

**DIGITAL STRATEGIC ORIENTATION AND FIRM'S
PERFORMANCE: THE MODERATING EFFECT OF
ENVIRONMENTAL UNCERTAINTY****Alshourah S., Altawalbeh M., Mansour M.,
Al Haraisa Y., Al-Kharabsheh A. ***

Abstract: Increasingly, digitization is seen as a strategic approach for firms to improve their performance. Recent studies have indicated a failure in the digital transformation process towards improving company performance, which may be due to environmental uncertainty. Thus, this study aims to examine the influence of digital strategic orientation on a firm's performance and explain the moderating role of environmental uncertainty on the relationship between digital strategic orientation and a firm's performance in the context of Jordanian services and manufacturing companies. A total of 186 surveys were collected from managers at the Amman Stock Exchange in Jordan. Factor analysis was used to assess construct commonalities, and correlation multiple regression analysis was used to examine the relationship between constructs. Overall, this study revealed that digital strategic orientation and environmental uncertainty positively impact a firm's performance. Additionally, the results demonstrate that environmental uncertainty moderates the effect of digital strategic orientation on a firm's performance. This study can raise the attentiveness of managers of service and manufacturing firms' tendencies for policy-making to improve their firm's performance through digital strategic orientation. The study's findings will also assist managers in developing digital strategies within their organizations to help them create plans based on how uncertain they believe the environment to be and the resource perspective that defines the digital orientation as a strategy in line with the firm's performance.

Key words: digital strategic orientation, firm's performance, environmental uncertainty, resource-based view

DOI: 10.17512/pjms.2023.28.2.01

Sultan Alshourah, Ph.D., in Management Science, Zarqa University, Zarqa, Jordan;

✉ corresponding author: salshourah@zu.edu.jo,

ORCID: 0000-0001-9941-2707

Manal Altawalbeh, Ph.D., in Educational Technology, Middle East University, Amman, Jordan;

✉ email: maltawalbeh@meu.edu.jo,

ORCID: 0000-0003-2638-2329

Maan Mansour, Ph.D., in Management Science, Zarqa University, Zarqa, Jordan;

✉ email: mmansour@zu.edu.jo,

ORCID: 0000-0002-6687-876X

Yazan Al Haraisa, Ph.D., in Management Science, Tafila University, Tafila, Jordan;

✉ email: y.alhariza@ttu.edu.jo,

ORCID: 0000-0002-6832-8673

Abdulrahman Al-Kharabsheh, Ph.D., in Management Science, Zarqa University, Zarqa, Jordan;

✉ email: aalkarabsheh@zu.edu.jo,

ORCID: 0009-0009-4659-440X

Article history:

Received July 28, 2023; Revised October 05, 2023; Accepted October 20, 2023

Introduction

Business firms' digitalization across various manufacturing and service businesses empowered by new digital tools, such as the Internet of Things, cloud computing, big data analytics, and artificial intelligence, is an initial phenomenon (Jiang et al., 2023; Min and Kim, 2022; Khin and Ho, 2018; Yang et al., 2023). An effective strategy approach with maximum frequency is the most significant aspect of digital transformation, according to Mahmoud et al. (2019), who conducted a systematic analysis of the literature from 2008 to 2018 and found 12 issues and challenges. They found that 17% of these papers said that the complexity of digital transformation projects is frequently caused by the absence of a successful plan. Additionally, how to create plans for the target market because of the global digital revolution, the rising level of uncertainty in the business environment, and the intensifying market competition using digitization to boost company performance has emerged as a major challenge for business managers (Pan et al., 2021; Li et al., 2020; Blackburn et al., 2020; Bharadwaj et al., 2013; Zhang et al., 2022). Recent research has shown that although adopting digital strategy orientations ultimately improves firm performance; it might be challenging to pinpoint their exact link in the volatile business climate of today (Yang et al., 2023). Therefore, researchers started to focus on potential moderators, like environmental uncertainty factors, which have attracted much attention (Blackburn et al., 2020). In the business environment existing today, companies are being pressured to rethink their business models, products, and processes, given the challenges and opportunities presented, continuously obtaining and maintaining competitive advantages and creating excellent performance (Jiang et al., 2023; Min and Kim, 2022; Li et al., 2020; Blackburn et al., 2020; Bharadwaj et al., 2013). Finally, based on the latest World Economic Forum (2023) report on the future of jobs, Businesses and occupations are also changing. According to Qi et al. (2020), digital technology has lowered informational barriers in supply and demand markets, sped up market data dissemination, and successfully addressed the issue of oversupply in conventional industries.

The digital transformation and the digital economy are mainly based on communications and information technology, as indicated by the percentage of the contribution of the communications and information technology sector, including modern digital technologies. The Information and Communication Technology (ICT) and digitalization sectors in Jordan contribute more than 10% of Jordan's GDP, and the rate of digital transformation in Jordan reached 19% in 2023 (MICT 2022). According to Shehadeh et al. (2023), the Jordanian government is making special efforts in digital transformation and has developed the plan "REACH 2025" to digitize almost every firm, sector, and individual. They argue that this vision contains seven variables: "smart specialization and demand-driven innovation, public sector innovation, tech start-ups and entrepreneurs, ICT skills, capacity, and

talent, an enabling business environment, smart digital economy infrastructure, and governance". This plan highlights that by 2025, Jordan's digital economy will create up to 150,000 additional jobs and 5,000 to 7,000 new start-ups (MICT 2022; Shehadeh et al., 2023). Regarding digital transformation in developing countries, current studies indicate that it is still in its infancy stage (Adaileh and Alshawawreh, 2021), and most studies are in developed countries (Ahmed et al., 2022). Moreover, Al-Khatib (2023) indicated that there is still a lack of empirical research and a theoretical model on the effect of the strategy of digital orientation on the business's performance in Jordan. Thus, this study aims to help bridge this gap by studying the digital strategic direction and its impact on performance under the influence of the application of digital technologies in the Jordanian manufacturing and service sectors.

