Jurnal Fokus Manajemen Bisnis
Volume 16, Issue 1, March 2026, Page 174-199
https://doi.org/10.12928/fokus.v16i1.14849
http://journal2.uad.ac.id/index.php/fokus
P-ISSN: 2088-4079 | E-ISSN: 2716-0521

Do knowledge management and innovative work behavior enhance organizational performance? The role of employee competence

Yuddy Giovanna Priscilla[1*], Fellia Rivanti[2]
[1,2] Universitas Internasional Batam, Batam, Indonesia
yuddy.giovanna@uib.ac.id
*Corresponding Author

ARTICLE INFORMATION

Article History
Received: 30-10-2025
Revised: 31-03-2026
Accepted: 06-04-2026
Published: 12-04-2026

Keywords
Organization Performance;
Employee Competency;
Innovative Work Behavior;
Knowledge Management.

ABSTRACT

This study examines the impact of knowledge management and innovative work behavior on employees' competencies and organizational performance in Indonesia's electronic manufacturing sector. This research is driven by the ongoing disparity between labor market requirements and the qualifications of the available workforce, especially in Batam City, Indonesia, where inadequate competency levels hinder the workforce's capacity to fulfill industry demands. This research is unusual in its emphasis on electronic manufacturing firms in Batam City, Indonesia, an environment that has received less scholarly scrutiny, particularly regarding human resource practices and their relationship to organizational performance. To ensure representativeness, the study employed a probability sample method, specifically non-probability purposive sampling, to recruit 210 respondents from diverse departments. Data analysis in this study was conducted using SmartPLS, with data collected via a survey. The results show that knowledge management and innovative work behavior significantly improve employee competency, while innovative work behavior also positively affects organizational performance. However, knowledge management and employee competency do not significantly influence organizational performance. Additionally, employee competency does not mediate the relationships between the variables. In conclusion, innovative work behavior plays a key role in enhancing organizational performance, whereas knowledge management mainly contributes to improving employee competency rather than directly impacting performance. The study emphasizes the need to fortify human resource management strategies and advocates establishing a triple helix innovation program that fosters collaboration among government, corporations, and universities to improve employee competencies, attract investment, and bolster Indonesia's economic growth.

1. Introduction

Globalization, technological upheaval, and fierce market competition are adding new layers of complexity to today's uncertain, fast-paced corporate climate. These dynamics require companies to adapt their strategies to maintain competitiveness and organizational sustainability continuously (Ssenyonga, 2021; Bari et al., 2022). For firms to effectively adapt to these challenges, human resource management (HRM) is essential, as it promotes employee competence, innovation, and the use of knowledge (Rubel et al., 2023; Masyhuri et al., 2024). In developing economies such as Indonesia, strengthening human capital has become particularly important because organizational performance increasingly depends on employees' competencies and their ability to generate innovative solutions in rapidly evolving technological environments.

The manufacturing industry, particularly the computer, electronic, and optical goods sector, represents one of the strategic industries supporting Indonesia's economic development and export performance. However, this sector faces significant challenges related to workforce competency, especially in digital and technological skills required to support advanced manufacturing processes (Santoso et al., 2022; Laundon et al., 2023). Many firms still experience shortages of skilled labor capable of adapting to digital transformation and Industry 4.0 technologies. As a result, the limited availability of competent human resources can hinder innovation capability and reduce organizational competitiveness in global markets (Ssenyonga, 2021; Khin & Kee, 2022). Addressing this issue requires organizations to develop integrated strategies that enhance employee competency while simultaneously encouraging innovation and effective knowledge utilization.

It is often acknowledged that employee competency is a key factor in an organization's performance. Competent workers can meet the organization's evolving needs because of the background, training, and experience to do the job well (Kim & Jung, 2022; Rumijati & Hakim, 2023). In addition, innovative work behavior plays a critical role in enabling employees to generate new ideas, implement creative solutions, and improve work processes within the organization (Alateeg & Alhammadi, 2024; Aristana et al., 2024). Employees who demonstrate innovative behavior contribute to organizational learning and problem-solving capacity, which ultimately supports organizational performance and long-term sustainability.

Another essential competency for firms is knowledge management, which helps them create, share, and use knowledge. Organizations can benefit from knowledge management systems by using them to capture employees' insights and experiences, share that information across teams, and encourage ongoing training and development (Yeboah, 2023; Ahsan, 2025). Through knowledge sharing and organizational learning, employees can enhance their competencies and develop innovative approaches to their work tasks. Consequently, knowledge management, employee competency, and innovative work behavior form an interconnected system that supports organizational effectiveness and performance improvement (Rumijati & Hakim, 2023; Masyhuri et al., 2024).

Despite the growing importance of these factors, empirical research examining their combined influence on organizational performance remains limited, particularly in the Indonesian manufacturing context. Previous studies have often examined employee competency, innovative behavior, or knowledge management separately rather than integrating them into a comprehensive analytical framework (Santoso et al., 2022; Masyhuri et al., 2024). Furthermore, many earlier studies rely on outdated datasets or fail to capture recent technological transformations occurring after the acceleration of digitalization and Industry 4.0 initiatives. This limitation underscores the need for updated empirical evidence on how these variables interact in contemporary industrial settings.

Batam City is one of Indonesia's most strategic industrial regions and a major hub for electronics manufacturing and export-oriented production. The region hosts numerous multinational and domestic manufacturing firms that contribute significantly to national

industrial output and employment (Khin & Kee, 2022; Germann, 2023). However, companies in this sector continue to face challenges, including competency gaps, high employee turnover, and difficulties implementing advanced technologies. These conditions make Batam City an important and relevant research setting for examining the relationships among employee competency, innovative work behavior, and knowledge management in support of organizational performance.

This research is theoretically grounded in the resource-based view (RBV), which posits that an organization's internal resources are the primary drivers of its competitive advantage. According to RBV, intangible resources such as employee competencies, organizational knowledge, and innovative capabilities represent strategic assets that can significantly influence organizational performance (Bari et al., 2022; Kero & Bogale, 2023). From this perspective, organizations that effectively manage knowledge resources and encourage innovative behavior among employees are more likely to achieve superior performance and sustain long-term competitiveness.

Nevertheless, there remains a limited understanding of how these strategic resources interact simultaneously within the context of emerging economies. Previous research has acknowledged the importance of knowledge management, innovation, and employee competencies, yet few studies have developed integrated models explaining their combined impact on organizational performance (Santoso et al., 2022; Masyhuri et al., 2024). This gap becomes particularly significant in dynamic industrial regions such as Batam City, where technological change and workforce capability development occur rapidly.

Consequently, this study aims to examine the relationship between organizational performance, knowledge management, and innovative work behavior in Batam's electronic manufacturing industry, with employee competency serving as a mediating variable. The purpose of this study is to address gaps in our knowledge of the relationships among organizational knowledge practices, employee creativity, workforce capabilities, and organizational performance by incorporating these factors into the RBV framework.

There are theoretical and practical contributions to this research. At the theoretical level, it contributes to the existing literature by presenting a model that integrates knowledge management, innovative work behavior, and employee competency in the context of manufacturing in developing countries. Empirically, the study provides evidence from Batam's electronic manufacturing industry, an important yet under-researched industrial region in Indonesia. In practice, the findings are expected to assist organizational leaders and policymakers in designing effective HRM strategies that strengthen employee competencies, encourage innovation, and improve knowledge management practices, thereby enhancing organizational competitiveness and sustainable industrial development.

2. Literature Review and Hypothesis Development

2.1. Literature Review

2.1.1. Resource-Based View Theory

One of the most prominent theories in strategic management, the RBV states that a company's competitive edge comes from its internal resources. Organizational performance is heavily influenced by how well organizations employ their knowledge, human capital, and other intangible resources, as well as their organizational capabilities, according to RBV (Wernerfelt, 1984; Barney, 1991). With these tools, businesses may build distinctive capabilities that rivals cannot easily imitate, giving them a leg up in ever-changing, cutthroat marketplaces.

RBV elaborates by stating that companies can outperform their competitors when RBV have valuable, rare, inimitable, and non-substitutable (VRIN) resources. Such resources allow firms to respond effectively to environmental challenges while

10.12928/fokus.v16i1.14849

creating long-term strategic advantages over competitors (Barney, 1991; Kero & Bogale, 2023). Intangible resources such as employee skills, organizational knowledge, and innovation capability are particularly critical. Intangible resources are embedded within organizational routines and therefore difficult for competitors to imitate (Wernerfelt, 1984; Bari et al., 2022).

In the context of this study, RBV provides the theoretical foundation for examining how knowledge management, innovative work behavior, and employee competency function as strategic resources within organizations. These resources contribute to improving organizational performance by enhancing employees' capabilities, fostering creativity, and facilitating knowledge sharing within organizations (Kero & Bogale, 2023; Masyhuri et al., 2024). When effectively integrated, these intangible resources strengthen organizational adaptability and innovation capacity, enabling firms in the manufacturing sector to achieve sustainable competitive advantage.

