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Digital Orientation and Digital Innovation Performance in Moroccan IT Workers: A Moderated Mediated Analysis

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Abstract

This study investigates the links between digital orientation, digital dynamic capacities, and digital innovation performance, while also examining the moderating effects of knowledge sharing and knowledge hiding among Moroccan IT workers. Drawing on the knowledge-based view and dynamic capability theory, the study utilizes a cross-sectional quantitative design and involves a sample of 350 employees from Casablanca, Morocco. Data analysis is conducted using Smart PLS for measurement and hypothesis testing. The results reveal that knowledge sharing moderates the positive relationship between digital orientation, digital dynamic capabilities, and digital innovation performance. Conversely, knowledge hiding negatively moderates the relationship between digital innovation performance and digital dynamic capacities. This study contributes to the development of a knowledge-based perspective and dynamic capability theory, offering practical implications for businesses and IT professionals seeking to enhance their digital competencies in a rapidly evolving digital environment. To gainqa a more comprehensive understanding of the factors influencing digital innovation performance, future research should address the limitations of this study, including its cross-sectional and quantitative nature, as well as its focus on IT workers from Casablanca, Morocco. Future studies may employ longitudinal and qualitative methods and explore the moderating impact of other variables.

Keywords

Digital Orientation, Digital Dynamic Capabilities, Digital Innovation Performance, Knowledge Sharing, Knowledge Hiding, Dynamic Capability Theory, Knowledge-Based View

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1. Introduction

Morocco has a growing IT industry, and Casablanca is one of the major centers for technology and business in the country (Alami et al., 2022). The history of IT companies and employees in Casablanca, Morocco can be traced back to the early 2000s when the government started to invest in the technology sector to diversify the economy and create new jobs. The government's efforts led to the establishment of the first technology park in Casablanca, the Casanearshore, in 2007 (Ed-Dafali et al., 2022). This park offers state-of-the-art infrastructure and services to IT companies and has attracted several multinational corporations such as IBM, Capgemini, and Atos. The IT industry in Casablanca has provided employment opportunities to many young Moroccans, and the sector is expected to continue to grow in the coming years (Nejjari & Aamoum, 2022).

The IT industry in Casablanca has provided employment opportunities to many young Moroccans, and the sector is expected to continue to grow in the coming years (Nejjari & Aamoum, 2022). The government is also working to promote the development of the digital economy by providing training

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and funding to entrepreneurs and startups (Soukaina & Khalid, 2022). Morocco's IT industry has been growing rapidly in recent years, and the country has been making significant strides in digital innovation (Arias-Pérez & Vélez-Jaramillo, 2022). The digital innovation performance of IT employees in Moroccan companies can be assessed in several ways. Morocco has been actively promoting the development of a digital economy through various initiatives such as the Digital Morocco 2020 strategy, which aims to make the country a hub for digital innovation and technology Morocco's IT industry has experienced significant growth in recent years, with Casablanca emerging as a prominent technology and business hub in the country (Alami et al., 2022). The government's investment in the technology sector since the early 2000s has resulted in the establishment of the Casanearshore technology park in Casablanca, attracting multinational corporations like IBM, Capgemini, and Atos (Ed-Dafali et al., 2022). This growth has created employment opportunities for many young Moroccans, and the sector is expected to continue expanding (Nejjari & Aamoum, 2022). The government has also supported the development of the digital economy through training and funding for entrepreneurs and startups (Soukaina & Khalid, 2022).

In line with Morocco's digital transformation efforts, the country has made significant strides in digital innovation (Arias-Pérez & Vélez-Jaramillo, 2022). Various initiatives, including the Digital Morocco 2020 strategy, have been implemented to position Morocco as a digital innovation and technology hub (Endres et al., 2021; Firk et al., 2022). The establishment of technology parks like Casanearshore has facilitated the entry of major international IT companies, fostering the growth of the industry and providing employment opportunities for local IT professionals (Jiao et al., 2022; Zhao et al., 2022). Digital orientation plays a crucial role in today's increasingly digital world, referring to individuals or organizations' focus on and utilization of digital technologies and channels to achieve their goals (Shen et al., 2022). It encompasses the use of digital tools and platforms for communication, remote work, and continuous learning (Arias-Pérez et al., 2021; Yu & Moon, 2021). For instance, individuals with high digital orientation leverage video conferencing tools, project management platforms, and online learning platforms to collaborate, stay updated, and enhance their skills (Arias-Pérez & Vélez-Jaramillo, 2022).

Digital dynamic capabilities, on the other hand, are essential for organizations to adapt and innovate in response to market changes and customer needs (Shen et al., 2022). These capabilities enable organizations to develop and deploy digital products, services, and business models swiftly while continuously improving operations and enhancing customer experiences. The three key elements of digital dynamic capabilities are sensing, seizing, and transforming. Sensing involves collecting and analyzing data to identify trends and opportunities, seizing entails capitalizing on these insights, and transforming focuses on evolving digital capabilities and processes (Wittkop et al., 2018). Knowledge sharing is a vital process that involves the transfer of information, skills, and expertise among individuals or groups (Sa'adah & Rijanti, 2022). It promotes innovation, problem-solving, and overall organizational performance. Knowledge sharing creates a culture of social contact and collaboration, enhancing the shared knowledge base within a business or organization (Giri et al., 2016; Mittal and Dhar, 2015; Sa'adah and Rijanti, 2022). Conversely, knowledge hiding refers to the intentional withholding or concealment of relevant knowledge or information within the organization or work team (Duan et al., 2022). It encompasses actions such as refusing to share expertise, withholding feedback, or keeping valuable information to oneself. While knowledge disclosure has been extensively studied, knowledge hiding actions have received less attention (Chatterjee et al., 2021; Haar et al., 2022).