However, while it seems scientifically and practically that digital orientation in business organizations today is significantly understood as a strategic effort to improve competitive advantage and business performance, there are few empirical studies to prove this relationship (Al Dabbas, 2023; Yayla et al., 2012; Ahmed et al., 2022; Haarhaus and Liening, 2020; Heubeck et al., 2023; Pashutan et al., 2022; Quinton et al., 2018; Mahmood et al., 2019; Bharadwaj et al., 2013). In addition, previous studies have indicated that most of them study the effect of individual digital technology initiatives on corporate performance or competitive advantage without focusing on a specific sector, such as applications of the Internet of Things (IoT) (no effect on performance) (Saunila et al., 2021), analytics of big data (positive effect on corporate performance) (Yu et al., 2022; Haarhaus and Liening, 2020; Kindermann et al., 2021; Mahmood et al., 2019; Bharadwaj et al., 2013; Warner and Wager, 2019; Yang et al., 2023). Yet, in the previous studies available, environmental uncertainty factors, such as environmental dynamism and environmental competitiveness (supplementing dynamism) of the central organization, are scarcely considered when examining the relationship between digital orientation and firms' performance (Min and Kim, 2022; Li et al., 2020; Blackburn et al., 2020; Heubeck et al., 2023). Based on research gaps, it is thus essential to study and analyze the relationship among the strategic digital orientation dimensions, operational and financial performance as dimensions of firm performance, and environmental dynamism and environmental competitiveness as dimensions of environmental dynamism in a context like Jordan, drawing on the resource-based view theory (Barey, 1991). Therefore, the following study questions are:

- Does digital strategic orientation translate into a better firm's performance?
- Does environmental uncertainty impact a firm's performance?
- Does environmental uncertainty moderate the relationship between digital strategic orientation and a firm's performance?

Literature Review

The importance of strategic orientation in matters relating to digital transformation has been emphasized in recent research (Nasiri et al., 2022; Niemand et al., 2021; McKenny et al., 2018; Yang et al., 2023), including the implementation of digital strategies (McKenny et al., 2018; Yeow et al., 2018), the digitalization of business models (Blackburn et al., 2020), and the change to value creation in business digital (Yu et al., 2022; Quinton et al., 2018). Previous studies and reports on digital strategy orientation have recently been undertaken in various industries, but there is still debate regarding its definition and significance (Nasiri et al., 2022; Yu and Moon, 2021). Wang (2022) discovered a positive and significant relationship between a company's digital orientation and the firm's performance in a Chinese environment. The study points out that the digital strategy orientation aims to enhance organizational performance by using "digital resources to create value to affect the company's business strategy". Reis et al. (2018) argue that administrators must modify their business strategies to adopt the new digital reality, particularly in operations management, based on a systematic review of 26 peer-reviewed studies about digital strategic orientation. They discussed the possibility that some of the opportunities and difficulties associated with guiding digital strategy for firms may not have been fully appreciated by earlier studies. Additionally, a digital orientation may have unforeseen negative effects on the efficiency of a company and organizational performance. It should be mentioned that less research has been done on the effects of digital orientation on organizational performance in terms of operational and financial performance (Bendig et al., 2023).

Recently, according to Warner and Wager (2019), digital orientation is "an ongoing process of using new digital technologies in everyday organizational life, which recognizes agility as the core mechanism for the strategic renewal of an organization's business model, collaborative approach, and eventually the culture". The digital orientation was suggested by Kindermann et al. (2021) as a new strategic orientation to attain superior performance and competitive advantage, and it consists of four dimensions, namely: "the scope of digital technology, digital capabilities, capturing the coordination of the digital ecosystem, and finally, the formation of digital architecture. Besides, with 105 SMEs and IT businesses in Malaysia, Khin and Ho (2018) identified digital orientation and digital capability as digital strategic orientation dominance positively impacts an organization's performance. They discussed how companies should seize the opportunity of emerging digital technologies by upgrading their digital capabilities and commitment to adopting new digital technologies and enhancing corporate performance (Yu and Moon, 2021). In this research, digital orientation is perceived as a technology orientation in the context of digital capabilities and technology and is defined as "company commitment towards the application of digital technology and the development of its technological capabilities to provide innovative products, services, and solutions." Based on this definition, digitally oriented companies with more technological capabilities tend to adopt digital initiatives quickly and with

commitment, enhancing company performance (Bendig et al., 2023). Therefore, this study adopts technology orientation and digital capabilities as indicators; thus, the research and tracking measurements used in Khin and Ho (2018) for the performance of directing the digital strategy.

The success rate of such a digital transformation is very low due to rapid technological changes. Companies today face obstacles in estimating investment plans in the digital transformation process and its influence on corporate performance; it has a variety of causes, environmental uncertainty being one of them (Bendig et al., 2023; Pashutan et al., 2022; Haarhaus and Liening, 2020; Min and Kim, 2022). Forecasting is impossible in uncertain conditions, and decisions in these conditions will be rife with error (Chen et al., 2010). Thus, considering environmental uncertainty as an effective element in digital transformation is necessary (Bendig et al., 2023). Environmental uncertainty refers to "unpredictable environmental conditions due to huge and rapid changes" (Magerakis and Habib, 2021). Resource-based view theory has covered capabilities and resources in the firm that link environmental strategy and corporate performance (Barney, 1991). In addition, Mahmoud et al. (2019) revealed that 16% demonstrate that rapid technological change has substantially contributed to the failure of digital transformation. According to Zhou and Li's (2010) assessment of 380 companies, the new strategic orientations are significant drivers of adaptable capability, a crucial component of dynamic capacities. They also note that market conditions affect how effective strategic orientations are. Customer orientation technology is especially less effective as market demand gets more erratic. Accordingly, Miller and Friesen (1983) suggest a multidimensional construct comprising three broad components: heterogeneity, which is related to the diversity of the environment, such as production and marketing orientation; dynamism, which captures the instability of the environment; and hostility, which is related to the degree of environmental threat that businesses experience (Yayla and Hu, 2012). Based on previous studies, environmental uncertainty is an essential factor influencing digital strategic orientation and organizational performance since it captures the degree of predictability, the degree of instability, and the need for information in decision-making (Mahmoud et al., 2019; Yayla and Hu, 2012). However, this study focuses on environmental dynamism and environmental competitiveness.

Hypotheses and Framework Devolvement

Recently, some studies have presented a positive and significant relationship between digital strategy orientation and farms' performance in various industries and countries (Teng et al., 2022; Yu and Moon, 2021; Wang, 2022; Kindermann et al., 2021; Bendig et al., 2023; Petkovski et al., 2022; Yang et al., 2023). Moreover, previous studies have shown that digital orientation can pave the way for job and functional changes, leading to operational advantages, cost efficiency, and finances and enhancing corporate competitive advantages via monitoring (Pan et al., 2021).

