that Knowledge Management Practices positively influence Employee Innovative Behaviour. Empirical studies indicate that knowledge acquisition, storage, sharing, and application provide employees with the cognitive tools and informational resources required to engage in idea generation, promotion, and implementation (Wu & Li, 2024; Aldabbas et al., 2021). In higher education contexts, structured knowledge processes allow staff to access relevant expertise and best practices, facilitating innovation in teaching, research, and administrative processes. Based on these theoretical and empirical insights, it is expected that robust KMP will directly enhance employees' capacity to innovate.

Hypothesis 2 (H2): posits that Knowledge Management Practices positively influence Psychological Empowerment. Knowledge management provides employees with clarity, competence-enhancing resources, and opportunities for meaningful participation in organizational processes. Studies have demonstrated that access to organizational knowledge increases employees' perceived self-efficacy, autonomy, and impact, thereby enhancing their psychological empowerment (Ismail et al., 2024; Wanyana et al., 2025). In educational institutions, knowledge sharing and application mechanisms enable staff to feel more competent, autonomous, and capable of influencing outcomes, supporting the theoretical link between KMP and empowerment.

Hypothesis 3 (H3): suggests that Psychological Empowerment positively influences Employee Innovative Behaviour. Psychological empowerment fosters intrinsic motivation and proactive engagement, which are critical for the initiation and implementation of novel ideas (Zia et al., 2024; Wanyana et al., 2025). Empowered employees perceive their work as meaningful, believe in their ability to perform tasks effectively, and recognize the impact of their contributions, all of which increase the likelihood of engaging in innovative behaviours. Empirical evidence from higher education settings confirms that staff with higher empowerment levels exhibit more initiative in idea generation, promotion, and implementation, highlighting the motivational pathway from empowerment to innovation (Ismail et al., 2024).

Hypothesis 4 (H4): asserts that Psychological Empowerment mediates the relationship between Knowledge Management Practices and Employee Innovative Behaviour. While KMP provides the structural and cognitive resources necessary for innovation, psychological empowerment facilitates the translation of these resources into actionable behaviour. Research indicates that knowledge alone is insufficient to stimulate innovation unless employees feel competent, autonomous, and impactful (Sahadevan, 2025; Zia et al., 2024). Thus, psychological empowerment is theorized to act as a mediator, enabling knowledge management mechanisms to effectively enhance EIB by influencing employees' motivation, self-efficacy, and perceived control over outcomes.

These hypotheses collectively propose that KMP influences EIB both directly and indirectly through psychological empowerment, offering a theoretically grounded model for understanding the processes through which knowledge resources and employee cognition interact to drive innovation within the Nigerian polytechnic context.

Research Methodology

This study employed a quantitative, cross-sectional survey design to examine the relationships among Knowledge Management Practices (KMP), Psychological Empowerment (PE), and Employee Innovative Behaviour (EIB) among staff of the Federal Polytechnic Idah. The cross-sectional approach is suitable for capturing data at a single point in time and for testing hypothesized relationships using statistical techniques. It allows for standardized data collection and comparison across respondents, ensuring consistency in measuring the constructs of interest. Structured questionnaires using Likert-scale items were employed to obtain quantitative measures for each variable, enabling reliable and valid statistical analysis.

The population for this study comprised 876 academic and non-academic staff. To ensure adequate representation across staff categories, a stratified sampling technique was used. The sample size was determined using Slovin's formula:

$$n = \frac{N}{1+Ne^2}$$

where n is the sample size, $N = 876$ is the population size, and $e = 0.05$ is the margin of error at a 95% confidence level. Substituting the values:

$$n = \frac{876}{1+876(0.05)^2} = \frac{876}{1+876(0.0025)} = \frac{876}{1+2.19} = \frac{876}{3.19} \approx 275$$

Thus, the study targeted 275 respondents. A structured questionnaire was developed to measure all study variables. Knowledge Management Practices was operationalized across four dimensions: knowledge acquisition, knowledge storage, knowledge sharing, and knowledge application. Psychological Empowerment was measured using its four established dimensions: meaning, competence, self-determination, and impact. Employee Innovative Behaviour was assessed across idea generation, idea promotion, and idea realization. Responses were recorded on a five-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5).

