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Research Article

The Impact of Digital Marketing and Information Technology Capabilities on the Marketing Performance of SMEs in Türkiye

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ABSTRACT

Purpose: Digital marketing competence is the capacity of a business to organise, carry out, and oversee digital marketing in order to boost its perceived competitiveness by customers. Small and medium-sized businesses' (SMEs') performance may be significantly improved by digitalisation. The majority of researchers tackled the issue from several angles by looking at how company performance is affected by technological skills, digital skills, information systems capabilities, adoption of information and communication technologies (ICT), and digital transformation. In addition to examining the effects of technological orientation, relationships with customers, and digital marketing on SMEs' business performance in emerging markets (EMs), this study attempts to provide a comprehensive conceptualisation of how digital marketing and its adoption boost the productivity of SMEs.

Method: Convenience sampling was used to gather data from SMEs in Türkiye's Konya Region in order to evaluate the suggested model. Using the framework of structural equation modelling with partial least- squares estimation (PLS-SEM) method, 119 responses from SMEs that were gathered via online and in-person surveys were examined. 82% of those surveyed said they were partnerships or entrepreneurs. Eight respondents are white-collar workers, 13 are high-ranking managers, 14 are mid-level managers, and two said they have various roles.

Findings: The findings demonstrate the beneficial effects of organisational agility and digital maturation on corporate achievement. However, it is shown that organisational agility, when considered as a moderator, lessens the impact of digital maturation on firm performance.

Conclusion: While there are many advantages to digitalisation for businesses, it is still debatable whether it has a direct impact on performance results. The results of earlier research evaluating the effect of digital maturity on company performance were not entirely consistent. Therefore, several studies recommended investigating potential intervening factors. Thus, the impact of organisational agility and digital maturity on business performance is investigated in this research. Additionally, the moderating function of organisational agility in the relationship between business performance and digital maturity is also examined.

Keywords: Digitalization, Small and Medium-Sized Enterprises (SMEs), Systems Capabilities, Digital Maturity-Firm Performance, Konya Region, Türkiye, Information and Communication Technologies (ICT), Organizational Agility, Digital Marketing, (PLS-SEM) Approach

INTRODUCTION

Modern businesses have several challenges, including the demand for highly tailored products and services, effective business processes, and profitable supply chains. In order to solve these problems, digitalisation has become a crucial organisational competency [1]. To stay competitive in the digital age, businesses need to go through a digital transformation. Digitally mature organisations are more profitable and have improved their income than less mature ones [2, 3].

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Businesses' ability to innovate and successfully provide consumers with value-added goods and services determine how competitive they are [2, 3]. The primary forces behind digitalisation are customer needs and the need for quick adoption of novel requirements via organisational resources. Digital technologies promote performance by boosting the organization's capabilities, improving sales, and fostering productive partnerships with suppliers and customers [2, 3]. In the majority of European nations, Small and Medium-Sized Businesses (SMEs) are regarded as the primary economic building blocks.

For example, according to the Annual Report on European SMEs 2018/2019, 99.8% of businesses within the Non-Financial Business Sector (NFBS) are SMEs, and there were just over 25 million SMEs in the EU-28. These SMEs account for 66.6% of NFBS employees and 56.4% of NFBS revenue. The Turkish Statistical the Institute (2019) reports that about 99.8% of Türkiye's workforce is employed by SMEs, which make up over 72.4% of the country's workforce and generate a substantial amount of income [3, 4].

Regretfully, the majority of these businesses, which have enormous potential to boost the global economy, are still struggling to fully embrace digitalisation [2, 6]. For example, just 18.5% of Turkish businesses with 10 or more workers use a Consumer Relationships Management (CRM) system, while only 20.5% used Enterprise Resource Planning (ERP) software. Furthermore, just 13.7% of these individuals provide ICT professionals job chances [6, 7].

