Journal of Infrastructure, Policy and Development 2024, 8(12), 7594.
https://doi.org/10.24294/jipd.v8i12.7594

Article

Effect of technological culture and knowledge sharing on organizational performance: The mediating role of digital innovation and self-efficacy as moderation

Md. Alamgir Mollah[1], Dipankar Pal[1], Mohammad Bin Amin[2,*], Md. Atikur Rahaman[3], Masuk Abdullah[4]

[1] Department of Management Studies, University of Barishal, Barishal 8254, Bangladesh
[2] Doctoral School of Management and Business, Faculty of Economics and Business, University of Debrecen, 4032 Debrecen, Hungary
[3] School of Economics and Management, Jiujiang University, 551 Qianjin Donglu, Jiujiang 332005, Jiangxi, China
[4] Faculty of Engineering, University of Debrecen, 4028 Debrecen, Hungary
*** Corresponding author:** Mohammad Bin Amin, binamindu@gmail.com

CITATION

Mollah MA, Pal D, Amin MB, et al. (2024). Effect of technological culture and knowledge sharing on organizational performance: The mediating role of digital innovation and self-efficacy as moderation. Journal of Infrastructure, Policy and Development. 8(12): 7594. https://doi.org/10.24294/jipd.v8i12.7594

ARTICLE INFO

Received: 28 June 2024
Accepted: 26 August 2024
Available online: 28 October 2024

Abstract: In the era of IR4.0, environmental dynamism and satisfying customer needs through digital innovations have evolved across IT industries. This article attempts to examine the effect of technological culture (TC) and knowledge sharing (KS) on digital innovation (DI), organizational performance (OP), and the moderating effect of self-efficacy (SE) on the link between TC, KS, and DI. This study evaluates a novel conceptual framework utilizing survey data from 270 samples of IT firms' employees in Bangladesh and analyzing it employing the PLS-SEM approach. The findings indicate that knowledge sharing and technological culture have a significant impact on DI and DI also significantly mediates the relationship between operational, financial, and employee performance. The findings suggest businesses recognize the chance of developing digital technologies and the digitalization trend in IT sectors by being devoted to embracing new technological cultures and upgrading their knowledge exchange to become innovation leaders and increase OP. This study describes how new digital technologies and knowledge sharing may be exploited to produce innovative digital creative digital solutions' innovative products and services which ultimately increase their OP, where the managers of the IT organizations can apply this knowledge in respected fields.

Keywords: technological culture; knowledge sharing; digital innovation; organizational performance

1. Introductions

In Bangladesh, the information technology (IT) business has grown very quickly over the past several years, adding a big chunk of market share to the country's economic growth, where around 0.3 million employees are working. In the past few years, digital innovation has become an important and changing topic of study and research in the field of information systems (IS) as well as other areas, like management studies. More notably, the rise of digital technology has arrived at the doorstep of innovation management itself and changed the very essence of how innovation takes place in today's environment (Frey et al., 2020). Responding efficiently and rapidly to new technology has an impact on the bottom line and, ultimately, the survival of the organization. Market share and profitability are two quantifiable indicators of winners and losers in the effective management of emerging technologies, and digitally leading competitors in each of these areas. Traditional company strategies and processes are altering in response to recent developments in digital technology and the development of threads in digital transformation (Shin et

al., 2023). Organizations that proficiently handle digital technology might anticipate advantages in three domains: enhanced customer interactions and experiences, optimized operational processes, and the creation of fresh company segments or business models. While every CEO aspires to create novel and inventive business models, companies employ digital technologies more frequently to enhance internal processes or the consumer experience (Fitzgerald et al., 2014). Corporate organizations need to participate in digital innovation, which is the creation of new products or services or modifications to existing ones resulting from the use of digital technologies, even in industries from the industrial era (Hanelt et al., 2020).

Moreover, emerging digital technologies like IoT, big data analytics, artificial intelligence, and cloud computing are helping to make commercial organizations more and more digital. To achieve fundamental business improvements like increasing customer experience and engagement, optimizing processes, and generating novel business framework, organizations must successfully embrace transformation through digital technology. If they don't, their competitors will take advantage of them and destroy them (Khin and Ho, 2018). The main issue is that technological innovation is occurring so quickly that it is affecting every industry (Fitzgerald et al., 2014). However, firms face numerous obstacles during the innovation process, such as striking a balance between innovation discovery and exploitation (Benitez et al., 2018; Benner and Tushman, 2015). Additionally, they are constantly under pressure to reduce the time and expense of innovation, which pushes them to investigate novel approaches to innovation. Despite the fact that open, cooperative, disruptive, and global innovation are topics of much discussion (Christensen et al., 2015), most organizations still struggle with innovation; these challenges can come from both internal and external sources, such as restricted access to or use of tools and resources, work environments that discourage employees from coming up with new ideas, and organizational cultures that are hostile to the investigation of new ideas (Bourdeau et al., 2020).

Given the complicated and dynamic situations in which businesses struggle today, the necessity for firms to innovate continually has never been higher (Hogan and Coote, 2014). However, technological culture encompasses the shared behaviors, attitudes, and values within an organization that facilitate the incorporation and assimilation of technology into corporate operations. It refers to the way in which workers perceive and use technology to promote creativity and enhance performance. On the other hand, knowledge sharing entails the transfer of information, skills, and expertise between people or groups inside an organization. Knowledge management is an essential process that supports learning and innovation, allowing businesses to use their combined knowledge to accomplish strategic goals. Similarly, digital innovation refers to the use of digital technology to develop novel or enhanced goods, services, processes, or business models. It entails using technology to improve effectiveness, competitiveness, and value generation inside a business. Organizational performance pertains to the extent to which an organization successfully accomplishes its goals and objectives, often assessed by diverse measures like financial performance, operational efficiency, and personnel productivity.

The present study indicates that it is a crucial measure for assessing the efficiency of corporate plans and processes. This study aims to respond to the following research

questions: first, it intended to investigate the direct impact of technological culture and knowledge sharing (KS) on innovation; second, it aims to explore the mediating role of digital innovation and the relationship technology culture and knowledge sharing in the context of IT enterprises operating in Bangladesh's information and communications technology (ICT) sector. Pertinently, software, hardware, and information technology (IT) services are among the digital goods and services offered by IT firms, which are primarily small and medium-sized businesses (SMEs). The ICT sector would contribute a considerable 11.57 percent of GDP to the economy in 2023. Bangladesh's IT sectors are starting to go digital thanks to innovative and promising digital solutions, including fintech, health-tech, business analytics, and business intelligence software. This research adds to the corpus of existing information on digital innovation. It accomplishes this by introducing a novel conceptual structure that links digital innovation to both performance outcomes and driving variables.

This study's first research question aims to fill the following gap in the literature:

RQ1. What drives innovation in the IT organization?

RQ2. Does digital innovation drive better financial, operational, and organizational performance?

2. Theoretical background and hypothesis

2.1. Underlying theory and conceptual framework

As previous studies have shown, there appears to be a study gap addressing the impact of technological culture's knowledge sharing on digital innovation. As previous studies have shown, there appears to be a study gap addressing the impact of technological culture's knowledge sharing on digital innovation. Digital capability and digital orientation are the only two important technology elements that the prior researcher addresses. This restriction provides future researchers studying digital innovation with the chance to investigate additional factors of innovation connected to technology, including technological culture, organizational variables that may spur innovation and market-related variables that meet users' expanding digital needs (Khin and Ho, 2018). Previous multiple research projects about knowledge sharing and innovation (Abbas et al., 2019; Rahman, 2020; Singh et al., 2019). However, there is limited study on the relationship between knowledge sharing and digital innovation. Knowledge sharing is an essential component of innovation (Brachos et al., 2007; Gachter et al., 2010). Therefore, we suggested our research model (**Figure 1**).

To fulfill this research purpose, we want to use two theories: resource-based view (RBV) and knowledge-based view (KBV) (Barney, 1991; Wernerfelt, 1984), and investigations by other academics led to the development of what is now known as the resource-based view (RBV), the most widely used economic rent-earning paradigm in management literature (Varadarajan, 2020). While RBV was initially introduced as a framework for assessing how strategically positioned a business is with respect to its competitors with regard to markets and goods (Wernerfelt, 1984), The hypothesis of the RBV study was that three important business resources are organizational innovation, knowledge sharing, and organizational culture. "Every asset, capability, organizational process, firm attribute, information, knowledge, etc., controlled by a firm that enable the firm to conceive and implement strategies that improve its

efficiency and effectiveness", according to Barney, are all relevant factors (Azeem et al., 2021; Liu et al., 2020). Here, technological culture, digital innovation, and organizational performance are considered resources.

After that, the term "knowledge-based view" describes a collection of concepts that first surfaced in the 1990s and focused on the function of knowledge in the formation, growth, and administration of an organization (Grant and Phene, 2021). At the nexus of multiple research streams is the knowledge-based view (KBV), which sees the organization as a knowledge-processing institution with knowledge as its main strategic resource (Grant, 1996; Nonaka and Takeuchi, 1995). This dominance is reflected in the growing prominence of intangible assets in business valuation. As a result, KBV is seen as an expansion of RBV, expanding the definition of business resources to include knowledge-based resources (Grant, 1996). This study has considered KS based on the KBV theory. Together, blending knowledge and resources produces resources for the organizations.

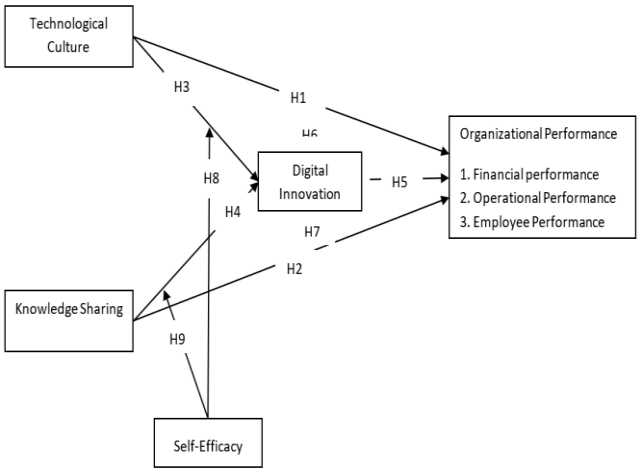

Figure 1. Conceptual framework of the study.

Previous studies have effectively shown the significance of technical culture and the exchange of information in promoting digital innovation (Khin and Ho, 2018; Rahman, 2020). This research has established the foundation for comprehending the correlation between corporate culture and innovation processes. Multiple studies have provided evidence of the beneficial effects of digital innovation on organizational performance, emphasizing its ability to improve competitiveness and efficiency (Datta and Roumani, 2015; Nambisan et al., 2017). Although past studies have offered significant insights, there needs to be more complete models that include technology culture, information exchange, digital innovation, and organizational performance. Most of the research has primarily examined individual correlations, neglecting the intricate interplay between these factors. Several studies still need to sufficiently consider the distinctive contextual character of these interactions, especially in developing economies such as Bangladesh. The existence of this gap restricts the applicability of the results and emphasizes the need for research that considers contextual elements. The research aims to fill the gaps listed above by introducing a new conceptual framework that connects technical culture, information exchange, digital innovation, and organizational performance in Bangladesh's IT industry. This

research represents data from IT business workers in Bangladesh to give insights that add to the current literature and have practical relevance for managers in the area. By integrating this meticulous examination, our objective is to illustrate the importance of our research and its contributions to the discipline. Based on the above discission, present research question, and study objectives, the following conceptual framework has been proposed in the **Figure 1** above.