Prior studies have, however, noted that the high failure rate for digital investments, which can exceed 80%, shows a lack of knowledge on how to turn digital

transformation into unprofitable outcomes (Niemand et al., 2021). Using data from significant US organizations older than 16 years, Kindermann et al. (2021) confirmed creating digital orientation by connecting it to corporate performance. Their research revealed an association between the digital orientation scale of "digital technology, digital capabilities, and firm performance" that is favorable. In a study by Nasiri et al. (2022), a survey of 162 companies found strategic orientation and operational performance to have a positive relationship. Through the Finnish enterprises, Yu and Moon (2021) uncovered evidence that companies with strong digital representation in their strategies adopt digital direction and perform better than companies without such representation. They suggested that managers and the people accountable are crucial in designing digital strategies that represent operations and outcomes for the organization's performance. In another study in 33 European countries, Petkovski et al. (2022) found a favorable correlation between the growth of digitalization and competitiveness. Digital orientation and environmental performance have a favorable and significant association, according to the research of Bendig et al. (2023) on 515 American enterprises. They advised managers to strengthen their organizations' digital orientation to increase their businesses' environmental performance and competitive advantage. Data from 515 U.S. companies used to evaluate the hypotheses by Bendig et al. (2023) found that a firm's digital orientation significantly and positively impacts performance. A similar study by Guo et al. (2020) revealed a positive relationship between technology orientation, consumer orientation, and the performance of start-ups. Finally, Khin and Ho (2018) found that technology orientation and digital capabilities as digital strategy indicators positively affect organizational performance. Thus, we think that enterprises in stormy environments will be more operative in pushing their strategic digital orientations into practice, thus reaching better benefits and enhancing managerial performance.

According to Gordon and Narayanan (1984), environmental uncertainty is the manager's perception of the workplace environment that will affect organizational performance. Accurately understanding external and non-financial conditions is also important. The dynamic nature of the company's business environment influences its organizational performance (García-Sánchez, 2018). The business environment is depicted by various features, which comprise the complexity, hostility, and dynamics that impact organizational performance. According to Bryson (2018), decision-making by executives in complex, dynamic situations frequently involve the highest level of uncertainty, so they must offer workable ways to direct the firm toward accomplishing its goals. In another study by Adhikara et al. (2022), the results showed that environmental uncertainty (environmental competitiveness) positively affects organizational performance in the Indonesian healthcare industry. Numerous studies (Shehadehet al., 2023; Yayla and Hu, 2012; Pashutan et al., 2022; Ukko et al., 2019; Min and Kim, 2022) have recognized the encouraging effects of digital orientation (business alignment) on organizational performance, but our knowledge of contingent factors as a moderating variable is still limited due to the

complexity of contingencies. However, some of the presented studies confirm the increased use of digital strategic orientation and organizational performance via environmental uncertainty (Ahammad et al., 2021; Shehadehet al., 2023; Yayla and Hu, 2012; Pashutan et al., 2022; Ukko et al., 2019; Min and Kim, 2022). According to Sabherwal et al. (2019), there is an inverse relationship between environmental dynamism or complexity and the interaction effect between strategic IT alignment and IT expenditure on business performance. Ahmed et al. (2022) found that environmental dynamics curb SMEs' ability to transform their digital platforms' capabilities into growing intellectual capital. Specifically, their results suggest that in dynamic, complex, and hostile environments, strategic information technology alignment does reflect a capability that enhances the positive effect of information technology investment on firm performance. It stands to reason that firms possessing better dynamics and complexity have a greater chance of achieving organizational performance. Evidence from the survey of Chinese manufacturing SMEs by Jiang et al. (2023) revealed that ecological institutional norms positively moderate the relationship between digital platform capability and the positive effect of co-creation of value and corporate performance. According to Ukko et al. (2019), the significance of sustainability strategy serves as a moderate factor in the relationship between managerial capability and financial performance of small and medium-sized enterprises (SMEs) that operate in both the service and manufacturing industries in Finland. The findings of the study by Li et al. (2020) show that the digital supply chain's platforms mitigate the impacts of digital technologies on performance and that mediating effects are enhanced under a high degree of environmental stress. According to Yayla and Hu's (2012) study of Turkish financial services firms, environmental uncertainty and strategic orientation have a moderating effect on performance that is statistically important in highly uncertain environments and varies across performance measures. Based on Mohammad's (2019) analysis of the commercial banking sector, environmental dynamism had no beneficial moderating effect on the relationship between adopting digital strategy and business performance. For firms to be able to compete in a dynamic competitive environment, he continues, managers must grasp the type of environment that fits different kinds of strategic adjustments.

To conclude, the resource-based view, which evaluates the relationship between organizational and technology resources, processes, capabilities, and performance, formed the theoretical foundation for the development of the study framework. (Barney, 1991). Thus, this study investigates whether digital strategic orientations and environmental uncertainty affect firm performance and whether environmental uncertainty is moderating direct firm performance via digital strategic orientation in services and manufacturing companies in Jordan. Figure 1 demonstrates the effect of the study variables between them and the hypotheses of the study.

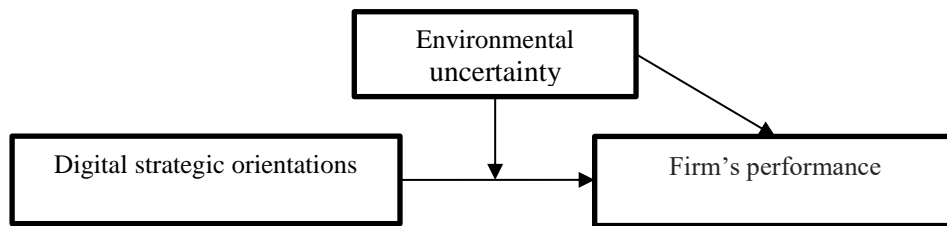


Figure 1: Theoretical Framework

H1: Digital strategic orientation positively affects a firm's performance.

H2: Environmental uncertainty positively affects a firm's performance.

H3: Environmental uncertainty positively moderates a direct firm's performance via digital strategic orientation.