2.1.2. Knowledge Management

An organization's ability to learn, innovate, and perform better can be enhanced through knowledge management, the systematic acquisition, storage, sharing, and use of knowledge. Effective knowledge management practices allow organizations to leverage intellectual capital and transform individual knowledge into collective organizational capability (Hudayah et al., 2024; Jiang et al., 2025). Organizations can benefit from knowledge management's ability to promote information sharing and collaboration, thereby enhancing problem-solving, decision-making, and continuous learning.

In knowledge-intensive industries, knowledge management plays a vital role in supporting innovation and technological adaptation. Organizations that successfully manage both tacit and explicit knowledge are better able to develop new ideas and improve operational efficiency (Peykani et al., 2022; Zhang et al., 2025). Knowledge-sharing mechanisms such as documentation systems, collaborative platforms, and training programs enable employees to access valuable expertise and apply it to their work.

In the electronic manufacturing sector, knowledge management becomes increasingly important due to rapid technological change and the growing demand for specialized competencies. Effective knowledge management systems help organizations bridge competency gaps and support the development of employees' innovative capabilities (Peykani et al., 2022; Germann, 2023). However, many organizations still face challenges related to knowledge transfer, particularly in managing tacit knowledge and encouraging employees to share expertise across departments (Jiang et al., 2025; Zhang et al., 2025).

2.1.3. Innovative Work Behavior

An organization's processes, products, and services can be enhanced through innovative work behavior, which is defined as employees' actions aimed at generating, promoting, and implementing new ideas. Organizational competitiveness is significantly influenced by innovative work behavior, as it enables organizations to respond effectively to environmental changes and technological advances (Umair et al., 2023; Wolor et al., 2024). Employees who demonstrate innovative behavior contribute to organizational learning and help organizations adapt to rapidly evolving market conditions.

Several organizational and psychological factors influence the emergence of innovative work behavior. Leadership support, work engagement, and organizational

climate are among the most significant determinants of employees' willingness to generate and implement innovative ideas (Alateeg & Alhammadi, 2024; Jameel et al., 2025). Supportive leadership and collaborative work environments encourage employees to experiment with new approaches, take calculated risks, and actively participate in problem-solving activities.

Confidence and self-efficacy are personal variables that significantly impact creative actions. Employees who believe can contribute creatively are more likely to propose new ideas and participate in innovation processes within the organization (Wolor et al., 2024; Takeed et al., 2025). Despite its importance, empirical research examining innovative work behavior in emerging economies remains limited, particularly in manufacturing sectors undergoing rapid technological transformation.

2.1.4. Employee Competency

To be competent, an employee must have the information, understanding, and dispositions necessary to do their work well and to advance their company's goals. Competent workers can adapt to new technologies and ever-changing work settings because the possess of technical knowledge and problem-solving skills (Neamţu et al., 2025; Zhang et al., 2025). In modern organizations, employee competency is increasingly recognized as a critical factor for achieving innovation, productivity, and long-term organizational sustainability.

Competency development is often supported through continuous learning and development programs that integrate formal training with practical work experience. Such programs allow employees to develop both technical and soft skills, including creativity, critical thinking, and collaboration (Thornhill-Miller et al., 2023; Zhang et al., 2025). Businesses can boost their operational efficiency and innovative capabilities by investing in staff competency development.

However, many emerging economies continue to face challenges related to workforce competency development, particularly in industries undergoing digital transformation. Research indicates that skill gaps and limited access to training programs remain significant barriers for organizations seeking to improve employee capability (Ateeq, 2024; Neamţu et al., 2025). These challenges are particularly evident in manufacturing sectors that require highly specialized technical skills and continuous adaptation to technological change.

2.1.5. Organizational Performance

A company's performance can be defined as how well it meets its strategic objectives and stays ahead of the competition by effectively using its resources. Common performance metrics include monetary metrics such as profit and sales growth, as well as non-monetary metrics such as staff buy-in, creative capacity, and operational efficiency (Kokkaew et al., 2022; Mukhsin & Suryanto, 2022). These indicators provide a comprehensive understanding of how well an organization performs in achieving its objectives.

Aligning employee behavior with organizational goals is a key component of HRM strategies, which in turn shape organizational performance. Organizational results can be enhanced through effective HRM practices, which boost employee engagement, productivity, and motivation (Masyhuri et al., 2024; Verma et al., 2024). Organizations that effectively manage their human capital are better able to sustain competitive advantage and adapt to changing business environments.

Although numerous studies have examined organizational performance in developed economies, research on emerging markets remains relatively limited. Given

10.12928/fokus.v16i1.14849

the potential differences between developing and developed economies in institutional climate, labor market structure, and technical preparedness, it is crucial to understand the impact of HRM practices on organizational performance in developing nations (Kokkaew et al., 2022; Mukhsin & Suryanto, 2022). Thus, researchers and practitioners alike can benefit from analyzing organizational performance in Indonesia's manufacturing industry.

2.2. Research Model Explanation

The RBV theory provides the theoretical foundation for this study's research methodology. RBV argues that an organization's internal resources are the primary source of its competitive advantage and high performance. Firms with valuable and difficult-to-imitate resources have a better chance of achieving a sustained competitive edge in competitive markets, according to RBV (Wernerfelt, 1984; Barney, 1991). In this study, knowledge management, innovative work behavior, and employee competency are conceptualized as strategic resources that influence organizational performance.

Knowledge management represents an organizational capability that enables firms to effectively capture, store, and utilize knowledge. By managing knowledge resources efficiently, organizations can enhance learning processes, support innovation, and improve decision-making (Hudayah et al., 2024; Jiang et al., 2025). In technology-driven industries such as electronic manufacturing, effective knowledge management practices are essential for supporting employee capability development and organizational adaptability.

Innovative work behavior reflects employees' active participation in generating and implementing new ideas that improve organizational processes and outcomes. Organizations that encourage innovative behavior among employees are better able to respond to environmental changes and sustain competitive advantage (Umair et al., 2023; Wolor et al., 2024). When employees exhibit innovative behavior, it promotes creative problem-solving and ongoing learning, both of which contribute to competency growth.

Employee competency serves as a key mediating resource linking knowledge management and innovative work behavior to organizational performance. Employees who possess strong competencies are better able to absorb knowledge, apply innovative ideas, and contribute to organizational objectives (Ateeq, 2024; Neamţu et al., 2025). Therefore, employee competency plays a crucial role in translating knowledge resources and innovative behavior into improved organizational performance.

Finally, organizational performance represents the outcome of the interaction among these strategic resources. Organizations that successfully integrate knowledge management practices, innovative work behavior, and employee competencies are more likely to achieve higher levels of productivity, innovation capability, and long-term competitiveness (Mukhsin & Suryanto, 2022; Masyhuri et al., 2024). This study seeks to elucidate the impact of strategic human resource capabilities on organizational performance by analyzing linkages within Batam's manufacturing sector.

2.3. Hypothesis Development

2.3.1. The Effect of Knowledge Management on Employee Competency

Organizational information may be better acquired, shared, and applied through knowledge management, which is crucial for raising staff competency. The RBV maintains that organizations can gain a competitive edge by investing in their employees' knowledge and skills, which are strategic intangible resources (Wernerfelt, 1984; Barney, 1991). Through effective knowledge management practices, organizations can enhance employees' skills, learning capabilities, and problem-solving abilities, thereby strengthening employee competency and

improving organizational adaptability in dynamic environments (Rumijati & Hakim, 2023; Jiang et al., 2025).

Knowledge management and staff competency have been positively associated in previous empirical research. Al Amiri et al. (2020) found that information sharing greatly improves organizational learning and employee skill development. Similarly, Anthonysamy et al. (2020) demonstrated that knowledge transfer mechanisms strengthen employee competencies by enabling continuous learning and knowledge utilization. In addition, Muzam (2023) reported that effective knowledge management practices improve employees' problem-solving abilities, creative thinking, and technical expertise, particularly in industries experiencing rapid technological change. These findings indicate that knowledge management strengthens firm-specific human capital by facilitating the development of employee competencies.

From the perspective of RBV, knowledge resources must be effectively managed to maximize their contribution to organizational capabilities (Wernerfelt, 1984; Barney, 1991). Employees can improve their performance and the organization's overall effectiveness by developing new capabilities enabled by knowledge management strategies, including collaborative knowledge systems, organizational learning, and information sharing (Thornhill-Miller et al., 2023; Jiang et al., 2025). Thus, knowledge management serves as a valuable organizational asset that enhances the development of employee competencies. **H_1: Knowledge Management positively affects Employee Competency**

2.3.2. The Effect of Innovative Work Behavior on Employee Competency

Employees engaging in innovative work behavior come up with, advocate for, and put into action novel ideas to enhance work processes, goods, or services. An integral part of human capital is innovative behavior, a valuable intangible resource within the RBV paradigm. This resource helps organizations build their capacities and gain a competitive edge (Wernerfelt, 1984; Barney, 1991). Employees who actively engage in innovation tend to acquire new knowledge, develop problem-solving skills, and enhance their ability to adapt to organizational changes.

Several empirical studies have demonstrated the positive relationship between innovative work behavior and employee competency development. Volery and Tarabashkina (2021) found that innovative behavior in the workplace significantly improves employees' creativity and problem-solving abilities, which are key indicators of competency development. Shah et al. (2023) also reported that employees who actively participate in innovative activities continuously develop new skills and knowledge through workplace learning processes. Similarly, Fu and Tan (2025) demonstrated that innovative work behavior enhances employees' learning motivation and capability development, suggesting that innovation-oriented employees tend to strengthen their competencies through experimentation and knowledge exploration.