The present study aims to explore the relationship between digital orientation and digital innovation performance among Moroccan IT workers using moderated mediated analysis. Specifically, it investigates the mediating role of digital dynamic capabilities between digital orientation and digital

innovation performance. Furthermore, the study examines the moderating role of knowledge sharing and knowledge hiding in the relationship between digital dynamic capabilities and digital innovation performance.

This study is grounded in the knowledge-based view, which emphasizes the importance of combining information to generate valuable knowledge (Scuotto et al., 2022). Additionally, it draws on dynamic capability theory, which focuses on an organization's ability to learn, innovate, and adapt in a rapidly changing business environment (Abu-Rumman et al., 2021). By understanding these concepts and their implications for the digital orientation, digital dynamic capabilities, and digital innovation performance of Moroccan IT workers, this research contributes to the existing literature and provides valuable insights for organizations and policymakers.

2. Literature Review

2.1 Knowledge-Based View

The knowledge-based view (KBV) theory emphasizes the significance of knowledge and intellectual assets as key drivers of competitive advantage (Scuotto et al., 2022). According to this theory, organizations that effectively leverage their knowledge and intellectual capital are better equipped to innovate, create value, and gain sustainable competitive advantage. Knowledge-based view posits that knowledge is a strategic resource that is unique, difficult to imitate, and can be leveraged to create value (Scuotto et al., 2022). Organizations can build and sustain competitive advantage by developing and leveraging knowledge-based resources, such as research and development capabilities, patents and trademarks, and knowledge management systems (Caputo et al., 2019). Moreover, the knowledge-based view theory underscores the importance of organizational learning and knowledge creation. Organizations that continually learn and adapt to changing market conditions are better equipped to develop new knowledge and innovative products and services, resulting in sustained competitive advantage (Di Vaio et al., 2021).

Within the framework of the knowledge-based view, knowledge sharing and knowledge hiding play crucial roles. Knowledge sharing involves the transfer of knowledge and expertise from one individual or group to another, fostering a culture of innovation, collaboration, and value creation (Sa'adah & Rijanti, 2022; Xie et al., 2018). Conversely, knowledge hiding, which refers to the intentional withholding or concealment of relevant knowledge or information, can undermine the value of knowledge-based resources and hinder an organization's ability to innovate and compete (Caputo et al., 2019; Sa'adah & Rijanti, 2022).

2.2 Dynamic Capability Theory

Dynamic capability theory focuses on how organizations can develop and adapt their capabilities to remain competitive in a rapidly changing business environment (Shan et al., 2019). It highlights the significance of continuous learning, innovation, and adaptation for creating and sustaining competitive advantage over time. Organizations possessing dynamic capabilities are better equipped to respond to changes in the market, industry, and competitive landscape (Abu-Rumman et al., 2021). Dynamic capabilities encompass the ability to sense and respond to new opportunities and threats, develop and deploy new products and services, and continuously improve and optimize business processes and operations (Alvarado-Vargas et al., 2020). Strategic flexibility, an integral component of dynamic capability theory, involves adjusting strategies and operations in response to external environmental changes, such as adapting product offerings, entering new markets, or forming partnerships and alliances (Chatterjee et al., 2021).

Within the context of dynamic capability theory, digital orientation refers to an organization's ability to adapt and respond to digital technologies and the opportunities and challenges they present (Ed-Dafali et al., 2022). Digital innovation performance, on the other hand, entails the generation of

new digital products, services, or processes that create value and provide a competitive advantage in the market (Endres et al., 2021; Jiao et al., 2022). Organizations with strong digital dynamic capabilities are better positioned to respond to changes in the digital market and remain competitive. Achieving high digital innovation performance requires a robust digital orientation, enabling organizations to adapt to and integrate new digital technologies into their business models effectively (Ferreira et al., 2019; Firk et al., 2022; Haar et al., 2022).

2.3 Digital Innovation Performance

Digital innovation performance refers to an organization's ability to generate new digital products, services, or processes that create value and provide a competitive advantage in the market (Jiao et al., 2022). It is a vital driver of growth and profitability in the digital age, as organizations that can innovate and create new digital offerings are more likely to succeed in the long run. Organizations capable of quickly and efficiently developing digital products and services are more likely to achieve high levels of digital innovation performance (Khin & Ho, 2018). By bringing new digital offerings to the market promptly, organizations can gain a competitive advantage. Success in the market is further facilitated by the development of digital offerings that meet customer needs and preferences (Liao et al., 2020).