Research Methodology

Population and Sample

The study population included all Jordanian services and manufacturing companies listed on the stock exchange. According to the Amman Stock Exchange, there are 186 manufacturing and service firms. Thus, the survey was conducted at the senior/management level of 186 manufacturing and service firms. This study sample was selected using the nonprobability purposive sampling technique, and the researchers developed an online survey and forwarded the link to managers in the sample companies that had been chosen. To increase the response rate, two reminder emails and follow-up phone calls were sent, and user responses were received from 119 managers for a respondent response rate of 63.9%. The questionnaire was pre-tested by five executives of service and manufacturing companies to verify that the practical and conceptual perspectives identified by the researchers are appropriate for Jordanian manufacturing and service firms and that the terminology used is understood by all of them. Ten academics completed the questionnaire's pilot test, which was amended as necessary. However, SPSS software was employed in this study to examine the data's findings. In Table 1, demographic statistics are displayed. Digital strategic orientation is conceptualized as a two-dimensional construct: technology orientation and digital capabilities. Technology orientation refers to a firm's commitment to using digital technologies in new product development and its tendency to take advantage of digital opportunities. Four items for technology orientation were measured on a five-point Likert-like scale ranging from 1 = "strongly disagree" to 5 = "strongly agree." This study adopted the measures of Khin and Ho (2018). Digital capability refers to the self-assessment of the respondent firm's capability related to the application of digital technology, measured by a five-point Likert-like scale ranging from 1 = "very low" to 5 = "very high". This study

adopted the measures of Khin and Ho (2018); the previous alpha score for this construct was about 0.90 (Khin and Ho, 2018). The environmental uncertainty construct is conceptualized as two-dimensional: environmental dynamism and environmental competitiveness. Environmental dynamism refers to the rate of change and the instability of the external environment, and a five-item measure was included that captured environmental dynamism. The items are a) rapid and frequent changes in product volumes, b) customer preference for new products, c) ongoing market changes, and d) no changes in the preceding 12 months (Jansen et al., 2006; Ahmed et al., 2022; Ahammad et al., 2021). Environmental competitiveness refers to the degree of competition reflected in the number of competitors and the number of areas in which competition exists. The items are a) extremely high competition, b) relatively strong competitors, c) intense competition in the market, and d) price competition is a hallmark. All environmental uncertainty construct items were measured on a seven-point scale, anchored by 1 = strongly disagree and 7 = strongly agree, and the previous alpha score for this construct was about 0.95 (Jansen et al., 2006; Ahmed et al., 2022; Ahammad et al., 2021). The authors measure a firm's performance along one dimension, but it contains items that capture financial and operational measures adopted from the metrics developed by Yu et al. (2022) and Sultan et al. (2021). There are three financial measures to capture sales growth, return on investment, and sales volume, and five operational measures that capture parameters of the product market around market positioning, namely: increasing process improvements, easily adjusting products to specific customer needs, raising the quality of products and services, reducing total costs, and attracting more customers (Alsmairat et al., 2023; Altawalbeh et al., 2023; Liu et al., 2020; Sultan, 2012; Sultan et al., 2021). The notified alpha values in the prior study for organizational performance were 0.93 (Butkus et al., 2023; Sultan, 2021).

Research Results

Table 1 shows the basic information of the respondents. Senior managers comprised the largest number of respondents in the study: 50 (42%). While years since establishment, more than 15 years were the most significant: 53 (45%). From a major industry-type perspective, service firms were prominent: 81 (68%).

Table 1. Information Background

Element	Type (N = 119)	Frequency	%
Position	Executive (CEO, CMO, CFO, CIO)	25	.21
	Senior Manager	50	.42
	Department Manager	39	.33
Years Since Established	Less than 5 years	5	.04
	5–10	31	.26
	5–10 years	26	.22
	10–15 years	24	.20
	More than 15 years	53	.45
Main Industry Type	Manufacturing	37	.31
	Services	81	.68

From Table 2, the mean values for digital orientation strategy, environmental uncertainty, and organizational performance fall between 3.11 and 3.51. This finding indicates that respondents perceived a moderate level of digital orientation strategy, environmental uncertainty, and the firm's performance.

Table 2. Variables Dimensions Descriptive

Items	Mean	Std. Deviation
Technology Orientation	3.11	.661
Digital Capability	3.21	.863
Digital Orientation Strategy Overall Mean	3.22	.621
Environmental Dynamism	3.54	.728
Environmental Competitiveness	3.23	.832
Environmental Uncertainty Overall Mean	3.67	.601
Financial Performance	3.56	.775
Financial Operational	3.33	.721
Firm's Performance Overall Mean	2.94	.622

To determine whether the measurements used in this study have construct validity, that is, measure what they are supposed to measure, exploratory factor analysis was conducted on all items measuring the constructs of the digital orientation strategy construct, the environmental uncertainty construct, and the firm's performance construct. Table 3 shows the Kaiser-Meyer-Okin value for the firm's performance factor analysis, i.e., .93, exceeding the required value of 0.5 (Hair et al., 2020), and the very significant Barlett sphericity test ($p = .00$) validated the components in the correlation matrix. In addition, a close examination of an individual MSA revealed that all items had values within the accepted range, which ranged from .79 to .91. These indicate that the analysis of factor assumptions has been met. According to the analysis of the main components, only one component has an Eigen value greater than one. Factor loading ranges between 0.79 and 0.91; as seen in Table 3, for all factors combined, the reliability (Cronbach's alpha) is .93, indicating strong

reliability. The inclusion of all scale variables is supported by item-to-total correlations, which show that deleting any item would not boost alpha beyond 0.93.

Table 3. Factor Analysis on All Variables

Variables	Sub variables	Load	α	AVE
Digital Orientation Strategy	Technology Orientation	.789	.89	.789
		.795		
		.762		
	Digital Capability	.851	.87	
		.822		
		.795		
		.792		
Environmental Uncertainty	Environmental Dynamism	.891	.82	.810
		.876		
		.798		
		.797		
	Environmental Competitiveness	.910		
		.915		
		.901		
		.875		
Firm's performance	Financial Performance	.853	.81	.789
		.756		
		.796		
	Financial Operational	.821	.85	
		.861		
		.831		
KMOM of Sampling Adequacy				0.938
Sphericity Bartlett's Test	Chi-Square	7086.780		
	Df	325		
	Sig			

A summary of the findings of the correlation analysis is provided in Table 4 to determine the relationship between each variable in the study; Pearson correlation coefficients were obtained. Based on Table 4, the relationship between the values of the study variables was strong, according to the results of Pearson's correlation. As revealed in Table 4, the total correlation values for the variables show correlation coefficients with positive values above .36. Moreover, the relationship between digital orientation and the firm's performance was significantly correlated. However, Cohen (1988) recommended that if the r-score is between .3 and .50, the correlation

between the two variables is medium. Further, if the r-score is higher than 0.50, the correlation between the two variables is strongly correlated. Furthermore, most variables are statistically correlated with digital orientation, with correlation values ranging from .36 to .65. These generally refer to strong correlations between variables.

