

“The interplay between knowledge management and organizational performance measurement through the mediating effect of innovation capability”

AUTHORS

Azzam A. Abou-Moghli 

ARTICLE INFO

Azzam A. Abou-Moghli (2025). The interplay between knowledge management and organizational performance measurement through the mediating effect of innovation capability. *Knowledge and Performance Management*, 9(1), 45-61. doi:[10.21511/kpm.09\(1\).2025.04](https://doi.org/10.21511/kpm.09(1).2025.04)

DOI

[http://dx.doi.org/10.21511/kpm.09\(1\).2025.04](http://dx.doi.org/10.21511/kpm.09(1).2025.04)

RELEASED ON

Monday, 27 January 2025

RECEIVED ON

Friday, 13 September 2024

ACCEPTED ON

Friday, 03 January 2025

LICENSE



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

JOURNAL

"Knowledge and Performance Management"

ISSN PRINT

2543-5507

ISSN ONLINE

2616-3829

PUBLISHER

LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER

Sp. z o.o. Kozmenko Science Publishing



NUMBER OF REFERENCES

43



NUMBER OF FIGURES

1



NUMBER OF TABLES

11

© The author(s) 2025. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 13th of September, 2024
Accepted on: 3rd of January, 2025
Published on: 27th of January, 2025

© Azzam Abou-Moghli, 2025

Azzam Abou-Moghli, Ph.D. in Management, Professor, Faculty of Business, Department of Business, Middle East University, Jordan.

Azzam Abou-Moghli (Jordan)

THE INTERPLAY BETWEEN KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL PERFORMANCE MEASUREMENT THROUGH THE MEDIATING EFFECT OF INNOVATION CAPABILITY

Abstract

Knowledge management is a 'know-how' expression through which companies can access and apply their shared knowledge to achieve innovation, improve performance, and attain long-term competitive advantage. The present study investigates the association between knowledge management and organizational performance measurement with innovation capability mediating in the Jordanian Telecommunication sector. Descriptive and inferential statistics, such as regression analysis and structural equation modeling, were used to analyze 575 responses from employees working in major telecommunication companies like Zain, Orange, and Umniah. The performances of knowledge management impact on organizational performance measurement results were positive, with the R-square amounting to 0.803. The change of each predictor variable in terms of B was: Knowledge Creation, 0.179; Knowledge Storage, 0.196; Knowledge Sharing, 0.399; Knowledge Application, 0.221; and Knowledge Evaluation, 0.234. Further, Innovation capability positively mediates the impact of knowledge management on organizational performance measurement. Overall, the study's findings emphasize that an enterprise should effectively handle its intellectual assets and enhance its innovation capabilities since it may have the potential to hold a competitive advantage and overall performance in an advanced era.

Keywords

intellectual asset management, knowledge creation, knowledge storage, knowledge sharing, knowledge application, knowledge evaluation, key performance indicators, balance score card, innovation, Jordan

JEL Classification

D83, L25, M10, M19, O30

INTRODUCTION

In an era where knowledge is becoming an important asset for any business, new factors are emerging that compete in the market. Hence, innovation capability, being rooted in knowledge accumulation, becomes the main channel to gain revenue. An organization's bottom line is to enhance its performance so that it may create customer value. Further, due to competition determinants, organizations take knowledge management seriously as a vital contributor to organizational performance.

Knowledge management is the process through which organizations systematically create, share, use, and manage knowledge and information. Therefore, knowledge management's ultimate goal is to enhance organizational efficiency and performance to ensure the right information is available to the right people at the right time. Companies



This is an Open Access article, distributed under the terms of the [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.



Conflict of interest statement:
Author(s) reported no conflict of interest

today find that knowledge management plays a significant role in driving innovation and performance. It now goes beyond the problems of knowledge storage and retrieving; it is considered a strategic asset on which performance depends. Effective knowledge management practice will help firms manage the information assets to support and foster decision-making, leading to innovation and adaptability. In this respect, the traditional measures of a firm's performance have gone beyond just financial metrics to include balanced scorecards that better capture the value creation from intangibles such as knowledge. Embedment of knowledge management within performance measurement frameworks is now viewed as a critical, core strategic capability if organizations are to realize sustainable competitive advantage. However, knowledge management in itself is not at all times sufficient for the delivery of improved capabilities.

Telecommunications companies in Jordan are no exception but face numerous challenges that hinder the realization of effective knowledge management practices and, thus, innovation-driven performance improvement. These companies struggle with fragmented and siloed knowledge management systems. Frequently, knowledge is dispersed across departments and functions, with poor mechanisms for sharing, integrating, and leveraging that knowledge. It results in decentralized decision-making processes and lost opportunities for groundbreaking information flow, which can help to drive productivity. It leads to missed opportunities for companies leveraging collective intelligence; they now have to innovate new products, provide better customer service, and boost operational effectiveness. In addition, the Jordanian telecommunications sector continues to be challenged by global technology trends such as 5G deployment and demands for IoT implementation and artificial intelligence. Those advancements demand more than just significant financial investments; they also need a knowledge infrastructure to generate rapid learning, adaptation, and innovation. Jordanian telecommunications companies struggle without appropriate knowledge management and have less effective innovation results. Ultimately, although they may create new ideas or discover innovations only conceptualized on a whiteboard elsewhere in the organization, nothing works well executed inside their actual work environment. Failing to translate knowledge into actionable innovation results in opportunities lost, decreased customer satisfaction, and a weakening of competitive positioning. As a result, the necessary funds are not allocated to reinforce this very important process in most organizations, so wheel squeak still prevails. This means businesses must constantly innovate, evolve, and adjust to remain competitive. However, for most telecommunications companies in Jordan, it is different, where managing and harnessing the power of their knowledge assets to meet these demands is challenging.

Notwithstanding the importance of knowledge assets, which has been widely recognized, most organizations fail to precisely quantify knowledge management's contribution to their performance measurement systems. Furthermore, little is understood about the relationship between knowledge assets and innovation capability or its potential mediating effect. This lack of comprehension impairs an organization from using its knowledge resources concerning driving innovation and correctly measuring outcomes of performance.

1. LITERATURE REVIEW

Although innovation capability, knowledge management, and organizational performance measurement are widely recognized as very important, the literature is somewhat replete with a significant gap regarding how innovation capability mediates knowledge management and organizational performance measurement. Whereas quite a number of studies have focused on the individual effects of

knowledge management on innovation and those of innovation on performance, few have considered in an integrated manner how innovation capability can play the role of a mediating variable in this triadic relationship.