2.2. Technological culture and organization performance

Corporate culture, or organizational culture, refers to the shared beliefs and recognized symbols that a company presents to foster a sense of belonging among its members and distinguish itself from other organizations (Bisbey et al., 2019). Technology progresses through the process of rearranging and integrating knowledge to produce new ideas; this rapid evolution of technology will affect how well businesses perform (Martínez-Caro et al., 2020). According to Silwal's (2021) research, organizational culture significantly affects financial performance. Yesil and Kaya (2013) also discovered that the financial performance of a corporation is unaffected by organizational culture dimensions. On the other hand, Han (2012) highlights the impact of company culture on financial results. In an uncertain environment, the company's culture encourages innovation as a means of survival and growth (Silwal, 2021). Research by Sackmann (2011) examined the connection between communication and technology company performance and corporate culture trait. The findings demonstrate a strong positive correlation between the cultural trait factors and ROA, ROE, and profit margin on sales. Han (2012), as an example, put out the idea that a company's financial success might be predicted by its "strong culture"—that is, the culture that the majority of employees share.

An organization's overall performance in terms of cost, flexibility, quality, and service delivery is called its operational performance (Awino, 2020). There is a close relationship between technical improvement and employee performance (Harianto et al., 2020). Technology can lead to increased productivity or enhanced performance when integrated with other human resources, or when done appropriately and deploying technology productively and ethically (Singh and Verma, 2019). Also, Uddin et al. (2012) contend that company culture strongly influences employee performance and productivity in a dynamic and evolving context. Similarly, Nazarian et al. (2017) demonstrated a good and significant association between OC and EP. Also, Wambugu (2014) discovered a favorable association between company culture and employee performance; however, the effect varied across the factors, with work procedures and systems in with having a higher effect on employee performance. On the other hand, according to Harianto et al. (2020), employee performance in the banking industry is not positively or directly impacted by organizational culture. Culture has been established as a crucial component of organizational life that should be taken into account due to its favorable effects on the performance of the company. "Shared values and morals held by employees within an organization or the organization unit" is another definition of organization culture (Durgadevi and Vasantha, 2017). They anticipate that a technological culture has a positive impact on organizational performance in light of earlier research findings. Digitalization and

communication between internal and external contexts depend on digital culture. However, derived from the Resource-Based View (RBV), this hypothesis posits that technological culture positively influences organizational performance. According to RBV, organizational culture is a strategic resource that enhances efficiency and effectiveness (Barney, 1991). Technological culture, as a component of organizational culture, fosters innovation and adaptability, leading to improved performance in financial, operational, and employee domains. As a result, we postulate the following:

H1a. Technological culture has a positive effect on financial performance.

H1b. Technological culture has a positive effect on operational performance.

H1c. Technological culture has a positive effect on employee performance.

2.3. Knowledge sharing and organization performance

There are various organizational levels at which knowledge sharing takes place. It entails the transfer of knowledge and information among individuals, groups, and organizations. Information exchange is the sharing of knowledge between people (Connelly and Kelloway, 2003). The organizational knowledge sharing process is made up of knowledge transmission and knowledge absorption (White, 2001). Also, Wijk et al. (2010) suggested that knowledge sharing is a long-term, dynamic process that involves both internal and external information transmission between businesses. Making pertinent knowledge available to colleagues within the company is known as knowledge sharing (Grant, 2016; Wang et al., 2014) with the goal of achieving personal innovation (Jennings, 2018), organizational team perspective (Gong et al., 2013), and organizational hierarchical level (Oyemomi et al., 2019). Moreover, knowledge sharing is meant to support a company as a whole in achieving its objectives. It takes knowledge-sharing techniques in businesses to generate ideas for creative organizational actions that adapt to changing market opportunities (Lundvall and Nielsen, 2007) and produce prompt responses to client needs at a low cost (Singh et al., 2019). According to research on knowledge management, team performance will benefit from knowledge application and sharing (Choi et al., 2010). A culture of social interaction that embraces the sharing of employee information, experiences, and abilities across departments and organizations is necessary for knowledge sharing (Abdelwhab Ali et al., 2019). Additionally, the organization's capacity to manage a variety of organizational resources and access them in order to meet its goals and objectives (Masa'deh et al., 2016).

According to Abubakar et al. (2019), they demonstrated the beneficial impact of information sharing on organizational performance. Imamoglu et al. (2019) found that knowledge sharing affects company performance. According to Abdelwhab Ali et al. (2019), results demonstrate how knowledge sharing techniques improve company performance through growth, cost savings, and intangible advantages. Abusweilem and Abualous (2019) find that there is a favorable correlation between an organization's performance and its knowledge management procedures. The high degree of proficiency in knowledge sharing facilitates the utilization of the formal knowledge and proficiency in integrated issue solving that are already available, which can enhance processes and products (Attar et al., 2019). In order to maintain a consistent competitive advantage, knowledge sharing is a necessary organizational

competency (Abualoush et al., 2018). This hypothesis, grounded in the Knowledge-Based View (KBV), asserts that knowledge sharing positively affects organizational performance. KBV views organizations as knowledge-processing entities, where knowledge is the primary strategic resource (Grant, 1996). Effective knowledge sharing enhances organizational capabilities and innovation, leading to superior performance outcomes. Drawing from the previous discourse, we contend that a noteworthy affirmative correlation exists between information dissemination and organizational efficacy, and we offer the subsequent hypothesis:

H2a. Knowledge sharing has a positive effect on financial performance.

H2b. Knowledge sharing has a positive effect on operational performance.

H2c. Knowledge sharing has a positive effect on employee performance.

2.4. Technological culture and digital innovation

Digital culture is a developing set of norms, behaviors, and beliefs about how individuals should behave and communicate in today's networked society (Deuze, 2006). In this context, the use of digital culture indicates an attempt to account for some of the most major and profound changes caused by the growing relevance and pervasiveness of digital technology (Shin et al., 2023). However, Khin and Ho (2018) observed that testing and the potential importance of future technology culture for innovation can be found. According to Avermaete et al. (2003), innovation has been classified into four main categories: process innovation, market innovation, OI, and product innovation. According to Sutanto (2017), numerous scholars have undertaken investigations to examine the correlation between culture and innovation within the business domain (Tian et al., 2018). Creativity, risk-taking, openness and receptivity to new ideas, and an entrepreneurial mindset are the main components of innovation culture (Hilmarsson et al., 2014). Moreover, workers in companies with a strong innovation culture see uncertainty as an opportunity rather than a risk, value the contributions of their coworkers, and perceive themselves as creative and innovative (Dobni, 2008).

In the recognized literature, researchers have used many organizational culture variables to examine innovation (Tian et al., 2018). In a competitive environment, innovation is one of the most important components for vision-driven businesses. Organizational culture can either foster or impede innovation, which can then impact the general performance of research institutions, universities, businesses, organizations, and so forth (Li et al., 2017). Based on resource-based theory, research suggests that companies with better technology cultures are more inventive because they are more committed to exploiting new technologies to create cutting-edge products. Digital technology serves as the catalyst and starting point for digital innovation, particularly in the context of digital-driven innovation. Informed by RBV, this hypothesis suggests that technological culture positively impacts digital innovation. A strong technological culture encourages the exploration and adoption of new technologies, aligning with RBV's emphasis on leveraging resources for innovation (Wernerfelt, 1984). Without a commitment to technology and the adoption of appropriate digital tools, a company would struggle to come up with a creative solution that fits in with market trends. As a result, we postulate the following:

H3. Technological culture has an affirmative influence on digital innovation.

2.5. Knowledge sharing and digital innovation

According to Fatima and Masood (2023), knowledge sharing is the act of giving others information about tasks and working together to develop new ideas, solve problems, or put procedures into place. Written or in-person communication via expert networking, organizing, recording, and gaining knowledge for others are examples of knowledge sharing. Knowledge sharing is a crucial aspect of knowledge management since it indicates to colleagues that pertinent knowledge is available to them (Wang et al., 2014). It is acknowledged that knowledge is the primary source of innovation in new goods, services, and procedures (Soto-Acosta et al., 2016). Collaboration, problem-solving with others, and the reuse and transfer of experience-based knowledge within the business are all considered forms of knowledge sharing. In this sense, integrating and coordinating individual knowledge and addressing related concerns like organizational learning, decision-making, and innovation constitute an organization's fundamental purpose (Rahman, 2020) and it is base for the innovation (Brachos et al., 2007; Gächter et al., 2010).

It is evident that the skills of companies to renovate and use knowledge may determine their degrees of innovation, for example, the latest ways of problem-solving (Singh et al., 2019). Organizations need both codified and individualized knowledge because they both aim to achieve the same thing—innovation (Rahman, 2020). Because of their increased ability to absorb information, new ideas and improved firm goods have the potential to enhance innovation performance (Jantunen, 2005). Based on KBV, this hypothesis posits that knowledge sharing positively influences digital innovation. Knowledge sharing facilitates the integration and application of knowledge, driving innovation processes within organizations (Nonaka and Takeuchi, 1995). Drawing from the previous discourse, we contend that there is a noteworthy affirmative correlation between information dissemination and digital innovation, and we submit the subsequent hypothesis:

H4. Knowledge sharing has an affirmative influence on digital innovation.

2.6. Digital Innovation and organization performance

The ability of an organization to accomplish its goals by making effective and efficient use of its resources is known as organizational performance (Al-Taweel and Al-Hawary, 2021). Nambisan et al. (2017) define digital innovation as the process of using digital technology to develop corporate models, processes, or market demands. Numerous studies have shown that because digital innovation alters business models, broadens markets, and draws in new clients, it has an impact on organizational performance and outcomes (Kurilova and Antipov 2020; Sethibe and Steyn 2016). Numerous studies have looked into the effect of innovation on a firm's performance, and the results have been good (Datta and Roumani, 2015). AlTaweel and Al-Hawary (2021) also discovered that the performance of organizations and their capacity for innovation are significantly impacted by strategic agility. The findings of Tajuddin et al. (2015) showed that innovation has a major positive impact on organizational

performance. Moreover, Fartash et al. (2018) also discovered that organizational performance is significantly improved by organizational innovation.