From the RBV perspective, employees who engage in innovative activities develop unique skills and competencies that competitors find difficult to replicate (Wernerfelt, 1984; Barney, 1991). Innovative behavior encourages continuous learning and skill enhancement, allowing employees to acquire competencies that contribute to organizational competitiveness and adaptability (Shah et al., 2023; Kossyva et al., 2024). Therefore, innovative work behavior can be considered a mechanism through which employee competencies are developed and strengthened

10.12928/fokus.v16i1.14849

within organizations. **H_2: Innovative Work Behavior positively affects Employee Competency.**

2.3.3. The Effect of Knowledge Management on Organizational Performance

The ability to effectively create, share, and use information is known as knowledge management and is considered a strategic competence of successful organizations. Knowledge, according to the RBV, is an invaluable and hard-to-replicate asset that helps businesses build distinctive competencies and maintain a competitive edge (Wernerfelt, 1984; Barney, 1991). Effective knowledge management practices enable organizations to optimize intellectual capital, improve decision-making, and foster innovation, ultimately enhancing organizational performance (Wang et al., 2024; Jiang et al., 2025).

Knowledge management has a favorable effect on organizational performance, according to empirical studies. Igbonaju et al. (2025) found that knowledge integration and knowledge sharing significantly improve operational efficiency and organizational outcomes. Similarly, Cristache et al. (2025) reported that organizations with well-developed knowledge management systems tend to achieve higher levels of innovation and productivity. Jiang et al. (2025) also found that knowledge management practices improve organizational adaptability and decision-making quality, which ultimately enhances performance.

Additional studies conducted in different organizational contexts further support this relationship. Alharbi and Aloud (2024) demonstrated that measures of organizational performance are substantially improved through knowledge management activities, including knowledge creation, capture, and use. Likewise, Wang et al. (2024) emphasized that organizations capable of managing knowledge effectively are better able to respond to environmental changes and sustain competitive advantage. **H_3: Knowledge Management positively affects Organizational Performance**

2.3.4. The Effect of Innovative Work Behavior on Organizational Performance

Employees who are encouraged to think creatively and use their ideas to enhance work processes, products, and services are a key component of high-performing organizations. An organization's innovative actions are a resource that can enhance its dynamic capabilities and help it maintain a competitive advantage over the long run, according to the RBV model (Wernerfelt, 1984; Barney, 1991). Employees who engage in innovative activities contribute to organizational learning, operational flexibility, and continuous improvement.

Empirical research indicates that creative behavior on the job is linked to improved business outcomes. Amaral and De Muylder (2025) found that innovative behavior significantly improves organizational productivity and competitiveness. Similarly, Umair et al. (2023) showed that innovative work behavior enhances organizational efficiency and adaptability to technological change. Al Wali et al. (2023) also reported that employees' innovative behavior contributes to improved service quality, innovation capability, and overall organizational effectiveness.

Furthermore, innovative work behavior enables organizations to respond effectively to environmental uncertainty and market competition. Organizations with high levels of employee innovation tend to develop stronger problem-solving capabilities and greater adaptability, ultimately improving organizational performance (Alateeg & Alhammadi, 2024; Amaral & De Muylder, 2025). These results demonstrate how innovative actions are crucial to an organization's success from a

strategic standpoint. **H_4: Innovative Work Behavior positively affects Organizational Performance.**

2.3.5. The Effect of Employee Competency on Organizational Performance

What makes an employee competent is their knowledge, skills, and ability to perform their job duties and contribute to the organization's goals. According to the RBV, human capital competencies represent strategic intangible resources that significantly influence organizational performance and competitive advantage (Wernerfelt, 1984; Barney, 1991). Companies with competent workers are better equipped to maximize their resources, adapt to new technologies, and increase output.

Numerous empirical studies have shown that competent employees lead to better business results. Edwards and Lönnqvist (2023) found that employee competencies significantly enhance organizational productivity and operational performance. Muzam (2023) demonstrated that technical expertise, problem-solving ability, and knowledge capability contribute to improved organizational outcomes in technology-driven industries. Similarly, Aristana et al. (2024) reported that employee competency plays a crucial role in improving innovation capability and organizational effectiveness.

Competent employees are also better able to adapt to organizational changes and implement innovative solutions in dynamic work environments. As suggested by RBV theory, human capital competencies function as strategic organizational assets that enable firms to transform knowledge resources into superior performance outcomes (Wernerfelt, 1984; Barney, 1991). Consequently, employee competency becomes a key determinant of organizational performance in competitive industries. **H_5: Employee Competency positively affects Organizational Performance.**

2.3.6. Employee Competency Mediates the Relationship between Knowledge Management and Organizational Performance

Knowledge management has a direct impact on organizational performance, according to prior research. However, for knowledge management to boost performance, employees' competency levels often improve. The RBV states that when a company's knowledge management practices and other resources enhance the effectiveness of its human capital, the firm gains a competitive advantage (Wernerfelt, 1984; Barney, 1991). To translate knowledge resources into improved organizational performance, employee competency is a key mediator.

Empirical studies have provided evidence supporting the mediating role of employee competency. Meher et al. (2024) found that employee capabilities significantly mediate the relationship between knowledge management practices and organizational outcomes. Similarly, Alsheikh (2023) reported that knowledge management contributes to performance improvements when employees possess the competencies needed to apply organizational knowledge effectively. Naim et al. (2024) also demonstrated that employee competency strengthens the relationship between knowledge sharing and organizational performance.

Other studies conducted in organizational contexts in developing economies further support this argument. Zulkifli et al. (2023) discovered that the mediating function of employee competency in the relationship between knowledge management techniques and organizational performance outcomes is critical. The results show that employees' expertise and the ability to use knowledge resources effectively are the main ways in which knowledge management methods boost organizational performance. **H_6: Employee Competency mediates the**

10.12928/fokus.v16i1.14849

relationship between Knowledge Management and Organizational Performance

2.3.7. Employee Competency Mediates the Relationship between Innovative Work Behavior and Organizational Performance

Innovative work behavior has been widely recognized as a driver of organizational performance. However, its effectiveness often depends on employees' competencies. Within the RBV framework, employee competency is a strategic capability that enables organizations to translate innovative activities into tangible performance outcomes (Wernerfelt, 1984; Barney, 1991). Employees with strong competencies are better able to implement innovative ideas effectively within organizational processes.

Previous empirical research has shown that employee competency plays an important mediating role between innovation and performance. Turyahikayo (2021) found that employee competencies strengthen the impact of innovative behavior on organizational outcomes. Similarly, Umair et al. (2023) reported that innovative work behavior contributes more significantly to performance when supported by high levels of employee competence. Martini et al. (2024) also demonstrated that competent employees are better able to transform creative ideas into practical solutions that enhance organizational performance.

Additional evidence suggests that employee competency enables organizations to maximize the benefits of innovative work behavior. Employees with strong competencies possess the technical skills and knowledge necessary to implement innovative solutions effectively, thereby improving productivity and organizational outcomes (Turyahikayo, 2021; Martini et al., 2024). These findings highlight the importance of competency as a mechanism through which innovation contributes to organizational performance. **H_7: Employee Competency mediates the relationship between Innovative Work Behavior and Organizational Performance**

Figure 1 displays the research framework. This study tests the hypothesis that employee competency, as a mediator between knowledge management and innovative work behavior, affects organizational performance.

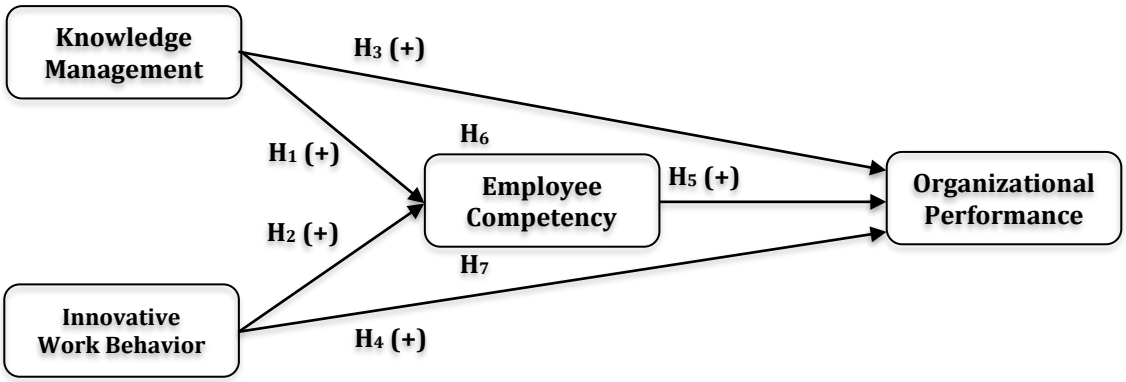

Figure 1. Research Framework

According to the RBV, which posits that an organization's internal resources are the primary drivers of its competitive advantage and performance, the relationships shown in Figure 1 pertain to knowledge management, innovative work behavior, employee competencies, and organizational performance (Wernerfelt, 1984; Barney,

1991). This model proposes that strategic intangible resources, such as knowledge management and innovative work behavior, affect organizational performance in two ways: directly and indirectly, through employee competencies. Organizational learning processes, information transfer, and knowledge sharing all contribute to enhancing employees' skills and capabilities, the model suggests that knowledge management positively affects employee competence. Workers who are always thinking of new ways to solve problems and apply their knowledge often end up with more versatile skill sets. Therefore, it stands to reason that innovative work behavior will boost employees' competencies.

