



*Organizational Ambidexterity, Digital Transformation, and Strategic Agility for Gaining Competitive Advantage in SMEs**

F. Oben Uru¹ Ebru Gozukara² Ali Anıl Unsal³

Received/ Başvuru: 05.11.2023

Accepted/ Kabul: 18.02.2024

Published/ Yayın: 27.03.2024

Abstract

This study aims to examine the effects of strategic agility and environmental dynamism on the relationship between organizational ambidexterity and digital transformation and competitive advantage in small-scale SMEs. A quantitative research method is used in the study. The research population is the managers of 17451 small-scale SMEs in the wholesale and retail trade sector within the provincial borders of Istanbul, which employ less than 50 employees annually and whose annual net sales revenue or financial balance sheet does not exceed 25 million Turkish Liras according to the data of the end of 2020. An online survey was sent to the managers of 450 small-scale SMEs reached by convenience sampling method and the data obtained from 366 valid surveys were analyzed through the Smart PLS program. According to the research results, organizational ambidexterity and digital transformation are positively related to competitive advantage. In addition, it is determined that digital transformation has a partial mediating role on the relationship between small-scale SMEs' ambidexterity and competitive advantage, and strategic agility has a moderating role on this relationship. On the other hand, it is concluded that environmental dynamism does not have a moderating role on the relationship between small-scale SMEs' ambidexterity and competitive advantage.

Keywords: organizational ambidexterity, digital transformation, competitive advantage, strategic agility, environmental dynamism

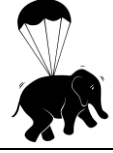
* This study was approved on 07/09/2021 by the Ethics Committee of Istanbul Arel University (DECN-08_2021/12) and adheres to the Turkish Higher Education Institutions Codes for the Responsible and Ethical Conduct of Research. The study was derived from a part of Ali Anıl UNSAL's (2022) Ph.D. Thesis entitled "Investigation of the Effects of Organizational Ambidexterity and Digital Transformation on Competitive Advantage in SMEs under the Moderating Roles of Strategic Agility and Environmental Hostility", conducted under the supervision of Prof. Dr. F. Oben ÜRÜ at Istanbul Arel University Graduate School of Education.

* This study is an extended and revised version of the paper titled "Investigating the Effects of Strategic Agility and Environmental Dynamism on the Relationship between Organizational Ambidexterity and Digital Transformation and Competitive Advantage in SMEs " published in the 31st National Management and Organization Congress on September 21-23, 2023.

¹ Prof. Dr., Istanbul Arel University, Turkey, obenuru@arel.edu.tr, Orcid: 0000-0002-1960-5857

² Prof. Dr., Istanbul Arel University, Turkey, ebrugozukara@arel.edu.tr, Orcid: 0000-0003-0337-5337

³ Asisst. Prof. Dr., Istanbul Arel University, Turkey, alianilunsal@arel.edu.tr, Orcid: 0000-0003-1890-8773



KOBİ'lerde Rekabet Avantajı Elde Etmek için Örgütsel Çift Yönlülük, Dijital Dönüşüm ve Stratejik Çeviklik

Özet

Bu çalışmanın amacı, stratejik çevikliğin ve çevresel dinamizmin, örgütsel çift yönlülük ve dijital dönüşüm ile rekabet avantajı ilişkisindeki etkilerini KOBİ'lerde irdelemektir. Çalışmada, nicel araştırma yöntemi kullanılmıştır. Araştırma evreni, 2020 yılı sonu verilerine göre İstanbul il sınırları içerisindeki 50 kişiden az yıllık çalışan istihdam eden ve yıllık net satış hasılatı ya da mali bilançosu 25 Milyon Türk Lirasını aşmayan ve toptan ve perakende ticaret sektöründe yer alan 17451 küçük ölçekli KOBİ'lerin yöneticileridir. Kolayda örnekleme yöntemiyle ulaşılan 450 küçük ölçekli KOBİ'lerin yöneticilerine çevrimiçi anket gönderilmiş ve geçerli sayılan 366 anketten elde edilen veriler Smart PLS programı aracılığıyla analiz edilmiştir. Araştırma sonuçlarına göre, örgütsel çift yönlülük ve dijital dönüşüm ile rekabet avantajının pozitif yönde ilişkili olduğu belirlenmiştir. Ayrıca, dijital dönüşümün, KOBİ'lerin çift yönlülüğü ve rekabet avantajı ilişkisinde kısmi aracı rol üstlendiği ve stratejik çevikliğin ise bu ilişkide düzenleyici rolü olduğu tespit edilmiştir. Buna karşın, çevresel dinamizmin, KOBİ'lerin çift yönlülüğü ve rekabet avantajı ilişkisinde düzenleyici rolünün olmadığı sonucuna varılmıştır.