Table 4. Variables Pearson Correlations

Variables	OP	DSO	EU	DC	ED	EC	FP	FO
Organizational Performance	1.0							
Digital Strategic Orientation	.39	1.0						
Environmental Uncertainty	.36	.65	1.0					
Technology Orientation	.37	.58	.65	1.0				
Digital Capability	.36	.54	.62	.45	1.0			
Environmental Dynamism	.35	.48	.51	.51	.62	1.0		
Environmental Competitiveness	.49	.61	.65	.53	.64	.52	1.0	
Financial Performance	.39	.45	.45	.41	.62	.58	.62	1.0
Financial Operational	.31	.41	.52	.52	.42	.42	.42	.42

Note: ** Correlation is significant at the 0.01 level (2-tailed).

Regression analysis was used to examine the first and second hypotheses. The performance of the firm is regressed on its digital strategic orientation and environmental uncertainty using regression analysis procedures. The association between digital strategy orientation, environmental uncertainty, and a firm's performance is shown in Table 5. The performance of the firms is considerably impacted by the digital strategy orientation and environmental uncertainty, as indicated by the f value of 18.134 (p.05). The model, however, is weak because digital strategic orientation and environmental uncertainty only account for 19.1% (R =.16) of the variation in the firm's performance. As a result, hypotheses one and two are supported. From the tolerance and VIF values shown in Table 5, the output reveals no multicollinearity effect among digital strategy orientation and environmental uncertainty on the firm's performance.

Table 5. The Relationship between Digital strategic orientation, Environmental Uncertainty, and firm's performance

Model	B	Sig	Tolerance	VIF
1 (constant)	275	304		905
Digital strategic Orientation	.160	.009	.211	2.682
Environmental Uncertainty	396	.000	.434	4.234

Note: Dependent Variable: mean_ firm's performance

To answer the third question of the study, does digital environmental uncertainty moderate the relationship between digital strategic orientation and a firm's performance? A regression of hierarchical multiples was run, and a three-step hierarchical regression analysis was also run. Table 6 demonstrates that the interaction term's R² value is significant (R² = .002, F = 1.871, p.001), demonstrating the moderating impacts of environmental uncertainty. The outline of the interaction terms shows how the effect of environmental uncertainty on the effect of the digital strategic orientation on the firm's performance is greatly influenced by the change in R² and F from steps 1 to 2 and from steps 2 to 3.

Table 6. Moderating Effect of the Environmental Uncertainty

DV	IV	B-1	B-2	B-3
firm's performance	Digital Strategic Orientation	.104	.105	-.184
	Moderating			
	Environmental Uncertainty		-.006	-.569
	Interaction Terms			
	Digital Strategic Orientation X Environmental Uncertainty			.515
	R ²	.330	.293	.41
	R ² Change	.325	.000	.001
	F Change	53.717	.019	1.871
	Sig.	.00	.79	.161

Discussion

The key assumption of the present study is that businesses may improve their firms' performance by adopting a strategic digital orientation and addressing environmental uncertainty. To investigate this relationship, the authors have used the resource-based view to concentrate on the effect of businesses' digital strategy orientation and environmental uncertainty on their firm's performance through the two primary components of digital strategy orientation: "technology orientation" and "digital capabilities" and two primary components of environmental uncertainty: "environmental dynamism" and "environmental competitiveness". The moderate impact of environmental uncertainty was also investigated. The study's findings confirmed what we had predicted given the features of the environment under

investigation: there is a positive relationship between a firm's digital strategic orientation and environmental uncertainty and a firm's performance, and this relationship is strengthened in uncertain business situations.

To answer RQ1, H1 was examined. The outcomes show that digital strategic orientation ("digital capability and digital orientation") positively affects a firm's performance. Thus, Hypothesis 1 is supported by answering that digital strategic orientation ("digital capability and digital orientation") is an essential driving factor of a firm's performance. The positive and significant influence of digital strategic orientation on a firm's performance is consistent with the prior finding of Khin and HO (2018), who found a significant impact of technology orientation and digital capability on the performance of financial and non-financial firms. Similarly, the study of Pan et al. (2021) indicates that technology orientation and digital capabilities have a significant and positive effect on the performance of new product development in Chinese manufacturing firms. According to Yu et al. (2022), organizational performance is significantly and favorably impacted by the competence of digital transformation.

Additionally, the competence of digital transformation acts as a mediator between operational performance and strategic orientation. In line with the findings of previous studies, the findings of this search came in line with the fact that developing the ability for digital transformation is the main determinant in adapting to the future requirements of the digital business environment and improving the performance of firms. In addition, managers of digital transformation need to concentrate on strategically building their capabilities for digital transformation to create new value and improve the performance of firms that have sustainable competitiveness. In fact, digital transformation managers can take advantage of this development to improve their firm's performance by leveraging digital practices (Al-Zyadat et al., 2022). In other words, from the manager's point of view, firms can better adapt to the age of digital and can create higher firm performance through digital capability and digital orientation (Lutfi et al., 2022).

To answer RQ2, H2 was tested, and the outcomes display that digital strategic orientation ("digital capability and digital orientation") positively affects a firm's performance. Thus, Hypothesis 2 is supported by answering that environmental uncertainty—"environmental dynamism and environmental competitiveness"—is a critical driving factor of a firm's performance. The positive and significant influence of digital strategic orientation on a firm's performance is consistent with the prior finding of Adhikara et al. (2022), whose outcome showed that environmental uncertainty (environmental competitiveness) positively affects organizational performance in the Indonesian healthcare industry. Bendickson et al. (2018) argue that higher environmental uncertainty will increase operating expenses and reduce sales volume, leading to lower performance.

To answer RQ3, H3 was tested. The results display a moderating positive effect of environmental uncertainty on the linkage between digital strategic orientation and a firm's performance. The positive and significant impact of environmental

uncertainty as a moderating factor between digital strategic orientation and a firm's performance is consistent with the previous finding of Jiang et al. (2023) that ecological institutional norms positively moderate the relationship between digital platform capabilities and enterprises' value co-creation and innovation performance in China's manufacturing industry. The research of Yayla and Hu (2012) with financial service companies in Turkey found that the moderating roles of environmental uncertainty and digital orientation on the firm's positive performance effect are statistically significant, as is the overall impact of the strategic alignment. Mohammad's (2019) study found no significant moderating role of environmental dynamism between strategic and company performance changes in the money banks (commercial banks). Therefore, this study recommended that managers absorb the type of environment that fits various kinds of digital strategic orientation to enhance the overall firm's performance for firms.