Performance measurement is one of the strongholds of the management of organizations, being applied and considered for assessing the achievement of success and deducing proper strategic de-

decisions. For a long period, it has rested on finance-based performance indicators (Gupta & Agarwal, 2022). For example, the traditional financial indicators are profit margins, return on investment, and earnings per share. These forms of data are quantifiable and have been employed by an organization to assess economic health. While Zaid et al. (2024) reiterated the importance of financial measures for strategic decision-making, their application was therefore put into prominence as a guide to organizational success and resource allocation. However, this exclusive reliance on financial metrics began to show many limitations, especially as organizations increasingly plunged into more comprehensive and competitive environments. Financial indicators are important; however, they often provide limited foresight and might not capture intangible assets such as customer satisfaction, internal processes, and employee development (Ginting et al., 2024). Hence, Kaplan and Norton (1992) introduced the concept of the Balanced Scorecard – a paradigm-shifting framework that widened the scope of performance measurement. The Balanced Scorecard expanded organizational focus from pure financial outcomes to four key perspectives: financial performance, customer satisfaction, internal business processes, and learning and growth. The financial perspective revolves around an organization's profitability and shareholder value, aligning its financial objectives with its long-term strategy (Marcu, 2020). Further, the customer perspective captures customer satisfaction and market share for furthering the understanding of the organization in terms of its market position and the customer base's needs (Kicová et al., 2023). In contrast, the perspective of internal business processes is concentrated on efficiency and quality of operations (Voicu Apostol, 2024). The last perspective accentuates learning and growth, emphasizing that there is a need to properly train the employees and encourage continuous improvement so that the organization can change and adapt with time (Mikula et al., 2020). With a look at these different viewpoints, the Balanced Scorecard provides a more holistic look at organizational performance. It offers leaders the ability to make better decisions that assist in driving long-term success. Building on the base laid by the Balanced Scorecard, Neely et al. (2002) developed the Performance Prism, which extended the concept of performance measurement by

putting a number of key facets at the heart of the model: stakeholder satisfaction, strategies, processes, capabilities, and stakeholder contribution. First, stakeholder satisfaction refers to the identification of various needs and desires of different stakeholders like customers, employees, suppliers, and investors, and their management accordingly (Raharja et al., 2019). To address the needs actively, strategies should be taken into consideration in addressing the requirements of stakeholders and motivating organizational objectives. These strategies are implemented by representing the major operational activities and executing strategies efficiently and effectively (Byhoff et al., 2023). Ultimately, synthesizing such frameworks would show progressive development in performance measurement from an exclusive or narrow focus on financial and non-financial to an inclusive, well-balanced view. Thus, the potential of these frameworks must be harnessed to allow organizations to put more comprehensive strategies into place, develop closer stakeholder relationships, and even manage external environmental change. This type of alignment will not only enhance an organization's performance but also provide it with long-term sustainability and competitive advantage.

On the other hand, knowledge management (KM), has turned into a major imperative for organizations, wherein the organization aims to capitalize on the available collective knowledge and the information base for better decision-making, innovation, and performance (Kavalić et al., 2021). Perhaps one of the seminal contributions to KM is the development of the SECI model by Nonaka and Takeuchi (1995), a model that conceptualizes knowledge creation as being a dynamic and continuous process in which tacit and explicit knowledge interact through four modes, namely socialization, externalization, combination, and internalization. Socialization is a process of sharing tacit knowledge by experience and direct interaction whereby working people can acquire skills and mental models (Kucharska & Erickson, 2023). Externalization is a process through which the individual articulates tacit knowledge into explicit concepts, usually facilitated by dialogue, metaphors, and analogy, thus allowing hitherto unarticulated knowledge to be communicated and shared (Weldemariam & Garfield, 2019).

Combination means systematizing and combining explicit knowledge through sorting, adding, reconfiguring, and categorizing to generate new sets of explicit knowledge (Chen et al., 2023). Internalization means embodying explicit knowledge into the tacit knowledge; the individual internalizes experiences through learning by doing, thus enriching his or her tacit knowledge base (Farnese et al., 2019). Therefore, it is important to understand the distinction between the two knowledge types when laying out appropriate KM practices. Tacit knowledge is personal, contextual, and hard to formalize and communicate; it consists of insights, intuition, and hunches acquired through personal experience (Oranga, 2023). Explicit knowledge, on the other hand, is codified, systematic, and easily communicable in a documentary form, such as documents, databases, and procedures (Seghroucheni et al., 2023). For organizations that want to use both kinds of knowledge, there is a need to establish environments and systems that allow conversion and flow between both tacit and explicit kinds of knowledge. Moreover, knowledge management processes allow transformation from individual knowledge to organizational knowledge as well as performance improvements, such as knowledge creation, collection, storage, sharing, and application (Costa & Monteiro, 2016). Knowledge creation involves novelty and the development of insight and ideas. Hence, it calls for a collaborative and innovative platform (Haasz & Baracska, 2022). This includes proper identification and recording of knowledge on hand, which otherwise was getting lost with the loss of valuable information within the organizations. Knowledge storage means organizing and preserving knowledge for future use (Antunes & Pinheiro, 2020). This comprises database management and document repository, among other information systems. Knowledge sharing can be summarized as the transfer of knowledge within the organization, creating an open and sharing culture (Yeboah, 2023). Finally, knowledge application refers to exploiting knowledge to enhance processes, products, and decision-making, where the result will contribute directly to organizational effectiveness and competitiveness (Otundo, 2023).

The link between knowledge management and organizational performance measurement is substantial in the sense that successful KM practices

will lead to the development of greater performance due to better efficiency, innovation, and adaptability. Gold, Malhotra, and Segars (2001) revealed that organizations that apply effective knowledge management tend to outperform. The value of KM for information quality is substantial in enhancing the data quality, making the measurement more accurate and insightful. On equal measures, the KM practices nurture informed decision-making since organizations would subsequently be capable of effectively setting realistic targets for performance, assessing shortcomings in performance, and mapping trends in performance. More importantly, knowledge management plays a profoundly important role in developing innovation capability. For example, Darroch and McNaughton (2002) identify that KM is effective in recombining knowledge assets to facilitate an innovative environment. Knowledge flows and collaborative learning fostered by KM practices enhance an organization's ability to generate new ideas, develop innovative solutions, and respond effectively to environmental changes. In other words, knowledge creation and sharing is a dynamic process whereby innovation capability will be fostered to drive organizational growth and competitive advantage.

Besides knowledge management and organizational performance measurement, innovation capability has emerged as the pivotal factor determining organizations' success and survival in a dynamic, rapidly changing modern business environment. The effective ability to innovate has ceased to be a luxury but a compulsion for the organization to keep up with continuous change and evolution in market demands. The innovative capability may be regarded as the potential of an enterprise to create new products, services, processes, or business models in ways that allow the organization to continue possessing competitive advantages and yield to its ever-evolving market demands (Zastempowski, 2022). According to Saunila (2020), innovation capability is "the ability to continuously transform knowledge and ideas into new products, processes, and systems for the benefit of the firm and its stakeholders." This definition develops further on innovation's continuous and transformative nature, emphasizing that it is not a singular event but a process continuing at the core of organizational growth and adjust-

ment. Innovation capability is supposed to include not just the generation of new ideas but also their application and commercialization (Moreira et al., 2024). It requires the complicated interaction of resources, skills, processes, and cultural factors that enable the organization to efficiently manage the innovation activity and respond to internal and external changes. Along these lines, it is multidimensional, entailing several key metrics. Input metrics relate to the resources allotted for innovation, including R&D expenditure, the number of filed patents, and skilled personnel available to evidence an organization's commitment toward fostering innovation (Sarpong et al., 2023). Process metrics address the effectiveness of the innovation process by counting ideas generated, the time to develop new products, and the rate of successful innovation projects (Dziallas & Blind, 2019). These metrics highlight how well an organization is converting ideas into market-ready solutions. Output metrics represent the measure of results or tangible output from the innovation effort: new products launched, revenues from innovative products, and share growth arising (Nathan & Rosso, 2021). This reflects the impact of innovation on performance. Another approach can be the adoption of a balanced scorecard to examine a holistic view of innovation capability (Dudić et al., 2020). This approach ensures a strategic alignment of innovation activities with the organization's long-term goals for sustainable growth.