Anahtar Kelimeler: örgütsel çift yönlülük, dijital dönüşüm, rekabet avantajı, stratejik çeviklik, çevresel dinamizm



1. INTRODUCTION

With the great change after the COVID-19 pandemic, especially small-scale SMEs have started to look for ways to survive and keep up with the digitalized world. Both in our country and all over the world, SMEs are of great importance in terms of both quantity and quality in the economic system. SMEs have important roles in healthy and continuous growth, increasing the level of development and welfare of the people. New and different business lines and professions have emerged through the realization of production with different techniques under the influence of technological developments, and the ability of SMEs to adapt to these innovations and capture change emerges as a key factor in their survival. Although this change may initially seem to reduce the need for manpower, it is an inevitable fact that the need for people who can ensure this transformation will increase, as well as the need for new regulations in the field of labor and social security. Concepts such as the Internet of Things, cloud computing, and augmented reality are frequently used concepts in SMEs experiencing digital transformation. The development of these new technologies contributes to the development of digital transformation at the same rate. In evolutionary models of organizational forms and technologies, discussions of the choice between exploration and exploitation are framed in terms of balancing the twin processes of variation and selection. Effective selection among forms, routines, or practices is essential to survival, but so also is the generation of new alternative practices, particularly in a changing environment. Because of the links among environmental turbulence, organizational diversity, and competitive advantage, the evolutionary dominance of an organizational practice is sensitive to the relation between the rate of exploratory variation reflected by the practice and the rate of change in the environment (March, 1991) Today, when SMEs frequently ask the question of how to be effective and efficient, the use, form, and timing of information within the organization is of great importance. SMEs have the leading role in capturing change and spreading it throughout the society. The vast majority of enterprises are far from the mission of capturing and leading change, adapting it to business processes, and ensuring its ownership throughout the enterprise.

Digital transformation of SMEs should not be seen as a random task but should be managed by individuals with a strategic perspective. Digital transformation should not be left to the responsibility of a single person or department, but steps should be taken to ensure that it is adopted and implemented by the entire organization (Berghaus and Back, 2016). It is seen that there is a gap in the literature in terms of studies in which digital transformation is different from the concept of digital technology, its definition and components are revealed, and the relationship between this concept and different variables is revealed (Morakanyane et al., 2017).

It would be an incomplete definition to express the digital transformation of SMEs only as the redesign of business processes. It would be more comprehensive to consider digital transformation from a more holistic perspective and to see it as the organizational structure, organizational culture, customer service, human resources, sales, and production operations that



SMEs are affected as a whole. Digital transformation that is not realized or owned in one or more of these concepts will negatively affect the whole of that structure (Henriette et al., 2016).

Knowing the skills, abilities, and technology to create a competitive advantage and be one-step ahead of competitors does not mean anything on its own. It is necessary to know when and how to use which skill or technology to realize the opportunities in the market and have them before their competitors. Skills or technology that are not used at the right time and in the right way will create a disadvantageous situation for SMEs, let alone a competitive advantage. The skill should be developed and made effective with technology and used at the right time to be one-step ahead of competitors at the point of making a difference.

Each SME's reaction to an opportunity in the market and the time it takes to absorb it varies. Reducing this time and prioritizing the opportunity is important in creating a competitive advantage. The skills, abilities, and technology alone may not be sufficient in this regard. It is very important to know which one or which one will be used and which technology will take a step forward. The strategic mind comes into play at this point and decides how the business will react, what to use, and when to use it. However, strategy formulation alone is not enough; the ability to implement these strategies and the advantages they possess is critical in creating a competitive advantage (Rosing and Zacher, 2017). Organizational ambidexterity has been defined as the ability to use skills simultaneously to achieve goals harmoniously and efficiently (Moreno-Luzon and Pasalo, 2011).

While there are many studies in the literature investigating the relationship between organizational ambidexterity and digital transformation (Bråthen et al., 2021); it is seen that there is a lack of studies investigating the effects of various moderating variables on the relationship between organizational ambidexterity and digital transformation with a competitive advantage as a whole in a single model. In this respect, this study aims to fill this gap in the literature by investigating whether strategic agility and environmental dynamism have moderation effects on the relationship between organizational ambidexterity, digital transformation, and competitive advantage.

2. THEORETICAL BACKGROUND

2.1. Organizational Ambidexterity

In the post-pandemic competitive environment, SMEs need to use their human, technological, and information resources effectively and efficiently. At the same time, SMEs should design their short-term, medium-term, and long-term strategies integrated with innovative processes and seek ways to benefit from these integrated strategies to gain new competencies and markets. In today's world, creating competitive advantage is only possible through the selection and successful implementation of the right strategy. Being able to correctly build the relationship between gaining competitive advantage and the right strategy formation, selection and implementation also means being 'ambidextrous' (Probst and Raisch, 2005).