Digital innovation performance also involves generating revenue from new digital products and services and gaining market share through the development and introduction of innovative digital offerings (Liu et al., 2021). The digital innovation performance of employees in Moroccan IT companies depends on various factors, including the organization's culture of innovation, the quality of its digital infrastructure and technologies, and the skills and expertise of its employees. To achieve high levels of digital innovation performance, Moroccan IT companies must prioritize the development of strong digital skills among their employees and effective utilization of digital technologies to create new value for customers (Rodrigues et al., 2021; Shin et al., 2018). Investments in training and development programs can help employees acquire the necessary skills and expertise for leveraging digital technologies effectively. Establishing a culture of innovation, encouraging risk-taking and knowledge sharing, and fostering collaboration among employees through digital platforms and tools are essential for enhancing digital innovation performance (Xie et al., 2018).

The digital innovation performance of employees in Moroccan IT companies is crucial for their success in the rapidly evolving digital market. By investing in employees' digital skills, fostering a culture of innovation, and adapting to market changes, Moroccan IT companies can position themselves for success and competitive advantage in the digital age (Tsou & Chen, 2022).

2.4 Digital Orientation and Digital Dynamic Capabilities

Digital orientation and digital dynamic capabilities are important for employees in Moroccan IT companies to effectively navigate and succeed in the digital market (Abu-Rumman et al., 2021). Digital orientation refers to an individual's ability to adapt and respond to digital technologies and the opportunities and challenges they present. Employees in Moroccan IT companies with strong digital orientation are able to stay up to date with the latest digital trends and best practices, and are better equipped to identify and respond to digital market opportunities (Arias-Pérez & Vélez-Jaramillo, 2022). On the other hand, employees in Moroccan IT companies with strong digital dynamic capabilities are able to leverage digital technologies to develop new products, services, or processes that create value for customers and give the organization a competitive advantage in the market. To develop strong digital orientation and digital dynamic capabilities, employees in Moroccan IT companies can engage in continuous learning and development (Yu & Moon, 2021). This may include attending digital training and development programs, participating in online learning communities, and staying up to date with the latest digital trends and best practices. Moroccan IT companies can also support the development of digital orientation and digital dynamic capabilities among their employees by creating a culture of innovation and experimentation (Shen et al., 2022). This may involve

encouraging employees to take risks, experiment with new ideas, and share their knowledge and expertise with others. The development of digital orientation and digital dynamic capabilities among employees in Moroccan IT companies is critical for the success of the organization in the digital age. By investing in employee development and creating a culture of innovation, Moroccan IT companies can position themselves to succeed in the rapidly evolving digital market (Abu-Rumman et al., 2021).

H1: Digital orientation positively influences digital dynamic capabilities among Moroccan IT workers.

2.5 Mediating Role of Digital Dynamic Capabilities

Digital dynamic capabilities enable organizations to adapt to changes in the digital environment and take advantage of emerging opportunities (Liao et al., 2020). Digital orientation refers to an individual's ability to adapt and respond to digital technologies, while digital innovation performance refers to an organization's ability to use digital technologies to create new products, services, or processes that create value for customers and give the organization a competitive advantage in the market. Research has shown that organizations with higher levels of digital orientation are more likely to develop digital dynamic capabilities, which, in turn, can lead to improved digital innovation performance. Shen et al. (2022) found that firms with strong dynamic capabilities were better able to innovate digitally, and that digital innovation in turn strengthened dynamic capabilities. Therefore, digital dynamic capabilities can act as a mediator between digital orientation and digital innovation performance, as organizations that are more digitally oriented are more likely to develop strong digital dynamic capabilities, which can then lead to better digital innovation performance (Shan et al., 2019).

H2: Digital dynamic capabilities mediate the relationship between digital orientation and digital innovation performance among Moroccan IT workers.

2.5 Moderating Role of Knowledge Sharing

Knowledge sharing is the process of exchanging information, expertise, and experience within an organization or between individuals for the purpose of improving performance and achieving common goals (Sa'adah & Rijanti, 2022). It is an important aspect of knowledge management, which involves capturing, sharing, and utilizing knowledge to improve organizational effectiveness. Sharing knowledge can stimulate creativity and innovation by exposing individuals to new ideas and perspectives (Giri et al., 2016). Access to shared knowledge can help individuals make more informed and effective decisions. Knowledge sharing can provide individuals with the information and resources they need to solve problems more effectively. Sharing knowledge can help individuals work more efficiently by reducing duplication of effort and avoiding unnecessary mistakes. Knowledge sharing can foster a culture of collaboration and teamwork by encouraging individuals to work together and share their expertise (Mittal & Dhar, 2015; Sa'adah & Rijanti, 2022).

The moderating role of knowledge sharing suggests that the positive relationship between digital dynamic capabilities and digital innovation performance is strengthened when knowledge sharing is encouraged and practiced (Ed-Dafali et al., 2022). The hypothesis for this relationship can be stated as follows:

H3: Knowledge sharing moderates the relationship between digital dynamic capabilities and digital innovation performance among Moroccan IT workers.