Therefore, it can be seen that knowledge management drives innovation capabilities by facilitating the efficient capture, sharing, and application of knowledge, which in turn enhances creativity and problem-solving (Gloet & Samson, 2020). In turn, these enhanced innovation capabilities drive organizational performance measurement by setting new benchmarks and standards, pushing organizations to adopt advanced metrics that accurately reflect strategic improvements and competitive advantages (Farida & Setiawan, 2022). For instance, knowledge management is one of the most critical drivers of innovation capability because it enables and supports effective systematic knowledge collection, sharing, and use. Knowledge management creates a culture in organizations where the free flow of information opens access to employees, enabling them to find data, insights, and expertise that may spark new ideas. As for in-

novation capability, it directly impacts organizational performance measurement by influencing the firms to achieve certain competitive advantages that can be measured through a number of performance metrics (Rajapathirana & Hui, 2018). Indeed, a high innovation capability increases the likelihood of new product development, process improvement, and customer satisfaction, indicating key performance indices (Ahmed et al., 2020). Innovation leads to efficiency, cost reduction, and revenue generation, which, in turn, can be measurable for assessing the success of any organization.

Given the importance of bridging the gap between knowledge management practices and organizational performance measurements, this study aims to explore the interplay between knowledge management and organizational performance measurement through the mediating effect of innovation capability in Jordanian telecommunications companies. Therefore, the following hypotheses were put forward:

H01: There is no statistically significant impact (at $\alpha = 0.05$) of knowledge management (knowledge creation, knowledge storage, knowledge sharing, knowledge application, and knowledge evaluation) collectively on organizational performance measurement.

H01.1: There is no statistically significant impact (at $\alpha = 0.05$) of knowledge management (knowledge creation, knowledge storage, knowledge sharing, knowledge application, and knowledge evaluation) collectively on financial performance.

H01.2: There is no statistically significant impact (at $\alpha = 0.05$) of knowledge management (knowledge creation, knowledge storage, knowledge sharing, knowledge application, and knowledge evaluation) collectively on non-financial performance.

H02: There is no statistically significant impact (at $\alpha = 0.05$) of knowledge management on innovation capability.

H03: There is no statistically significant impact (at $\alpha = 0.05$) of innovation capability on organizational performance measurement.

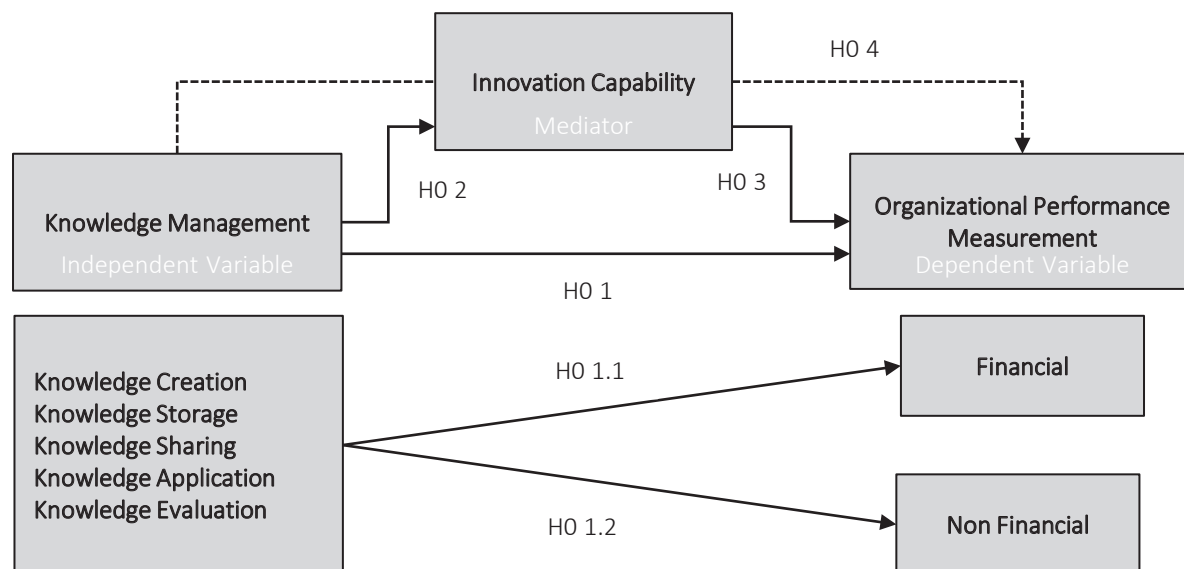


Figure 1. Research model

H04: There is no statistically significant impact (at $\alpha = 0.05$) of knowledge management organizational performance measurement through innovation capability.

As Figure 1 shows, the conceptual framework explores how changes in these research variables affect each other. It sheds light on how knowledge management, innovation capability, and organizational performance measurement are interrelated.

2. METHODS

The study utilized a descriptive-analytic approach, which is applicable for both explaining the characteristics of the phenomenon and analyzing the relation among several factors. By adopting this process, the research aimed to comprehensively achieve all of its objectives, including disseminating results.

A questionnaire was chosen to be the main tool for collecting primary data in this study because it is the most suitable of its kind and can take information from a vast number of participants. The questionnaire evolved three core parts, each focusing on a different angle of the research variables. The items from the questionnaire were gauged and rated with a five-point Likert Scale, spanning from Strongly Disagree [1] to Strongly Agree [5]. The scale was perceived as low (1.00-2.33), medium (2.34-3.67), and high (3.68).

Data obtained from the questionnaires was statistically dealt with to test relationships between variables and study hypotheses. The characteristics of the sample and general trends found in responses were used to summarize data through descriptive statistics. Further, inferential statistics were utilized, particularly regression analysis and structural equation modeling.

The study population comprised the first three largest telecommunications companies in Jordan: Zain, Orange, and Umniah. These companies have a total of 3,598 employees, including 1,335 at Zain, 1,363 at Orange, and 900 at Umniah. It was important to draw a sample from the study population to ensure that each employee would have an equal opportunity to participate to mitigate the potential for selection bias. The study sample size was calculated based on established statistical formulas and references to ensure that it would generate reliable findings. Some 700 questionnaires were distributed, of which 575 met the requirements for validity and formed the basis for analysis. Hence, the response rate was 82%. The research sample included participants from all managerial levels, ensuring diverse perspectives from various hierarchical levels.