The degree of digitisation among Turkish SMEs is insufficient in this regard. A similar condition is also seen in the majority of European nations. In small businesses, for instance, 15% of employees are ICT specialists, while 33% of SMEs use ERP software. In addition, there is a significant digital divide across EU member states. For example, Finland has a 50% cloud computing utilise rate [6, 7], whereas Bulgaria, Greece, and Romania have lower rates than 10%, and Türkiye has a 14.1% utilised cloud computing rate for businesses of all sizes [8].

In both established and emerging countries, Small and Medium-Sized Enterprises (SMEs) are vital because they provide substantial contributions to GDP, employment, and general development of society [4, 5]. Use of ICT and digital technology help SMEs lower transaction costs, enhance service quality, integrate with customers along with additional stakeholders, increase effectiveness and efficiency, achieve sustainable growth, and gain an advantage over their competitors, but they also present a number of challenges [6, 7]. Digital technology and ICT usage provide challenges for SMEs, including inadequate financial and human resources, a lack of specialisation, and a lack of ICT expertise [6, 7].

Furthermore, the significance of the adoption of ICT and digitisation for SMEs has been underscored by the Covid-19 epidemic [5, 6]. However, in developing nations, the lack of adequate infrastructure, restrictions on senior management support, a lack of human and financial resources, a generally unfavourable attitude towards digitalisation, and the experience and dedication of managers are some of the major factors that impede the use and adoption of ICT. Other factors include political instability, limited financial support, and the absence of external support/consultancy as well as expenses.

SMEs also need assistance integrating new digital technologies because of their position in the value chain & requirement for economics of scale [5, 6]. An organization's capacity and dynamic management traits determine how well it adopts and electronically digitises ICTs. Innovation performance is strongly impacted by social performance development [8, 9].

Relational governance promotes the success of innovation, therefore improvements in innovation performance may be greatly impacted by a firm's readiness to adjust and implement knowledge practices that show that it is motivated to ensure a long-term connection. Only via digital networks can supply chain integration, enhanced cooperation, [9,10], cooperative processes for making decisions, and information sharing feasible. [6, 7].

The innovativeness of organisations is directly impacted by the digitalisation of business operations as a component of digital transformation. Additionally, product advancements in manufacturing companies are favourably correlated with digitalisation [8, 9]. In order to comprehend firm-level ICT adoption, previous research primarily concentrated on the use of Technology Organization-Environment (TOE) paradigm and looked at a variety of aspects. Mixed results have been found in studies looking at the connection between business size and ICT use [9, 10]. Lack of knowledge has been shown to be one of the most significant obstacles among owner/manager-related variables, particularly for developing nations [5, 6].

Additionally, there are contradictory results on how owner/manager demographic characteristics affect ICT adoption. For instance, there are notable variations in business according to year and age, but not in adoption of information and communication technologies according to age [9].

Digital marketing competency is the ability of the company to plan and execute digital marketing. The processes, systems, and abilities that make up a company's fundamental assets and enable it to prosper in the digital age are referred to as this competence. According to previous research, a company's digital marketing competence is defined as its ability to use internet connectivity and other technology advancements to facilitate in-depth customer interactions [9, 10]. Through these connections, companies may learn more about their customers and consumers can access corporate resources and information. For these reasons, it may be concluded that digital marketing includes not only the use of technology for digital marketing but also the ways in which firms plan, carry out, and oversee digital marketing [9, 10].

Businesses need to have digital marketing abilities since they may increase productivity. According to Field's study, companies may achieve impressive results by improving their digital marketing abilities, which can lead to a 20% rise in revenue and a 30% reduction in campaign expenditures [10, 11]. Even when companies apply state-of-the-art technology and hire staff with outstanding management skills, campaign performance may still rise by 30% [6]. [9, 10].

To improve the organization's ability to use digital marketing, a study methodology has been created [6, 10]. The model suggests that a company's digital marketing skills may be improved by digital transformation, the adoption of new marketing technologies, and the readiness of a new technological ecosystem.