According to Masoud and Basahel (2023), IT innovation has a favorable effect on a company's success, with the greatest benefit being seen in the customer experience. The strong beneficial influence of digital innovation on increasing financial performance suggests that it is necessary for small enterprises to strengthen their digitization skills and expertise in business development to fulfill consumer wants and improve performance for future business sustainability (Mangifera et al., 2022). The findings showed that innovation has a major positive impact on organizational performance. Employees are continuously encouraged to learn new things, attempt to solve problems in creative ways, get feedback, and pick up new habits as a result of their experiences in a continuous learning business (Huang et al., 2016). Rooted in both RBV and KBV, this hypothesis asserts that digital innovation mediates the relationship between technological culture, knowledge sharing, and organizational performance. Digital innovation acts as a bridge, translating cultural and knowledge-based resources into tangible performance improvements. However, previous findings indicated that DI greatly affects OP (Chege et al., 2019; Hanelt et al., 2021). Thus, we contend that there is a strong correlation between organizational success and digital innovation, and we put forth the following hypothesis:

H5a. Digital innovation has a positive effect on financial performance.

H5b. Digital innovation has a positive effect on operational performance.

H5c. Digital innovation has a positive effect on employee performance.

2.7. Mediating role of digital innovation

Innovation is essential to a corporation's survival and expansion in the cutthroat environment of modern industry. Digital innovation expands markets, changes business models, and draws in new clients, all of which have an impact on an organization's performance and outcomes. Studies on the relationship between performance and digital innovation, however, have produced contradictory findings; some have found benefits, while others have found drawbacks. The relationship between a company's technical culture, information exchange, and business performance may be influenced by innovation. According to Bourdeau et al. (2020), a culture that values collaboration and makes extensive use of technology can increase the intensity of innovation, which improves organizational performance. While digital organizational culture does not directly affect organizational performance, it acts as a mediating variable by indirectly influencing it. Since creating and utilizing information resources that are available within businesses is tightly linked to organizational innovativeness, knowledge management and creative skills are closely related.

According to Vlasov et al. (2022), certain sociocultural factors have a significant impact on knowledge-based innovation, although digitization can mitigate these negative effects. By discussing and exchanging ideas with colleagues, KS attracts their attention and assists them in transforming those ideas into practical solutions. Muafi (2020) makes recommendations about social networks, knowledge sharing, strategic practice, and policy for improving organizational innovation and its impact on micro,

small, and medium enterprises (MSME)s' performance. Podrug et al. (2017) think that information exchange, both explicit and tacit, will improve innovation quality and speed of creation. However, research has not looked into the mediating function that innovation plays in the relationship between these two characteristics and performance in a digital society. A corporation with a strong technical culture and knowledge-sharing practices is better able to develop new solutions that better match the demands of the business, which improves performance. This is the theory behind the innovation mediation effect. Therefore, we postulate the following:

H6a. The effect of technological culture on financial performance is mediated by digital innovation.

H6b. The effect of technological culture on operational performance is mediated by digital innovation.

H6c. The effect of technological culture on employee performance is mediated by digital innovation.

H7a. The effect of knowledge sharing on financial performance is mediated by digital innovation.

H7b. The effect of knowledge sharing on operational performance is mediated by digital innovation.

H7c. The effect of knowledge sharing on operational performance is mediated by digital innovation.

2.8. The moderating role of self-efficacy

Self-efficacy is demarcated as an individual's belief in their capacity to execute a specific task and satisfy situational demands (Bandura, 1977). According to Lestariningsih (2017), self-efficacy is the conviction that one can take action to reach a particular goal. According to Bandura and Wood (1989) and Wood and Bandura (1989), *"beliefs in one's abilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands"* is the definition of self-efficacy. Islam et al. (2011) imply that self-efficacy, which affects motivation and effort persistence, is a significant motivating factor. Creative self-efficacy refers to an individual's attributes concerning their ability to innovate. It displays a person's self-assurance in their ability to complete a task in a novel way. Furthermore, an employee's knowledge-sharing habit influences their sense of self-efficacy and inventiveness (Asad et al., 2021). Xanthopoulou et al. (2009) discovered that engagement and weariness are predicted by three categories of personal resources: optimism, organization-based self-esteem, and self-efficacy. According to Wibawa and Takahashi (2021), the most significant personal resource is self-efficacy, since it functions as a self-motivating mechanism and encourages people to take on problems. High-self-efficacy people can handle challenging work environments by developing additional resources (Guglielmi et al., 2012). Research has discovered that self-efficacy acts as a moderating element in the uptake of m-commerce services (Islam et al., 2011). On the other hand, Wibawa and Takahashi (2021) discovered that the connections between ethical leadership and workaholism or between ethical leadership and work engagement were not moderated by self-efficacy.

As a result, we anticipate that self-efficacy may either enhance or diminish technological culture and the impact of information sharing on and digital innovation. Therefore, we postulate the following:

H8. Self-efficacy has a positive moderating effect on the relationship between technological culture and digital innovation

H9. Self-efficacy has a positive moderating effect on the relationship between knowledge sharing and digital innovation.

3. Methodology of the study

3.1. Sampling tools and techniques

This study employed quantitative approaches to evaluate correlations between variables by gathering and analyzing survey data to test the hypotheses and meet research objectives as well as research questions. The target population for this study are the employees who are working in the IT company that uses digital technology is the analytical unit for this investigation. A set of 39 questions was used in an online survey to gather sample data. The survey instrument was designed to capture data on technological culture, knowledge sharing, digital innovation, and organizational performance. It included validated scales from previous studies to ensure reliability and validity. The questionnaire was pre-tested with a small sample to refine the items and improve clarity. A random sampling method was employed to ensure representation from various IT firms in Bangladesh. The sample consisted of 271 employees from different organizational levels, including IT managers, technical staff, and support personnel, to capture diverse perspectives on the study variables. Data was collected through online surveys, distributed via email to the selected participants. The survey was conducted over a period of three months, with follow-up reminders sent to non-respondents to maximize response rates. Participation was voluntary, and confidentiality was assured to encourage honest and accurate responses. Employees who agreed to participate in this study were chosen at random. Only 271 of the 279 employees' completed surveys were validated for study. We threw away the remaining questionnaires due to their anomalies. As a result, the final response rate in this study was 97.13% which was acceptable. Because previously Karim et al. (2023b) achieved 79% response rate; Shahneaz et al. (2020) 77.9%; Amin et al. (2024) 52.25%; Mahmud et al. (2023) 47.2%, Amin and Oláh (2024) 41.8% response rate in context of Bangladesh. To assess the suggested research model, the survey data was loaded into SmartPLS4. We used structural equation modeling (SEM) to examine data for the measurement model and structured model in order to assess the suggested research model.

3.2. Measurement items

To conduct this study, we have taken different constructs and items from the existing literature. All the items have five points. The Likert scale ranges 1 = strongly disagree and 5 = strongly agree. First, to measure technological culture, five items were taken (Lukas et al., 2013; Proksch et al., 2021; Shin et al., 2023); then, for knowledge sharing, six items were taken (Alsharo et al., 2017; Pangil and Chan, 2014).

After that, to measure self-efficacy, we have taken from Novaes et al. (2020). Next, to assess the financial performance, it has to consider three items from Muhammed and Zaim (2020). Then, to assess the digital innovation, we have taken six items from Khin and Ho (2018). Lastly, to measure operational and employee performance, we have considered Koufteros et al. (2014), Mar Fuentes-Fuentes et al. (2004) and Williams and Anderson (1991). All the measurement items based on the variables are shown in Appendix.

4. Results

4.1. Demographic information

Table 1 shows that the majority of respondents (50.9%) were between the ages of 21 and 25. In addition, around 83.4% of respondents are male, with the remainder being female. In terms of education level, a bigger proportion of respondents (63.8%) have graduated. Most respondents (42.8%) had one to five years of experience. The following **Table 1** presents the overall demographic information:

Table 1. Demographic profile.

Items		Frequency	Percentage
Gender	Male	226	83.4%
	Female	44	16.2%
	Not want to express	1	0.4%
Age	18 to 20	22	8.1%
	21 to 25	138	50.9%
	26 to 30	66	24.4%
	31 to 35	34	12.5%
	36 to 40	11	4.1%
Education level	HSC	29	10.7%
	Graduate	173	63.8%
	Post-Graduate	69	25.5%
	PHD	0	0.0%
Work experience	Less than 1 years	95	35.1%
	1 to 5 years	116	42.8%
	6 to 10 years	48	17.7%
	11 to 15 years	11	4.1%
	More than 15 years	1	0.4%

The Kaiser-Meyer-Olkin (KMO) test was used to determine the suitability of the data for factor analysis. KMO assesses the model's overall sample adequacy as well as the quality of each observed variable. The correlation between the variables is used to determine KMO. The scale goes from 0 to 1, with values closer to 1 indicating that the variables are correlated, and that factor analysis would be a good fit for the data; otherwise, the variables are uncorrelated and might not be influenced by a common factor (Kaiser, 1974).

4.2. Common method bias (CMB) and multicollinearity test

In this paper, common method bias (CMB) was screened for using Harman's single factor test, as recommended by Podsakoff et al. (2003). CMB becomes a critical issue when a single concept explains a major percentage of variation (Podsakoff et al., 2003). In this regard, we identified the essential components that account for variance by means of variance inflation factor (VIF)analysis. A maximum of 21.962 percent of the total variance could be explained by a single factor, according to the results, significantly less than the recommended less than 50 percent (Podsakoff et al., 2003). The values of the variance inflation factor (VIF) were also used to evaluate CMB. **Table 2** demonstrates that every VIF value is below the 3.3 suggested thresholds (Kock, 2015). Consequently, this finding poses no threat to the CMB problem. Furthermore, VIF levels are below the suggested threshold of 10. Thus, we can say that the multicollinearity issue is not present in this study (O'brien, 2007). The following **Table 2** shows the VIF values of this study:

Table 2. Collinearity statistics (VIF).

	DI	EP	FNP	KS	OP	SE	TC
DI		1.299	1.299		1.299		
EP							
FNP							
KS	1.337	1.297	1.297		1.297		
OP							
SE	1.129						
TC	1.376	1.414	1.414		1.414		

Notes: Digital innovation (DI), Technological Culture (TC), Knowledge sharing (KS), Financial performance (FP), Operational performance (OP), Employee performance (EP), Self-efficacy (SE).

In addition to statistical tests, we implemented procedural remedies during the survey design, such as ensuring anonymity and randomizing item order, to minimize the risk of bias

4.3. Reliability and validity test

Convergent and discriminant validity were evaluated in order to validate the measurement model. The degree of high correlation between one measure and another measuring the same construct is known as convergent validity (Hair et al., 2014). The discriminant validity of a concept measure guarantees its empirical distinction and its ability to capture relevant phenomena that other measures in a structural equation model are unable to capture (Hair et al., 2017). Since every component in this study was modeled as reflecting, a large percentage of the variance should be shared by the indicators (Hair et al., 2014). The procedures for assessing individual reliability (CR), average variance extracted (AVE), and indicator reliability (outer loadings) in order to ascertain convergent validity are shown in **Table 3**. Three measurement items EP6, EP7 and SE4 were deleted due to low factor loadings. All of the AVE values were greater than 0.5, indicating the convergent validity (Hair et al., 2017; Henseler et al., 2009). The reliability of the measurements was then evaluated using composite

reliability (CR), which ranks the indicators according to how reliable each one is on its own. The measurements were deemed reliable since all of the composite reliability (CR) values were higher than 0.7. Hair et al. (2014) state that composite reliability is based on the individual indicators, whereas Cronbach's alpha assesses reliability based on the inter-correlations of the variable's indicator. The following **Table 3** shows the results from the reliability and validity test:

Table 3. Reliability and validity.