In addition to these relationships, the model also assumes direct effects on organizational performance. Knowledge management is expected to positively influence organizational performance because effective knowledge utilization improves decision-making, operational efficiency, and innovation outcomes. Likewise, innovative work behavior is hypothesized to positively influence organizational performance as employees' innovative activities contribute to process improvements, product development, and organizational adaptability. Competent individuals are better equipped to apply knowledge, solve problems, and support organizational goals, it is suggested that employee competency positively affects organizational performance. In this model, there is a stronger connection among knowledge management, innovative work behavior, and organizational performance, and employee competency mediates this relationship.

Specifically, knowledge management enhances organizational outcomes by fostering staff capacity development, which in turn leads to improved organizational performance. The positive link between innovative work behavior and organizational performance is mediated by employee competency, indicating that innovative actions lead to greater performance when individuals have the skills to implement new ideas. Overall, the model posits that knowledge management and innovative work behavior enhance employees' competencies, which in turn improve organizational performance. In addition, both knowledge management and innovative work behavior are expected to directly contribute to organizational performance, indicating both direct and mediated positive relationships among the variables examined in this study.

3. Research Methods

3.1. Population and Sampling Method

This quantitative study examines knowledge management, innovative work behavior, employee competencies, and organizational performance in the electronics manufacturing industry in Batam City, Indonesia. About 1.500 people from numerous departments across Batam City's electronic manufacturing enterprises (including production, marketing, finance, and research and development) constitute the study's population.

Using purposive sampling, we ensured that all our respondents met the research criteria. The researcher used predetermined criteria to choose respondents in this method. The sample consisted of full-time employees in managerial or operational positions who had been employed in the organization for at least one year. Employees with this level of tenure were considered to have sufficient experience and understanding of organizational processes to evaluate the study variables. The exclusion criteria included temporary workers, interns, and employees with less than 1 year of tenure, as were considered to have insufficient organizational experience to reliably evaluate the study variables.

To determine the minimum sample size, this study followed the recommendation of Hair et al. (2021), which states that the number of independent variables in the research

10.12928/fokus.v16i1.14849

model should be multiplied by 10. According to this requirement, at least 200 responders were required. In actuality, the number of valid questionnaires collected was 210, which is sufficient for statistical analysis using the partial least squares-structural equation model (PLS-SEM). Results should be interpreted with caution because the sample comprises only electronic manufacturing companies in Batam City, which may limit their generalisability to other industries or regions. Nevertheless, the sample size is adequate for model estimation and hypothesis testing. Nevertheless, the sample size is considered sufficient to draw accurate conclusions regarding the interrelationships of the variables under consideration, considering the study's criteria.

3.2. Data Collecting Method

A standardised questionnaire was electronically to gather primary data for the study. The digital distribution made it easier for participants to access the survey and made it easier to track their responses. Construct validity and reliability by adapting the questionnaire items from validated measuring instruments from past research. From 1 (strongly disagree) to 5 (strongly agree), a five-point Likert scale was used to collect responses.

Eight indicator items that were taken from well-established research on knowledge acquisition, sharing, and application were used to measure the knowledge management (KM) construct (Hudayah et al., 2024; Zhang et al., 2025). Based on previous studies on innovative work behaviour (IWB), nine indicator items are used to measure creative thinking on the job, including coming up with ideas, sharing them, and putting them into action (Umair et al., 2023; Wolor et al., 2024). Employee competency (EC) was measured using seven indicator items reflecting employees' knowledge, skills, and adaptability, based on competency measurement frameworks used in previous studies (Ateeq, 2024; Neamțu et al., 2025). Finally, organizational performance (OP) was measured using six indicator items representing both financial and non-financial performance dimensions, adapted from prior organizational performance studies (Mukhsin & Suryanto, 2022; Masyhuri et al., 2024).

3.3. Data Analysis Method

For this study, the researchers opted to use PLS-SEM with SmartPLS as their data analysis method. The study mainly consisted of two steps: evaluating the measurement model (the outer model) and the structural model (the inner model). The reliability and validity of the measuring model were determined by an evaluation. To test for convergent validity, indicators needed loadings of 0.7 or above. Constructs with loadings between 0.6 and 0.7 were retained if reliability was adequate. When the AVE values were higher than 0.5, it was determined that the convergent validity was true. Reliability was deemed good when Cronbach's alpha and composite reliability threshold values were equal to or better than 0.7. All of these guidelines originate from the recommendations made by Hair et al. (2021).

In order to investigate the interrelationships of the variables, the structural model assessment was carried out. The bootstrapping process with 5.000 subsamples to test our hypotheses, and we measured the size and direction of the path coefficients. At the 95% confidence level, a t-statistic greater than 1.96 and a p-value less than 0.05 were regarded to provide support for the hypothesis. Also, the model's explanatory strength was assessed using the coefficient of determination (R^2), where values of 0.25, 0.50, and 0.75 denote weak, moderate, and strong explanatory power, respectively. All of these selection criteria line up with the accepted norms of PLS-SEM methodology (Hair et al., 2021).

4. Results and Discussion

4.1. Characteristics of Respondents

The majority of those who participated in this survey were employed in the electronic manufacturing industry in Batam City, Indonesia. Of the 210 people who took part, women made up the majority (52.9%), with men accounting for 47.1%. This survey provides a diverse representation of the industry's workforce by including viewpoints from male and female employees, thanks to its relatively equal gender distribution.

Respondents aged 18–23 made up the biggest age bracket, at 33.4% of the total. With 28.6% of the total, those in the 24-to-29-year-old age bracket were the second biggest. The younger age groups dominate the workforce in this sector, indicating that many employees in the industry are relatively early in their careers, which could be a factor influencing the need for skill development and technological adaptation. There were also respondents from older age brackets, with 17.1% in the 30-35 age range, 7.1% in the 36-41 range, and 13.8% over 42 years old. This suggests that while the industry employs many younger workers, there is still a significant number of more experienced individuals contributing to its operations.

In terms of educational attainment, 55.2% of the sample had finished either high school or a vocational program, and 29.5% had a bachelor's degree or above. Among those who took the survey, just 1% had earned a master's degree, while 14.3% had earned a diploma. The higher percentage of employees with vocational or high school education reflects the technical nature of the manufacturing industry, where practical skills are often more critical than higher academic qualifications. However, the presence of university graduates indicates that the sector is also attracting individuals with higher educational backgrounds, especially in areas like marketing and research and development.

The departmental distribution of the respondents shows that the largest group worked in production (33.4%), followed by those in marketing (25.2%), finance (21.4%), and research and development (R&D) (20%). This indicates a strong focus on production, which is the core of the manufacturing process, but also shows significant representation from marketing and finance, reflecting the integrated nature of modern manufacturing businesses. The involvement of employees from R&D underscores the importance of innovation within the industry.

When asked about their years of experience in the workforce, 41.9% of people had one to five years of experience, suggesting that many workers are new to the field yet have some grounding in the basics. There appears to be a blend of new talent and seasoned workers, since a sizeable number (22.4%) had over ten years of experience. Only 15.7% had less than a year of experience, reflecting a steady entry of new employees into the industry. The diversity in work experience levels is important as it provides a comprehensive view of how both new and experienced workers perceive and engage with knowledge management practices and innovative work behaviors.

Overall, the respondent characteristics highlight a workforce that is youthful, with a strong educational and technical foundation, and varied in terms of work experience. These factors provide useful context for examining how knowledge management, innovative work behavior, and employee competency are perceived and implemented in Batam City's electronic manufacturing sector.

In Table 1, we present the participants' gender, age, educational background, department, and years of experience, along with their overall demographic profile. There are more female responders (52.9%) than male respondents (40.9%). The bulk of responses are from the age bracket of 18–23, according to the age distribution. A bachelor's degree was the second most common type of education among respondents, behind only a high school diploma or technical certificate. According to the breakdown of

10.12928/fokus.v16i1.14849

respondents by department, production has the most participants, followed by finance and marketing. Many respondents had one to five years of professional experience.