Since SMEs are always a part of a larger value chain, they must coordinate and work together with business partners [4, 9]. However, human and financial resources are almost always in short supply. Therefore, having a thorough grasp of the phases of the digital transformation is crucial. Little is known about the causes, effects, and challenges of SMEs' digitisation, regardless of their economic worth. Little research has been done on the digital technological maturity of SMEs and how it relates to company performance. Previous studies have mostly looked at the impact of technology orientation, IT skills, or certain technological resources on firm performance [9, 10]. Those research' scant data have produced contradictory conclusions about the impact of digital maturity.

Organisations with advanced technology, for instance, do not outperform their peers. Thus, the primary goal of this study is to determine how digital maturity affects the performance of SMEs. It is believed that providing managers with knowledge and insight is essential, particularly in businesses with less developed technological capabilities [12]. Examining the moderating function of organisational agility in the link between digital maturity and performance is another goal, as contradictory findings from previous studies suggest that a number of variables may affect this relationship [2, 16].

In order to advance digital transformation and achieve competitiveness, it is believed that increasing knowledge of the performance advantages of increased digital maturity is essential. Understanding the connection between their performance and digital maturity is essential to maintaining a successful digital transformation project and increasing awareness of its significance [2, 6]. It is crucial to create a new digital strategy, redefine company goals, and evaluate innovative digital business models.

LITERATURE REVIEW

1.1 Adopting of Digital Marketing

For many organisations today, the use of digital marketing is an exciting new idea since it creates a new method for enterprises and consumers to purchase and sell, connect, and exchange information. Marketers have taken notice of digital marketing because it makes it easier for businesses and consumers to communicate with one another, preserving the emotional & psychological connections that bind individuals to businesses. [2, 9].

Digital marketing refers to a marketing strategy that uses digital media to individually approach customers at the appropriate moment and in a way that is important to their requirements [11, 12]. Other names for digital marketing include "online," "internet marketing," and "web marketing." Since 2013, the phrase "digital marketing" has gained the greatest use, particularly in conjunction with the increasing use of information and communication technologies [13].

1.2 The transformation from analogue to Digital

In order to generate additional value via business models, operational procedures, and experiences for clients, the digital transformation is an approach of change that makes use of digital and technological capabilities [13, 14]. Therefore, by using a mix of information technology, computation, communication, and networking, digital transformation seeks to enhance entities by bringing about notable changes in their attributes.

Making a customer experience appealing, leveraging the power of operational processes, identifying new business models, developing a transformation vision, recruiting staff to realise the vision, managing the transition process, and fostering technology leadership capabilities are the seven pillars of digital transformation, a process that improves a company's digital competence. Together, these components help a business develop its leadership and digital capabilities, which in turn increases its digital competence [13].

1.3 Capability for Digital Marketing

A company's digital marketing competency is its capacity to organise, carry out, and oversee digital marketing [13, 15]. It describes a business's capacity to provide in-depth client interactions via the use of the internet as well as additional information technology. Customers may access corporate resources and information via these encounters, while the business gains further insight about its clientele. Digital marketing capabilities also refers to the procedures, frameworks, and competencies that a business need to thrive in the digital era [13]. Three crucial and complementary assets make up the multifaceted architecture of the internet marketing capability: business, human, and IT resources [14].

1.4 Digital transformation, digitisation, and digitisation

Organisations' digitisation efforts originate from functional domains such as operations, customer services, or sales & marketing [15, 16]. Digital projects have expanded recently with the goal of reaching the market in a manner that generates income. Enterprises' digital environment is no longer restricted to communication channels, and digital operations have gained significant relevance. Despite the fact that the terms digitisation, technological advancement, and the digital transformation are often used interchangeably, they are not entirely synonymous [14, 16]. While digitalisation necessitates modifying business processes via the use of digital technology, digitisation is the conversion of analogue processes to digital ones without affecting the process's structure. Therefore, the transition to digital business is included in the process of digitalisation [16, 17]. The idea behind digital transformation is to leverage what is already known to completely alter an organization's structure, including its technology, strategy, operational setup, and culture. An organization's usage of technology must be completely redesigned in order to undergo digital transformation [19].