Constructs	Item	Indicator Loadings	Cronbach's alpha	CR	AVE
Digital innovation (DI)	DI1	0.717	0.812	0.864	0.515
	DI2	0.730			
	DI3	0.702			
	DI4	0.750			
	DI5	0.651			
	DI6	0.753			
Employee performance (EP)	EP1	0.736	0.765	0.840	0.514
	EP2	0.672			
	EP3	0.780			
	EP4	0.640			
	EP5	0.748			
Financial performance (FNP)	FNP1	0.891	0.894	0.934	0.825
	FNP2	0.933			
	FNP3	0.900			
Knowledge sharing (KS)	KS1	0.688	0.807	0.861	0.509
	KS2	0.755			
	KS3	0.748			
	KS4	0.672			
	KS5	0.718			
	KS6	0.697			
Operational performance (OP)	OP1	0.753	0.801	0.857	0.509
	OP2	0.776			
	OP3	0.707			
	OP4	0.533			
	OP5	0.729			
	OP6	0.729			
Self-efficacy (SE)	SE1	0.771	0.767	0.839	0.511
	SE2	0.633			
	SE3	0.735			
	SE4	0.723			
	SE5	0.705			
	SE6	0.771			

Table 3. (*Continued*).

Constructs	Item	Indicator Loadings	Cronbach's alpha	CR	AVE
Technological Culture (TC)	TC1	0.722	0.757	0.837	0.507
	TC2	0.738			
	TC3	0.711			
	TC4	0.684			
	TC5	0.705			

Moreover, the following **Table 4** represents the results from mean, standard deviations, and correlations analysis:

Table 4. Mean, standard deviations, and correlations analysis.

Variables	Mean	SD	1	2	3	4	5	6	7
1. Knowledge sharing	4.3813	0.36761	1						
2. Technological culture	4.3513	0.36187	0.442**	1					
3. Digital innovation	4.4613	0.37383	0.350**	0.439**	1				
4. Operational performance	4.3961	0.36453	0.322**	0.280**	0.273**	1			
5. Financial performance	4.4416	0.47377	0.327**	0.323**	0.318**	0.157**	1		
6. Employee performance	4.3948	0.37846	0.283**	0.338**	0.288**	0.257**	0.193**	1	
7. Self-efficacy	4.4207	0.37419	0.276**	0.277**	0.301**	0.326**	0.231**	0.297**	1

**. Correlation is significant at the 0.01 level (1-tailed).

However, the following **Table 5** demonstrates the model fit of this study:

Table 5. Model fit.

	Saturated model	Estimated model
SRMR	0.061	0.068
d_ULS	2.502	3.067
d_G	0.747	0.769
Chi-square	1145.163	1168.051
NFI	0.702	0.696

Notes: SRMR (Standardized Root Mean Square Residual), d_ULS (Degree of Unbiasedness of the Least Squares Estimator), d_G (Bentler's Comparative Fit Index), Chi-square, NFI (Normed Fit Index).

Additionally, the following **Figure 2** shows the results from the reliability and validity analysis generated from the software:

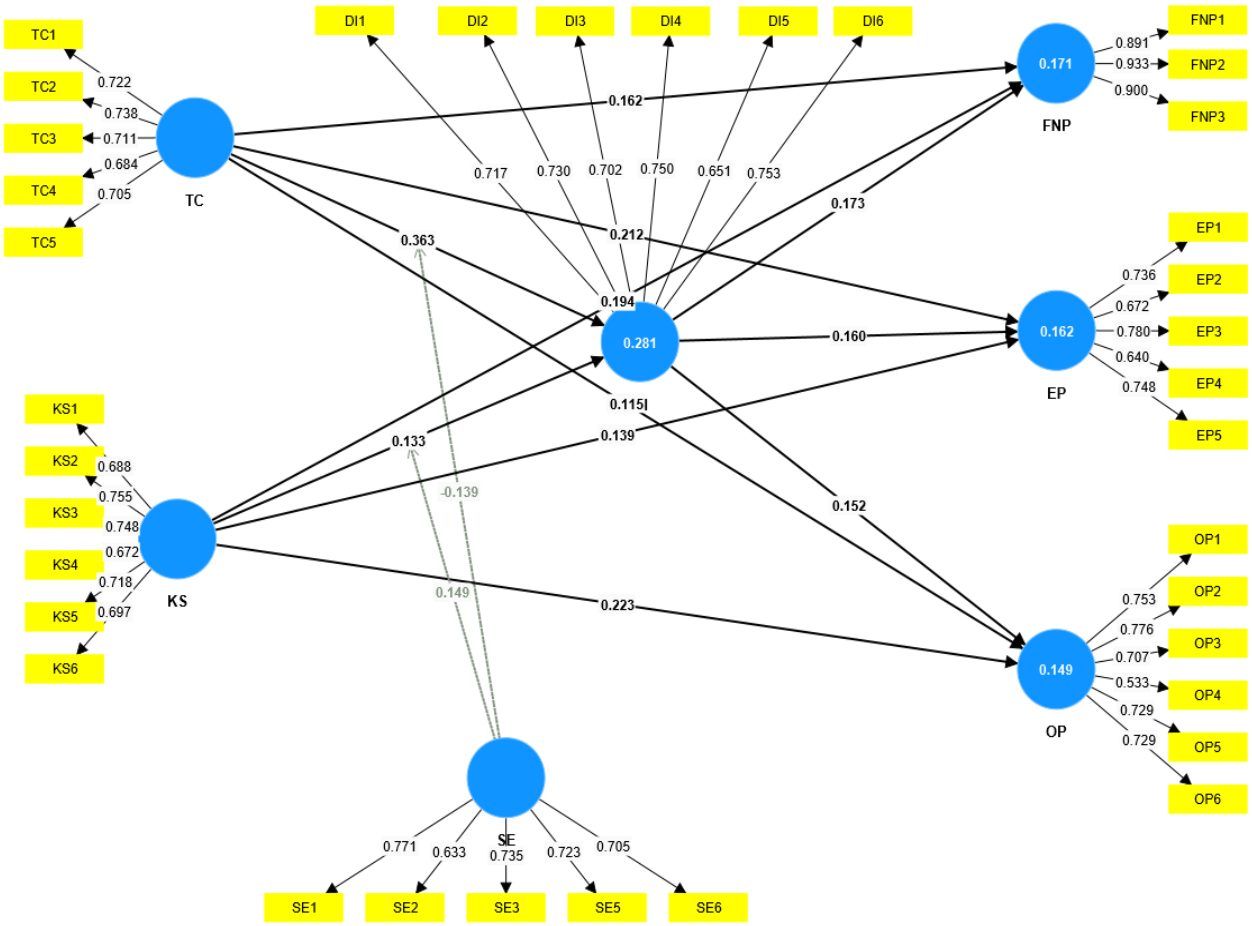

Figure 2. Results of the analysis.

The discriminant validity was assessed by comparing the correlations of latent variables with the square root of the AVE values (Fornell and Larcker, 1981; Hair et al., 2014). The square roots of AVE for each concept verified the discriminant validity of the constructs has seen in **Table 6**. Every Heterotrait-monotrait (HTMT) measurement is below the suggested threshold of 0.85 (Kline, 2015) which, in comparison to the correlation for the other research components, was higher. Results from discriminant validity analysis have been show in the following **Table 6** below:

Table 6. Discriminant validity analysis.

Variables	DI	EP	FNP	KS	OP	SE	TC
DI							
EP	0.367						
FNP	0.373	0.234					
KS	0.434	0.359	0.385				
OP	0.336	0.324	0.187	0.399			
SE	0.382	0.390	0.279	0.352	0.410		
TC	0.559	0.446	0.394	0.565	0.357	0.363	

Notes: Digital innovation (DI), Technological Culture (TC), Knowledge sharing (KS), Financial performance (FP), Operational performance (OP), Employee performance (EP), Self-efficacy (SE).

5. Discussion and conclusion

5.1. Discussion of results

The links between the constructs employed in the suggested research model can be examined using a structural model. Bootstrapping was employed in this research project to evaluate the hypothesis at the 5% significance level. Furthermore, t-statistics and the path coefficient can be used to analyze the relationship between the independent and dependent variables. **Table 7** presents the derived hypotheses' status together with the beta coefficient (β), *t*-statistics, and *p*-value. From this table, the direct relationship between TC and FNP ($\beta = 0.162$, $t = 2.278$, $p < 0.05$) ,TC and EP ($\beta = 0.212$, $t = 3.026$, $p < 0.05$), KS and FNP ($\beta = 0.194$, $t = 2.844$, $p < 0.05$), KS and OP ($\beta = 0.223$, $t = 2.926$, $p < 0.05$), KS and EP ($\beta = 0.139$, $t = 2.121$, $p < 0.05$), TC and DI ($\beta = 0.363$, $t = 5.903$, $p < 0.05$), KS and DI ($\beta = 0.295$, $t = 2.223$, $p < 0.05$), DI and FNP ($\beta = 0.173$, $t = 2.683$, $p < 0.05$), DI and OP ($\beta = 0.152$, $t = 1.976$, $p < 0.05$), and DI and EP ($\beta = 0.160$, $t = 2.514$, $p < 0.05$) were significant. Thus, H1a, H1c, H2a, H2b, H2c, H3, H4, H5a, H5b, H5c were supported. The results from the **Table 7** are shown below:

Table 7. Result of direct effect.

Path	β	*t*- Statistics	*p*-Value	Decision
H1a: TC → FNP	0.162	2.278	0.023	S
H1b: TC → OP	0.115	1.538	0.124	NS
H1c: TC → EP	0.212	3.026	0.002	S
H2a: KS → FNP	0.194	2.844	0.004	S
H2b: KS → OP	0.223	2.926	0.003	S
H2c: KS → EP	0.139	2.121	0.034	S
H3: TC → DI	0.363	5.903	0.000	S
H4: KS → DI	0.133	2.025	0.043	S
H5a: DI → FNP	0.173	2.683	0.007	S
H5b: DI → OP	0.152	1.976	0.048	S
H5c: DI → EP	0.160	2.514	0.012	S

Note: S = Significant; NS = Not Significant.

Moreover, the following **Table 8** represents the results of the mediation and moderation effect of this study:

We completed the above analysis to achieve our study's objectives. Our study confirms the positive impact of technological culture and knowledge sharing on digital innovation and organizational performance. These findings are consistent with previous research e.g., Mollah et al. (2024); Gazi et al. (2024a); Abubakar et al. (2019); Khin and Ho (2018) highlighted the importance of fostering a digital culture, organizational creativity, and promoting knowledge exchange to drive innovation and performance. Based on our research, we can conclude that TC positively impacts financial performance ($\beta = 0.162$, $p < 0.023$), hence H1a is acceptable. This relationship is backed by Silwal's (2021). Conversely, technology culture has a detrimental impact on operational performance ($\beta = 0.115$, $p > 0.124$). The findings

indicate that employee performance is positively correlated with technology culture ($\beta = 0.212$, $p < 0.002$). We found that KS had an impact on organizational performance through both direct and indirect means in this model. We looked into the direct impact of knowledge sharing on operational, financial, and staff performance based on the aforementioned findings (H2a, H2b, and H2c).