Table 1. Characteristics of Respondents

Variable	Item	Frequency	Percent
Gender	Male	99	47.1
	Female	111	52.9
Age	18-23 years old	70	33.4
	24-29 years old	60	28.6
	30-35 years old	36	17.1
	36-41 years old	15	7.1
	>42 years old	29	13.8
Education	Senior or Vocational High School	116	55.2
	Diploma	30	14.3
	Bachelor	62	29.5
	Master	2	1
Department	Research and Development	42	20
	Finance	45	21.4
	Marketing	53	25.2
	Production	70	33.4
Work Experience	<1 year	33	15.7
	1-5 years	88	41.9
	6-10 years	42	20
	>10 years	47	22.4

4.2. Validity Test

Table 2. Validity Test Result

Indicator	Employee Competency	Innovative Work Behavior	Knowledge Management	Organizational Performance
EC1	0.649			
EC2	0.767			
EC3	0.605			
EC4	0.783			
EC5	0.838			
IWB1		0.822		
IWB2		0.639		
IWB3		0.804		
IWB4		0.734		
KM1			0.721	
KM2			0.651	
KM5			0.823	
KM6			0.763	
OP1				0.690
OP2				0.756
OP3				0.672
OP4				0.809
OP5				0.696

To evaluate convergent validity, we utilized outer loadings and the outer loading AVE, as shown in Table 2. Outer loadings, which reveal the degree of association between each indicator and its latent construct, are considered appropriate when more than 0.6. (Henseler et al., 2009). In this study, most indicators demonstrated outer loading values exceeding the recommended threshold, indicating that the measurement items are sufficiently correlated with their respective constructs and confirming adequate

convergent validity.

However, several indicators were excluded due to low outer-loading values. Specifically, IWB5 showed a negative loading value (–0.249), while KM3 (0.118) and KM4 (0.120) were far below the acceptable threshold. According to PLS-SEM guidelines, indicators with outer loadings below 0.4 should be removed because do not adequately represent the underlying construct and may reduce the reliability and validity of the measurement model (Hair et al., 2021). To strengthen the measurement model as a whole, it was essential to remove certain indicators. This will allow the study to move on to the structural model stage, where the remaining indicators will more properly reflect their respective constructions.

Table 3 shows that AVE describes an indicator of a construct's ability to capture variation relative to the measurement error, which is the area under the curve. When the AVE of a construct is more than 0.5, it is said to account for more than half of the indicator variance. Since all constructs had AVE values more than 0.50, the results showed strong evidence of convergent validity.

Table 3. Average Variance Extracted Value

Variable	Average Variance Extracted
Employee Competency	0.538
Innovative Work Behavior	0.567
Knowledge Management	0.551
Organizational Performance	0.527

4.3. Reliability Test

Table 4 shows the composite reliability and Cronbach's alpha values, two measures of internal consistency, used for reliability testing. Good reliability is indicated by a number above 0.70. The findings showed that all constructs were either at or over the Cronbach's alpha and composite reliability thresholds of 0.7. This proves that the indicators used to measure the latent variables within each construct are consistent and dependable. People can have confidence in the stability of the equipment used in this research because the measurement model demonstrates high reliability.

Table 4. Reliability Test Result

Variable	Cronbach's Alpha	rho_A	Composite Reliability
Employee Competency	0.782	0.804	0.852
Innovative Work Behavior	0.745	0.763	0.839
Knowledge Management	0.725	0.735	0.829
Organizational Performance	0.775	0.783	0.847

4.4. Hypothesis Test

There were two parts to testing the hypothesis: examining the direct effects and examining the indirect effects (mediation). PLS-SEM was used to calculate the significance of the hypothesized correlations. Table 5 shows the direct impacts that were tested. Effects on knowledge management, innovative work behavior, employee competency, and organizational performance both directly and indirectly. While knowledge management primarily helps employees become more competent, it has little effect on an organization's overall performance. This finding emphasizes the need for creative thinking on the job. The mediation analysis examined whether employee competency mediates the relationship between knowledge management, innovative work behavior, and organizational performance. These findings suggest that while knowledge management and innovative work behavior enhance employee competency, this improvement does not

10.12928/fokus.v16i1.14849

significantly mediate organizational performance within the scope of this study.

Table 5. Direct and Indirect Effect

Hypothesis	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Decision
Knowledge Management → Employee Competency	0.463	0.466	0.064	7.230	0.000	Accepted
Innovative Work Behavior → Employee Competency	0.317	0.320	0.061	5.200	0.000	Accepted
Knowledge Management → Organizational Performance	0.067	0.071	0.087	0.772	0.441	Rejected
Innovative Work Behavior → Organizational Performance	0.417	0.422	0.098	4.271	0.000	Accepted
Employee Competency → Organizational Performance	0.137	0.135	0.074	1.850	0.065	Rejected
Knowledge Management → Employee Competency → Organizational Performance	0.063	0.063	0.036	1.760	0.079	Rejected
Innovative Work Behavior → Employee Competency → Organizational Performance	0.043	0.043	0.025	1.738	0.083	Rejected

4.5. Discussion

4.5.1. The Effect of Knowledge Management on Employee Competency

Knowledge management significantly and positively affects employee competency, according to this study's results. RBV proponents contend that intangible assets such as organizational knowledge and employee competencies provide a lasting competitive advantage, which helps to explain this conclusion (Wernerfelt, 1984; Barney, 1991). Knowledge management, according to RBV theory, boosts human resource value by streamlining the company's processes for acquiring, sharing, and using new information. Employees' technical knowledge, problem-solving skills, and capacity to adapt to new technologies can all be enhanced through these methods. Electronic manufacturing and other tech-heavy industries rely heavily on organized knowledge management systems to help their workers learn new skills and advance in their careers (Wang et al., 2024; Jiang et al., 2025).

The findings of this study are consistent with several previous studies. Rumijati and Hakim (2023) found that knowledge management practices significantly improve employee competency through systematic knowledge sharing and organizational learning processes. Similarly, Muzam (2023) demonstrated that effective knowledge management enhances employees' technical skills, creativity, and

problem-solving abilities, particularly in industries experiencing rapid technological change. In addition, Al Amiri et al. (2020) showed that knowledge transfer mechanisms significantly strengthen employee competencies by improving employees' ability to access and apply organizational knowledge. Anthonysamy et al. (2020) also emphasized that knowledge-sharing systems support competency development by facilitating collaborative learning and skill enhancement among employees.

These results suggest that knowledge management functions as a strategic mechanism for strengthening organizational capabilities through human capital development. By providing employees with access to organizational knowledge and encouraging collaborative learning, organizations can improve employee competencies that support innovation and operational efficiency. In Batam's electronic manufacturing industry, where technological change is rapid, knowledge management is increasingly important for helping employees continuously update their skills and adapt to evolving industry requirements. Therefore, the findings reinforce the RBV argument that effective knowledge management strengthens employee competency and enhances organizational capability in dynamic business environments (Wernerfelt, 1984; Barney, 1991).

4.5.2. The Effect of Innovative Work Behavior on Employee Competency

The results of this study indicate that innovative work behavior has a positive and significant effect on employee competency. This relationship can also be explained through the RBV, which suggests that innovative behavior represents an important intangible resource embedded in human capital that contributes to organizational competitiveness (Wernerfelt, 1984; Barney, 1991). Employees who actively engage in innovative work behavior, such as generating ideas, promoting improvements, and implementing new solutions, continuously develop new knowledge and skills through experimentation and learning processes. As a result, innovative activities encourage employees to expand their competencies beyond routine job requirements and enhance their ability to adapt to dynamic work environments (Shah et al., 2023; Kossyva et al., 2024).

Several previous empirical studies support the findings of this study. Volery and Tarabashkina (2021) demonstrated that innovative behavior significantly enhances employees' problem-solving abilities and creativity, which are key indicators of competency development. Shah et al. (2023) further showed that employees who engage in innovative activities tend to develop new skills and knowledge through continuous workplace learning processes. Similarly, Fu and Tan (2025) found that innovative work behavior positively influences employees' learning motivation and capability development, indicating that employees who actively participate in innovation processes continuously strengthen their competencies. Additional studies by Srirahayu et al. (2023) and Amoozegar et al. (2025) also confirmed that innovative practices encourage creativity, adaptability, and critical thinking among employees.

These findings indicate that innovative work behavior plays an important role in competency development within organizations. When employees are encouraged to explore new ideas, experiment with alternative solutions, and participate in innovation processes, develop valuable competencies that enhance their contribution to organizational performance. In manufacturing sectors such as those in Batam, where technological advancements and global competition are accelerating, fostering innovative work behavior is essential to developing a highly competent workforce. Therefore, the findings support the RBV argument that innovative behavior embedded

10.12928/fokus.v16i1.14849

in human capital serves as a strategic resource that strengthens employee competencies and organizational capabilities (Wernerfelt, 1984; Barney, 1991).

4.5.3 The Effect of Knowledge Management on Organizational Performance

The RBV theory explains why knowledge management does not directly impact organizational performance. This theory stresses that strategic resources can only boost performance when integrated into organizational capabilities and deployed effectively (Amelia et al., 2025). From an RBV perspective, knowledge management represents a critical intangible resource. However, its value depends on how well knowledge is transformed into actionable capabilities and aligned with organizational processes. In large-scale manufacturing organizations, knowledge management practices that are fragmented or procedural may fail to generate immediate performance improvements at the organizational level (Erena et al., 2023).

Several recent global studies have found a favorable correlation between knowledge management and organizational performance. Therefore, our finding runs counter to these findings. Effective knowledge management practices improve innovation, decision-making quality, and operational efficiency, which leads to improved financial and non-financial performance, according to empirical evidence from both emerging and developed economies (Wang et al., 2024; Igbonaju et al., 2025; Jiang et al., 2025). Knowledge management improves organizational performance, according to Cristache et al. (2025), by helping enterprises adapt to changing environments and strengthening internal processes. Organizational performance indicators can be greatly improved through structured knowledge creation and sharing, according to Alharbi and Aloud (2024). Similarly, Litvaj et al. (2022) showed that systematic knowledge management practices can improve efficiency and decision quality in any corporate setting.