2.7 Moderating Role of Knowledge Hiding

Knowledge hiding refers to the intentional withholding or concealment of information, expertise, or ideas from others within an organization (Haar et al., 2022). This can take various forms, such as avoiding sharing information, providing incomplete information, or giving misleading information. There are different reasons why individuals may engage in knowledge hiding, such as protecting their

status or power, avoiding competition, or maintaining control over important resources (Chatterjee et al., 2021; Duan et al., 2022). The moderating role of knowledge hiding suggests that the negative relationship between digital dynamic capabilities and digital innovation performance is further weakened when knowledge hiding is prevalent (Endres et al., 2021). The hypothesis for this relationship can be stated as follows:

H4: Knowledge hiding moderates the relationship between digital dynamic capabilities and digital innovation performance among Moroccan IT workers.

The proposed framework for the above hypotheses is presented in Figure 1.

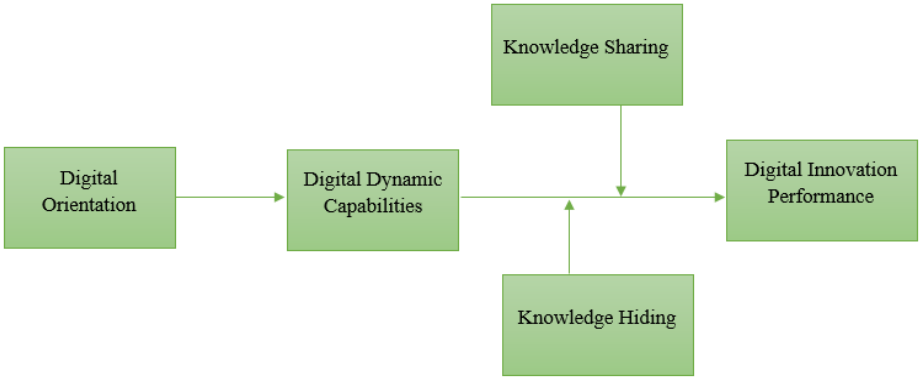

Figure 1: Proposed Framework

3. Method

3.1 Procedure and Participants

The research employed a quantitative and descriptive approach to investigate the relationships between digital orientation, digital dynamic capabilities, knowledge sharing, knowledge hiding, and digital innovation performance among Moroccan IT workers. The study aimed to test the moderated mediated analysis of these variables. Data collection involved the use of an adapted questionnaire as the research instrument. A cross-sectional design was adopted, and data was collected at a single point in time from IT workers in Moroccan IT companies located in Casablanca. The target population for this study consisted of IT workers, and a total of 350 employees from various IT companies in Casablanca, Morocco participated as the sample. Non-probability sampling techniques, specifically convenience sampling and snowball sampling, were used to select the participants. The participants were provided with a clear understanding of the research objectives and the confidential treatment of their responses. Ethical considerations were taken into account, and participants were assured that their data would be used solely for research purposes and kept confidential.

3.2 Instruments

The questionnaire used in this study consisted of three sections. The first section provided an explanation of the research purpose, while the second section collected personal information such as gender, age, qualification, experience, and designation. The third section included adapted items based on a 5-point Likert scale to measure the variables of digital orientation, digital dynamic capabilities, knowledge sharing, knowledge hiding, and digital innovation performance.
Here is the detail of each variable;

3.2.1 Digital orientation

Items were adapted from Shen et al. (2022) to measure digital orientation. Example items included statements such as "We utilize digital technologies to enhance organizational efficiency" and "Our goal is to leverage digital technologies to reduce costs across all aspects of our operations."

3.2.2 Digital Dynamic Capabilities

The items were adapted from Shen et al. (2022) to measure digital dynamic capabilities. Example items included statements such as "We constantly monitor technological trends to identify digital opportunities" and "We possess the capability to analyze and interpret data signals for digital innovation."

3.2.3 Knowledge Sharing

Items were adapted from Lu et al. (2006) to measure knowledge sharing. Example items included statements such as "I actively share my work-related knowledge with colleagues" and "I willingly contribute my expertise to enhance the collective knowledge of the organization."

3.2.4 Knowledge Hiding

Items were adapted from Duan et al. (2022) to measure knowledge hiding. Example items included statements such as "Sometimes I withhold information that could benefit others" and "I delay sharing important knowledge with others."

3.2.5 Digital Innovation Performance

Items were adapted from Alvarado-Vargas et al. (2020) to measure digital innovation performance. Example items included statements such as "We introduce innovative digital solutions that outperform competitors" and "Our digital innovations create value for customers and drive competitive advantage."

The questionnaire items were reviewed for reliability, and the internal consistency of each variable was assessed using Cronbach's alpha coefficient. The obtained Cronbach's alpha values exceeded the acceptable threshold of 0.70, indicating satisfactory reliability (Nunnally, 1978).

4 Analysis

4.1. Demographic Profile

Based on a preliminary examination of respondent data, Table 1 presents the demographic information and descriptive statistics of the sample (N=350) for the study on the relationship between digital orientation, digital dynamic capabilities, digital innovation performance, and the moderating role of knowledge hiding and knowledge sharing among Moroccan IT workers in Casablanca.