Table 8. Results of the mediation and moderation effect.

Mediation	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	*T* statistics (|O/STDEV|)	*P* values	Decision
H6a:TC → DI → FNP	0.063	0.063	0.026	2.413	0.016	S
H6b:TC → DI → OP	0.055	0.058	0.029	1.917	0.055	NS
H6c:TC → DI → EP	0.058	0.059	0.025	2.362	0.018	S
H7a: KS → DI → FNP	0.023	0.023	0.015	1.530	0.126	NS
H7b: KS → DI → OP	0.020	0.023	0.017	1.207	0.227	NS
H7c: KS → DI → EP	0.021	0.022	0.015	1.442	0.149	NS
H8: SE×TC → DI	−0.021	−0.022	0.015	1.428	0.153	NS
H9: SE×TC → DI	0.023	0.021	0.014	1.568	0.117	NS

Notes: Digital innovation (DI), Technological Culture (TC), Knowledge sharing (KS), financial performance (FP), Operational performance (OP), Employee performance (EP), Self-efficacy (SE); S = Supported; NS = Not supported.

Moreover, knowledge sharing has a favorable and significant effect on organizational performance ($\beta = 0.194$, $p < 0.004$; $\beta = 0.223$, $p < 0.003$; $\beta = 0.139$, $p < 0.034$), supporting the hypothesis H2 (Imamoglu et al., 2019; Alrubaiee et al., 2015). Then, we found that TC positively affects digital innovation ($\beta = 0.363$, $p < 0.000$); therefore, we accepted H3, this result supported by (Li et al., 2018). Moreover, the hypothesized effect of KS on digital innovation is statistically significant ($\beta = 0.133$, $p < 00.043$); therefore, we accepted H4, which is supported by a previous study (Muafi, 2020).

In addition, we accepted H5 because a significant direct effect exists between digital innovation and OP ($\beta = 0.312$, $p < 0.000$), this result supported by previous study (Mangifera et al., 2022). Therefore, the relationship between technological culture, information sharing, and organizational performance is mediated by digital innovation. Then, we created H6, H7 to assess how employees' digital skills affect organizational performance. The result shows that Technological culture significantly and positively mediation effect on financial performance ($\beta = 0.063$, $p < 0.016$). Therefore, we accepted H6a. Previously, Yu et al. (2024); Gazi et al. (2024b); Mustafi et al. (2024); Gazi et al. (2024c) found similar results in their studies.

Furthermore, technological culture insignificantly mediation effect on operational performance ($\beta = 0.055$, $p > 0.055$). In addition, we accepted H6c because a significant mediation effect exists between technological culture, digital innovation and employee performance ($\beta = 0.112$, $p < 0.021$). The result shows that knowledge sharing have insignificantly mediation effect on OP ($\beta = 0.023$, $p > 0.126$; $\beta = 0.020$, $p > 0.227$; $\beta = 0.021$, $p > 0.149$). Therefore, we rejected H7. Moreover, measuring the moderation effect of self-efficacy on organizational performance, we developed H8, H9. Then, we found that self-efficacy has no moderation effect on technological

culture, knowledge sharing, digital innovation and organizational performance. Therefore, we rejected H8, H9. In previous studies, Hosain et al. (2024); Islam et al. (2024); Qing et al. (2023); Rahman et al. (2024); Amin et al. (2019) revealed similar result in their studies.

Thus, we can draw the conclusion that digital innovation is essential to the sustainability and performance enhancement of IT firms in Bangladesh. The two main goals of this study are to: (1) investigate the direct impact of technological culture and knowledge sharing on innovation; and (2) investigate the role that digital innovation plays as a mediator in the relationship between organizational performance, technological culture, and knowledge sharing in the context of Bangladeshi IT firms. In order to meet the goals of the study and provide answers to the research questions, the suggested research model was put to the test. The findings offer empirical proof in favor of the conceptual model since every hypothesis was validated (Azeem et al., 2021; Khin and Ho, 2018; Nawab et al., 2015; Yao et al., 2020; Zhang et al., 2024). As a result, this study answers research questions while achieving its goals. Our findings generally corroborate knowledge-based and resource-based theories that connect technology culture and knowledge exchange to digital innovation.

5.2. Theoretical implications

A theoretical contribution to this study conceptually contributes to the field of digital innovation literature, particularly in the area of organizational performance. The report emphasizes the value of investing in a technical culture as a strategic asset. The study offers several practical implications for managers in IT organizations, particularly in the context of Bangladesh. Managers should prioritize creating a technological culture that encourages experimentation and risk-taking, as this can enhance digital innovation capabilities. Additionally, fostering a culture of knowledge sharing can lead to improved organizational performance by leveraging collective expertise and fostering collaboration. Organizations should allocate resources to cultivate a culture that fosters innovation and embraces technological advancements. This model incorporated the multi-dimensions of organizational performance. Technological culture and information sharing were explored for their impact on organizational performance through digital innovation (Wei et al., 2021). According to RBV, unique and valuable resources provide long-term competitive advantages (Zhang et al., 2024). This study's findings can help us understand how a strong technical culture can provide firms with a long-term competitive advantage by allowing them to adapt to technological developments and outperform competitors. The study emphasizes the need of providing platforms and incentives for people to share their knowledge and experiences, hence boosting corporate learning and innovation (Amin and Rubel, 2020; Karim et al., 2023a; Songkajorn et al., 2022). Organizations can improve their intellectual capital by cultivating a culture of knowledge sharing, which includes both explicit and tacit information (Chen et al., 2018). This, in turn, can lead to more effective decision-making processes and innovative solutions.

Second, one notable finding of this study is the strong mediating role of digital innovation in the relationship between technological culture, knowledge sharing, and

organizational performance. This highlights the critical importance of digital innovation as a key driver of performance improvements. A possible explanation for this finding is the rapid technological advancements and increased competition in the IT sector, which necessitate continuous innovation to maintain competitiveness. Moreover, this study illustrates how digital innovation mediates the direct association between exogenous and endogenous variables and IT firm service. As a result, these findings improve our understanding of the effects of technological culture and knowledge sharing on organizational performance in the IT company services sector. The study suggests that digital innovation plays a crucial mediating role between technological culture/knowledge sharing and organizational performance. Organizations should recognize digital innovation as a pathway through which investments in technology and knowledge assets translate into tangible performance outcomes (Cuthbertson and Furseth, 2022). This model's integration of several ideas aims to paint a clear picture of the significant factors influencing the adoption of digital innovations in developing nations. It might give readers a clear knowledge of how to construct a theory that makes sense and encourage other researchers to carry out additional studies to advance this area.

5.3. Practical implications

This study adds to the empirical implications by analyzing the role of the ICT industry in technology management, as it is more efficient to conduct future research in IT firms. Given the strong positive impact of digital capability on digital innovation, IT companies should improve their digital competencies in order to better serve the needs of their expanding clientele. Future technological culture can be a significant and testable element for innovation, according to Khin and Ho (2018). Digital innovation is defined as creative digital solutions that improve the goods, services, and operations of other companies. Thus, "the development of new products, services, or solutions by using digital technology" is how we describe digital innovation. The results of this study suggest that, in this instance, electronic devices culture, sharing of knowledge, and organizational performance are mediated by digital innovation.

This shows that knowledge sharing boosting IT company innovative digital solutions' digital innovation increase OP. Furthermore, in a digital environment, an organization's technical culture improves OP; therefore, firms must build a technological culture. Organizations knowledge sharing practice inspire workers to improve digital innovation for increased performance. Likewise, a firm's futuristic, knowledge sharing practice can sustain a technological cultural environment and encourage the improvement of ICT industries' digital innovation. The study indicated that self-efficacy no affect knowledge sharing, technological culture, digital innovation and organizational performance. To increase performance, organizations should focus more on digital innovation. The study's findings have a significant impact that is reinforced by Knowledge sharing and long-term organizational success achieved through digital innovation.

5.4. Limitations and future research directions

As is typically the case, it is important to acknowledge and consider certain potential limitations of this study before interpreting its results. Only two essential elements—technological culture and knowledge sharing—are the subject of this investigation. Future researchers studying digital innovation will now have the chance to explore additional technology-related drivers of innovation, such as digital leadership, organizational variables that may spur innovation and market-related variables that cater to users' expanding digital needs. Moreover, future studies might test our concept in diverse cultural contexts in other nations. Moreover, we employed one moderating variable to determine the association between technological culture, knowledge sharing and organizational performance. Future studies can employ different variables as a moderator. However, the results are strong enough to offer empirical backing for the theories that link technological culture and knowledge sharing to organizational success and directly explain digital innovation. Along with this this study focused on the cross-sectional data therefore longitudinal data process would be valuable in the future.

5.5. Conclusion

The purpose of this study was to look at the important factors that influence the adoption of digital innovations in developing countries. Since IT organizations are the main suppliers of digital solutions that help other industries', businesses go digital and because their development will spur additional innovation in other sectors, it is imperative that they comprehend the factors that propel and affect the performance of digital innovation. This study formulated a research model by combining multidimensions of organization performance. Theoretically, by demonstrating empirically the key drivers of digital innovation that subsequently influence performance, this study expands on the resource-based view (RBV) and knowledge-based view (KBV) in the context of digital innovation. Furthermore, this study closes gaps in the literature that were noted in previous sections. Moreover, there is a dearth of research on the elements that propel innovation, especially in the context of digital technology. Consequently, by filling in these gaps in the literature and providing a way for future researchers to expand the research model, the current work enhances the body of knowledge on digital innovation.

Author contributions: Conceptualization, MAM, DP and MBA; methodology, MAM, DP and MBA; software, MBA and MAR; validation, MAM, DP, MBA and MAR; formal analysis, MBA and MAR; investigation, MBA and MAR; resources, MAM, MBA and MAR; data curation, MBA and MAR; writing—original draft preparation, MAM, DP and MBA; writing—review and editing, MAR and MA; visualization, MA; supervision, MAR and MA; project administration, MBA and MA; funding acquisition, MA. All authors have read and agreed to the published version of the manuscript.

Acknowledgements: This research was supported by the "University of Debrecen Program for Scientific Publication".

Conflict of interest: The authors declare no conflict of interest.