Table 1 outlines the details of the demographic variables, such as gender, age, educational background, and occupation. It shows the numbers and proportions for each group.

Table 1. Frequencies and percentages according to the study’s demographic variables

Variable	Categories	Frequencies	Percentages
Gender	Female	234	40.70%
	Male	341	59.30%
	Total	575	100%
Age	29 and Less	260	45.22%
	30-40 years	154	26.78%
	41-50 years	139	24.17%
	50 years and More	22	3.83%
	Total	575	100%
Qualifications	Diploma	38	6.61%
	Bachelors’ degree	417	72.52%
	Post graduate	120	20.87%
	Total	575	100%
Job Title	Manager	58	10.09%
	Employee	517	89.91%
	Total	575	100%

A demographic analysis of the research sample revealed that representation across several key variables was quite balanced. The sample in terms of gender consists of 40.70% females and 59.30% males. Regarding age, 45.22% of respondents are 29 or younger, 26.78% fall within the 30-40 age bracket, 24.17% are between 41-50 years, and only 3.83% are over 50. A significant majority of the respondents hold a bachelor’s degree representing 72.52%. In terms of job title, the overwhelming majority of respondents are employees (89.91%).

3. RELIABILITY OF SCALES

Internal consistency was checked by utilizing Cronbach alpha reliability analysis to the questions that constitute the dimension of test variables. It should be noted separately that in administrative sciences, Alpha < 0.70 is suitable (Hair et al., 2019). The fallouts are presented in Table 2.

Table 2. Cronbach’s Alpha coefficients

Dimension	Item No.	Cronbach’s Alpha Reliability
Knowledge Creation	4	0.82
Knowledge Storage	4	0.79
Knowledge Sharing	4	0.80
Knowledge Application	4	0.75
Knowledge Evaluation	4	0.79
Knowledge Management	20	0.93
Financial Perspective	5	0.71
Non-Financial Perspective	12	0.85
Organizational Performance Measurement	17	0.78
Innovation Capability	4	0.84

When measured using Cronbach’s Alpha, the reliability analysis of the study’s various dimensions indicates a good level of internal consistency across most of the dimensions. For instance, the Knowledge Management dimension, which includes 20 items, registers very high reliability as indicated by a Cronbach’s Alpha of 0.93, meaning very good internal consistency. The sub-dimensions of Knowledge Creation (0.82), Knowledge Storage (0.79), Knowledge Sharing (0.80), Knowledge Application (0.75), and Knowledge Evaluation (0.79) all demonstrate good reliability and lie above 0.70, which is the threshold value. Within the Financial Perspective dimension, Organizational Performance Measurement parameters yield moderate reliability, with Cronbach’s Alpha of 0.71. However, it is the Non-Financial Perspective that yields greater reliability at 0.85. Overall Organizational Performance Measurement with 17 items shows good reliability of 0.78. Innovation Capability, however, also possesses reliability with Cronbach’s Alpha of 0.84, further reaffirming the reliability of the constructs used in this study. These findings imply that the instruments used to find out the constructs are reliable and appropriate for the study.

4. RESULTS

4.1. Analysis of study variables in descriptive form

This section presents and analyzes the sample’s responses in standard deviations and arithmetic means of the study to the questionnaire’s ques-

Table 3. Descriptive statistics and estimation for the knowledge management variable

ID	Dimension	Mean	Degree	Rank
1	Knowledge Creation	3.79	High	1
2	Knowledge Storage	3.00	Moderate	5
3	Knowledge Sharing	3.73	High	2
4	Knowledge Application	3.05	Moderate	4
5	Knowledge Evaluation	3.10	Moderate	3
Total		3.53	Moderate	–

tions regarding the independent, mediator, and dependent variables.

The assessment of knowledge management dimensions shows that the two most competent areas are Knowledge Creation and Knowledge Sharing, where mean scores equal 3.79 and 3.73, respectively, are classified as high. However, Knowledge Storage, Knowledge Application, and Knowledge Evaluation were rated on average as moderate, with 3.00, 3.05, and 3.10 mean values, respectively. This implies that although the organization’s competency in generating and disseminating knowledge is excellent, enhancing the retention strategies and utilizing and assessing such knowledge can warrant better outcomes. Generally, one can observe that the weighted mean score of 3.53 on knowledge management performance is moderate

but could highlight areas for further development to enhance overall performance.

The measurement in the organizational performance perspectives reveals that the Financial Perspective is relativistic to the mean value of 4.03, the strongest thus being first, while the Non-Financial Perspective follows very closely with a mean score of 3.99, ranking second – rather closely. Both perspectives are classified under high level, which means overall performance is quite good. Regular operational review shows an organizational perception level mean of 4.01 implying that such an organization on both the financial and non-financial is doing well in as far as its strategic objectives are concerned.

The obtained data on Innovation Capabilities are average of 3.25, which also comes in the average

Table 4. Descriptive statistics and estimation for the organizational performance measurement variable

ID	Dimension	Mean	Degree	Rank
1	Financial Perspective	4.03	high	1
2	Non-Financial Perspective	3.99	high	2
Total		4.01	High	–

Table 5. Descriptive statistics and estimation for the innovation capability variable

Dimension	Mean	Degree
Innovation Capability	3.25	Moderate
Total	3.25	Moderate

Table 6. Test of the impact of knowledge management (knowledge creation, knowledge storage, knowledge sharing, knowledge application, knowledge evaluation) collectively on organizational performance

Criterion variable	Model Overview		Analysis of Variance		Regression Coefficients				
	R	R2	F	Sig F	Predictor Variables	B	S.D	T	Sig t
Organizational Performance	0.899	0.803	191.147	0.000**	Knowledge Creation	0.179	0.076	2.361	0.019*
					Knowledge Storage	0.196	0.073	2.689	0.008**
					Knowledge Sharing	0.399	0.060	6.694	0.000**
					Knowledge Application	0.221	0.068	3.266	0.001**
					Knowledge Evaluation	0.234	0.048	4.886	0.000**

Note: * statistically significant at $\alpha \leq 0.05$; statistically significant at $\alpha \leq 0.01$.

range. This implies that the organization has adequate innovation but there is a large scope that can be tapped in. Considering improvement in the innovation activities, the total score indicates a steady average innovation capability that means interventions to stimulate innovation practices in the firm are not favorable.

Regression analysis shows that models demonstrate more than adequate fit with $R = 0.899$ and $R^2 = 0.803$, which suggests that almost 80.3 percent of the variability in organizational performance can be attributed to the predictor variables. It can be stated that the model is quite important, as shown with an F statistic of 191.147 with a Sig F of 0.000. It is also clear that, within the set of predictor variables, Knowledge Creation has a positive and statistically significant impact at the $\alpha = 0.05$ level ($B = 0.179$, $t = 2.361$, Sig $t = 0.019$), while Knowledge Storage, Knowledge Sharing, Knowledge Application, and Knowledge Evaluation are also statistically significant at the level of $\alpha = 0.01$, with B values of 0.196, 0.399, 0.221 and 0.234, respectively. These results confirm that all aspects of knowledge management systems, including performance factors, positively contribute

to organizational performance, with the emphasis on knowledge sharing rather than any other performance factor being the most persuasive.