The RBV is called into question by the discovery that knowledge management does not significantly impact organizational performance. RBV suggests that knowledge is a critical strategic resource that, when applied effectively, leads to enhanced organizational outcomes. However, the results imply that simply having knowledge management systems in place is not enough to ensure direct performance improvements unless are well integrated with the organization's strategic processes (Jiang et al., 2025). Knowledge management is essential for enhancing internal capabilities, but its impact on overall performance may depend on how effectively it is executed and aligned with organizational objectives.

Several studies have emphasized the positive impact of knowledge management on performance. For instance, Cristache et al. (2025) and Igbonaju et al. (2025) highlighted that knowledge management, when implemented well, improves organizational performance by boosting innovation, operational efficiency, and decision-making. Some possible explanations for the study's lack of a substantial direct effect include poor integration of knowledge management systems, limited information exchange between departments, or misalignment between organizational strategies and knowledge management initiatives. According to Alharbi and Aloud (2024), in order to achieve measurable performance outcomes through knowledge management, additional elements, including organizational culture, leadership, and technology infrastructure, need to be in sync with knowledge management methods.

4.5.4 The Effect of Innovative Work Behavior on Organizational Performance

According to the RBV, which posits that organizations function best when effective use of valuable, hard-to-imitate internal resources, innovative work behavior has a substantial positive influence on organizational performance (El Nemar et al.,

2025). Innovative work behavior constitutes a strategic intangible resource embedded in human capital, as it enhances organizational learning, flexibility, and dynamic capabilities. Through idea generation, experimentation, and continuous improvement, employees contribute directly to organizational effectiveness and competitiveness (Indrawati & Muljaningsih, 2022).

The findings of this study align with Vuong et al. (2023), who demonstrated that innovative work behavior significantly improves organizational performance by strengthening productivity, innovation outcomes, and operational efficiency. Similarly, Amaral and De Muylder (2025) found that organizations encouraging innovative behaviors among employees achieve higher financial and non-financial performance due to improved responsiveness to market changes. Umair et al. (2023) further confirmed that innovative work behavior positively affects organizational performance by enhancing service quality and process efficiency, particularly in dynamic environments. More recent evidence from Jain and Sharma (2026). Furthermore, it demonstrates that innovative work behavior enhances sustainable organizational performance by facilitating firms' adaptation to digital transition and competitive challenges.

It is consistent with the RBV that innovative work behavior positively affects organizational performance. Innovative work behavior is seen as a rare and precious intangible resource that improves organizational learning, flexibility, and dynamic capabilities (Amaral & De Muylder, 2025). Innovative work behavior, by promoting continuous improvement, problem-solving, and creativity, directly contributes to organizational performance. Employees engaging in innovative work behavior foster innovation and operational flexibility, which are crucial for maintaining a competitive advantage in a rapidly changing business environment (Indrawati & Muljaningsih, 2022).

This result is in line with Umair et al. (2023), who found that innovative work behavior significantly enhances service quality and process efficiency. Jain and Sharma (2026) also reported that innovative work behavior supports sustainable organizational performance by enabling firms to adapt to digital transformation and competitive pressures. These studies confirm that innovative work behavior contributes to organizational performance by fostering a culture of innovation, which is key to improving both financial and non-financial performance indicators. Therefore, the findings support the notion that innovative work behavior is a critical internal resource for sustaining competitive advantage, aligning with RBV's assertion that human capital, including innovative behaviors, plays a central role in driving performance.

4.5.5 The Effect of Employee Competency on Organizational Performance

Employee competency, according to the RBV, is an important strategic intangible resource since it is rare, precious, and hard to replicate, and it can lead to a lasting advantage over the competition. According to Martini et al. (2024), organizations may make better use of their resources and achieve better performance when their employees possess competencies such as knowledge, technical skills, adaptability, and problem-solving ability. Results from research in the service and knowledge-based industries corroborate this theory's prediction that a more competent workforce will boost organizational performance through increased creativity, operational efficiency, and productivity.

Contrary to previous research, this study found no significant direct effect of staff competency on organizational performance. Recent empirical studies in

10.12928/fokus.v16i1.14849

manufacturing and technology-driven sectors indicate that competencies such as technical expertise, problem-solving ability, adaptability, and creativity significantly enhance operational efficiency, innovation capability, and overall organizational effectiveness (Edwards & Lönnqvist, 2023; Muzam, 2023; Aristana et al., 2024). The discrepancy may be explained by contextual factors in large manufacturing organizations, where standardized processes, hierarchical decision-making, and machinery-driven operations limit the direct translation of individual competencies into organizational performance.

This finding contrasts with Edwards and Lönnqvist (2023) and Muzam (2023), who reported that employee competencies, particularly technical skills and adaptability, significantly enhance operational efficiency and innovation capacity in manufacturing sectors. The lack of a direct effect in this study may be due to contextual factors within the Batam manufacturing sector, such as rigid organizational structures or outdated processes that limit the direct impact of employee competencies on organizational outcomes. These results suggest that competency development should be integrated with other enablers, such as supportive leadership, organizational learning, and innovative work behavior, to realize its full potential for improving performance.

4.5.6 The Mediating Role of Employee Competency on the Effect of Knowledge Management and Organizational Performance

Competent employees are a strategic intangible resource that help businesses turn knowledge management into top-notch performance, according to the RBV. Information management makes it easier to create, share, and use information. However, how well people absorb, apply, and leverage this knowledge determines how effectively knowledge management enhances organizational outcomes. According to RBV, knowledge and other organizational resources cannot create a lasting competitive advantage unless the people working for the company are competent. This provides theoretical justification for looking into employee competency as a mediator (Alsheikh, 2023; Naim et al., 2024).

According to the study's mediation analysis, knowledge management and organizational performance are not mediated by employee competency. While knowledge management improves individual skills and knowledge, these competencies do not automatically translate into organizational-level performance gains. This result aligns with contextual studies in manufacturing environments, where operational systems, hierarchical decision-making, and process standardization may constrain the translation of individual competencies into broader performance outcomes (Alsheikh, 2023; Zulkifli et al., 2023; Naim et al., 2024). In such settings, knowledge management benefits may remain localized, improving task-specific efficiency without substantially affecting overall organizational productivity or competitiveness.

This result aligns with research by Zulkifli et al. (2023) and Naim et al. (2024), who found that knowledge management benefits are often contingent upon employee competencies and organizational context. In manufacturing environments, where operational systems are standardized, knowledge management may only improve task-specific efficiency without significantly impacting broader organizational performance. Since there was no discernible mediating impact, it is reasonable to assume that other variables, such as company culture, leadership, and technology infrastructure, may mediate or moderate this connection.

4.5.7 The Mediating Role of Employee Competency on the Effect of Innovative Work Behavior and Organizational Performance

Competence among workers is a strategic intangible asset that, according to the RBV, helps businesses turn creative actions on the job into high-quality results. Creativity, problem-solving, and the execution of ideas are examples of innovative work behaviors that tap into the rich human capital pool. The potential for new behaviors to improve organizational performance is limited, according to RBV, because skilled individuals are an organization's intangible asset (Shafique et al., 2020).

According to the results of the mediation analysis for the manufacturing sector in Batam, the relationship between innovative work behavior and organizational performance is not significantly mediated by employee competency. Standardized production systems, hierarchical decision-making, and external market pressures are examples of operational and structural constraints that limit the translation of individual-level skills into broader organizational outcomes, even though innovative work behavior benefits individual competencies (Turyahikayo, 2021; Umair et al., 2023; Martini et al., 2024). In such contexts, the direct implementation of innovative ideas may improve performance, but the indirect effect through employee competence is less pronounced.

These findings suggest that to realize the full potential of innovative work behavior, organizations should create enabling systems that capture and institutionalize the competencies gained through innovation. This includes platforms for knowledge sharing, collaborative problem-solving routines, and supportive leadership practices that align individual competencies with organizational goals. Future research should examine additional mediators, such as organizational learning, innovation climate, or dynamic capabilities, to clarify how innovative work behavior contributes to sustained organizational performance in emerging market contexts. This approach reinforces RBV's assertion that combining human capital competencies with innovative practices is critical for achieving competitive advantage (Alsheikh, 2023; Zulkifli et al., 2023; Naim et al., 2024).

This result is consistent with the arguments of Umair et al. (2023) and Martini et al. (2024), who state that innovative work behavior has a greater impact when supported by organizational structures that encourage cooperation and information exchange. Employee competency does not play a large mediating role between innovative work behavior and performance in Batam's manufacturing sector. This could be because there are not enough enabling structures in place to collect and institutionalize the competencies that are created through innovation. This means researchers need to examine what makes an organization work better at integrating competencies into broader processes and putting new ideas into action.