References

Abbas, J., Hussain, I., Hussain, S., et al. (2019). The Impact of Knowledge Sharing and Innovation on Sustainable Performance in Islamic Banks: A Mediation Analysis through a SEM Approach. Sustainability, 11(15), 4049. https://doi.org/10.3390/su11154049

Abdelwhab Ali, A., Panneer selvam, D. D. D., Paris, L., et al. (2019). Key factors influencing knowledge sharing practices and its relationship with organizational performance within the oil and gas industry. Journal of Knowledge Management, 23(9), 1806–1837. https://doi.org/10.1108/jkm-06-2018-0394

Abualoush, S., Masa'deh, R., Bataineh, K., et al. (2018). The Role of Knowledge Management Process and Intellectual Capital as Intermediary Variables between Knowledge Management Infrastructure and Organization Performance. Interdisciplinary Journal of Information, Knowledge, and Management, 13, 279–309. https://doi.org/10.28945/4088

Abubakar, A. M., Elrehail, H., Alatailat, M. A., et al. (2019). Knowledge management, decision-making style and organizational performance. Journal of Innovation & Knowledge, 4(2), 104–114. https://doi.org/10.1016/j.jik.2017.07.003

Abusweilem, M. A., & Abualous, S. (2019). The impact of knowledge management process and business intelligence on organizational performance. Management Science Letters, 2143–2156. https://doi.org/10.5267/j.msl.2019.6.020

Alrubaiee, L., Alzubi, H. M., Hanandeh, R., & Al Ali, R. (2015). Investigating the Relationship Between Knowledge Management Processes and Organizational Performance The Mediating Effect of Organizational Innovation. International Review of Management and Business Research, 4, 989-1009.

Alsharo, M., Gregg, D., & Ramirez, R. (2017). Virtual team effectiveness: The role of knowledge sharing and trust. Information & Management, 54(4), 479–490. https://doi.org/10.1016/j.im.2016.10.005

AlTaweel, I., & Al-Hawary, S. (2021). The Mediating Role of Innovation Capability on the Relationship between Strategic Agility and Organizational Performance. Sustainability, 13(14), 7564. https://doi.org/10.3390/su13147564

Amin, M. B., & Oláh, J. (2024). Effects of green HRM practices on circular economy-based performance of banking organizations in an emerging nation. Banks and Bank Systems, 19 (2), 75-87. http://dx.doi.org/10.21511/bbs.19(2).2024.06

Amin, M. B., & Rubel, M. R. B. (2020). Human resource management practices and employee knowledge sharing behavior: Mediating role of knowledge sharing intention. Asian Journal of Empirical Research, 10(5), 150–164. https://doi.org/10.18488/journal.1007/2020.10.5/1007.5.150.164

Amin, M. B., Asaduzzaman, M., Debnath, G. C., et al. (2024). Effects of circular economy practices on sustainable firm performance of green garments. Oeconomia Copernicana, 15(2), 637–682. https://doi.org/10.24136/oc.2795

Amin, M. B., Datta, R. K., & Islam, S. A. (2019). Priority based analysis of specific human resource management practices by human resource professionals: a study on private sector organizations in Bangladesh. *Journal of Science and Technology*, *59*, 66.

Asad, N., Hashmi, H. B. A., Nasir, M., et al. (2021). Transformational Leadership Relationship with Employee Creativity: The Moderating Effect of Knowledge Sharing and Mediating Effect of Creative Self-Efficacy. International Journal of Innovation, Creativity and Change, 1005–1029. https://doi.org/10.53333/ijicc2013/15913

Attar, M., Kang, K., & Sohaib, O. (2019). Knowledge Sharing Practices, Intellectual Capital and Organizational Performance. Proceedings of the 52nd Hawaii International Conference on System Sciences. https://doi.org/10.24251/hicss.2019.671

Avermaete, T., Viaene, J., Morgan, E. J., et al. (2003). Determinants of innovation in small food firms. European Journal of Innovation Management, 6(1), 8–17. https://doi.org/10.1108/14601060310459163

Awino, L. O. (2020). The influence of corporate culture on operational performance of multi-national companies in Kenya [PhD thesis]. Strathmore University).

Azeem, M., Ahmed, M., Haider, S., et al. (2021). Expanding competitive advantage through organizational culture, knowledge sharing and organizational innovation. Technology in Society, 66, 101635. https://doi.org/10.1016/j.techsoc.2021.101635

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84(2), 191–215. https://doi.org/10.1037/0033-295x.84.2.191

Bandura, A., & Wood, R. (1989). Effect of perceived controllability and performance standards on self-regulation of complex decision making. Journal of Personality and Social Psychology, 56(5), 805–814. https://doi.org/10.1037/0022-3514.56.5.805

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. Journal of Management, 17(1), 99–120. https://doi.org/10.1177/014920639101700108

Benitez, J., Castillo, A., Llorens, J., et al. (2018). IT-enabled knowledge ambidexterity and innovation performance in small U.S. firms: The moderator role of social media capability. Information & Management, 55(1), 131–143. https://doi.org/10.1016/j.im.2017.09.004

Benner, M. J., & Tushman, M. L. (2015). Reflections on the 2013 Decade Award—"Exploitation, Exploration, and Process Management: The Productivity Dilemma Revisited" Ten Years Later. Academy of Management Review, 40(4), 497–514. https://doi.org/10.5465/amr.2015.0042

Bisbey, T. M., Kilcullen, M. P., Thomas, E. J., et al. (2019). Safety Culture: An Integration of Existing Models and a Framework for Understanding Its Development. Human Factors: The Journal of the Human Factors and Ergonomics Society, 63(1), 88–110. https://doi.org/10.1177/0018720819868878

Bourdeau, S., Aubert, B., & Bareil, C. (2020). The effects of IT use intensity and innovation culture on organizational performance: the mediating role of innovation intensity. Management Research Review, 44(2), 359–380. https://doi.org/10.1108/mrr-02-2020-0068

Brachos, D., Kostopoulos, K., Eric Soderquist, K., et al. (2007). Knowledge effectiveness, social context and innovation. Journal of Knowledge Management, 11(5), 31–44. https://doi.org/10.1108/13673270710819780

Chege, S. M., Wang, D., & Suntu, S. L. (2019). Impact of information technology innovation on firm performance in Kenya. Information Technology for Development, 26(2), 316–345. https://doi.org/10.1080/02681102.2019.1573717

Chen, M.-H., Wang, H.-Y., & Wang, M.-C. (2018). Knowledge sharing, social capital, and financial performance: the perspectives of innovation strategy in technological clusters. Knowledge Management Research & Practice, 16(1), 89–104. https://doi.org/10.1080/14778238.2017.1415119

Choi, Lee, & Yoo. (2010). The Impact of Information Technology and Transactive Memory Systems on Knowledge Sharing, Application, and Team Performance: A Field Study. MIS Quarterly, 34(4), 855. https://doi.org/10.2307/25750708

Christensen, C. M., Raynor, M. E., & McDonald, R. (2015). What Is Disruptive Innovation? Harvard Business Review.

Connelly, C. E., & Kevin Kelloway, E. (2003). Predictors of employees' perceptions of knowledge sharing cultures. Leadership & Organization Development Journal, 24(5), 294–301. https://doi.org/10.1108/01437730310485815

Cuthbertson, R. W., & Furseth, P. I. (2022). Digital services and competitive advantage: Strengthening the links between RBV, KBV, and innovation. Journal of Business Research, 152, 168–176. https://doi.org/10.1016/j.jbusres.2022.07.030

Datta, P., & Roumani, Y. (2015). Knowledge-acquisitions and post-acquisition innovation performance: a comparative hazards model. European Journal of Information Systems, 24(2), 202–226. https://doi.org/10.1057/ejis.2014.32

Davoudi, S. M. M., Fartash, K., Baklashova, T. A., et al. (2018). The Impact of Technology Acquisition & Exploitation on Organizational Innovation and Organizational Performance in Knowledge-Intensive Organizations. EURASIA Journal of Mathematics, Science and Technology Education, 14(4). https://doi.org/10.29333/ejmste/84835

Deuze, M. (2006). Participation, Remediation, Bricolage: Considering Principal Components of a Digital Culture. The Information Society, 22(2), 63–75. https://doi.org/10.1080/01972240600567170

Dobni, C. B. (2008). Measuring innovation culture in organizations. European Journal of Innovation Management, 11(4), 539–559. https://doi.org/10.1108/14601060810911156

Durgadevi, R., & Vasantha, S. (2017). Organisational Culture and its Impact on Employee Performance (A Study with Reference to IT Sector Chennai). Indian Journal of Public Health Research & Development, 8(2), 315. https://doi.org/10.5958/0976-5506.2017.00133.4

Fatima, T., & Masood, A. (2023). Impact of digital leadership on open innovation: a moderating serial mediation model. Journal of Knowledge Management, 28(1), 161–180. https://doi.org/10.1108/jkm-11-2022-0872

Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2014). Embracing digital technology: A new strategic imperative. MIT sloan management review, 55(2), 1-16.

Fong, L., & Law, R. (2013). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Sage Publications.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research, 18(1), 39–50. https://doi.org/10.1177/002224378101800104

Frey, J., Holotiuk, F., & Beimborn, D. (2020). Debating Digital Innovation: A Literature Review on Realizing Value from Digital Innovation. WI2020 Zentrale Tracks, 812-827. https://doi.org/10.30844/wi_2020_h3-frey

Gächter, S., Herrmann, B., & Thöni, C. (2010). Culture and cooperation. Philosophical Transactions of the Royal Society B: Biological Sciences, 365(1553), 2651–2661. https://doi.org/10.1098/rstb.2010.0135

Gazi, M. A. I., Dhali, S., Masud, A. A., et al. (2024a). Leveraging Green HRM to Foster Organizational Agility and Green Culture: Pathways to Enhanced Sustainable Social and Environmental Performance. *Sustainability*, *16*(20), 8751. https://doi.org/10.3390/su16208751

Gazi, M. A. I., Hossain, M. M., Islam, S., et al. (2024b). CSR and Sustainable Environmental Performance: An Exploration of Mediating and Moderating Factors. *Sustainability*, *16*(19), 8499. https://doi.org/10.3390/su16198499

Gazi, M. A. I., Rahman, M. K. H., Masud, A. A., et al. (2024c). AI Capability and Sustainable Performance: Unveiling the Mediating Effects of Organizational Creativity and Green Innovation with Knowledge Sharing Culture as a Moderator. *Sustainability*, *16*(17), 7466. https://doi.org/10.3390/su16177466

Gong, Y., Kim, T.-Y., Lee, D.-R., et al. (2013). A Multilevel Model of Team Goal Orientation, Information Exchange, and Creativity. Academy of Management Journal, 56(3), 827–851. https://doi.org/10.5465/amj.2011.0177

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. Strategic Management Journal, 17(S2), 109–122. Portico. https://doi.org/10.1002/smj.4250171110

Grant, R., & Phene, A. (2021). The Knowledge Based View and Global Strategy: Past Impact and Future Potential. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3840708

Grant, S. B. (2016). Classifying emerging knowledge sharing practices and some insights into antecedents to social networking: a case in insurance. Journal of Knowledge Management, 20(5), 898–917. https://doi.org/10.1108/jkm-11-2015-0432

Guglielmi, D., Simbula, S., Schaufeli, W. B., et al. (2012). Self-efficacy and workaholism as initiators of the job demands-resources model. Career Development International, 17(4), 375–389. https://doi.org/10.1108/13620431211255842