Frequent and rapid changes in environmental conditions cause SMEs to have trouble in decision-making processes. Structures that are not only innovative but also pioneering, creative, active, and able to approach problems from different points of view are one step ahead of others. SMEs that not only develop strategies but also differentiate these strategies and have the ability to use several or more of them at the same time penetrate the market they operate in more than their competitors and gain a competitive advantage. SMEs need this competency, referred to as organizational ambidexterity, to ensure sustainability, to achieve medium-term and long-term goals, and to reach financial targets faster and more easily. Duncan (1976) first mentioned this concept in the literature and introduced the concept as the harmonization of management competencies in ambidextrous structures simultaneously with productivity and innovation (Hughes, 2018). Ambidexterity is defined in the literature as the ability to use both hands quickly and equally (Bodwell and Chermack, 2010). Organizational ambidexterity refers to the flexibility and efficiency of organizations in adapting to change. While the ability to use one or more skills at the same time means ambidexterity, organizational ambidexterity is the simultaneous execution of innovation and strategies to achieve short and long-term goals (Gibson and Birkinshaw, 2004).

In the literature, ambidexterity is initially defined as the ability to be harmonious and efficient in the operations carried out by the organization after Duncan (Rosing and Zacher, 2017, p.696). Later, as a result of the research on the subject, this concept is expanded and updated as the ability of organizations to do two different jobs at the same time (Moreno-Luzon and Pasalo, 2011, p.928). Organizational ambidexterity is generally considered as two dimensions in the literature. The first dimension is exploratory strategies and the other dimension is beneficiary strategies. The expression of ambidexterity as organizational ambidexterity is possible by balancing the two dimensions of the concept to the same extent (Lavikka et al., 2015, p.1145; Fourné et al., 2019, p.568). At this point, what is meant to be expressed by balance is the capabilities of the human resources that organizations have.

Contextually, ambidexterity involves the ability of everyone in the organization to think and act in multiple ways at the same time (Gibson and Birkinshaw, 2004, p.214). In the literature, there are many studies (Preda, 2014; Junni et al., 2015; Clauss et al., 2021) pointing to the positive relationship between organizational ambidexterity and competitive advantage. Therefore, the following hypothesis is proposed:

H₁: Organizational ambidexterity is positively related to competitive advantage.

In addition, it is seen that there is a gap in the literature in this field and that there is a very limited number of studies on the ambidexterity of organizations and their digital transformation, which has become a necessity in almost every field, especially with the pandemic process. In this context, the following hypothesis is formulated:

H₂: Digital transformation is positively related to organizational ambidexterity.



2.2. Digital Transformation

While all business processes, industrial components, and entire industries are changing with digital transformation, organizations are trying to adapt to this change. Digital transformation means that organizations produce products and give services by taking advantage of digital transformation. Digital technologies help organizations to reduce their costs, achieve above-average profits, gain competitive advantage, and stay one-step ahead of their competitors.

Digital transformation implies a comprehensive and detailed transformation in SMEs, including business processes, organizational culture and structure, human resources, and customer relations. In the face of such a profound and comprehensive change in businesses, redesigning all processes can have a disruptive effect and as a natural consequence, resistance to change can occur within the business. Digital transformation or digital technologies alone are not enough to realize this change. This transformation needs to be supported by different, sustainable, and measurable strategies that create a competitive advantage (Kofler, 2018). Businesses need to have digital transformation strategies that help them achieve their goals, enable them to continue their activities in the long term, reduce the risk of failure, and include planning, organizing, leading, and controlling stages, which are functions of management. SMEs that make use of information technology infrastructures, technologies such as virtual reality, or software programming while implementing these strategies are one step ahead in both capturing change quickly and ensuring that it is realized within the business.

SMEs can implement digital transformation in different ways. At this point, using a specific roadmap accompanied by a centralized strategy can help avoid confusion across SMEs (Fitzgerald et al., 2014). To diversify this situation, while a different business realizes its digital transformation at the point of providing feedback to the customer in after-sales service by using social media more actively, another business can include digital transformation from a different unit and in a different way by minimizing the need for human resources and starting to perform some or all of the production by robots supported by artificial intelligence. In this case, it is important to ensure that the planning, execution, and control of digital transformation carried out by different units and individuals are implemented in line with the chosen strategy.