Table 1: Demographic profile			
Demography	**Description**	**No. of Responses**	**%**
Gender	Male	270	77
	Female	80	23
Age	22-33	110	32
	33-44	120	34
	Above 44	120	34
Qualification	Secondary	130	37
	Tertiary	150	43
	Higher	70	20
Experience	1 Years	125	36
	2 Years	150	43
	More than 2 Years	75	21
Designation	System and Technology Operators	195	56
	Finance	80	23
	Research and Development	75	21

The demographic profile of Moroccan IT workers in Casablanca indicates that 77% of the respondents were male and 23% were female. In terms of age, 32% were between 22 and 33 years old, 34% were between 33 and 44 years old, and 34% were above 44 years old. Regarding qualification, 37% had completed secondary education, 43% had completed tertiary education, and 20% had higher education qualifications. In terms of experience, 36% had 1 year of experience, 43% had 2 years of experience, and 21% had more than 2 years of experience. In terms of designation, 56% were system and technology operators, 23% were from the finance department, and 21% were from research and development.

4.2 Descriptive Statistics

Descriptive statistics involve analyzing and summarizing data to provide useful insights and identify patterns (Hair Jr et al., 2020). Table 2 presents the descriptive statistics, including mean, standard deviation, minimum and maximum values, for four variables of interest in the current study.

Table 2: Descriptive Statistics					
	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
DO	350	1	5	3.55	0.61
DDC	350	1	5	3.87	0.79
KS	350	1	5	3.69	0.82
KH	350	1	5	3.91	0.93
DIP	350	1	5	3.70	0.77

Note: "DO= Digital Innovation, DDC= Digital Dynamic Capabilities, KS= Knowledge Sharing, KH= Knowledge Hiding, DIP= Digital Innovation Performance."

The descriptive statistics provide insights into the central tendency and variability of the variables. The mean scores indicate the average levels of digital orientation (DO), digital dynamic capabilities (DDC), knowledge sharing (KS), knowledge hiding (KH), and digital innovation performance (DIP) among the Moroccan IT workers in Casablanca. The standard deviation values represent the dispersion or variability around the mean.

4.3 Measurement model

A measurement model is used to establish the relationship between latent variables and observed variables in research. Latent variables are not directly observed but are underlying causes of the observed variables. PLS-SEM was employed to assess the measurement model for the study (Kono & Sato, 2022), which involved 350 IT workers in Casablanca, Morocco.

4.3.1 Reliability

The reliability of a measurement model is evaluated using composite reliability (CR), construct reliability (CA), and average variance extracted (AVE). Composite reliability measures the internal consistency of the items within a latent construct. The composite reliability values in Table 3 ranged from 0.701 to 0.879, indicating strong internal consistency (Sharma et al., 2022).

Table3: Reliability and Validity

Construct	**Item**	**Loadings**	**CA**	**CR**	AVE
Digital Dynamic Capabilities	DDC1	0.707	0.815	0.871	0.575
	DDC2	0.794			
	DDC3	0.821			
	DDC4	0.759			
	DDC5	0.705			
Digital Innovation Performance	DIP1	0.769	0.856	0.897	0.635
	DIP2	0.837			
	DIP3	0.812			
	DIP4	0.803			
	DIP5	0.759			
Digital Orientation	DO1	0.954	0.701	0.802	0.625
	DO2	0.957			
	DO3	0.722			
Knowledge Hiding	KH1	0.893	0.879	0.925	0.805
	KH2	0.900			
	KH3	0.900			
Knowledge Sharing	KS1	0.793	0.844	0.889	0.617
	KS2	0.786			
	KS3	0.683			
	KS4	0.830			
	KS5	0.826			

4.3.2 Discriminant Validity (HTMT)

Discriminant validity assesses whether different constructs in the model are empirically distinct from each other. The Heterotrait-Monotrait Ratio (HTMT) approach is commonly used to evaluate discriminant validity. Table 4 shows the HTMT values for the constructs. Values closer to 0 indicate better discriminant validity (Hair Jr et al., 2020).

Table 4: Discriminant Validity

	DDC	DIP	DO	KH	KS
Digital Dynamic Capabilities	0.759				
Digital Innovation Performance	0.731	0.797			
Digital Orientation	0.694	0.519	0.790		
Knowledge Hiding	0.628	0.592	0.600	0.897	
Knowledge Sharing	0.787	0.746	0.625	0.705	0.785

4.4 Structural Equation Model

A structural equation model (SEM) combines factor analysis and regression analysis to examine complex relationships between observed and latent variables. It allows researchers to test theoretical models that include multiple independent and dependent variables, as well as mediating and moderating effects (Kono & Sato, 2022).

4.4.1 Direct Relation

In SEM, a direct relation refers to a relationship between two variables without any intermediate variables (Cepeda-Carrión et al., 2022). The findings of the study revealed a significant positive relationship between digital orientation and digital dynamic capabilities ($\beta = 0.694$, $t = 6.594$, $p = 0.000$), indicating that digital orientation directly influences digital dynamic capabilities. Therefore, H1 was supported.