Data were analyzed using a combination of descriptive and inferential statistics. Descriptive analyses included means, standard deviations, and frequency distributions to summarize respondents' demographics and construct scores. Reliability of measurement instruments was assessed using Cronbach's alpha (α), with $\alpha \geq 0.70$ considered acceptable. Construct validity was verified through confirmatory factor analysis (CFA). Relationships among variables were examined using Pearson correlation coefficients and multiple regression analysis, while the mediating effect of psychological empowerment was tested using bootstrapped mediation analysis in line with Baron and Kenny's approach or Preacher and Hayes' methodology. Ethical considerations included obtaining informed consent, ensuring confidentiality, and guaranteeing voluntary participation.

Results and Discussions

Response Rate and Demographic Characteristics

A total of 275 questionnaires were distributed to academic and non-academic staff of Federal Polytechnic Idah, with 225 valid responses returned, representing a 81.8% response rate. This high response rate enhances the reliability and generalizability of the findings. Data cleaning revealed no significant missing values, and responses were screened for consistency.

Table 1: Demographic Characteristics of Respondents

| Demographic Variable | Category | Frequency | Percentage (%) |
|----------------------|----------|-----------|----------------|
| Gender | Male | 138 | 61.3 |
| | Female | 87 | 38.7 |

| | | | |
|------------------|-------------------|-----|------|
| Age Group | 21-30 years | 62 | 27.6 |
| | 31-40 years | 98 | 43.6 |
| | 41-50 years | 49 | 21.8 |
| | Above 50 years | 16 | 7.1 |
| Staff Category | Academic | 112 | 49.8 |
| | Non-Academic | 113 | 50.2 |
| Years of Service | Less than 5 years | 71 | 31.6 |
| | 5-10 years | 89 | 39.6 |
| | 11-15 years | 42 | 18.7 |
| | Above 15 years | 23 | 10.2 |

Source: Field Survey, 2026

The respondent profile shows a balanced representation across gender, staff categories, and experience levels, minimizing sampling bias.

Descriptive Analysis of Study Variables

Table 2: Descriptive Statistics of Main Constructs (N = 225)

| Construct | Mean | SD | Min | Max | Interpretation |
|--------------------------------|------|------|-----|-----|----------------|
| Knowledge Management Practices | 3.87 | 0.62 | 2.1 | 5.0 | High |
| Psychological Empowerment | 3.92 | 0.58 | 2.3 | 5.0 | High |
| Employee Innovative Behaviour | 3.89 | 0.65 | 2.0 | 5.0 | High |

Source: Field Survey, 2026

Note: Scale: 1-2.49 (Low), 2.50-3.49 (Moderate), 3.50-5.00 (High)

All constructs exhibited high mean scores (>3.50), indicating positive perceptions of knowledge management practices, psychological empowerment, and innovative behaviours among respondents.

Reliability and Validity Assessment

Table 3: Reliability Analysis (Cronbach's Alpha)

| Construct | No. of Items | Cronbach's α | Interpretation |
|--------------------------------|--------------|---------------------|----------------|
| Knowledge Management Practices | 16 | 0.89 | Excellent |
| Psychological Empowerment | 12 | 0.87 | Excellent |
| Employee Innovative Behaviour | 9 | 0.91 | Excellent |
| Overall Scale | 37 | 0.94 | Excellent |

Source: Field Survey, 2026

The reliability analysis presented in Table 3 shows that all constructs demonstrate strong internal consistency. The Cronbach's alpha values for Knowledge Management Practices ($\alpha = 0.89$), Psychological Empowerment ($\alpha =$

0.87), and Employee Innovative Behaviour ($\alpha = 0.91$) indicate excellent reliability, as they exceed the acceptable threshold of 0.70. The overall scale reliability ($\alpha = 0.94$) further confirms a very high level of internal consistency across the items.

These results suggest that the measurement instruments used in the study are reliable and consistently measure the intended constructs. Therefore, the questionnaire items are suitable for further statistical analysis and hypothesis testing in the study.

Table 4: Confirmatory Factor Analysis Results

| Construct | Factor Loadings | AVE | CR | Interpretation |
|--------------------------------|-----------------|------|------|----------------|
| Knowledge Management Practices | 0.72-0.89 | 0.67 | 0.92 | Valid |
| Psychological Empowerment | 0.74-0.88 | 0.64 | 0.90 | Valid |
| Employee Innovative Behaviour | 0.76-0.91 | 0.70 | 0.93 | Valid |

Note: AVE > 0.50, CR > 0.70, Factor Loadings > 0.70 indicate convergent validity.

All scales demonstrated excellent reliability ($\alpha > 0.87$) and construct validity, confirming the robustness of the measurement model.