Hair, J., Hollingsworth, C. L., Randolph, A. B., et al. (2017). An updated and expanded assessment of PLS-SEM in information systems research. Industrial Management & Data Systems, 117(3), 442–458. https://doi.org/10.1108/imds-04-2016-0130

Han, H. (Spring). (2012). The Relationship among Corporate Culture, Strategic Orientation, and Financial Performance. Cornell Hospitality Quarterly, 53(3), 207–219. https://doi.org/10.1177/1938965512443505

Hanelt, A., Firk, S., Hildebrandt, B., et al. (2020). Digital M&A, digital innovation, and firm performance: an empirical investigation. European Journal of Information Systems, 30(1), 3–26. https://doi.org/10.1080/0960085x.2020.1747365

Harianto, Y., Asdar, M., & Alam, S. (2020). The Influence of Organizational Culture on Organizational Commitment and Job Satisfaction and Its Impact on Employee Performance. Hasanuddin Journal of Business Strategy, 2(3), 38–50. https://doi.org/10.26487/hjbs.v2i3.356

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In: Sinkovics, R. R. & Ghauri, P. N. (editors). New Challenges to International Marketing. Emerald Group Publishing Limited. Vol. 20. pp. 277-319. https://doi.org/10.1108/S1474-7979(2009)0000020014

Hilmarsson, E., Oskarsson, G., & Gudlaugsson, T. (2014). The relationship between innovation culture and innovation performance. International Journal of Business Research, 14(1), 86–95. https://doi.org/10.18374/ijbr-14-1.8

Hogan, S. J., & Coote, L. V. (2014). Organizational culture, innovation, and performance: A test of Schein's model. Journal of Business Research, 67(8), 1609–1621. https://doi.org/10.1016/j.jbusres.2013.09.007

Hosain, M. S., Amin, M. B., Imam, H., et al. (2024). The spillover effect of a part-time job experience on the performance of subsequent full-time job: Empirical evidence from Hungary. *Social Sciences & Humanities Open*, *10*, 101023. https://doi.org/10.1016/j.ssaho.2024.101023

Huang, K.-E., Wu, J.-H., Lu, S.-Y., et al. (2016). Innovation and technology creation effects on organizational performance. Journal of Business Research, 69(6), 2187–2192. https://doi.org/10.1016/j.jbusres.2015.12.028

Imamoglu, S. Z., Ince, H., Turkcan, H., et al. (2019). The Effect of Organizational Justice and Organizational Commitment on Knowledge Sharing and Firm Performance. Procedia Computer Science, 158, 899–906. https://doi.org/10.1016/j.procs.2019.09.129

Islam, M. S., Rubel, M. R. B., Rimi, N. N., et al. (2024). Attaining Sustainable Excellence: Investigating the Impact of Sustainable SCM and Circular Economy on Green Garment Industry in Bangladesh. *Sustainable Futures*, 100234. https://doi.org/10.1016/j.sftr.2024.100234

Islam, Md. A., Khan, M. A., Ramayah, T., et al. (2011). The Adoption of Mobile Commerce Service among Employed Mobile Phone Users in Bangladesh: Self-efficacy as a Moderator. International Business Research, 4(2). https://doi.org/10.5539/ibr.v4n2p80

Jantunen, A. (2005). Knowledge-processing capabilities and innovative performance: an empirical study. European Journal of Innovation Management, 8(3), 336–349. https://doi.org/10.1108/14601060510610199

Jennings, S. (2018). Theatre, ritual and transformation. Routledge. https://doi.org/10.4324/9781315788098

Kaiser, H. F. (1974). An index of factorial simplicity. Psychometrika, 39(1), 31–36. https://doi.org/10.1007/bf02291575

Karim, M. M., Amin, M. B., Ahmed, H., et al. (2023a). The influence of leadership styles on employee performance in telecom companies of Bangladesh. Problems and Perspectives in Management, 21(3), 671-681. http://dx.doi.org/10.21511/ppm.21(3).2023.52

Karim, M. R., Nordin, N., Yusof, M. F., et al. (2023b). Does ERP implementation mediate the relationship between knowledge management and the perceived organizational performance of the healthcare sector? Evidence from a developing country. Cogent Business & Management, 10(3). https://doi.org/10.1080/23311975.2023.2275869

Khin, S., & Ho, T. C. (2019). Digital technology, digital capability and organizational performance. International Journal of Innovation Science, 11(2), 177–195. https://doi.org/10.1108/ijis-08-2018-0083

Kline, R. B. (2023). Principles and practice of structural equation modeling. Guilford publications.

Kock, N. (2015). Common Method Bias in PLS-SEM. International Journal of E-Collaboration, 11(4), 1–10. https://doi.org/10.4018/ijec.2015100101

Koufteros, X., Verghese, A. (John), & Lucianetti, L. (2014). The effect of performance measurement systems on firm performance: A cross-sectional and a longitudinal study. Journal of Operations Management, 32(6), 313–336. Portico. https://doi.org/10.1016/j.jom.2014.06.003

Kurilova, A., & Antipov, D. (2020). Impact of digital innovation on company performance. IOP Conference Series: Materials Science and Engineering, 986(1), 012022. https://doi.org/10.1088/1757-899x/986/1/012022

Lestariningsih, M. (2017). Self Efficacy and Achievement Motivation on Performance with Perceived Organizational Support Moderation (A study on private university lecturer with qAq Accreditation Kopertis Region VII East Java).In: Proceedings of the 2017 International Conference on Organizational Innovation (ICOI 2017). https://doi.org/10.2991/icoi-17.2017.20

Li, W., Bhutto, T. A., Nasiri, A. R., et al. (2017). Organizational innovation: the role of leadership and organizational culture. International Journal of Public Leadership, 14(1), 33–47. https://doi.org/10.1108/ijpl-06-2017-0026

Li, W., Bhutto, T. A., Nasiri, A. R., et al. (2017). Organizational innovation: the role of leadership and organizational culture. International Journal of Public Leadership, 14(1), 33–47. https://doi.org/10.1108/ijpl-06-2017-0026

Liu, Y., Wang, H., Chen, J., et al. (2020). Emergency management of nursing human resources and supplies to respond to coronavirus disease 2019 epidemic. International Journal of Nursing Sciences, 7(2), 135–138. https://doi.org/10.1016/j.ijnss.2020.03.011

Lukas, B. A., Whitwell, G. J., & Heide, J. B. (2013). Why do Customers Get more than They Need? How Organizational Culture Shapes Product Capability Decisions. Journal of Marketing, 77(1), 1–12. https://doi.org/10.1509/jm.10.0182

Lundvall, B., & Nielsen, P. (2007). Knowledge management and innovation performance. International Journal of Manpower, 28(3/4), 207–223. https://doi.org/10.1108/01437720710755218

Mahmud, A., Ding, D., Hasan, M., et al. (2022). Employee psychological reactions to micro-corporate social responsibility and societal behavior: A structural equation modeling analysis. Current Psychology, 42(20), 17132–17146. https://doi.org/10.1007/s12144-022-02898-2

Mangifera, L., Wajdi, F., Amalia, F., et al. (2022). The Role of Digital Innovation in SMEs: A Financial Performance Perspective. Jurnal Manajemen Universitas Bung Hatta, 17(2), 157–170. https://doi.org/10.37301/jmubh.v17i2.20184

Mar Fuentes-Fuentes, M., Albacete-Sáez, C. A., & Lloréns-Montes, F. J. (2004). The impact of environmental characteristics on TQM principles and organizational performance. Omega, 32(6), 425–442. https://doi.org/10.1016/j.omega.2004.02.005

Martínez-Caro, E., Cepeda-Carrión, G., Cegarra-Navarro, J. G., et al. (2020). The effect of information technology assimilation on firm performance in B2B scenarios. Industrial Management & Data Systems, 120(12), 2269–2296. https://doi.org/10.1108/imds-10-2019-0554

Masa'deh, R., Obeidat, B. Y., & Tarhini, A. (2016). A Jordanian empirical study of the associations among transformational leadership, transactional leadership, knowledge sharing, job performance, and firm performance. Journal of Management Development, 35(5), 681–705. https://doi.org/10.1108/jmd-09-2015-0134

Masoud, R., & Basahel, S. (2023). The Effects of Digital Transformation on Firm Performance: The Role of Customer Experience and IT Innovation. Digital, 3(2), 109–126. https://doi.org/10.3390/digital3020008

Mollah, M. A., Amin, M. B., Debnath, G. C., et al. (2024). Nexus among Digital Leadership, Digital Transformation, and Digital Innovation for Sustainable Financial Performance: Revealing the Influence of Environmental Dynamism. *Sustainability*, *16*(18), 8023. https://doi.org/10.3390/su16188023

Muafi, M. (2020). A Nexus among Strategic Orientation, Social Network, Knowledge Sharing, Organizational Innovation, and MSMEs Performance. The Journal of Asian Finance, Economics and Business, 7(6), 327-338. https://doi.org/10.13106/jafeb.2020.vol7.no6.327

Muhammed, S., & Zaim, H. (2020). Peer knowledge sharing and organizational performance: the role of leadership support and knowledge management success. Journal of Knowledge Management, 24(10), 2455–2489. https://doi.org/10.1108/jkm-03-2020-0227

Mustafi, M. A. A., Dong, Y. J., Hosain, M. S., et al. (2024). Green Supply Chain Management Practices and Organizational Performance: A Mediated Moderation Model with Second-Order Constructs. *Sustainability*, *16*(16), 6843. https://doi.org/10.3390/su16166843

Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital Innovation Management: Reinventing Innovation Management Research in a Digital World. MIS Quarterly, 41(1), 223-238. https://doi.org/10.25300/misq/2017/41:1.03

Nawab, S., Nazir, T., Zahid, M. M., et al. (2015). Knowledge Management, Innovation and Organizational Performance. International Journal of Knowledge Engineering-IACSIT, 1(1), 43–48. https://doi.org/10.7763/ijke.2015.v1.7

Nazarian, A., Atkinson, P., & Foroudi, P. (2017). Influence of national culture and balanced organizational culture on the hotel industry's performance. International Journal of Hospitality Management, 63, 22–32. https://doi.org/10.1016/j.ijhm.2017.01.003

Nonaka, I., & Takeuchi, H. (1995). The knowledge-creating company: How Japanese companies create the dynamics of innovation. Long Range Planning, 29(4), 592-617. https://doi.org/10.1016/0024-6301(96)81509-3

Novaes, V. P., Ferreira, M. C., Mendonça, H., et al. (2020). Antecedents and consequents of prosperity at work: a mediation-moderation model. ram. Revista de Administração Mackenzie, 21(1). https://doi.org/10.1590/1678-6971/eramd200107

O'brien, R. M. (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors. Quality & Quantity, 41(5), 673–690. https://doi.org/10.1007/s11135-006-9018-6

Olan, F., Liu, S., Neaga, I., et al. (2016). How knowledge sharing and business process contribute to organizational performance: Using the fsQCA approach. Journal of Business Research, 69(11), 5222–5227. https://doi.org/10.1016/j.jbusres.2016.04.116