The research also showed that environmental uncertainty is an essential indicator of the relationship between digital strategic orientation and the performance of the firm. Typically, firms facing fast technological change are under robust adjustment pressure. This study suggests that corporate managers can benefit from developing digital practices to improve the performance of their companies under technological change and competitive pressure. We thus support the recent notion that "firms in environments of uncertainty are particularly effective at digitizing their organizations and associated business models" (Coreynen et al., 2020). Finally, managers of various industries characterized by high levels of environmental uncertainty can realize that a digital orientation is critical when building and maintaining competitive advantage in an increasingly performance-driven business environment.

Managers of businesses must thoroughly comprehend and assess their external environment in the face of a diversified and intensely competitive business world if they are to successfully accomplish their goals. Dealing with environmental uncertainty requires special strategic management processes, especially when considering digital transformation. This facilitates managers in identifying uncertainty types and their effect on the organization, leading to improved decision-making and the development of adaptive strategies to reduce potential risks and enhance the firm's performance. It has been shown that technology orientation facilitates and digital capabilities enhance the relationship between the organization and its environment, and with effective digital strategic implementation, environmental uncertainty will be successfully addressed, and risks will be identified and eliminated faster. Furthermore, organizations operating in uncertain environments should prioritize digitalization investment and make decisions based on it because proper compliance can increase the return on digital transformation investment.

Conclusion

This study looked at the effects of a strategic digital orientation on a firm's performance, considering the environment's moderating effect. Based on the search results, the study arrived at the key findings listed below. First, strategic digital orientation has a good relationship with a firm's performance. Second, this link is positively impacted by environmental uncertainty. Thus, our analysis provides evidence that a strategic digital focus can benefit a firm's performance. As a result, this study not only makes connections between the literature on digital strategy and a firm's performance but also contributes to resource-based view theory by showing how important it is to use digital strategies to gain an advantage over rivals in a changing environment, especially in markets that are experiencing rapid technological change. In sum, the study findings hope to encourage and support future research in this environmentally critical area, just as our study hopes that managers will find starting points to drive the rapprochement of their digitalization and environmental strategies to enhance their firms' performance. However, it appears important for future research to test the role of environmental uncertainty more closely in the context of other digital resources and capabilities. Further, future studies might examine why the level of environmental uncertainty is higher in some firms than others and what explains and supports the emergence of environmental uncertainty. Future studies should examine the moderating effect of other environmental dimensions (e.g., market turbulence and market growth) on the relationship between strategic digital orientation and organizational performance. Future research could combine surveys and case studies to offer supplemental insights into these matters. The data informing this study were gathered from services and manufacturing firms in the Jordanian context. Besides, this study is limited by its Jordanian context, which could complicate generalizations across different countries. The data were also collected from a single managerial respondent in each firm, which may weaken the reliability of the findings. Furthermore, this study draws on data from various industries, which could limit the generalizability of the findings.

Acknowledgements

The authors are grateful to Zarqa University, Jordan, for the full financial support granted to this research project.

References

- AL-Khatib, A. W., (2023). The determinants of export performance in the digital transformation era: empirical evidence from manufacturing firms. *International Journal of Emerging Markets*, (ahead-of-print).
- AL-Zyadat, A., Alsarairoh, J., Al-Husban, D., Al-Shorman, H., Mohammad, A., Alathamneh, F. and Al-Hawary, S., (2022). The effect of Industry 4.0 on sustainability of industrial organizations in Jordan. *International Journal of Data and Network Science*, 6(4), 1437-1446.
- Adaileh, M., Alshawawreh, A., (2021). Measuring digital transformation impact in Jordan: A proposed framework. *Journal of Innovations in Digital Marketing*, 2(1), 15-28.
- Adhikara, A., MF, M., Nur Diana, M. B., (2022). Organizational Performance in Environmental Uncertainty on the Indonesian Healthcare Industry: A Path Analysis. *Academic Journal of Interdisciplinary Studies*, 11(2), 365-377.
- Ahmed, A., Bhatti, S. H., Gölgeci, I. and Arslan, A., (2022). Digital platform capability and organizational agility of emerging market manufacturing SMEs: The mediating role of intellectual capital and the moderating role of environmental dynamism. *Technological Forecasting and Social Change*, 177, 121513.
- Ahammad, M. F., Basu, S., Munjal, S., Clegg, J. and Shoham, O. B., (2021). Strategic agility, environmental uncertainties and international performance: The perspective of Indian firms. *Journal of World Business*, 56(4), 101218.
- Al Dabbas, M. M., (2023). The Role of Islamic Finance in the Development of Small and Medium Enterprises in Jordan, *Journal of Logistics, Informatics and Service Science*, 10(1), 20-30.
- Alshourah, S., Alassaf, H. and Altawalbeh, M., (2018). Roles of top management and customer orientation in enhancing the performance of customer relationship management (CRM) in hotel industry. *International Journal of Advance Research and Innovation*, 6(3), 233-239.
- Alshourah, S., Jodeh, I., Swiety, I. and Ismail, A., (2022). Social Customer Relationship Management Capabilities and Performance: Moderating Social Media Usage among SMES Jordanian. *Decision Sciences*, 25(S2), 1-8.
- Alshourah, S., (2021). Assessing the influence of total quality management practices on innovation in Jordanian manufacturing organizations. *Uncertain Supply Chain Management*, 9(1), 57-68.
- Alshourah, S., (2022). Role of strategic orientation dimensions of green supply chain management practices in Jordanian manufacturing companies. *Zarqa J. Res. Humanit.* Accepted Unpublished.
- Alshourah, S., (2012). The antecedent of customer relationship management and its impact on hotels performance in Jordan. *Theses PhD published UUM*.
- Alshourah, S., (2021). Total quality management practices and their effects on the quality performance of Jordanian private hospitals. *Management Science Letters*, 11(1), 67-76.
- Alsmairat, M. A. K., Mushtaha, A. S. and Hammad, M. S. A., (2023). Understanding The Relationship Between Supply Chain Risk and Lean Operations Performance. *Polish Journal of Management Studies*, 27(1).
- Altawalbeh, R., ALShalabi, F., Alshawabkeh, Z., Alshaar, H., Alzoubi, M., Alshawabkeh, R. and Dweiri, M., (2023). The mediating role of organizational capabilities on the