5. Conclusion

The purpose of this research was to analyze the electronic manufacturing industry in Batam City, Indonesia, with respect to knowledge management, innovative work behavior, employee competency, and organizational performance. Employee competency is greatly improved by knowledge management and innovative work behavior. Additionally, innovative work behavior directly and positively impacts organizational performance. Employee competency does not mediate the relationships among knowledge management, innovative work behavior, and organizational performance. Knowledge management itself does not directly affect organizational performance. These results indicate that other structural and

10.12928/fokus.v16i1.14849

contextual elements within the organization are just as important as knowledge management in determining organizational effectiveness.

The study focused only on electronic manufacturing, so its findings might not apply beyond Batam or to other industries. The cross-sectional design of the study precludes assessing changes over time or observing the effects of knowledge management and innovative work behavior on organizational performance. Despite the study's focus on employee competency, other potential variables that could have affected the correlations among the variables under study, including organizational culture, leadership, and external environmental factors were not considered.

The research shows that knowledge management and innovative work behavior practices should be integrated to help employees become more competent, thereby improving performance outcomes. In a more pragmatic sense, businesses should work on establishing procedures and systems that facilitate the efficient use of information and the implementation of innovative actions by staff members. To maximize performance, the findings also highlight the importance of strategically aligning human resource skills with organizational objectives.

Various paths can be investigated in the future. To start, it would be wise to conduct longitudinal studies to track the ever-changing impact of knowledge management and creative workplace practices on business outcomes. To further understand the mechanisms linking knowledge management, employee competency, innovative work behavior, and organizational performance, future research could test the hypothesis that mediating or moderating variables such as digital readiness, innovation climate, organizational learning, or leadership affect these relationships. Furthermore, to make the results more applicable across a wider range of organizational settings and industries, it would be beneficial to broaden the study's scope to include additional regions or sectors.

References

Ahsan, M. J. (2025). Cultivating a culture of learning: The role of leadership in fostering lifelong development. *The Learning Organization*, *32*(2), 282-306. https://doi.org/10.1108/TLO-03-2024-0099

Al Amiri, N., Rahima, R. E. A., & Ahmed, G. (2020). Leadership styles and organizational knowledge management activities: A systematic review. *Gadjah Mada International Journal of Business*, *22*(3), 250-275. https://doi.org/10.22146/gamaijb.49903

Al Wali, J., Muthuveloo, R., Teoh, A. P., & Al Wali, W. (2023). Disentangling the relationship between employees' dynamic capabilities, innovative work behavior and job performance in public hospitals. *International Journal of Innovation Science*, *15*(2), 368-384. https://doi.org/10.1108/IJIS-01-2022-0012

Alateeg, S., & Alhammadi, A. (2024). The role of employee engagement towards innovative work behavior mediated by leadership in small businesses. *International Journal of Advanced and Applied Sciences*, *11*(2), 145-156.

Alharbi, G. L., & Aloud, M. E. (2024). The effects of knowledge management processes on service sector performance: evidence from Saudi Arabia. *Humanities and Social Sciences Communications*, *11*(1), 1-19. https://doi.org/10.1057/s41599-024-02876-y

Alsheikh, G. A. A. (2023). Exploring the relationship between knowledge management and core competencies to improve universities success in Jordan: Testing the mediating effect of employee engagement. *Periodicals of Engineering and Natural Sciences*, *11*(5), 76-90. https://doi.org/10.21533/pen.v11.i5.186

Amaral, R. D. C., & De Muylder, C. (2025). The relation between innovative behavior and culture of innovation in organizational performance: model and empirical study. *Journal of Business & Industrial Marketing*, *40*(3), 766-781. https://doi.org/10.1108/JBIM-03-2024-0202

Amelia, D., Artini, Y. D., Rahayu, G. N., Purnomo, H., & Zaman, B. (2025). Optimizing organizational capabilities through the integration of strategic management and human resource performance. *International Journal of Financial Economics*, *1*(9), 216-229.

Amoozegar, A., Esohwode, O. E., Yujiao, W., Pee, W. H., Ismaeil, A., Yadav, M., & Harun, M. T. (2025). Employee creativity and innovation in higher education institutions: applying the dynamic componential model of creativity and innovation. *Frontiers in Psychology*, *16*, 1614751. https://doi.org/10.3389/fpsyg.2025.1614751

Anthonysamy, L., Koo, A. C., & Hew, S. H. (2020). Self-regulated learning strategies in higher education: Fostering digital literacy for sustainable lifelong learning. *Education and Information Technologies*, *25*(4), 2393-2414. https://doi.org/10.1007/s10639-020-10201-8

Aristana, I. N., Puspitawati, N. M. D., Salain, P. P. P., Koval, V., Konarivska, O., & Paniuk, T. (2024). Improving innovative work behavior in small and medium enterprises: Integrating transformational leadership, knowledge sharing, and psychological empowerment. *Societies*, *14*(11), 228. https://doi.org/10.3390/soc14110228

Ateeq, A. (2024). Emerging economies and digital transformation: Opportunities and challenges. *Business Sustainability with Artificial Intelligence (AI): Challenges and Opportunities: Volume 1*, 129-136. https://doi.org/10.1007/978-3-031-71526-6_12

Bari, N., Chimhundu, R., & Chan, K. C. (2022). Dynamic capabilities to achieve corporate sustainability: a roadmap to sustained competitive advantage. *Sustainability*, *14*(3), 1531. https://doi.org/10.3390/su14031531

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120. https://doi.org/10.1177/0149206391017001

Cristache, N., Croitoru, G., & Florea, N. V. (2025). The influence of knowledge management on innovation and organizational performance. *Journal of Innovation & Knowledge*, *10*(5), 100793. https://doi.org/10.1016/j.jik.2025.100793

Edwards, J., & Lönnqvist, A. (2023). The future of knowledge management: An agenda for research and practice. *Knowledge Management Research & Practice*, *21*(5), 909-916. https://doi.org/10.1080/14778238.2023.2202509

El Nemar, S., El-Chaarani, H., Dandachi, I., & Castellano, S. (2025). Resource-based view and sustainable advantage: a framework for SMEs. *Journal of Strategic Marketing*, *33*(6), 798-821. https://doi.org/10.1080/0965254X.2022.2160486

Erena, O. T., Kalko, M. M., & Debele, S. A. (2023). Organizational factors, knowledge management and innovation: Empirical evidence from medium-and large-scale manufacturing firms in Ethiopia. *Journal of Knowledge Management*, *27*(4), 1165-1207. https://doi.org/10.1108/JKM-11-2021-0861

Fu, Q., & Tan, J. S. (2025). Interplay between leadership style and innovative work behavior: Mediated by innovation-oriented people management. *International Journal of Innovation Science*, 1-23. https://doi.org/10.1108/IJIS-03-2025-0104

Germann, J. (2023). Global rivalries, corporate interests and Germany's 'National Industrial Strategy 2030'. *Review of International Political Economy*, *30*(5), 1749-1775. https://doi.org/10.1080/09692290.2022.2130958

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer International Publishing.

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. https://doi.org/10.1108/S1474-7979(2009)0000020014

Hudayah, S., Ramadhani, M. A., Raharjo, S., Ambarita, N. P., Hidayani, H., & Yudaruddin, R. (2024). The impact of knowledge management on digital innovation during the COVID-19

 10.12928/fokus.v16i1.14849

pandemic: The role of digital capability and digital orientation. *WSEAS Transactions on Business and Economics*, *21*, 1276–1285. https://doi.org/10.37394/23207.2024.21.104

Igbonaju, J. O., Liu, Y., & Fang, W. (2025). Strategic innovation system and firm innovation performance: empirical analysis based on dynamic capabilities and knowledge base view. *Technology Analysis & Strategic Management*, *37*(11), 1573-1589. https://doi.org/10.1080/09537325.2024.23202

Indrawati, N. K., & Muljaningsih, S. (2022). Achieving competitive advantage through spiritual capital, innovation work behavior, and organizational learning. *Problems and Perspectives in Management*, *20*(2), 426. https://doi.org/10.21511/ppm.20(2).2022.35

Jain, D., & Sharma, H. (2026). Does innovative work behavior and digital transformation drive employee performance? A sequential mediation approach. *International Journal of Productivity and Performance Management*, *75*(3), 930-952. https://doi.org/10.1108/IJPPM-12-2024-0898

Jameel, A., Sahito, N., Guo, W., Hussain, A., Kanwel, S., & Khan, S. (2025). The influence of supportive leadership on hospitality employees' green innovative work behavior: The mediating role of innovative climate and psychological empowerment. *Frontiers in Psychology*, *16*, 1565408. https://doi.org/10.3389/fpsyg.2025.1565408

Jiang, Z., Huo, M. L., Jones, J., Cheng, Z., Manoharan, A., & Spoehr, J. (2025). Thriving in future work: knowledge management and innovation perspectives. *Knowledge Management Research & Practice*, *23*(1), 1-12. https://doi.org/10.1080/ 14778238.2024.2344347

Kero, C. A., & Bogale, A. T. (2023). A systematic review of resource-based view and dynamic capabilities of firms and future research avenues. *International Journal of Sustainable Development & Planning*, *18*(10). https://doi.org/10.18280/ijsdp.181016

Khin, S., & Kee, D. M. H. (2022). Factors influencing Industry 4.0 adoption. *Journal of Manufacturing Technology Management*, *33*(3), 448-467. https://doi.org/10.1108/JMTM-03-2021-0111