Digital how well they perform, agility, and maturity by offering a path for digital transformation, maturity models facilitate the assessment of an organization's current state and the establishment of improvement goals [19, 20]. The organisational competences needed to accomplish digital transformation are measured by maturity models. Dependent on how they evaluate and disclose an organization's fundamental degree of digital development, models of maturity have become a widely used tool. This data is crucial for evaluating the needs for digital transformation both now and in the future.

The growth and viability of SMEs have been severely hampered by the public health concern known as COVID-19. The crisis also highlighted how crucial information and communication technology were to responding to the COVID-19 pandemic. investigated the connection between SME performance, public responses to crises, and digitisation [11,13]. According to their results, the SME's digitalisation initiatives help them overcome public crises via their level of technological advancement, use of digital technologies, and business model. Additionally, digitalisation improves SMEs' performance by fostering the creation of reaction plans. [13, 15].

The capacity of an organisation to innovate digitally was favourably influenced by its digital orientation and capability, and the effect of digital innovation on firm performance was mediated by digital capability and technological orientation [16, 17]. The association between SME performance, organisational learning skills, process and product innovation, and technology orientation was moderated [18]. Nonetheless, there is empirical evidence between corporate performance with digital maturity. Furthermore, there has been conflicting evidence in the past on the beneficial impact of technical IT skills on organisational agility. Agility-achieved organisations may exhibit

significant variations in their digitalisation strategies. For example, Carrefour did not use cutting-edge digital technology and showed agility comparable to Walmart in China [18, 19].

Thus, the following research paradigm is suggested in light of the arguments and research gaps identified in the literature.

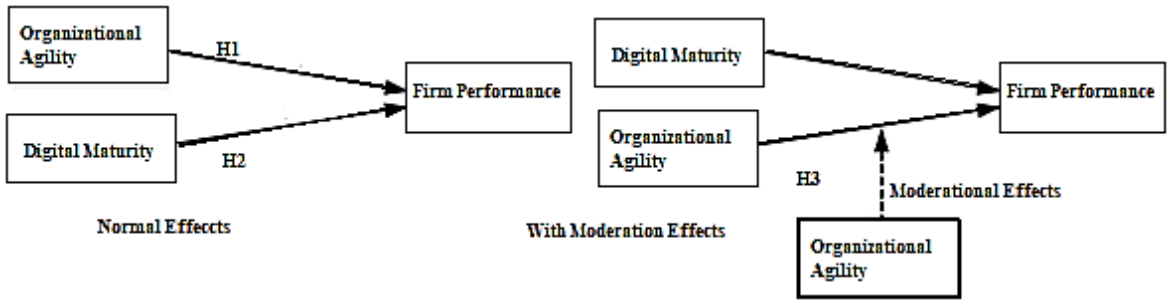

Fig. 1 Research Framework. [19]

1.5 Hypotheses

H1: *Organisational agility improves company performance.*

H2: *Firm performance is favourably impacted by digital maturity.*

H3: *The association between business performance and digital maturity is moderated by organisation agility.*

METHOD

1.6 Collecting samples and data

Convenience sampling was used in the last quarter of 2024 to gather information about SMEs in the Konya Region of Türkiye in order to evaluate the suggested model [18, 19]. Every company that fit the Turkish definition of SMEs was taken into consideration as a sample resource. Data from SMEs was gathered using both in-person and online survey approaches. 119 responses, or 74.4% of the 160 (=N) questionnaires that were distributed, have been received [20].

1.7 Descriptive data

Table 1 presents the demographic information of the study participants. Of the responders, 51% are between the ages of 30 and 47, and 88% are men [20, 21]. Furthermore, according to 69% of the respondents, they are either partners or owners of the business. The majority of participants—57 percent—have a university degree.

Table 1 Sample Populations [22, 23].