Pangil, F., & Moi Chan, J. (2014). The mediating effect of knowledge sharing on the relationship between trust and virtual team effectiveness. Journal of Knowledge Management, 18(1), 92–106. https://doi.org/10.1108/jkm-09-2013-0341

Podrug, N., Filipović, D., & Kovač, M. (2017). Knowledge sharing and firm innovation capability in Croatian ICT companies. International Journal of Manpower, 38(4), 632–644. https://doi.org/10.1108/ijm-04-2016-0077

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., et al. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Proksch, D., Rosin, A. F., Stubner, S., et al. (2021). The influence of a digital strategy on the digitalization of new ventures: The mediating effect of digital capabilities and a digital culture. Journal of Small Business Management, 62(1), 1–29. https://doi.org/10.1080/00472778.2021.1883036

Qing, W., Amin, M. B., Gazi, M. A. I., et al. (2023). Mediation effect of technology adaptation capabilities between the relationship of service quality attributes and customer satisfaction: an investigation on young customers perceptions toward e-commerce in China. *IEEE Access*, *11*, 123904-123923. https://doi.org/10.1109/ACCESS.2023.3328775

Rahman, M. H., Amin, M. B., Yusof, M. F., et al. (2024). Influence of teachers' emotional intelligence on students' motivation for academic learning: an empirical study on university students of Bangladesh. *Cogent Education*, *11*(1), 2327752. https://doi.org/10.1080/2331186X.2024.2327752

Rahman, N. (2020). Understanding the Impact of Knowledge Sharing through Enterprise Social Networking (ESN) on Service Innovation. In: Proceedings of the 53rd Hawaii International Conference on System Sciences. https://doi.org/10.24251/hicss.2020.600

Sackmann, S. A. (2010). Culture and Performance. The Handbook of Organizational Culture and Climate, 188–224. https://doi.org/10.4135/9781483307961.n12

Sethibe, T., & Steyn, R. (2016). Innovation and organisational performance: A critical review of the instruments used to measure organisational performance. The Southern African Journal of Entrepreneurship and Small Business Management, 8(1), 12. https://doi.org/10.4102/sajesbm.v8i1.50

Shahneaz, M. A., Amin, M. B., & Eni, L. N. (2020). The Interplay between the psychological factors and entrepreneurial intention: An empirical investigation. The Journal of Asian Finance, Economics and Business (JAFEB), 7(12), 139-146. http://dx.doi.org/ 10.13106/jafeb.2020.vol7.no12.139

Shin, J., Mollah, M. A., & Choi, J. (2023). Sustainability and Organizational Performance in South Korea: The Effect of Digital Leadership on Digital Culture and Employees' Digital Capabilities. Sustainability, 15(3), 2027. https://doi.org/10.3390/su15032027

Silwal, P. P. (2021). Corporate cultures and financial performance: The mediating role of firm innovation. Cogent Business & Management, 9(1). https://doi.org/10.1080/23311975.2021.2010480

Singh, A. K., Verma, J., & Verma, R. (2019). Understanding Role of Market-orientated IT Competence and Knowledge Sharing Mechanism in Gaining Competitive Advantage. Global Business Review, 21(2), 418–435. https://doi.org/10.1177/0972150918824949

Songkajorn, Y., Aujirapongpan, S., Jiraphanumes, K., et al. (2022). Organizational Strategic Intuition for High Performance: The Role of Knowledge-Based Dynamic Capabilities and Digital Transformation. Journal of Open Innovation: Technology, Market, and Complexity, 8(3), 117. https://doi.org/10.3390/joitmc8030117

Soto-acosta, P., Popa, S., & Palacios-marqués, D. (2015). E-business, organizational innovation and firm performance in manufacturing smes: an empirical study in spain. Technological and Economic Development of Economy, 22(6), 885–904. https://doi.org/10.3846/20294913.2015.1074126

Sutanto, E. M. (2017). The influence of organizational learning capability and organizational creativity on organizational innovation of Universities in East Java, Indonesia. Asia Pacific Management Review, 22(3), 128–135. https://doi.org/10.1016/j.apmrv.2016.11.002

Tajuddin, M. Z. M., Iberahim, H., & Ismail, N. (2015). Relationship between Innovation and Organizational Performance in Construction Industry in Malaysia. Universal Journal of Industrial and Business Management, 3(4), 87–99. https://doi.org/10.13189/ujibm.2015.030402

Tian, M., Deng, P., Zhang, Y., et al. (2018). How does culture influence innovation? A systematic literature review. Management Decision, 56(5), 1088–1107. https://doi.org/10.1108/md-05-2017-0462

Uddin, M. J., Luva, R. H., & Hossain, S. M. M. (2012). Impact of Organizational Culture on Employee Performance and Productivity: A Case Study of Telecommunication Sector in Bangladesh. International Journal of Business and Management, 8(2). https://doi.org/10.5539/ijbm.v8n2p63

van Wijk, J., Stam, W., Elfring, T., et al. (2013). Activists and Incumbents Structuring Change: The Interplay of Agency, Culture, and Networks in Field Evolution. Academy of Management Journal, 56(2), 358–386. https://doi.org/10.5465/amj.2008.0355

Varadarajan, R. (2020). Customer information resources advantage, marketing strategy and business performance: A market resources based view. Industrial Marketing Management, 89, 89–97. https://doi.org/10.1016/j.indmarman.2020.03.003

Vlasov, M., Polbitsyn, S. N., Olumekor, M., et al. (2022). The Influence of Socio-Cultural Factors on Knowledge-Based Innovation and the Digital Economy. Journal of Open Innovation: Technology, Market, and Complexity, 8(4), 194. https://doi.org/10.3390/joitmc8040194

Wambugu, L. W. (2014). Effects of Organizational Culture on Employee Performance (Case Study of Wartsila-Kipevu Ii Power Plant). European Journal of Business and Management, 6 (23), 80-92.

Wang, C. L., & Ahmed, P. K. (2004). The development and validation of the organisational innovativeness construct using confirmatory factor analysis. European Journal of Innovation Management, 7(4), 303–313. https://doi.org/10.1108/14601060410565056

Wang, Z., Wang, N., & Liang, H. (2014). Knowledge sharing, intellectual capital and firm performance. Management Decision, 52(2), 230–258. https://doi.org/10.1108/md-02-2013-0064

Wei, S., Xu, D., & Liu, H. (2021). The effects of information technology capability and knowledge base on digital innovation: the moderating role of institutional environments. European Journal of Innovation Management, 25(3), 720–740. https://doi.org/10.1108/ejim-08-2020-0324

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

White, J. B. (2002). Legal Knowledge. Harvard Law Review, 115(5), 1396. https://doi.org/10.2307/1342550

Wibawa, W. M. S., & Takahashi, Y. (2021). The Effect of Ethical Leadership on Work Engagement and Workaholism: Examining Self-Efficacy as a Moderator. Administrative Sciences, 11(2), 50. https://doi.org/10.3390/admsci11020050

Williams, L. J., & Anderson, S. E. (1991). Job Satisfaction and Organizational Commitment as Predictors of Organizational Citizenship and In-Role Behaviors. Journal of Management, 17(3), 601–617. https://doi.org/10.1177/014920639101700305

Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. Journal of Personality and Social Psychology, 56(3), 407–415. https://doi.org/10.1037/0022-3514.56.3.407

Xanthopoulou, D., Bakker, A. B., Demerouti, E., et al. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. Journal of Vocational Behavior, 74(3), 235–244. https://doi.org/10.1016/j.jvb.2008.11.003

Yao, J., Crupi, A., Di Minin, A., et al. (2020). Knowledge sharing and technological innovation capabilities of Chinese software SMEs. Journal of Knowledge Management, 24(3), 607–634. https://doi.org/10.1108/jkm-08-2019-0445

Yesil, S., & Kaya, A. (2013). The Effect of Organizational Culture on Firm Financial Performance: Evidence from a Developing Country. Procedia - Social and Behavioral Sciences, 81, 428–437. https://doi.org/10.1016/j.sbspro.2013.06.455

Yu, X., Amin, M. B., Olga, P., et al. (2024). Gender-based emergency response and crisis management knowledge assessment: A cross-sectional study on Chinese tertiary student. *International Journal of Disaster Risk Reduction*, *112*, 104800. https://doi.org/10.1016/j.ijdrr.2024.104800

Zhang, J., Jehangir, F. N., Yang, L., et al. (2024). Competitive Advantage and Firm Performance: The Role of Organizational Culture, Organizational Innovation, and Knowledge Sharing. Journal of the Knowledge Economy. https://doi.org/10.1007/s13132-024-01910-3

Appendix: Questionnaire

Constructs	Items and Code	Source
Knowledge sharing (KS)	KS1. routinely share knowledge using digital technologies KS2. routinely seek out knowledge using digital technologies KS3. routinely share ideas openly using digital technologies KS4. the team is good at using team members' knowledge KS5. colleagues are willing to help others through digital technologies KS6. colleagues keep their best ideas	Pangil and Chan (2014); Alsharo et al. (2017)
Technological Culture	DC1: We openly discuss failures with all team members. DC2: Decisions are based on the opinion of the whole team, not on a single person only. DC3: We work in cross-functional teams (combining people from IT, marketing, finance, etc.). DC4: In our company, we avoid strong hierarchies in project work. DC5: Every team member brings in ideas and suggestions for digital products and services.	Lukas et al. (2013); Proksch et al. (2021); Shin et al. (2023)
Self-Efficacy	SE1I have the ability to identify business opportunities. SE2I have the innovation and product development skills. SE3I have the ability to develop and maintenance of an innovative environment. SE4I am confident in my ability to identify new business opportunities successfully. SE5I have interpersonal and networking management skills. SE6I am confident in my ability to commercialize an organization successfully.	Novaes et al. (2020)
Financial performance	FNP1 Net profits of our organization is better than our key competitors FNP2 Profit/revenue of our organization is better than our key competitors FNP3 Cash flow of our organization is better than our key competitors	Muhammed and Zaim (2020)
Digital innovation	DI1. The quality of our digital solutions is superior compared to our competitors' DI2. The features of our digital solutions are superior compared to our competitors' DI3. The applications of our digital solutions are totally different from our competitors' DI4. Our digital solutions are different from our competitors in terms of product platform DI5. Our new digital solutions are minor improvements of existing products DI6.Some of our digital solutions are new to the market at the time of launching	Khin and Ho (2018)
Operational performance	OP1. Increase the innovation of working practices OP2. Enhance the development of integrated solutions OP3. Promote operational improvements OP4. Increase productivity OP5. Improve employee performance in their operations OP6. The products/services quality to meet or exceed customer's demands.	Koufteros et al. (2014); Mar Fuentes-Fuentes et al. (2004)
Employee performance	EP1. Adequately completes assigned duties. EP2. Fulfills responsibilities specified in job description. EP3. Performs tasks that are expected of him/her. EP4. Meets formal performance requirements of the job. EP5. Engages in activities that will directly affect his/her performance evaluation. EP6. Neglects aspects of the job he/she is obligated to perform. EP7. Fails to perform essential duties.	Williams and Anderson (1991)