Digital transformation is an effort to maximize efficiency by incorporating digital technologies and developments into business processes (Liu et al., 2011, p.1728). Schuchmann and Seufert (2015, p.31) use the term “digital transformation” to refer to the reorganization of technology and business processes to reach both suppliers and consumers using digital technologies in a way that meets all their needs and requirements. When the concepts of digital transformation and digitalization are examined in the literature, it is understood that there is a confusion of meaning and there are problems in terms of when and where to use which concept. Digitalization and new technologies that develop as a natural consequence are phenomena that facilitate and contribute to the digital transformation of organizations. Considering the advantages it provides to organizations, ensuring that digital transformation is realized and



owned throughout the organization is among the primary duties of managers. The decisions to be made about when and how digital transformation will be carried out and at what level are important for the organization to create competitive advantage and achieve success. In this context, research shows that with digital transformation, problem-solving, fast decision-making, and making maximum use of human talents become much easier and this situation reflects positively on the competitive advantage of the organization. These arguments suggest the following hypothesis:

H₃: Digital transformation is positively related to competitive advantage.

2.3. Competitive Advantage

Gaining a competitive advantage is extremely important for SMEs and especially for new market entrants. In this period of intense and ruthless competition, companies attach importance to R&D activities and innovative product and service development to differentiate themselves from their competitors. Firms that sell more products and services than their competitors sell have more favorable costs and as a result, earn above-average profits are defined as firms with competitive advantage. The basis of the concept of competitive advantage is that companies have a value or skill that other companies do not have and that they have the key to success in the market and the ability to sustain it. Competitive advantage is defined as an organization's unique position against its competitors in the market in which it competes (Hofer and Schendel, 1978, p.64). Competitive advantage is one of the competencies that organizations must have to become advantageous against their competitors in the sector. This advantage is above the average profit of the organizations' competitors in the market and also refers to sustainable profit (Fleisher and Bensoussan, 2003, p.2).

Creating competitive advantage can be achieved by differentiating or redesigning products and processes. SMEs are in a race to be one step ahead in intensely competitive markets, not only to catch the change but also to make a difference in leading the change. By developing innovative strategies to attract and retain consumers in the long term, SMEs can increase their market share and achieve their long-term goals. Gaining competitive advantage and financial concepts such as profitability, sustainability, healthy cash flow, efficiency, and productivity are closely and linearly related.

For SMEs operating in geographies where uncertainty, competition, and financial and political factors are difficult to predict, it is of key importance to be aware of their competencies and skills and to be able to use the advantages they possess to create a competitive advantage. Businesses that do not stick to a specific strategy, are flexible, and can make quick decisions are more long-lasting than others, and the share they get from the market they are in increases at the same rate owing to the competitive advantage they gain. Managers who have the main goals of sustainable success, above-average profits, and customer satisfaction have the duty and responsibility to develop and implement flexible strategies and at the same time to check whether these strategies create a competitive advantage.



The concepts of creativity and innovation are among the indispensable concepts for companies that want to gain competitive advantage. Companies that internalize these concepts will be one step ahead in creating products and services and achieving quality. Businesses with competitive advantage include knowledge and innovation-oriented structures that have a modern, innovative perspective, develop and disseminate knowledge, and support a learning work environment (Gil-Gomez et al., 2020, p.2735). The process of organizational development refers to the absorption, sharing, and redevelopment of the knowledge created by human resources elements in line with the organizational culture to provide a competitive advantage within the organization. This process of organizational development is of vital importance for achieving competitive advantage (Stähle and Grönroos, 2000). In addition to this, the evaluation of the talents of the human resources of organizations by revealing their capabilities will be the basis for the development of the organization on the one hand and its ambidexterity on the other (Lavikka et al., 2015; Fourné et al., 2019). In this respect, based on the idea that digital transformation can play an important role on the relationship between organizational ambidexterity and competitive advantage in the digital age we are in, leads to the following hypothesis:

H4: Digital transformation mediates the relationship between organizational ambidexterity and competitive advantage.

2.4. Strategic Agility

SMEs attach great importance to efficiency and information sharing in today's conditions, where market dynamics and business processes are changing rapidly and rapid decision-making and the ability to make a decision when necessary is the key to being one step ahead of others. Even businesses with redesigned business processes, large market shares, and profitability ratios above the sector average have faced the loss of their success and financial ratios due to their inability to catch the change or react in time. Developing strategies to reduce costs and focusing only on how to produce more and faster is not enough to provide competitive advantage and profitability, especially for small-scale SMEs. In addition to all these; flexibility in strategy development and change, quick adaptability to changes in the environment, developing effective strategies as a result of accurate analysis of opportunities and threats in the external environment, agility, and easy adaptability are also required.

When the concept of agility is examined in detail in the literature, it is seen that researchers explain the concept from different perspectives. An example of these different perspectives is the definition of agility as a capability that enables businesses to design their processes accordingly against rapid changes in environmental conditions and/or customer demands and needs (Braunscheidel and Suresh, 2009). According to another point of view, agility is not only the ability of businesses or individuals but is also more comprehensively related to the establishment of coherent integrated strategies and systems (Brannen and Doz, 2012). If we need to express agility not on an individual basis but on a business basis, it can be expressed as



the ability to have flexible sustainable integrated strategies that can adapt not only to business models or internal activities but also to the external environment.