Status	Age	University		High School		Primary School	Total
		M	F	M	F	M	
Entrepreneur/Partner	18-23	2	1	2	6		11
	24-29	8	4	4	1		17
	30-35	4	3	6	4		17
	36-41	7	2	2	2		13
	47+	6		1		2	9
Senior Executive	24-29	2				1	3
	36-41	1	2			4	7

	42-47	2	2		2	3	9
Mid- Level manager	18-23	1		2	4		7
	24-35	3		1	2		6
	36-41		1		3	1	5
	47+		4	1		2	7
White collar employee	18-23			1	2	4	7
	24-29	2			2	3	7
	30-35		2		1		3
Other	18-23	1	6		5	2	14
	24-29	6		6			12
Total		45	27	26	34	22	154

The sectoral distribution of the businesses that the study participant works for is shown in Table 2. Family firms make over 60% of the companies in 19 distinct industries [23, 24].

Table 2 Industry-wise Allocation of Families and Non-Family Organisations [22, 23].

Business industries	**Family Business**		**Total**
	Yes	**No**	
Trade (marketing and sales)	15	5	20
Metal	9	4	13
Paper, Paper Products, and Woodworking	8	3	11
Food	6	12	18
Soil, cement, and glass	2	7	9
Electronics and Electricals	2	4	6
Communication, logistics, and transportation	1	2	3
Travel, lodging, and food and beverage operations		3	3
Health and social services		1	1
Total	43	41	84

Trade (sales and marketing), paper products, metal, food, and make up 49% of the whole sample. [14, 26].

Table 3 Industry-specific Employee Number [25, 26].

Sector	**Total**
Trade (marketing and sales)	22
Metal	21
Automotive	26
Food	41
Glass, cement, soil	32
Electronics and Electricals	14
Communication, as well as logistics, and transportation	26

Hunting and agriculture are completed	14
Health and social services	26
Total	222

1.8 Measurement scales

Scales from earlier research were used in this investigation [23, 24]. Business models, operational procedures, and customer experience were the three sub-dimensions of digital maturity. In all, 10 questions were asked, including four concerning operational procedures, four about customer experience, and two about business concepts [24, 25].

Six items showed operational flexibility, five items showed customer responsiveness, and five items showed strategic agility. The items were assessed on a five-point Likert scale, with 1 denoting "totally disagree" and 5 denoting "totally agree." These components were derived from the digital maturity example.

Specific questions comparing performance compared to rivals were used to assess organisational competence and firm performance. The questions were scored on a five-point scale, where 1 meant "clearly poorer" and 5 meant "clearly better" [28, 29]. Because the five-point Likert scale has been shown in the literature to improve response rates [31, 32], answer quality, and reduce confusion [30, 31], it was chosen over the original seven-point scale style.

DATA ANALYSIS

Using the modelling of structural equations with a partial least-squares estimation (PLS-SEM) approach, the study's assumptions were examined. PLS-SEM aims to maximise the explained variation of dependant latent structure in a model that makes absolutely no assumptions about the distribution of data, and it has gained increasing popularity in advertisement, operations management, IT for management, and other business fields [33]. Smart-PLS software was used to perform the validity and reliability evaluations shown in Table 4 [28, 29].

All loadings meet the criteria, as shown in Table 4 [30, 35]. Each construct's internal consistency reliability was evaluated using α, AVE, and C.R. [27, 28]. Table 4 shows that each construct's α (≥ 0.70), C.R. (≥ 0.70), and AVE (≥ 0.50) are at the acceptable level [29, 30].

Table 4 Validity and Construct Reliability [30, 36].

Construct and items		Outer Loadings	α	Cronbach's Alpha	Average Variance Extracted
Digital Maturity			0.96	0.99	0.89
DM9	We use digital technology to improve the functionality or value of our current goods and services.	0.58			
DM10	We have introduced new digital technology-based business models.	0.94			
DM7	Key operational and consumer data are seen in an integrated manner (integrated view = tight and smooth cooperation across several departments, groups, organisations, and systems).	0.89			
DM5	We can now connect customer-facing and operational operations in novel ways thanks to technology.	0.74			
DM8	We use analytics to improve our operational choices.	0.64			
Organization Agility			0.69	0.88	0.82
OA7	We are effectively integrating all supply chain operations.	0.54			
OA10	We are effective in increasing the delivery speed of our goods and services.	0.21			
OA6	Our integration of internal business procedures is successful.	0.69			
OA12	We are able to increase the pace at which we try to identify opportunities and risks.	0.22			
OA11	We are able to increase the speed of logistical procedures.	0.96			
Firm Performance			0.65	0.96	0.83
FP5	Growth in revenue (over the previous three years).	0.91			

FP4	Market share growth (over the last three years)	0.69			
FP2	Cash flow growth.	0.92			
FP3	Growth in the ratio of sales to profit.	0.59			

For the measuring framework to be valid for discrimination, the square root of each variable's AVE must be higher than the correlations between the variables [36, 37]. Every variable value is at the proper level, as Table 5 demonstrates.