Table 5: Direct Relation

	Original Sample	T Statistics	P Values	Decision
Digital Orientation -> Digital Dynamic Capabilities	0.694	6.594	0.000	Supported

4.4.2 Mediation Analysis

Mediation analysis examines the mediating effect of a variable or set of variables on the relationship between an independent variable and a dependent variable. The results in Table 7 indicate that digital dynamic capabilities mediate the relationship between digital orientation and digital innovation performance, and this mediation is statistically significant ($\beta = 0.253$, $t = 4.339$, $p = 0.000$). Hence, H2 was supported.

Table 6: Mediation Analysis

	Original Sample (O)	T Statistics	P Values
Digital Orientation -> Digital Dynamic Capabilities -> Digital Innovation Performance	0.253	4.339	0.000

4.4.3 Moderation Analysis

Moderation analysis examines the moderating effect of a variable on the relationship between two other variables. The results indicate that both knowledge sharing and knowledge hiding play significant moderating roles in the relationship between digital dynamic capabilities and digital innovation performance. The moderating effect of knowledge sharing is positive ($\beta = 0.546$, $t = 8.335$, $p = 0.000$), while the moderating effect of knowledge hiding is negative ($\beta = -0.487$, $t = 4.664$, $p = 0.006$). Therefore, H3 and H4 were supported.

Table 7: Moderation Analysis

	B-value	(STDEV)	T-value	P value
DDC*KS -> DIP	0.546	0.079	8.335	0.000
DDC*KH -> DIP	-0.487	0.085	4.664	0.006

Note: "DDC= Digital Dynamic Capabilities, KS= Knowledge Sharing, KH= Knowledge Hiding, DIP= Digital Innovation Performance."

The figure 2 illustrates the moderating effect of knowledge sharing on the relationship between digital dynamic capabilities and digital innovation performance. It shows that for IT workers in Casablanca, Morocco, who value knowledge sharing, the positive relationship between digital dynamic capabilities and digital innovation performance becomes even stronger. In other words, knowledge sharing enhances the impact of digital dynamic capabilities on digital innovation performance, particularly for those who perceive digital innovation performance and dynamic capabilities negatively.

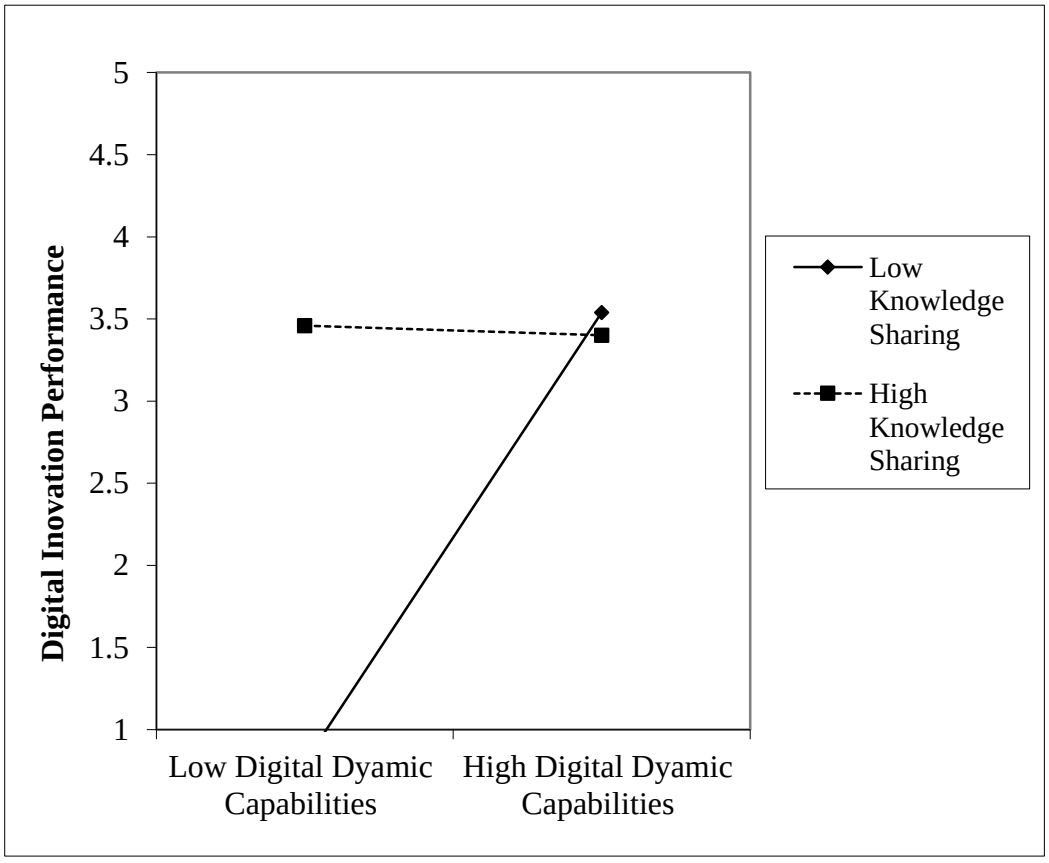

Figure 2: Moderating Effect with Knowledge Sharing

The figure 3 depicts the moderating effect of knowledge hiding on the relationship between digital dynamic capabilities and digital innovation performance. It indicates that for IT employees in Casablanca, Morocco, who engage in knowledge hiding, the previously negative relationship between

digital dynamic capabilities and digital innovation performance strengthens. In other words, knowledge hiding exacerbates the impact of digital dynamic capabilities on digital innovation performance, particularly for those who perceive digital innovation performance and dynamic capabilities negatively