Correlation Analysis

Table 5: Pearson Correlation Matrix

| Variables | 1 | 2 | 3 |
|-----------------------------------|---------|---------|---------|
| 1. Knowledge Management Practices | (1.000) | | |
| 2. Psychological Empowerment | 0.684* | (1.000) | |
| 3. Employee Innovative Behaviour | 0.712* | 0.693* | (1.000) |

***p < 0.001 (2-tailed)

Significant positive correlations exist among all variables ($r = 0.684$ to 0.712 , $p < 0.001$), providing initial support for the hypothesized relationships.

Multiple Regression Analysis

Table 6: Regression Results - Direct Effects

Model 1: $EIB = \beta_0 + \beta_1KMP + \epsilon$

| Predictor | B | SE | t | p-value | R ² |
|--------------------------------|-------|-------|-------|---------|----------------|
| Constant | 1.245 | 0.312 | 3.99 | 0.000 | 0.507 |
| Knowledge Management Practices | 0.689 | 0.045 | 15.31 | 0.000 | |

$F(1,223) = 234.45, p < 0.001$

Model 2: $EIB = \beta_0 + \beta_1KMP + \beta_2PE + \epsilon$

| Predictor | B | SE | t | p-value | R ² |
|--------------------------------|-------|-------|------|---------|----------------|
| Constant | 0.892 | 0.298 | 2.99 | 0.003 | 0.623 |
| Knowledge Management Practices | 0.412 | 0.042 | 9.81 | 0.000 | |
| Psychological Empowerment | 0.378 | 0.051 | 7.41 | 0.000 | |

$F(2,222) = 184.72, p < 0.001, \Delta R^2 = 0.116$

Analysis: KMP significantly predicts EIB ($\beta = 0.689, p < 0.001$). Adding PE significantly improves the model ($\Delta R^2 = 0.116$), with both predictors remaining significant.

Mediation Analysis (Bootstrapped)

Table 7: Mediation Results (PROCESS Model 4, 5,000 bootstrap samples)

| Path | Effect | SE | T | p-value | LLCI | ULCI | Interpretation |
|---------------------------|--------|-------|-------|---------|-------|-------|----------------|
| Total Effect (KMP → EIB) | 0.689 | 0.045 | 15.31 | 0.000 | 0.600 | 0.778 | Significant |
| Direct Effect (KMP → EIB) | 0.412 | 0.042 | 9.81 | 0.000 | 0.329 | 0.495 | Significant |
| KMP → PE (Path a) | 0.523 | 0.048 | 10.90 | 0.000 | 0.428 | 0.618 | Significant |
| PE → EIB (Path b) | 0.378 | 0.051 | 7.41 | 0.000 | 0.277 | 0.479 | Significant |
| Indirect Effect (a×b) | 0.198 | 0.032 | - | - | 0.139 | 0.262 | Significant |

95% Confidence Interval (Bias-Corrected)

PE partially mediates the KMP-EIB relationship. The indirect effect (0.198) is significant (95% CI [0.139, 0.262] excludes zero), while the direct effect remains significant.

4.7 Test of Hypotheses

H₀₁: Knowledge Management Practices have no significant relationship with Employee Innovative Behaviour.

Result: $r = 0.712, p < 0.001; \beta = 0.412, p < 0.001$. **H₀₁ rejected.**

H₀₂: Knowledge Management Practices have no significant relationship with Psychological Empowerment.

Result: $\beta = 0.523, p < 0.001$. **H₀₂ rejected.**

H₀₃: Psychological Empowerment has no significant relationship with Employee Innovative Behaviour.

Result: $\beta = 0.378, p < 0.001$. **H₀₃ rejected.**

H₀₄: Psychological Empowerment does not mediate the relationship between Knowledge Management Practices and Employee Innovative Behaviour.

Result: Indirect effect = 0.198, 95% CI [0.139, 0.262]. **H₀₄ rejected.**

The study confirms significant positive relationships among KMP, PE, and EIB. Psychological empowerment partially mediates this relationship, explaining 11.6% additional variance in innovative behaviour. All measurement scales demonstrated excellent psychometric properties. These findings validate the theoretical model and provide empirical support for knowledge management initiatives in higher education institutions.

Federal Polytechnic Idah should strengthen knowledge management systems and psychological empowerment programs to enhance employee innovative behaviours and institutional competitiveness.