The regression model computed for Financial Performance is a good fit, since the model has a value of R of 0.860 and an R^2 of 0.735, implying that 73.5% of variation in financial performance is explained by the knowledge management variables. This model was found to be statistically proven since F statistic was equal to 129.924 and Sig. F was equal to 0.000. Each, Knowledge Creation, Knowledge Storage, Knowledge Sharing, Knowledge Application, and Knowledge Evaluation, were found to be significant predictors at the $\alpha = 0.01$ level. In particular, knowledge management and Knowledge Storage exerted the maximum positive impact on Corporate Financial Performance ($B = 0.333$, $t = 3.509$, Sig $t = 0.001$), followed by manipulation of Knowledge Sharing ($B = 0.287$, $t = 3.702$, Sig $t = 0.000$), Knowledge Creation Practices ($B = 0.305$, $t = 3.092$, Sig $t = 0.002$), Knowledge Application ($B = 0.250$, $t = 2.847$, Sig $t = 0.005$), and finally, Knowledge Evaluation Management ($B = 0.234$, $t = 4.886$, Sig $t = 0.000$). It is clear from the results that all the dimensions

Table 7. Test of the impact of knowledge management (knowledge creation, knowledge storage, knowledge sharing, knowledge application, and knowledge evaluation) collectively on financial performance

Criterion variable	Model Overview		Analysis of Variance		Regression Coefficients				
	R	R2	F	Sig F	Predictor Variables	B	S.D	T	Sig t
Financial Performance	0.860	0.735	129.924	0.000**	Knowledge Creation	0.305	0.099	3.092	0.002**
					Knowledge Storage	0.333	0.095	3.509	0.001**
					Knowledge Sharing	0.287	0.078	3.702	0.000**
					Knowledge Application	0.250	0.088	2.847	0.005**
					Knowledge Evaluation	0.234	0.048	4.886	0.000**

Note: * statistically significant at $\alpha \leq 0.05$; statistically significant at $\alpha \leq 0.01$.

Table 8. Test of the impact of knowledge management (knowledge creation, knowledge storage, knowledge sharing, knowledge application, and knowledge evaluation) collectively on non-financial performance

Criterion Variable	Model Overview		Analysis of Variance		Regression Coefficients				
	R	R2	F	Sig F	Predictor Variables	B	S.D	T	Sig T
Non-Financial Performance	0.860	0.735	129.924	0.000**	Knowledge Creation	0.008	0.149	0.057	0.955
					Knowledge Storage	0.043	0.143	0.301	0.763
					Knowledge Sharing	0.441	0.117	3.772	0.000**
					Knowledge Application	0.238	0.133	1.797	0.074
					Knowledge Evaluation	0.343	0.094	3.658	0.000**

Note: * statistically significant at $\alpha \leq 0.05$; statistically significant at $\alpha \leq 0.01$.

of knowledge management are positively related with the enhancement of financial performance with storage of knowledge being the most effective.

The findings regarding Non-Financial Performance also conform to the regression model as depicted by the R-value of 0.860 and R² value of 0.735, which means that about 73.5% of the variation in non-financial performance is explained by the predictor variables. The overall model is significant, with an F statistic of 129.924 and a Sig F value of 0.000. Out of all the predictor factors, Knowledge Sharing (B = 0.441, t = 3.772, Sig t = 0.000) and Knowledge Evaluation (B = 0.343, t = 3.658, Sig t = 0.000) were the most influential factors on non-financial performance at $\alpha = 0.01$. On the other hand, Knowledge Creation and Knowledge Storage are not significant, with p-values of 0.955 and 0.763, respectively. On Knowledge Application, a small effect (B = 0.238, t = 1.797, Sig t = 0.074) does not make statistical sense at the $\alpha = 0.05$ level. These results highlight that while sharing and evaluating knowledge are important aspects of non-financial performance, other facets of knowledge management are perhaps not as important to this element of business performance.

The regression analysis results for Innovation Capability include the R-value of 0.948 and the R² value of 0.896, indicating that such a model accounts for 89.6% of the variation in the innovation

capability with respect to the knowledge management variables. The overall model is significant, demonstrated by the F statistic of 401.762 and a Sig F value of 0.000. Considering the predictor variables, knowledge creation positively and significantly increases innovation capability at $\alpha = 0.05$ (B = 0.138, t = 2.275, Sig t = 0.024). All other predictors, such as Knowledge Storage, Knowledge Sharing, and Knowledge Evaluation, also have significant level effects at alpha = 0.01, where B was 0.264, 0.190, and 0.246, respectively. However, in terms of the variable of knowledge application, no relationship to innovation capability was found (B = 0.082, t = 1.118, Sig t = 0.130). So, the results show that the application of knowledge tends not to be of great importance in enhancing innovation capability, as most constructs of knowledge management tend to be.

Regression analysis for Organizational Performance provides an exceptionally good model fit, with R value of 0.919 and R² equal to 0.843, meaning that 84.3 percent of organizational performance variance is explained by the innovation capability. Nevertheless, there is clear evidence that the overall model is adequate, shown by the F statistic of 1255.526 with a Sig F of 0.000. The predictor variable, Innovation Capability, shows very high and strong positive and statistically significant impact on organizational performance with B value of 0.836, T value of 35.433, and Sig t value 0.000, all

Table 9. Test of the impact of knowledge management on innovation capability

Criterion Variable	Model Overview		Analysis of Variance		Regression Coefficients				
	R	R ²	F	Sig F	Predictor Variables	B	S.D	T	Sig T
Innovation Capability	0.948	0.896	401.762	0.000**	Knowledge Creation	0.138	0.061	2.275	0.024*
					Knowledge Storage	0.264	0.058	4.524	0.000**
					Knowledge Sharing	0.190	0.048	3.992	0.000**
					Knowledge Application	0.082	0.054	1.118	0.130
					Knowledge Evaluation	0.246	0.038	6.440	0.000**

Note: * statistically significant at $\alpha \leq 0.05$; statistically significant at $\alpha \leq 0.01$.

Table 10. Test of the impact of innovation capability on organizational performance

Criterion Variable	Model Overview		Analysis of Variance		Regression Coefficients				
	R	R ²	F	Sig F	Predictor Variables	B	S.D	T	Sig t
Organizational Performance	0.919	0.843	1255.526	0.000**	Innovation Capability	0.836	0.024	35.433	0.000**

Note: * statistically significant at $\alpha \leq 0.05$; statistically significant at $\alpha \leq 0.01$.