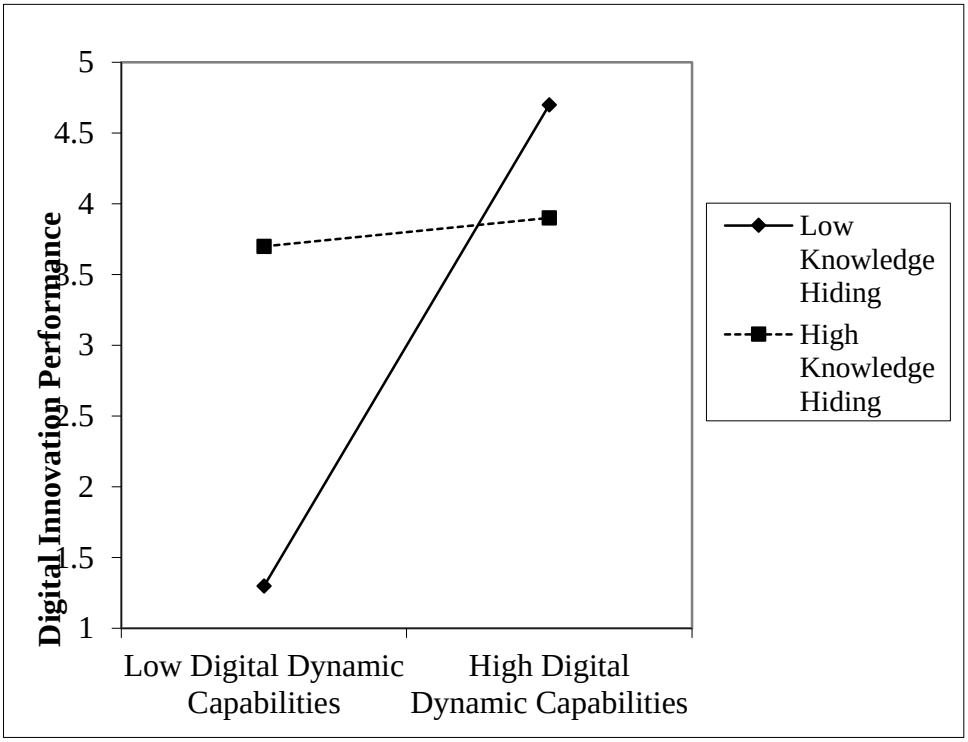

Figure 3: Moderating Effect with Knowledge Hiding

4.4.4 R Square

R Square is a measure of the proportion of variance in the dependent variable that can be explained by the independent variables. The adjusted R square values for digital dynamic capabilities and digital innovation performance were 0.479 and 0.609, respectively (Cepeda-Carrión et al., 2022).

Table 8: Assessment of R square

	R-Square
Digital Dynamic Capabilities	0.479
Digital Innovation Performance	0.609

5. Discussion

The current study explores the relationship between digital orientation and digital innovation performance in Moroccan IT workers, incorporating the concepts of knowledge-based view and dynamic capability theory. The findings indicate a significant relationship between digital orientation, digital dynamic capabilities, digital innovation performance, and the moderating roles of knowledge sharing and knowledge hiding. All hypotheses were supported.

The significant relationship between digital orientation and digital dynamic capabilities suggests that firms with a strong digital orientation are better equipped to develop and leverage their digital capabilities. This implies that organizations that invest in digital technologies and prioritize their integration into their business processes are more adaptable to changes in the digital landscape and can capitalize on emerging opportunities (Yu & Moon, 2021). This finding holds important implications for firms operating in today's rapidly evolving digital environment. As technology continues to advance, digitally oriented firms are better positioned to swiftly and effectively develop and deploy new digital capabilities, granting them a competitive advantage over less digitally oriented firms.

The results also highlight the significant moderating role of knowledge sharing between digital dynamic capabilities and digital innovation performance. Effective knowledge sharing enables firms to harness their digital capabilities to drive innovation and achieve superior performance (Giri et al., 2016). This finding emphasizes the importance of fostering a culture of knowledge sharing and collaboration within organizations. Establishing mechanisms for transferring knowledge and ideas across different units and departments can facilitate the leveraging of digital capabilities. It also underscores the need for firms to invest in organizational processes and structures that support effective knowledge sharing, including the implementation of tools and technologies and the provision of training programs to enhance employees' knowledge sharing skills.

Furthermore, the findings demonstrate the significant moderating role of knowledge hiding between digital dynamic capabilities and digital innovation performance. Firms that engage in knowledge hiding are hindered in leveraging their digital capabilities for innovation (Duan et al., 2022). Knowledge hiding impedes the sharing of ideas and knowledge that could otherwise contribute to the generation of new digital solutions. This finding emphasizes the importance of cultivating a culture of openness and collaboration within organizations. Encouraging transparent knowledge-sharing practices can facilitate the flow of knowledge and ideas across different parts of the organization, fostering innovation.