Table 5 Validity of Discriminants.

	Digital maturity	Firm performance	Organization agility
Digital maturity	**0.89**		
Firm performance	0.69	**0.91**	
Organization agility	0.63	0.72	**0.86**

Table 6 shows that organisational agility (0.496) and digital maturity (0.368) have a beneficial effect on business performance [25, 26]. Consequently, both the H1 and H2 hypotheses were validated (P<0.001).

Structure Relation	F2	Coefficient	S.D.	T. Statistics	P values
Digital>Firm Performance	**0.39**	0.394	0.08	4.69	0.00
Organization agility> Firm Performance	0.59	0.496	0.09	6.39	0.00

Together, these two factors may account for 60% of the dependent variable's variation [38, 39]. Weak (≥ 0.02), moderate (≥ 0.15), and strong (≥ 0.35), respectively, are the definitions of effect size (f2) [40]. Both factors seem to have a significant impact on company performance, as shown by the f2 values in Table 6.

Table 7 Results of the Model with a Moderating Effect [29, 30].

Structure Relation	F2	Coefficient	S.D.	T. Statistics	P values
Digital maturity>Firm Performance	**0.39**	0.394	0.08	4.69	0.00
Moderating Effecting> Firm Performance	0.59	-0.496	0.09	6.39	0.00
Organization agility>Firm Performance	0.30	-0.268	0.13	4.56	0.00

CONCLUSION

It is anticipated that SMEs' degree of digital maturity would be a significant skill for improving organisational performance by allowing organisations to react swiftly to opportunities and risks. The study's findings supported the idea that organisational agility and digital maturity may boost business success. Similar to study findings, we discovered substantial evidence supporting the beneficial effect of digital maturation on corporate performance. Conversely, technology alone is insufficient to improve performance; an entrepreneurial spirit and strategic vision are needed to reap the benefits.

This perspective was supported by the study. As to the writers, there is no direct correlation between the extent of ICT use and the potential benefits it offers. Additionally, the negative impact of technology-oriented business performance and the significant influence of digital maturity were not examined. In Türkiye, business performance is positively impacted by agility factors, such as improvements in information technology. However, the study focused on large companies. The findings of this study might have important management implications. In order to boost company performance, SMEs should first comprehend their present digitisation practices and competencies. Many firms aren't investing in digital technologies and business models since they don't understanding how technological advancements affect performance.

To improve their performance, they have to concentrate on implementing cutting-edge technology. Adopting a digital mind-set and a continuous growth plan are crucial components of digital transformation, in combination with the adoption of technological advances and company models. This research further emphasises how crucial it is to provide funds for SMEs' digital by giving policymakers empirical information. Governments should think about making more investments to raise SMEs' understanding of developing digital capabilities and implementing digital technology.

Digital transformation and ecosystem of innovation preparedness are also included in the assessment, in addition to the use of digital marketing technologies. By evaluating a company's digital marketing skills and identifying the underlying reasons for both high and low capacities, DMUI is able to provide suggestions on how to enhance the company's digital advertising abilities.

LIMITATION

Even if the study's findings improve the field, certain problems could be resolved by further research. First of all, using a convenience sample approach to collect data has a negative impact on the results' ability to be represented and generalised. Additionally, data collected from several sectors reveals a more general effect than data collected from a single sector. The combined effects of operational processes, customer sensitivity, flexible operations, strategic flexibility, and customer experience were also considered in this study. Future studies can concentrate on analysing the distinct effects of the digital maturity sub dimensions and organisational flexibility.