- relationship between lean supply chain and operational performance. *Uncertain Supply Chain Management*, 11(1), 11-20.
- Barney, J., (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Bendickson, J., Gur, F. A. and Taylor, E. C., (2018). Reducing environmental uncertainty: How high-performance work systems moderate the resource dependence- firm performance relationship. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de administration*, 35(2), 252–264
- Bendig, D., Schulz, C., Theis, L. and Raff, S., (2023). Digital orientation and environmental performance in times of technological change. *Technological Forecasting and Social Change*, 188, 122272.
- Bharadwaj, A., El Sawy, O. A., Pavlou, P. A. and Venkatraman, N., (2013). Digital business strategy: toward a next generation of insights. *Mis Quarterly*, 471-482.
- Blackburn, S., LaBerge, L., O’Toole, C. and Schneider, J., (2020). Digital strategy in a time of crisis. *McKinsey Digital*, April 22.
- Bryson, J. M., (2018). Strategic planning for public and nonprofit organizations: A guide to strengthening and sustaining organizational achievement. John Wiley and Sons.
- Chao, Y., Kang, Y., (2022). Impact of Dynamic Capability on Enterprise Growth Performance under Environmental Dynamism. *Journal of System and Management Sciences*, 12(4), 175–190.
- Butkus, M., Rakauskienė, O. G., Bartuseviciene, I., Stasiukynas, A., Volodzkienė, L. and Dargenyte-Kacileviciene, L., (2023). Measuring quality perception of public services: customer-oriented approach. *Engineering Management in Production and Services*, 15(2), 96-116.
- Chen, D. Q., Mocker, M., Preston, D. S. and Teubner, A., (2010). Information systems strategy: reconceptualization, measurement, and implications. *MIS Quarterly*, 233-259.
- Chenhall, R. H., Langfield-Smith, K., (2007). Multiple perspectives of performance measures. *European Management Journal*, 25(4), 266-282.
- Cohen, J., (1988). Set correlation and contingency tables. *Applied psychological measurement*, 12(4), 425-434.
- Coreynen, W., Matthyssens, P., Vanderstraeten, J. and van Witteloostuijn, A., (2020). Unravelling the internal and external drivers of digital servitization: A dynamic capabilities and contingency perspective on firm strategy. *Industrial Marketing Management*, 89, 265-277.
- García-Sánchez, E., García-Morales, V. J. and Martín-Rojas, R., (2018). Influence of technological assets on organizational performance through absorptive capacity, organizational innovation and internal labour flexibility. *Sustainability*, 10(3), 770–795.
- Hair, J. F., Howard, M.C. and Nitzl, C., (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110.
- Haarhaus, T., Liening, A., (2020). Building dynamic capabilities to cope with environmental uncertainty: The role of strategic foresight. *Technological Forecasting and Social Change*, 155, 120033.
- Heubeck, T., (2023). Managerial capabilities as facilitators of digital transformation? Dynamic managerial capabilities as antecedents to digital business model transformation and firm performance. *Digital Business*, 100053.

- Jansen, J. J. P., Van Den Bosch, F. A. J. and Volberda, H. W., (2006). Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management Science*, 52(11), 1661–1674.
- Jiang, H., Yang, J. and Gai, J., (2023). How digital platform capability affects the innovation performance of SMEs—Evidence from China. *Technology in Society*, 72, 102187.
- Khin, S., Ho, T. C., (2018). Digital technology, digital capability and organizational performance: A mediating role of digital innovation. *International Journal of Innovation Science*, 11(2), 177-195.
- Kindermann, B., Beutel, S., de Lomana, G. G., Strese, S., Bendig, D. and Brettel, M., (2021). Digital orientation: Conceptualization and operationalization of a new strategic orientation. *European Management Journal*, 39(5), 645-657.
- Liu, H., Wu, S., Zhong, C. and Liu, Y., (2020). The sustainable effect of operational performance on financial benefits: Evidence from Chinese quality awards winners. *Sustainability*, 12(5), 1966.
- Li, Y., Dai, J. and Cui, L., (2020). The impact of digital technologies on economic and environmental performance in the context of industry 4.0: a moderated mediation model. *International Journal of Production Economics*, 229, 107777
- Lutfi, A., Alsyouf, A., Almaiah, M. A., Alrawad, M., Abdo, A. A. K., Al-Khasawneh, A. L. and Saad, M., (2022). Factors influencing the adoption of big data analytics in the digital transformation era: case study of Jordanian SMEs. *Sustainability*, 14(3), 1802.
- Magerakis, E., Habib, A., (2021). Business strategy and environmental inefficiency. *Journal of Cleaner Production*, 302, 127014.
- Mahmood, F., Khan, A. Z. and Khan, M. B., (2019). Digital organizational transformation issues, challenges and impact: A systematic literature review of a decade. *Abasyn University Journal of Social Sciences*, 12(2).
- McKenny, A. F., Short, J. C., Ketchen, D. J., Payne, G. T. and Moss, T. W., (2018). Strategic entrepreneurial orientation: configurations, performance, and the effects of industry and time. *Strategic Entrepreneurship Journal*, 12(4), 504–521.
- Miller, D., Friesen, P. H., (1983). Strategy-making and environment: the third link. *Strategic Management Journal*, 4(3), 221-235.
- Min, S., Kim, J., (2022). Effect of opportunity seizing capability on new market development and small and medium-sized enterprise performance: Role of environmental uncertainty in the IT industry. *Asia Pacific Management Review*, 27(2), 69-79.
- Ministry of Information and Communications Technology (MICT, 2020). The National Digital Transformation Plan and the Executive Plan 2021-2025. Retrieved (12, 2022) https://www.modde.gov.jo/ebv4.0/root_storage/ar/eb_list_page/dts-2021-ar.pdf
- Mohammad, H. I., (2019). Mediating effect of organizational learning and moderating role of environmental dynamism on the relationship between strategic change and firm performance. *Journal of strategy and management*, 12(2), 275-297.
- Nasiri, M., Saunila, M. and Ukko, J., (2022). Digital orientation, digital maturity, and digital intensity: determinants of financial success in digital transformation settings. *International Journal of Operations and Production Management*, 42(13), 274-298.
- Niemand, T., Rigtering, J. P. C., Kallmünzer, A., Kraus, S. and Maalaoui, A., (2021). Digitalization in the financial industry: a contingency approach of entrepreneurial orientation and strategic vision on digitalization. *European Management Journal*, 39(3), 317–326.