Casablanca, Morocco serves as a prominent hub for IT workers and technology companies. The city hosts a thriving tech industry, attracting both local and international companies. IT workers in Casablanca possess advanced education in computer science or related fields and possess a diverse range of technical skills, such as programming, database management, networking, and cybersecurity (Nejjari & Aamoum, 2022). The city's vibrant IT workforce contributes to its reputation as a center for technological innovation.

5.1 Theoretical and Practical Implications

The study on digital orientation, digital dynamic capabilities, and digital innovation performance, along with the moderating roles of knowledge sharing and knowledge hiding among Moroccan IT workers, holds several theoretical and practical implications. Theoretical contributions lie in the domain of knowledge-based view and dynamic capability theory, shedding light on how firms can establish and sustain a competitive advantage through knowledge and capabilities. The findings indicate that firms can improve their digital innovation performance by nurturing both digital orientation and digital dynamic capabilities. These findings align with the knowledge-based view, which emphasizes the value of leveraging knowledge as a strategic resource for gaining competitive advantage. Moreover, the study supports dynamic capability theory by underscoring the need for firms to adapt and respond to environmental changes to maintain a competitive edge. These insights can benefit businesses seeking to enhance their digital innovation performance by identifying variables such as organizational support and personal traits that can modify and mediate the relationship between digital orientation and successful digital innovation. Policymakers aiming to foster technological innovation and adoption in Morocco can also leverage the study's findings to understand factors that facilitate or hinder the performance of Moroccan IT workers in digital innovation.

From a practical perspective, the study provides actionable insights for firms striving to improve their digital innovation performance. It suggests that firms should invest in developing digital orientation and digital dynamic capabilities. Additionally, fostering a culture of knowledge sharing is

crucial to facilitate the transfer of knowledge and ideas within the organization. Conversely, the study warns against knowledge hiding, which impedes knowledge sharing and hampers digital innovation performance. For Moroccan IT workers, the study highlights the significance of acquiring digital skills and capabilities that are in demand locally and globally, such as programming, database management, cybersecurity, and more. It further emphasizes the importance of nurturing communication and collaboration skills, including knowledge sharing, in today's digital workplace. The findings reinforce the value of knowledge and capabilities in creating and sustaining a competitive advantage and provide practical guidance for firms seeking to enhance their digital innovation performance.

5.2 Limitations and Future Research

Despite its contributions, the study on digital orientation, digital dynamic capabilities, and digital innovation performance, along with the moderating roles of knowledge sharing and knowledge hiding among Moroccan IT workers, has several limitations that warrant consideration in future research. Firstly, the study's cross-sectional design limits the ability to establish causal relationships among the variables. Future studies employing longitudinal designs can provide insights into the directionality of relationships and the effects of changes over time. Secondly, the study's quantitative nature offers only a limited understanding of the complex dynamics underlying digital innovation performance. Qualitative research approaches can offer deeper insights into the factors influencing digital innovation performance and the experiences of Moroccan IT workers. Although generalizability may be constrained when using qualitative data, it can provide rich insights into individuals' perspectives and experiences. Combining qualitative and quantitative methods may enhance the study's generalizability. Thirdly, the study's focus on IT workers from Casablanca, Morocco restricts the generalizability of findings to other contexts. Future research should encompass a larger and more diverse sample of IT workers from different regions and industries to capture a broader perspective. Fourthly, the study solely considers the moderating effects of knowledge sharing and knowledge hiding. Future research should explore other moderating factors, such as organizational culture, leadership, and resource allocation, to gain a more comprehensive understanding. Lastly, the study assumes that digital orientation and digital dynamic capabilities are distinct constructs. Future research could investigate the extent of overlap between the two constructs and their combined effects on digital innovation performance. Additionally, examining the influence of cultural, social, and economic factors on the performance of Moroccan IT workers in digital innovation could reveal similarities and differences with other contexts.

5.3 Conclusion

In conclusion, the study on digital orientation, digital dynamic capabilities, and digital innovation performance, along with the moderating roles of knowledge sharing and knowledge hiding among Moroccan IT workers, carries important implications for theory and practice. The findings indicate that firms can enhance their digital innovation performance by developing digital orientation and digital dynamic capabilities, while fostering a culture of knowledge sharing. Conversely, knowledge hiding poses a hindrance to digital innovation performance. The study contributes to the knowledge-based view and dynamic capability theory by emphasizing the role of knowledge and capabilities in establishing and sustaining a competitive advantage. Moreover, it highlights the need for firms to be adaptable and responsive to environmental changes. For Moroccan IT workers, the study underscores the significance of cultivating digital skills and capabilities in high demand in both local and global job markets, as well as promoting knowledge sharing. However, the study has limitations, including its cross-sectional and quantitative nature, its focus on Casablanca, Morocco, and the limited consideration of other moderating factors. Future research should address these limitations through longitudinal and qualitative methods, broader sampling, and the exploration of additional moderating factors. The study provides valuable insights into the factors influencing digital innovation performance and offers guidance for firms and IT workers to enhance their digital skills and capabilities, enabling them to remain competitive in the dynamic digital landscape.

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