Kim, J., & Jung, H. S. (2022). The effect of employee competency and organizational culture on employees' perceived stress for better workplace. *International Journal of Environmental Research and Public Health*, *19*(8), 4428. https://doi.org/10.3390/ijerph19084428

Kokkaew, N., Jokkaw, N., Peansupap, V., & Wipulanusat, W. (2022). Impacts of human resource management and knowledge management on non-financial organizational performance: Evidence of Thai infrastructure construction firms. *Ain Shams Engineering Journal*, *13*(6), 101750. https://doi.org/10.1016/j.asej.2022.101750

Kossyva, D., Theriou, G., Aggelidis, V., & Sarigiannidis, L. (2024). Retaining talent in knowledge-intensive services: enhancing employee engagement through human resource, knowledge and change management. *Journal of Knowledge Management*, *28*(2), 409-439. https://doi.org/10.1108/JKM-03-2022-0174

Laundon, M., McDonald, P., & Greentree, J. (2023). How education and training systems can support a digitally-enabled workforce for the manufacturing industry of the future: an exploratory study. *Education+ Training*, *65*(6-7), 909-922. https://doi.org/10.1108/ET-04-2023-0158

Litvaj, I., Ponisciakova, O., Stancekova, D., Svobodova, J., & Mrazik, J. (2022). Decision-making procedures and their relation to knowledge management and quality management. *Sustainability*, *14*(1), 572. https://doi.org/10.3390/su14010572

Martini, I. A. O., Gorda, A. E. S., Gorda, A. O. S., Sari, D. M. F. P., & Antara, M. E. Y. (2024). Impact of competence development, on work creativity, employee performance, and competitiveness of woven products. *Cogent Business & Management*, *11*(1), 2353136. https://doi.org/10.1080/23311975.2024.2353136

Masyhuri, M., Sudiro, A., Prabandari, S. P., & Kurniawati, D. T. (2024). Human capital and readiness for digital innovation: The mediating role of thriving at work and the moderating role of perceived organizational support. *The Journal of Behavioral Science*, *19*(2), 30-43.

Meher, J. R., Nayak, L., Mishra, R. K., & Patel, G. (2024). Impact of organizational learning culture on organizational effectiveness: a serial mediation analysis with knowledge sharing and employee competencies. *VINE Journal of Information and Knowledge Management Systems*, *54*(2), 324-338. https://doi.org/10.1108/VJIKMS-10-2021-0230

Mukhsin, M., & Suryanto, T. (2022). The effect of sustainable supply chain management on company performance mediated by competitive advantage. *Sustainability*, *14*(2), 818. https://doi.org/10.3390/su14020818

Muzam, J. (2023). The challenges of modern economy on the competencies of knowledge workers. *Journal of the Knowledge Economy*, *14*(2), 1635-1671. https://doi.org/10.1007/s13132-022-00979-y

Naim, M. F., Shehzad, N., Al Nahyan, M. T., Jabeen, F., & Usai, A. (2024). The impact of knowledge sharing on employee engagement through the mediating role of competency development and moderating role of social climate. *Journal of Knowledge Management*, *28*(7), 1889-1916. https://doi.org/10.1108/JKM-04-2023-0276

Neamţu, D. M., Bejinaru, R., Anichiti, A., Butnaru, G. I., & Hapenciuc, C. V. (2025). Current status and perspectives regarding the skills and meta-competencies needed by employees in the era 4.0. *Kybernetes*. https://doi.org/10.1108/K-10-2024-2918

Peykani, P., Namazi, M., & Mohammadi, E. (2022). Bridging the knowledge gap between technology and business: An innovation strategy perspective. *PloS One*, *17*(4), e0266843. https://doi.org/10.1371/journal.pone.0266843

Rubel, M. R. B., Kee, D. M. H., & Rimi, N. N. (2023). Promoting technology innovation performance through high involvement HRM, technology adaptation and innovativeness. *Business Process Management Journal*, *29*(5), 1277-1302. https://doi.org/10.1108/BPMJ-10-2022-0526

Rumijati, A., & Hakim, A. R. (2023). Innovative work behavior and self-efficacy: Does entrepreneurial leadership impact MSME business performance?. *Problems and perspectives in management*, *21*(4), 304. https://doi.org/10.21511/ppm.21(4).2023.24

Santoso, N. R., Sulistyaningtyas, I. D., & Pratama, B. P. (2022). Transformational leadership during the COVID-19 pandemic: Strengthening employee engagement through internal communication. *Journal of Communication Inquiry*. https://doi.org/10.1177/01968599221095182

Shafique, I., Ahmad, B., & Kalyar, M. N. (2020). How ethical leadership influences creativity and organizational innovation: Examining the underlying mechanisms. *European Journal of Innovation Management*, *23*(1), 114-133. https://doi.org/10.1108/EJIM-12-2018-0269

Shah, S. T. H., Shah, S. M. A., & El-Gohary, H. (2023). Nurturing innovative work behaviour through workplace learning among knowledge workers of small and medium businesses. *Journal of The Knowledge Economy*, *14*(4), 3616-3639. https://doi.org/10.1007/s13132-022-01019-5

Srirahayu, D. P., Ekowati, D., & Sridadi, A. R. (2023). Innovative work behavior in public organizations: A systematic literature review. *Heliyon*, *9*(2). https://doi.org/10.1016/j.heliyon.2023.e13557

Ssenyonga, M. (2021). Imperatives for post-COVID-19 recovery of Indonesia's education, labor, and SME sectors. *Cogent Economics & Finance*, *9*(1), 1911439. https://doi.org/10.1080/23322039.2021.1911439

Takeed, Z., Ali, M. D., Shah, S. I., Muhammad, A., & Qiu, S. (2025). The effect of entrepreneurial leadership on innovative work behavior: the mediating roles of creative self-efficacy and organizational learning. *Journal of Entrepreneurship in Emerging Economies*, *17*(5), 1288–1310. https://doi.org/10.1108/JEEE-08-2024-0326

Thornhill-Miller, B., Camarda, A., Mercier, M., Burkhardt, J. M., Morisseau, T., Bourgeois-Bougrine, S., Vinchon, F., El Hayek, S., Augereau-Landais, M., Mourey, F., Febesse, C., Sundquist, D., &

10.12928/fokus.v16i1.14849

Lubart, T. (2023). Creativity, critical thinking, communication, and collaboration: Assessment, certification, and promotion of 21st century skills for the future of work and education. *Journal of Intelligence*, *11*(3), 54. https://doi.org/10.3390/jintelligence11030054

Turyahikayo, E. (2021). Philosophical paradigms form the basis of knowledge management research and practice. *Knowledge Management & E-Learning*, *13*(2), 209-224.

Umair, S., Waqas, U., Mrugalska, B., & Al Shamsi, I. R. (2023). Environmental corporate social responsibility, green talent management, and organization's sustainable performance in the banking sector of Oman: The role of innovative work behavior and green performance. *Sustainability*, *15*(19), 14303. https://doi.org/10.3390/su151914303

Verma, V. K., Srinivas, M., Pandey, K. K., & Dargan, H. (2024). Boosting employee engagement for enhanced productivity in organizations: A strategic approach. *Frontiers in Health Informatics*, *13*(3).

Volery, T., & Tarabashkina, L. (2021). The impact of organizational support, employee creativity and work centrality on innovative work behaviour. *Journal of Business Research*, *129*, 295-303. https://doi.org/10.1016/j.jbusres.2021.02.049

Vuong, B. N., Tushar, H., & Hossain, S. F. A. (2023). The effect of social support on job performance through organizational commitment and innovative work behavior: does innovative climate matter? *Asia-Pacific Journal of Business Administration*, *15*(5), 832-854. https://doi.org/10.1108/APJBA-06-2021-0256

Wang, X., Wang, Z., & Zhang, M. (2024). Knowledge workers, innovation linkages and knowledge absorption: An interactive mechanism study. *Journal of the Knowledge Economy*, *15*(4), 19460-19489. https://doi.org/10.1007/s13132-023-01709-8

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, *5*(2), 171-180. https://doi.org/10.1002/smj.4250050207

Wolor, C. W., Madli, F., Rababah, M. A., Mukhibad, H., & Hoo, W. C. (2024). Examining the impact of knowledge management use and innovation on business performance of MSMEs in the digital age. Case study MSMEs in Indonesia. *Journal of Sustainability Research*, *4*(1). https://doi.org/10.20900/jsr20240070

Yeboah, A. (2023). Knowledge sharing in organization: A systematic review. *Cogent Business & Management*, *10*(1), 2195027. https://doi.org/10.1080/23311975.2023.2195027

Zhang, J., Zia, U., Shehzad, M. U., & Sherani. (2025). Tacit knowledge management process, product innovation and organizational performance: Exploring the role of affective trust and task efficiency. *Business Process Management Journal*, *31*(1), 267-297. https://doi.org/10.1108/BPMJ-11-2023-0873

Zulkifli, Z., Purwati, A. A., Renaldo, N., Hamzah, Z., & Hamzah, M. L. (2023). Employee performance of Sharia Bank in Indonesia: The mediation of organizational innovation and knowledge sharing. *Cogent Business & Management*, *10*(3), 2273609. https://doi.org/10.1080/23311975.2023.2273609