Table 11. Coefficients of direct and indirect effects

Path	Estimate	S.E	C.R	P
Knowledge Management → Innovation Capability	.919	.021	44.507	***
Knowledge Management → Organizational Performance Measurement	.750	.050	15.000	***
Innovation Capability → Organizational Performance Measurement	.746	.072	10.317	***

at alpha 0.01, three sigma level of significance $\alpha = 0.01$. This implies that indeed, the high level of innovation capability would enhance organizational performance in highly positive ways.

SEM results show that Knowledge Management is a major contributor to Innovation Capability, with an estimate of 0.919, a small standard error of 0.021, and a critical ratio of 44.507, which is more than adequate to state that the relationship is significant at $\alpha = 0.001$. Likewise, Knowledge Management is considered a paramount mediator of Organizational Performance when it has an estimate of 0.750, a standard error of 0.050, and a critical ratio of 15.000, all statistically significant at $\alpha = 0.001$. Further, Organizational Performance is largely impacted by the Innovation Capability with an estimate of 0.746, standard error of 0.072, and a critical ratio of 10.317, substantiating the relation at and above $\alpha 0.001$ levels. From this, we can conclude that when Knowledge Management and Innovation Capability are used concurrently, they can further improve organizational performance. Knowledge management is known to improve organizations' innovation capability, which translates to enhanced organizational performance. The elevated critical ratios, combined with a lower standard error, also add to the significance and validity of the relationships.

Therefore, all suggested null hypotheses were rejected in support of the alternative hypothesis. This indicates a significant impact, with a significance level of $\alpha = 0.05$.

5. DISCUSSION

In industries known for swift technological advancements, like the telecommunications industry, the relationship between Knowledge Management, Innovation Capability, and Organizational Performance Measurement becomes crucial. The current study was designed to investigate this triple relationship.

The study presents the key results of the significant positive relationships between knowledge management, innovation capability, and organizational performance measurement in the Jordanian telecommunications sector. Knowledge management is seen to be a determinant of organizational performance measurement, with an R-square value of 0.803. This means that knowledge management practices (creation, storage, sharing, application, and evaluation) account for 80.3% of the variation in organizational performance. The most crucial determinant observed was knowledge sharing, indicating that the better the dissemination of knowledge within the firm, the higher the degree of improved performance will be achieved. Further, innovation capability is influenced much by knowledge management with an R-square value of 0.896. Therefore, as for innovation capability variations, 89.6% were explained by knowledge management practices. Thus, effective processes that deal with storing, sharing, and evaluating knowledge in an organization provide a suitable environment for inspiring creativity and formulating new ideas, thereby enhancing innovation capability. In addition, organizational performance measurement is influenced by innovative capability at a positive and significant R-squared of 0.843. This means that 84.3% of the variation in performance measurement is explained by innovative capability. Therefore, with higher innovative capability, better resultant outcomes of performance are realized; this innovatively encodes, in practice, success through efficiency, meeting customer needs, and remaining competitive. Moreover, the structural equation modeling results explaining the mediating effect support the indication that the capability of innovation acts like a conduit through which knowledge management practices are translated into improved organizational performance.

Extant management literature is related to the current research that confirms the relationship between knowledge management and organizational performance measurement. Nonaka and

Takeuchi (1995) noted that knowledge management is vital in increasing organizational performance through knowledge generation, utilization, sharing, and storage. Their work identifies knowledge management practices as crucial in keeping an organization professional in achieving desired objectives on performance. Also, Andrea and Wanyoike (2024) indicated that an organization that applies knowledge management in decision-making processes and daily practice, therefore, applies organizational performance to enhance speed and response to improve the performance measurement metrics. Further, the interrelation of knowledge management with innovation capability has also received scholarly attention. Edeh et al. (2022) argued that an organization characterized by high knowledge management is also likely to have the capability for innovation. They established that effective knowledge dissemination and utilization enhance innovativeness in an organization because this helps the creation process. Also, the study by Trivedi and Srivastava (2023) explored the impact of knowledge management on innovativeness culture in driving organizational effectiveness and satisfaction. They said that continuity of excellence via knowledge management is preconditional to ensure innovation comes out in organizations. In addition, as for the connection between organizational performance measurement and innovation capability, Indiran et al. (2021) reiterated that in-

novation is an essential tool in enhancing a firm's competitiveness and performance. They indicated that firms with highly developed innovation capabilities are characterized by increased support and the ability to adapt to new trends and introduce innovative solutions, thus improving performance. Likewise, Medase and Abdul-Basit (2020) proposed the relevance of external knowledge in influencing innovation and enhancing competitiveness. They indicated that organizations implementing innovation initiatives are best positioned to achieve strategic objectives and top in performance measures, showing that retaining innovation initiatives leads to overall organizational success.

Notwithstanding, the current study differentiates itself by explaining the Jordanian telecommunications sector, showing that organizations with a high innovation capability are more likely to turn their knowledge management activities into better business outcomes. This emphasizes why it is crucial to encourage innovativeness in organizations, especially in performance measurement. Further research might take these additional areas by considering different disciplines and regions, increasing the findings' external validity. In addition, there might be room to investigate other aspects, such as AI integration or competitive psychological climate, that may interact with innovation capability and organizational performance.

CONCLUSION

The purpose of this study was to examine the distinct principles of knowledge management and its relationship with the innovation capability and organizational performance measurement in the telecommunications sector of Jordan. The findings point out that the effective implementation of knowledge management practices is necessary for achieving both financial and non-financial performance, along with supporting the innovation capability that is vital for organizational growth in a competitive environment. Regarding the relationships, evidence showed that all factors of knowledge management, such as knowledge creation, knowledge storage, knowledge sharing, knowledge application, and knowledge evaluation, were found to correlate with organizational performance. Furthermore, the study substantiated that innovation capability fully mediates the relationship between knowledge management and organizational performance measurement. This reinforces the concept that innovation is not just about generating ideas but rather about using knowledge to implement them.

AUTHOR CONTRIBUTIONS

Conceptualization: Azzam Abou-Moghli.

Data curation: Azzam Abou-Moghli.

Formal analysis: Azzam Abou-Moghli.

Funding acquisition: Azzam Abou-Moghli.
 Investigation: Azzam Abou-Moghli.
 Methodology: Azzam Abou-Moghli.
 Project administration: Azzam Abou-Moghli.
 Resources: Azzam Abou-Moghli.
 Software: Azzam Abou-Moghli.
 Supervision: Azzam Abou-Moghli.
 Validation: Azzam Abou-Moghli.
 Visualization: Azzam Abou-Moghli.
 Writing – original draft: Azzam Abou-Moghli.
 Writing – review & editing: Azzam Abou-Moghli.

ACKNOWLEDGMENT

The author is grateful to Middle East University, Amman, Jordan, for the financial support to cover this article's publishing fee.