- Pan, X., Oh, K. S. and Wang, M., (2021). Strategic orientation, digital capabilities, and new product development in emerging market firms: The moderating role of corporate social responsibility. *Sustainability*, 13(22), 12703.
- Pashutan, M., Abdolvand, N. and Harandi, S. R., (2022). The impact of IT resources and strategic alignment on organizational performance: The moderating role of environmental uncertainty. *Digital Business*, 2(2), 100026.
- Petkovski, I., Fedajev, A. and Bazen, J., (2022). Modelling complex relationships between sustainable competitiveness and digitalization. *Journal of Competitiveness*, 14(2), 79-96.
- Qi, Y. D., Xiao, X. and Cai, C. W., (2020). Digital reconstruction of industrial organization. *Journal of Beijing Normal University (Social Sciences)*, 57(02), 130–147.
- Quinton, S., Canhoto, A., Molinillo, S., Pera, R. and Budhathoki, T., (2018). Conceptualising a digital orientation: antecedents of supporting SME performance in the digital economy. *Journal of Strategic Marketing*, 26(5), 427–439.
- Ramesh, N., Delen, D., (2021). Digital transformation: How to beat the 90% failure rate? *IEEE Engineering Management Review*, 49(3), 22-25.
- Reis, J., Amorim, M., Melão, N. and Matos, P., (2018). Digital transformation: a literature review and guidelines for future research. *Trends and Advances in Information Systems and Technologies: Volume 1 6*, 411-421.
- Ross, J. W., Sebastian I. M. and C. M. Beath. (2017). How to develop a great digital strategy. *MIT Sloan Management Review*, 58(2): 7–9.
- Sabherwal, R., Sabherwal, S., Havakhor, T. and Steelman, Z., (2019). How does strategic alignment affect firm performance? The roles of information technology investment and environmental uncertainty. *MIS Quarterly*, 43(2), 453-474.
- Shehadeh, M., Almohtaseb, A., Aldehayyat, J. and Abu-AlSondos, I. A., (2023). Digital Transformation and Competitive Advantage in the Service Sector: A Moderated-Mediation Model. *Sustainability*, 15(3), 2077.
- Siebel, T. M., (2017). Why digital transformation is now on the CEO's shoulders. *McKinsey Quarterly*, 1-7.
- Teng, X., Wu, Z. and Yang, F., (2022). Research on the Relationship between Digital Transformation and Performance of SMEs. *Sustainability*, 14(10), 6012.
- Ukko, J., Nasiri, M., Saunila, M. and Rantala, T., (2019). Sustainability strategy as a moderator in the relationship between digital business strategy and financial performance. *Journal of Cleaner Production*, 236, 117626.
- World Economic Forum, Global Risks Report, Insight Report, (2023). WEF Retrieved (January 5, 2023), https://www3.weforum.org/docs/WEF_Global_Risks_Report_2023.pdf
- Wang, Y., (2022). Analyzing the mechanism of strategic orientation towards digitization and organizational performance settings enduring employee resistance to innovation and performance capabilities. *Frontiers in Psychology*, 13.
- Wang, Y., (2022). The Impact of Digital Strategic Orientation on Enterprise Sustainable Performance against the Background of 2030 Sustainable Performance Goal. *Mathematical Problems in Engineering*, 2022.
- Yang, Y., Yang, X., Xiao, Z. and Liu, Z., (2023). Digitalization and environmental performance: An empirical analysis of Chinese textile and apparel industry. *Journal of Cleaner Production*, 382, 135338.
- Warner, K. S., Wäger, M., (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, 52(3), 326-349.

- Yayla, A. A., Hu, Q., (2012). The impact of IT-business strategic alignment on firm performance in a developing country setting: exploring moderating roles of environmental uncertainty and strategic orientation. *European Journal of Information Systems*, 21(4), 373-387.
- Yeow, A., Soh, C. and Hansen, R., (2018). Aligning with new digital strategy: A dynamic capabilities approach. *The Journal of Strategic Information Systems*, 27, 43–58.
- Yu, J., Moon, T., (2021). Impact of digital strategic orientation on organizational performance through digital competence. *Sustainability*, 13(17), 9766.
- Zhang, T., Shi, Z. Z., Shi, Y. R. and Chen, N. J., (2022). Enterprise digital transformation and production efficiency: Mechanism analysis and empirical research. *Economic Research-Ekonomska Istraživanja*, 35(1), 2781-2792.
- Zhou, K. Z., Li, C. B., (2010). How strategic orientations influence the building of dynamic capability in emerging economies. *Journal of Business Research*, 63(3), 224-231.

CYFROWA ORIENTACJA STRATEGICZNA A WYNIKI FIRMY: MODERUJĄCY WPŁYW NIEPEWNOŚCI ŚRODOWISKOWEJ

Streszczenie: Cyfryzacja jest coraz częściej postrzegana jako strategiczne podejście dla firm mające na celu poprawę ich wyników. Ostatnie badania wykazały niepowodzenie procesu transformacji cyfrowej w zakresie poprawy wyników firmy, co może wynikać z niepewności środowiskowej. Dlatego też niniejsze badanie ma na celu zbadanie wpływu strategicznej orientacji cyfrowej na wyniki firmy i wyjaśnienie moderującej roli niepewności środowiskowej na związek między strategiczną orientacją cyfrową a wynikami firmy w kontekście jordańskich firm usługowych i produkcyjnych. Łącznie zebrano 186 ankiet od menedżerów z Giełdy Papierów Wartościowych w Ammanie w Jordanii. Analiza czynnikowa została wykorzystana do oceny podobieństw konstruktywów, a analiza regresji wielokrotnej korelacji została wykorzystana do zbadania relacji między konstruktywami. Ogólnie rzecz biorąc, badanie to wykazało, że cyfrowa orientacja strategiczna i niepewność środowiskowa pozytywnie wpływają na wyniki firmy. Ponadto wyniki pokazują, że niepewność środowiskowa moderuje wpływ cyfrowej orientacji strategicznej na wyniki firmy. Badanie to może zwiększyć uwagę menedżerów firm usługowych i produkcyjnych na tendencje do kształtowania polityki w celu poprawy wyników ich firm poprzez cyfrową orientację strategiczną. Wyniki badania pomogą również menedżerom w opracowywaniu strategii cyfrowych w ich organizacjach, w zakresie tworzenia planów opartych na niepewnym środowisku i perspektywie zasobów, które definiują orientację cyfrową jako strategię zgodną z wynikami firmy.

Słowa kluczowe: strategiczna orientacja cyfrowa, wyniki firmy, niepewność otoczenia, perspektywa zasobowa