REFERENCES

[1] Yaseen, H.; Al-Adwan, A.S.; Al-Madadha, A. Digital Marketing Adoption among SMEs in Jordan: A Mixed-Method Approach. J. Theor. Appl. Inf. Technol. 2019, 97, 1396–1407.

[2] De Vries, L.; Gensler, S.; Leeflang, P.S.H. Effects of Traditional Advertising and Social Messages on Brand-Building Metrics and Customer Acquisition. J. Mark. 2017, 81, 1–15.

[3] Gillpatrick, T. The Digital Transformation of Marketing: Impact on Marketing Practice & Markets. Economics 2020, 7, 139–156.

[4] Gibson, C. The Most Effective Digital Marketing Strategies & Approaches: A Review of Literature. Int. J. Sci. Res. Publ. 2018, 8, 12.

[5] Bala, M.; Verma, D. A Critical Review of Digital Marketing. Int. J. Manag. 2018, 8, 321–339.

[6] Srividhya, V. E-commerce as a toolkit for digital marketing trends. Int. J. Adv. Res. Ideas Innov. Technol. 2019, 5, 535–537.

[7] Morakanyane, R.; O'Reilly, P.; Mcavoy, J.; Grace, A. Determining Digital Transformation Success Factors. In Proceedings of the 53rd Hawaii International Conference on System Sciences, Maui, HI, USA, 7–10 January 2020; Volume 3, pp. 4356–4365.

[8] Vial, G. Understanding digital transformation: A review and a research agenda. J. Strateg. Inf. Syst. 2019, 28, 118–144.

[9] Westerman, G.; Bonnet, D.; McAfee, A. Leading Digital: Turning Technology into Business Transformation; HBR Press: Boston, MA, USA, 2014.

[10] Doe, J.; Wetering, R.; Honyenuga, V.D.B.; Versendaal, J. Firm Technology Adoption Model (F-TAM) Among SME'S: An Interactive Eco-System Perspective. IADIS Int. J. Comput. Sci. Inf. Syst. 2018, 14, 70–91.

[11] Al Asheq, A., Rahman Tanchi, K., Kamruzzaman, M. and Mobarak Karim, M. (2021), "The impact of e-marketing orientation, technological orientation and learning capacity on online SME performance", Innovative Marketing, Vol. 17 No. 3, pp. 168-179.

[12] Amelda, F., Alamsjah, P. and Elidjen, F. (2021), "Does the digital marketing capability of Indonesian banks align with digital leadership and technology capabilities on company performance?" CommIT (Communication and Information Technology) Journal, Vol. 15 No. 1, pp. 9-17.

[13] Bagodi, V., Sreenath, T.V. and Sinha, D. (2021), "A study of performance measures and quality management system in small and medium enterprises in India", Benchmarking: An International Journal, Vol. 28 No. 4, pp. 1356-1389.

[14] Bamfo, B.A. and Kraa, J.J. (2019), "Market orientation and performance of small and medium enterprises in Ghana: the mediating role of innovation", Cogent Business and Management, Vol. 6 No. 1, pp. 1-16.

[15] Cheng, C.C.J. and Shiu, E. (2019), "How to enhance SMEs' customer involvement using social media: the role of social CRM", International Small Business Journal: Researching Entrepreneurship, Vol. 37 No. 1, pp. 22-42.

[16] Chinakidzwa, M. and Phiri, M. (2020), "Impact of digital marketing capabilities on the market performance of small to medium enterprise agro-processors in Harare", Zimbabwe. Business: Theory and Practice, Vol. 21 No. 2, pp. 746-757.

[17] Chong, W.K., Man, K.L. and Kim, M. (2018), "The impact of e-marketing orientation on performance in Asian SMEs: a B2B perspective. Enterprise information systems", Cogent Business and Management, Vol. 12 No. 1, pp. 4-18.

[18] Aydiner, A. S., Tatoglu, E., Bayraktar, E., Zaim, S., & Delen, D. (2019). Business analytics and firm performance: The mediating role of business process performance. Journal of Business Research, 96, 228–237.