Businesses with strategic agility can react instantly to the sudden changes, and rise and fall of the market they are in, while at the same time, they do not hesitate to incorporate practices that can gain competitive advantage. For this reason, strategic agility is the ability of organizations to adapt to change, to see opportunities in the market and evaluate them before their competitors, and to have the ability to update their existing plans according to continuous changes (Battistella et al., 2017, p.71).

Strategic agility refers to the ability of organizations to quickly adapt to uncertainties. Some researchers have defined strategic agility as the capacity of an organization to redirect its resources within a plan to create value. Ahammad et al. (2020, p.1), on the other hand, defined the concept as the ability to reinvent the strategy affected by external change. In essence, strategic agility requires developing strategic perception and making quick decisions (Brannen and Doz, 2012, p.90). Strategic agility allows organizations to respond to, adapt to, and implement change. As a natural consequence, an increase in financial performance and competitive advantage can be achieved. In the literature, it is seen that strategic agility significantly strengthens the capabilities of the organization by capturing emerging opportunities and has a positive impact on competitive advantage (Chan et al., 2017). In this respect, the following hypothesis is advanced to examine whether strategic agility strengthens or weakens the relationship between organizational duality and competitive advantage or the direction of the relationship:

H₅: Strategic agility moderates the relationship between organizational ambidexterity and competitive advantage.

2.5. Environmental Dynamism

Businesses are in constant communication and interaction with their environment by nature. As a natural consequence of this situation, which is expressed as an open system, if businesses cannot adapt to the changes in their environment on time, their ability to continue their activities in the long term is jeopardized. Environmental dynamism is related to how often and how factors such as economic, political, environmental, and physical factors occurring in the external environment of businesses change (Chan et al., 2016, p.386). Changes in the external environment can be expressed in terms of changes in customer needs and demands, technology, or the business models of effective competitors in the market.

When it comes to dynamism, the first thing that comes to mind is change. However, when the meaning of this term is examined in depth, the intensity of this change, in which direction and how it occurs, and how it is managed also emerge as important components of the concept (Jiao et al., 2011). Environmental dynamism can also be defined as the degree of unpredictable change in the external environment (Achrol and Stern, 1988). In situations where change is



rapid and drastic and uncertainty and complexity prevail, businesses may experience difficulties in decision-making, strategy development, and implementation. Dynamic processes lead to uncertainty and ambiguity, which in turn cause difficulties in decision-making processes. Managers who experience problems in decision-making processes as a result of dynamism give more importance to information and technology. They try to make uncertainty more predictable through the possibilities provided by technology and the knowledge created both inside and outside the organization. Decision-making processes supported by information and technology reduce uncertainty and allow the gap between the predicted and actual situation to close or even to be realized in the same way. Environmental dynamism has many elements. Examples include extreme volatility in prices, rapid changes in legislative practices, and social and political environments.

An uncertain environment resulting from environmental dynamism can lead to some negative situations for managers not only in decision-making but also in managing the human element and psychologically. The necessity of making quick and right decisions can stress managers, and it is often not easy to manage this stress along with the resistance to change within the organization. When managers delegate their responsibilities within the business to employees who have proven their competence, the burden of responsibility and stress they take on will decrease and in return, they will be able to get feedback in the form of commitment to the organization, superior performance, and effort, and as a natural consequence of this situation, the rate of success in dynamic environments will increase.

In short, environmental dynamism is the frequency of changes in customer demands, technology, competitive structure, and economic, social, and political policies in the environment in which the firm operates and has a market (Ürü Sanı et al., 2016). Environmental dynamism relates to dimensions of the external environment characterized by “changes in technology, differences in customer preferences, and fluctuations in product demand or material supply” (Chan et al., 2016, p.386).

The rate, speed, extent, and predictability of environmental change should be monitored carefully by organizations. Environmental dynamism refers to the degree of unpredictable change in both the internal and external environment of the organization (Achrol and Stern, 1988, p.37). Research indicates that the competitive advantage of organizations decreases in business environments where environmental dynamism and thus environmental uncertainty are high (Ürü Sanı et al., 2016). In this framework, the following hypothesis is formulated to examine whether environmental dynamism strengthens or weakens the relationship between organizational ambidexterity and competitive advantage or the direction of the relationship:

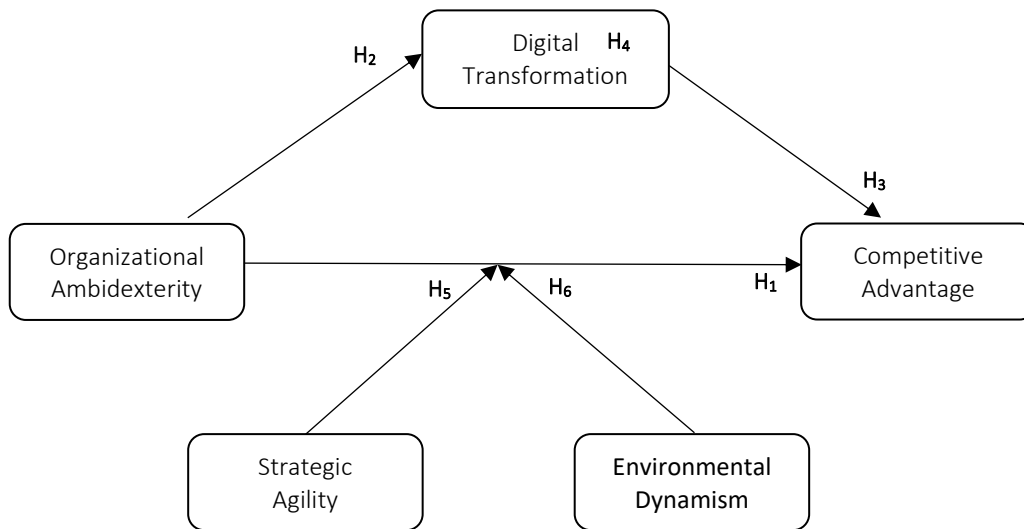
H₆: Environmental dynamism moderates the relationship between organizational ambidexterity and competitive advantage.



3. RESEARCH METHOD

In this study, which aims to examine the relationship between organizational ambidexterity and digital transformation and competitive advantage under the moderating roles of strategic agility and environmental dynamism, the research model in Figure 1, which includes the hypotheses put forward by explaining the rationales in the theoretical framework, is established.

Figure 1. Research Model



The research population is the managers of 17451 small-scale SMEs in the wholesale and retail trade sector within the provincial borders of Istanbul, which employ less than 50 employees annually and whose annual net sales revenue or financial balance sheet does not exceed 25 Million Turkish Liras. This study includes a cross-sectional study and convenience sampling method is preferred for reasons such as time-cost and pandemic conditions. In this framework, online questionnaires were sent to a total of 450 enterprises between August and November 2021 in a way that one questionnaire was sent to each enterprise between August and November 2021, taking into account the sample sizes that should be drawn from the population sizes at 95% confidence interval as recommended by Krejcie and Morgan (1970, p.607-610) and Yazıcıoğlu and Erdoğan (2004, p.50). Thus, the sample of the research consists of entrepreneurs and managers of 450 small-scale SMEs reached by convenience sampling method. After excluding invalid questionnaires for various reasons, the number of questionnaires included in the analysis is 366.

Five different scales were used in this research. Details of these scales are as follows:

Organizational Ambidexterity Scale: To measure organizational ambidexterity, the 12-item Lubatkin Organizational Ambidexterity Scale developed by Lubatkin et al. (2006, p.669) is used. Translated into Turkish and validated by Akdoğan et al. (2019), the Lubatkin Organizational Ambidexterity Scale includes two subscales reflecting dimensions of



‘exploratory strategies’ with six items (e.g., “The success of our business is built on the ability to discover new technologies”), and ‘beneficiary strategies’ with six items (e.g., “Our business focuses on reducing costs while improving quality”). A 5-point Likert scale (1 = strongly disagree; 5 = strongly agree) was used to rate the items. In the analysis, one-factor model is used.

Digital Transformation Scale: 26-item The Digital Transformation Scale developed by Westerman et al. (2017) in collaboration with Capgemini Consulting and MIT Sloan Management is used to measure digital transformation. Adapted to Turkish and validated by Ürü and Ünsal (2022), this scale has eight dimensions of ‘digital first mindset’ with two items (e.g., “We take advantage of digital solutions whenever possible”), ‘digitized operations’ with four items (e.g., “Our core operational processes are automated and digitized”), ‘data driven decisions’ with three items (e.g., “We make decisions based on data and analytics”), ‘collaborative learning’ with five items (e.g., “We make decisions based on data and analytics”), ‘technology experience’ with five items (e.g., “Our organization has experience with mobile devices and applications”), ‘digital skills’ with two items (e.g., “Digital skills are widely distributed across our enterprise”), ‘high engagement’ with three items (e.g., “Our workers are self-motivated”), and ‘data & tools capability’ with two items (e.g., “We can access flexible computing power and storage (e.g. through cloud services and external assets)”). A 5-point Likert scale (1 = strongly disagree; 5 = strongly agree) was used to rate the items. In the analysis, one-factor model is used.