REFERENCES

- Ahmed, W., Najmi, A., & Ikram, M. (2020). Steering firm performance through innovative capabilities: A contingency approach to innovation management. *Technology in Society*, 63, 101385. <https://doi.org/10.1016/j.tech-soc.2020.101385>
- Andrea, P., & Wanyoike, R. (2024). Knowledge management and organization performance: A critical review of literature. *Journal of Business and Strategic Management*, 9(1), 73-85. <https://doi.org/10.47941/jbsm.1715>
- Antunes, H. de J. G., & Pinheiro, P. G. (2020). Linking knowledge management, organizational learning and memory. *Journal of Innovation & Knowledge*, 5(2), 140-149. <https://doi.org/10.1016/j.jik.2019.04.002>
- Byhoff, E., LeClair, A. M., Smith, C., Roy, T. K., & Drainoni, M. (2023). Designing an implementation strategy to increase health-related social needs screening: Applying the PRISM framework in a resource-limited clinical setting. *Translational Behavioral Medicine* 14(3), 197-205. <https://doi.org/10.1093/tbm/ibad067>
- Chen, H., Liu, J., & Liu, Z. (2023). Scientific knowledge combination in networks: New perspectives on analyzing knowledge absorption and integration. *Joint Workshop of the 4th Extraction and Evaluation of Knowledge Entities from Scientific Documents and the 3rd AI + Informetrics (EEKE-AII2023)*. Santa Fe, New Mexico. Retrieved from <https://ceur-ws.org/Vol-3451/paper8.pdf>
- Costa, V., & Monteiro, S. (2016). Key knowledge management processes for innovation: A systematic literature review. *VINE*, 46(3), 386-410. <https://doi.org/10.1108/VJIKMS-02-2015-0017>
- Darroch, J., & McNaughton, R. (2002). Developing a Measure of Knowledge Management. In N. Bontis (Ed.), *World Congress on Intellectual Capital Readings* (pp. 226-242). KMCI Press. <https://doi.org/10.1016/B978-0-7506-7475-1.50016-6>
- Dudić, Z., Dudić, B., Greguš, M., Nováčková, D., & Djaković, I. (2020). The innovativeness and usage of the balanced score-card model in SMEs. *Sustainability*, 12(8), 3221. <https://doi.org/10.3390/su12083221>
- Dziallas, M., & Blind, K. (2019). Innovation indicators throughout the innovation process: An extensive literature analysis. *Technovation*, 80-81, 3-29. <https://doi.org/10.1016/j.technovation.2018.05.005>
- Edeh, F. O., Zayed, N. M., Nitsenko, V. S., Brezhnieva-Yermolenko, O., Negovska, J., & Shtan, M. (2022). Predicting innovation capability through knowledge management in the banking sector. *Journal of Risk and Financial Management*, 15(7), 312. <https://doi.org/10.3390/jrfm15070312>
- Farida, I., & Setiawan, D. (2022). Business strategies and competitive advantage: The role of performance and innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 163. <https://doi.org/10.3390/joitmc8030163>
- Farnese, M. L., Barbieri, B., Chirumbolo, A., & Patriotta, G. (2019). Managing knowledge in organizations: A Nonaka's SECI model operationalization. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.02730>
- Ginting, E., Nurhayati, P., & Sukmawati, A. (2024). The relationship between employee satisfaction and corporate financial performance: A systematic review. *Atestasi: Jurnal Ilmiah Akuntansi*, 7(2), 1054-1071. <https://doi.org/10.57178/atestasi.v7i2.910>
- Gloet, M., & Samson, D. A. (2020). Creating value through knowledge management and systematic innovation capability. In Jennex,

- M. (Ed.), *Knowledge Management, Innovation, and Entrepreneurship in a Changing World* (pp. 1-30). IGI Global Scientific Publishing. <https://doi.org/10.4018/978-1-7998-2355-1.ch001>
15. Gupta, B., & Agarwal, R. (2022). Strategic performance measurement system and its impact on organizational effectiveness: A study of United Arab Emirates based organizations. *European Journal of Business and Management Research*, 7(3), 266-276. <https://doi.org/10.24018/ejbm.2022.7.3.1452>
 16. Haasz, G., & Baracska, Z. (2022). Collaborative knowledge platform: When the learning route provides data for the knowledge-based system. *Knowledge Management Research & Practice*, 20(6), 925-934. <https://doi.org/10.1080/14778238.2022.2079567>
 17. Hair, J. F., Babin, B. J., Black, W. C., & Anderson, R. E. (2019). *Multivariate data analysis*. Cengage.
 18. Indiran, L., Abdul Kohar, U. H., Maksudunov, A., & Baskaran, S. (2021). Intellectual capital and innovation capability: A conceptualization of organization performance measurement through literature review. *International Journal of Academic Research in Business and Social Sciences*, 11(6), 1842-1852. <https://doi.org/10.6007/ijarbs/v11-i6/9845>
 19. Kaplan, R. S., & Norton, D. P. (1996). Strategic learning & the balanced scorecard. *Strategy & Leadership*, 24(5), 18-24. <https://doi.org/10.1108/eb054566>
 20. Kavalić, M., Nikolić, M., Radosav, D., Stanisavljev, S., & Pečujlija, M. (2021). Influencing factors on knowledge management for organizational sustainability. *Sustainability*, 13(3), 1497. <https://doi.org/10.3390/su13031497>
 21. Kicová, E., Rosnerova, Z., Ponisciaková, O., & Gajanová, L. (2023). Concept for the customer perspective of the balanced scorecard (BSC) system in bus transport companies in the Slovak Republic. *Systems*, 11(12), 575. <https://doi.org/10.3390/systems11120575>
 22. Kucharska, W., & Erickson, G. S. (2023). Tacit knowledge acquisition & sharing, and its influence on innovations: A Polish/US cross-country study. *International Journal of Information Management*, 71, 102647. <https://doi.org/10.1016/j.ijinfomgt.2023.102647>
 23. Marcu, G. (2020). New perspectives in developing the balance scorecard concept. *Scientific Bulletin, Sciendo*, 25(1), 33-40. <https://doi.org/10.2478/bsaft-2020-0005>
 24. Medase, S. K., & Abdul-Basit, S. (2020). External knowledge modes and firm-level innovation performance: Empirical evidence from sub-Saharan Africa. *Journal of Innovation & Knowledge*, 5(2), 81-95. <https://doi.org/10.1016/j.jik.2019.08.001>
 25. Mikula, B., Vajdová, I., Koščák, P., & Jenčová, E. (2020). Learning and growth perspective in balanced scorecard. *2020 New Trends in Aviation Development (NTAD)*, 174-178. <https://doi.org/10.1109/NTAD51447.2020.9379091>
 26. Moreira, A., Navaia, E., & Ribau, C. (2024). Innovation capabilities and their dimensions: A systematic literature review. *International Journal of Innovation Studies*, 8(3), 313-333. <https://doi.org/10.1016/j.ijis.2024.07.001>
 27. Nathan, M., & Rosso, A. M. (2021). Innovative events: Product launches, innovation and firm performance. *Research Policy*. <https://doi.org/10.31235/osf.io/t3jrj>
 28. Neely, A., Adams, C., & Kennerley, M. (2002). *The performance prism: The scorecard for measuring and managing success*. Pearson Education Limited.
 29. Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford University Press.
 30. Oranga, J. (2023). Tacit knowledge transfer and sharing: Characteristics and benefits of tacit & explicit knowledge. *Journal of Accounting Research, Utility Finance and Digital Assets*, 2(2), 736-740. <https://doi.org/10.54443/jaruda.v2i2.103>
 31. Osazevaru, H. O. (2020). Measuring the value relevance of financial information for strategic decision-making and performance of Nigerian listed firms. *Trends Economics and Management*, 36(2), 33-48. <https://doi.org/10.13164/trends.2020.36.33>
 32. Otundo, J. (2023). Knowledge management for competitiveness and organizational performance. *International Journal of Research in Education Humanities and Commerce*, 4(2), 12-18. <https://doi.org/10.37602/ijrehc.2023.4202>
 33. Raharja, I., Irwati, D., & Hasibuan, S. (2019). Design of performance measurement in Indonesia plastics seeds coloring company by using stakeholder perspective PRISM. *International Journal of Engineering and Advanced Technology*, 8(5), 598-603. <https://doi.org/10.35940/ijeat.e1085.0585c19>
 34. Rajapathirana, R. P. J., & Hui, Y. (2018). Relationship between innovation capability, innovation type, and firm performance. *Journal of Innovation & Knowledge*, 3(1), 44-55. <https://doi.org/10.1016/j.jik.2017.06.002>
 35. Sarpong, D., Boakye, D., Ofori, G., & Botchie, D. (2023). The three pointers of research and development (R&D) for growth-boosting sustainable innovation system. *Technovation*, 122, 102581. <https://doi.org/10.1016/j.technovation.2022.102581>
 36. Saunila, M. (2020). Innovation capability in SMEs: A systematic review of the literature. *Journal of Innovation & Knowledge*, 5(4), 260-265. <https://doi.org/10.1016/j.jik.2019.11.002>
 37. Seghroucheni, O. Z., Achhab, M. A., & Lazaar, M. (2023). Systematic review on the conversion of tacit knowledge. *2023 7th IEEE Congress on Information Science and Technology (CiSt)* (pp. 123-128). <https://doi.org/10.1109/CiSt56084.2023.10409884>
 38. Trivedi, K., & Srivastava, K. B. (2023). The impact of intellectual capital-enhancing HR practices and culture on innovativeness—Mediating role of knowledge management processes. *Journal*