[19] Barba-Sa´nchez, V., Martı´nez-Ruiz, M. D. P., & Jime´nez-Zarco, A. I. (2007). Drivers, benefits and challenges of ICT adoption by small and medium-sized enterprises (SMEs): A literature review. Problems and Perspectives in Management, 5(1), 103–114.

[20] Barclay, C., & Duggan, E. W. (2008). Rethinking the digital divide: Towards a path of digital effectiveness [Conference session]. 41st Annual Hawaii International Conference on System Sciences (HICSS 2008) (pp. 129–129).

[21] Baron, R. M., & Kenny, D. A. (1986). The Moderator-mediator variable distinction in social psychological research. Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173–1182.

[22] Coşkun, M. Ş. (2019). Örgütsel Bilgi Paylaşimi Ve Örgütsel Çevikliğin Rekabet Avantaji Üzerine Etkisi. Trabzon Üniversitesi.

[23] Çetinkaya, F. F., & Akkoca, Y. (2021). Stratejik Liderlik İle Örgütsel Çeviklik Arasındaki İlişkide Örgütsel İletişimin Aracı Rolü. Mehmet Akif Ersoy Üniversitesi İktisadi Ve İdari Bilimler Fakültesi Dergisi, 8(1), 66–84.

[24] Dombrowski, U., & Ritcher, T. (2018). The Lean Production System 4.0 Framework - enhancing Lean Methods. In Springer Nature Switzerland (Vol. 536). Springer International Publishing.

[25] Ekuobase, G. O., & Olutayo, V. A. (2016). Study of Information and Communication Technology (ICT) maturity and value: The relationship. Egyptian Informatics Journal, 17(3), 239–249.

[26] Eller, R., Alford, P., Kallmünzer, A., & Peters, M. (2020). Antecedents, consequences, and challenges of small and medium-sized enterprise digitalization. Journal of Business Research, 112(March), 119– 127.

[27] European Commission. (2020). Digital Economy and Society Index (DESI) - Integration of digital technology. 16.

[28] Eryılmaz, M. (2020). Örgütlerde Dijitalizasyon ve Ardılları Üzerine Bir Tartışma. In

[29] N. Rüzgar (Ed.), İşletme Yönetimi. Ankara: Nobel Akademik Yayıncılık. Domi, S., Capelleras, J. L., & Musabelliu, B. (2020). Customer orientation and SME performance in Albania: A case study of the mediating role of innovativeness and innovation behavior. Journal of Vacation Marketing, 26(1), 130–146.

[30] Duc, D. T. V., & Nguyen, P. V. (2023). ICT impact and firm size: Empirical results from Vietnam. African Journal of Science Technology Innovation and Development, 15(3), 337–348.

[31] Elhusseiny, H. M., & Crispim, J. (2022). SMEs, barriers and opportunities on adopting industry 4.0: A review. Procedia Computer Science, 196, 864–871.

[32] Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. American Journal of Theoretical and Applied Statistics, 5(1), 1–4.

[33] Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2018). Actors and emerging information, communications and technology (EICT) adoption: A study of UK small and medium services enterprises. Cogent Business & Management, 5(1), 1–19.

[34] Fink, D. (1998). Guidelines for the successful adoption of information technology in small and medium enterprises. International Journal of Information Management, 18(4), 243–253.

[35] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50.

[36] Fu, J. S. (2022). Understanding the internal and external communicative drivers of organizational innovativeness. Communication Research, 49(5), 675–702.

[37] Birley, S. (1982). Corporate strategy and the small firm. Journal of General Management, 8(2), 82–86.
[38] Cxallı, B. A., & Cxallı, L. (2021). Digital maturity, digital innovations and digital skills [Conference session]. 8th International management information systems conference (pp. 216–227).
[39] Cannon, T. (1985). Innovation, creativity and small firm organisation. International Small Business Journal, 4(1), 34–41.
[40] Dogˇan, M., & Dogˇan, H. (2020). Knowledge sharing, innovation and firm performance: Evidence from Turkey. Financial Studies, 24(1), 36–52.