Competitive Advantage Scale: To measure competitive advantage, 6-item Competitive Advantage Scale developed by Schilke (2014, p.191) is used. Translated into Turkish and validated by Ürü and Ünsal (2022), the Competitive Advantage Scale includes two subscales reflecting dimensions of ‘strategic advantage’ with three items (e.g., “In general, our company is much more successful than the rivals”), and ‘financial advantage’ with three items (e.g., “Our company’s profit is always higher than the mean of the sector.”). A 5-point Likert scale (1 = strongly disagree; 5 = strongly agree) was used to rate the items. In the analysis, one-factor model is used.

Strategic Agility Scale: The 9-item Strategic Agility Scale developed by Hock et al. (2016, p.444) is used to measure strategic agility. Adapted to Turkish and validated by Yaşar Uğurlu et al. (2019), this scale has three dimensions of ‘strategic sensitivity’ with three items (e.g., “Requirements for strategic adaptations are communicated fast and comprehensively through the organization”), ‘leadership unity’ with three items (e.g., “Our top management is able to make bold and fast strategic decisions”), and ‘resource fluidity’ with three items (e.g., “Our organizational structure allows for flexible redeployment of our resources”). A 5-point Likert scale (1 = strongly disagree; 5 = strongly agree) was used to rate the items. In the analysis, one-factor model is used.

Environmental Dynamism Scale: To measure environmental dynamism, the Environmental Dynamism Scale developed by Ürü et al. (2011) is used. This scale has 5 items (e.g., “The rate



of product obsolescence in our industry is high.”) in one dimension. A 5-point Likert scale (1= not at all; 5= very much) was used to rate the items.

4. FINDINGS

In the study, since some of the scales were adapted to Turkish for the first time, Exploratory Factor Analyses (EFA) were first conducted in the SPSS 22 program. Then Confirmatory Factor Analyses (CFA) were conducted in the Smart PLS 4 program. In the study, firstly, within the scope of the validity and reliability analysis of the organizational ambidexterity scale, factor analysis of this scale was conducted. Since the scale has a two-factor structure, the principal components method and varimax rotation were performed. The first factor of the scale alone explained 44.414% whereas the second factor alone explained 46.665% of the scale. Total variance explained is 64,330%. A variance explained value between 40% and 60% is considered sufficient (Scherer et al., 1988, p.765). Factor loading values were found to vary between 0.789-0.850. Factor 1 and factor 2 in the scale were named “Beneficiary Strategies” and “Exploratory Strategies”, respectively, as in the original scale. The reliability levels of the factors were 0.953 and 0.942, respectively, and these values were found to be high enough. As a result of the analysis of the organizational ambidexterity scale for the Harman’s Single Factor test, it is seen that a single factor explained most of the variance (71.588%) and it is included in the analysis as a single dimension. CFA results also confirmed this one-dimensional structure (Cronbach’s Alpha=0.956, Composite Reliability ρ_C =0.965, AVE=0.821, HTMT<0.85, Inner VIF<5).

It is seen that the digital transformation scale has a single factor structure with Eigenvalues above 1 and this single factor explained 86.248% of the total variance. CFA results also confirmed this one-dimensional structure (Cronbach’s Alpha=0.987, Composite Reliability ρ_C =0.989, AVE=0.78, HTMT<0.85, Inner VIF<5). When results examined, it is seen that the confirmatory factor load values of the items are between 0.843 and 0.929. These values are accepted values for the limits of factor loadings. To examine whether the factor loadings were significant, t values were examined and since all t values were determined to be above 2.58, it was determined that the factor loadings were significant. When the model goodness of confirmatory factor analysis is examined; Since the SRMR value of the model was found to be 0.025 and the NFI value was 0.916, it was determined that the model had a good goodness of fit.

According to results related with digital transformation scale, it was seen that the AVE values of the scale factor were above 0.50, and the CR and Cronbach's alpha values were above 0.70. These values show that the validated scale structure meets the construct reliability, convergent validity and internal consistency criteria. Since the scale has a single factor, discriminant validity could not be examined.

In the Smart PLS program analyses of organizational ambidexterity scale, the PLS algorithm is implemented to test the DFA model. For item reliability, factor loadings of observed variables



are required to be above 0.70 (Hair et al., 2011). In model and scale development studies, the factor loading range of 0.50-0.60 can also be accepted (Hulland, 1999, p.198-199). It was evaluated according to 0.60, which is considered as the threshold value for factor load values of all variables in the model. It is seen that the factor loading values of the items are between 0.857 and 0.823. These values are accepted values for the limits of factor loadings. To examine whether the factor loadings were significant, t values were examined and since all t values were determined to be above 2.58, it was determined that the factor loadings were significant. In the Smart PLS program, the Standardized Root Mean Square Errors (SRMR) value (Henseler et al., 2014) and the Normalized Fit Index (NFI) are used to evaluate the goodness of fit. Hu and Bentler (1998) consider models with an SRMSR value below 0.080 and an NFI value above 0.90 as a good fit value. Since the SRMR value of the model was found to be 0.039 and the NFI value was 0.915, it was determined that the model had a good goodness of fit.