Discussion

The findings of this study provide robust evidence that Knowledge Management Practices (KMP) significantly influence Employee Innovative Behaviour (EIB) both directly and indirectly through Psychological Empowerment (PE). The positive and significant relationship between KMP and EIB confirms that when staff have structured access to knowledge resources including acquisition, storage, sharing, and application they are better positioned to generate, promote, and implement innovative ideas. This aligns with the Knowledge-Based View (KBV), which posits that knowledge constitutes a strategically valuable resource capable of fostering innovation (Grant, 1996; Wu & Li, 2024). The result corroborates prior empirical studies in higher education and service sectors, which have demonstrated that robust knowledge processes enhance employees' innovative behaviours (Ismail et al., 2024; Aldabbas et al., 2021). In the context of Nigerian polytechnics, these findings suggest that systematic knowledge management can be a key driver of institutional innovation, particularly where academic and administrative staff often operate in knowledge-intensive roles.

The mediation analysis revealed that Psychological Empowerment partially mediates the KMP → EIB relationship, indicating that knowledge resources alone are insufficient to fully stimulate innovation unless employees perceive themselves as competent, autonomous, and impactful. Psychological Empowerment explains how knowledge translates into action: staff who understand the meaning of their work, feel capable of executing tasks, have the autonomy to make decisions, and perceive their contributions as impactful are more likely to apply knowledge creatively. This supports Psychological Empowerment Theory, which emphasizes the importance of intrinsic motivation and cognitive engagement in influencing behaviour (Spreitzer, 1995; Zia et al., 2024). By integrating KBV and empowerment theory, the study demonstrates that KMP enhances EIB not only by providing informational resources but also by fostering employees' internal drive and confidence to innovate. This finding addresses a critical gap in the Nigerian polytechnic context, where hierarchical structures and resource constraints can limit the translation of knowledge into innovation.

From a practical standpoint, the study highlights several actionable implications for management and policymakers in Nigerian polytechnics. First, institutional leaders should invest in robust knowledge management systems, including databases, collaborative platforms, and formal knowledge-sharing procedures, to ensure that staff can efficiently acquire, store, and apply knowledge. Second, management should implement empowerment strategies, such as participative decision-making, professional development programs, and recognition of innovative contributions, to enhance staff perceptions of autonomy, competence, and impact. Collectively, these measures are likely to foster a culture of innovation, improving teaching, research, and administrative processes.

The study also contributes to theory and the knowledge management literature by empirically confirming the mediating role of psychological empowerment in higher education settings, extending the application of KBV beyond traditional corporate contexts. It demonstrates that innovation outcomes are contingent not only on access to knowledge but also on employees' motivational and cognitive states, offering a more nuanced understanding of the KMP → EIB linkage. By focusing on Nigerian polytechnics, the research provides context-specific evidence that enriches the literature on knowledge management, psychological empowerment, and innovation in knowledge-intensive institutions in emerging economies.

Conclusion

The study demonstrates that Knowledge Management Practices (KMP) significantly enhance Employee Innovative Behaviour (EIB) among staff of the Federal Polytechnic Idah, with Psychological Empowerment (PE) partially mediating this relationship. These findings confirm that structured knowledge processes—acquisition,

storage, sharing, and application combined with employees' perceptions of competence, autonomy, meaning, and impact, are critical for fostering innovation in higher education institutions. Theoretically, the study extends the Knowledge-Based View and Psychological Empowerment frameworks to the Nigerian polytechnic context, highlighting the motivational mechanisms through which knowledge resources translate into innovative actions. Practically, it underscores that both knowledge management systems and empowerment strategies are essential for building a sustainable culture of innovation.

Recommendations

Based on the findings and conclusion from the study, the followings were recommended:

- i. Management should implement structured knowledge management systems, including digital repositories and collaborative platforms, to ensure that employees can efficiently access, share, and apply relevant knowledge, supporting idea generation and innovation.
- ii. Institutions should develop initiatives that enhance employees' sense of meaning, competence, autonomy, and impact, such as participative decision-making, professional development programs, and recognition of innovative contributions.
- iii. Managers should embed knowledge management practices into routine workflows, ensuring that employees have the resources and opportunities to translate knowledge into actionable innovative behaviour.
- iv. Policymakers and institutional leaders should promote policies and programs that encourage knowledge sharing, cross-departmental collaboration, and creative problem-solving to sustain a culture of innovation in polytechnics.
- v. Institutions should encourage the use of evidence and insights from knowledge management systems in administrative and academic decision-making, aligning knowledge resources with strategic innovation goals.

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