- of Organizational Effectiveness: People and Performance*, 11(3), 573-593. <https://doi.org/10.1108/joep-05-2023-0174>
39. Voicu Apostol, S. A. (2024). Internal and external processes improvement, a new dimension of balance scorecard and its impact on organizational performance. *Proceedings of the International Conference on Business Excellence*, 18(1), 2032-2041. <https://doi.org/10.2478/picbe-2024-0172>
40. Weldemariam, G. S., & Garfield, M. J. (2019). Framework for externalization of tacit knowledge in participatory agricultural research in Ethiopia: The case of Farmers Research Group (FRG). *Hawaii International Conference on System Sciences* (pp. 5339-5347). <https://doi.org/10.24251/HICSS.2019.643>
41. Yeboah, A. (2023). Knowledge sharing in organizations: A systematic review. *Cogent Business & Management*, 10(1). <https://doi.org/10.1080/23311975.2023.2195027>
42. Zaid, A. A., Issa, M., & Al-Khatib, A. (2024). The power of financial literacy: Paving a clear path for the influence of board diversity on intellectual capital disclosure. *Journal of Intellectual Capital*, 25(5-6), 1184-1209. <https://doi.org/10.1108/JIC-05-2024-0147>
43. Zastempowski, M. (2022). What shapes innovation capability in micro-enterprises? New-to-the-market product and process perspective. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(1), 59. <https://doi.org/10.3390/joitmc8010059>

APPENDIX A

Questionnaire

Primary Information:

Please kindly complete the following information:

Educational Qualification:

Master's Degree;

Ph.D.;

Years of Experience:

Five years or less;

More than 5 years and less than 10 years;

10 years or more;

Job Title:

General Manager;

Department Manager;

Assistant Manager or Head of Department;

Other;

Gender:

Male;

Female

Questions		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Knowledge Management						
Knowledge Creation						
1	Our organization allows new ideas from all employees.					
2	Our company has in place systems for developing new knowledge					
3	Our company encourages teamwork, which often fosters truly creative solutions					
4	Our company recognizes and encourages knowledge creation from all departments					
Consistency						
1	Our company has appropriate systems for storing valuable knowledge					
2	Our company ensures ease of access to information and knowledge resources stored by the employees					
3	Our company constantly stays updated on the latest developments in knowledge storage methods					
4	Our company systematically documents important knowledge					
Adaptability						
1	Our company is one that offers varied opportunities on how knowledge sharing among workers can be achieved regularly					
2	The company promotes knowledge sharing through collaboration tools and platforms					
3	Our company fosters a culture of knowledge sharing among employees					
4	Our company encourages employees to share their expertise					
Knowledge Application						
1	Our company ensures that knowledge acquired from previous projects is effectively applied by the employees					
2	The Company solves new challenges using already-possessed knowledge					
3	Knowledge is routinely used by our company to improve processes and products					
4	Our company provides professional training programs that engage staff in the practical application of their knowledge					
Knowledge Evaluation						
1	The company has mechanisms that ensure the assessment of the quality of knowledge					
2	Our company undertakes updating knowledge on a regular basis regarding relevance and accuracy					

Questions		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3	Our company is designed with feedback mechanisms for continuous improvement in the application of knowledge					
4	Our company ensures that employees have ample opportunities to assess the effectiveness of knowledge applied in projects					
Organizational Performance Measurement						
Financial Perspective						
1	Our company always reaches its financial goals.					
2	Our company implements effective cost management strategies					
3	The profitability motive is emphasized in our company.					
4	In our company, there is a clearly identified system of monitoring financial performance					
5	Our company carefully evaluates investments based on their return on investment					
Non-Financial Perspective						
1	Our company works for employee satisfaction continuously by monitoring and constantly improving					
2	Our company perceives customer satisfaction as one of the significant pointers of performance evaluation					
3	Our company is very concerned about the environment and sustainability					
4	Our company analyzes and follows trends in productivity					
5	Our company periodically revisits its internal processes to ensure efficiency					
6	Our company is keen on innovations and continuous improvement					
7	Our company nurtures community relationships and values them					
8	Our company strives to motivate employees and make them interested in their activities					
9	Our company has highly developed mechanisms of risk management					
10	Our company harmonizes a positive and well-acknowledged brand reputation					
11	Our company provides opportunities to employees for learning and development					
12	Our company values customers' feedback very much and makes the necessary improvements based on their testimony					
Innovation Capability						
1	Our company encourages innovative thinking					
2	Our company invests in resources that support innovation initiatives					
3	Our company allows freedom for employees to try new ideas					
4	Innovation forms an important part of our organizational strategy at our company					