It is determined that the competitive advantage scale has a two-factor structure with Eigenvalues above 1 and that factor 1 (Strategic Advantage) alone explained 54.347% of the scale and factor 2 (Financial Advantage) explained 43.546% of the scale. All two factors explained 93.723% of the total variance. To decide to keep an item from the scale, the factor loadings should be above 0.45 and the difference between the factor loadings should be at least 0.10 to avoid overlapping (unstable items) (Büyüköztürk, 2009). Factor loading values were found to vary between 0.550-0.830. As a result of the analysis of the competitive advantage scale for the Harman's Single Factor test, it is seen that a single factor explained most of the variance (67.404%) and it is included in the analysis as a single dimension. CFA results also confirmed this one-dimensional structure (Cronbach's Alpha=0.938, Composite Reliability ρ_C =0.960, AVE=0.890, HTMT<0.85, Inner VIF<5).

It is determined that the strategic agility scale has a three-factor structure with Eigenvalues above 1 and factor 1 (Strategic Sensitivity) alone explained 38.427% of the scale, factor 2 (Resource Fluidity) explained 37.857% and factor 3 (Leadership Unity) explained 21.553%. All three factors explained 97.816% of the total variance. As a result of the analysis of the strategic agility scale for the Harman's Single Factor test, it is seen that a single factor explained most of the variance (58.678%) and it is included in the analysis as a single dimension. CFA results also confirmed this one-dimensional structure (Cronbach's Alpha=0.939, Composite Reliability ρ_C =0.961, AVE=0.891, HTMT<0.85, Inner VIF<5).

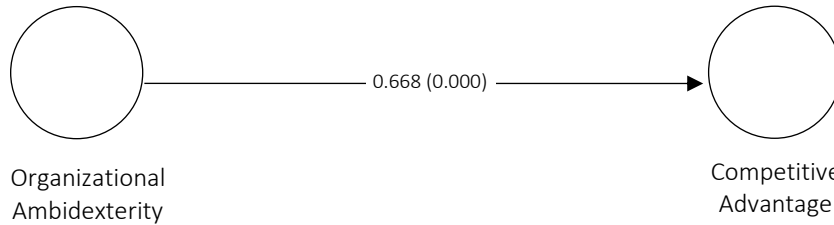
It is determined that the environmental dynamism scale had a single-factor structure with Eigenvalue above 1 and this single factor explained 94.663% of the scale. CFA results also confirmed this one-dimensional structure (Cronbach's Alpha=0,901, Composite Reliability ρ_C =0,903, AVE=0,838, HTMT<0,85, Inner VIF<5).

To test research hypotheses partial least squares structural equation modeling (PLS-SEM) was used, and analyses were performed via the SmartPLS 4 statistical program. In this framework, it is determined that organizational ambidexterity and competitive advantage are positively related (β =0.668) (t =18.447; p <0.01). This result means that a one-unit increase in the



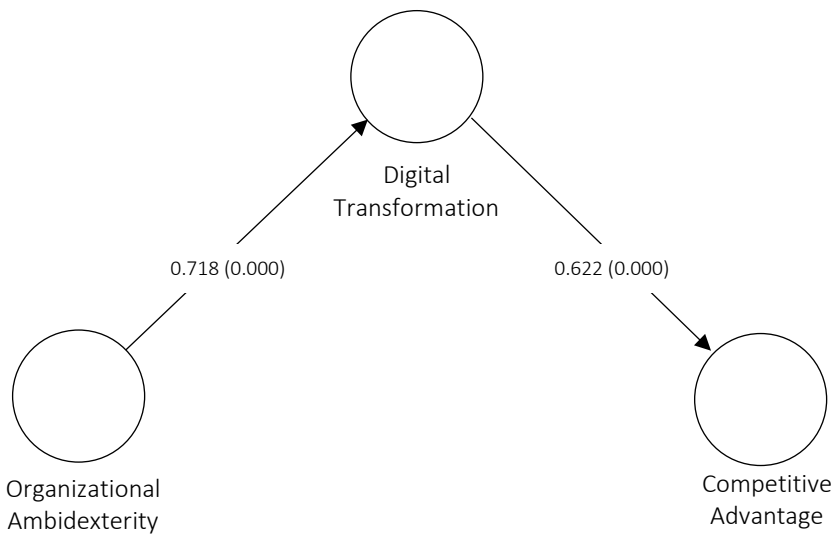
ambidexterity of enterprises will increase competitive advantage with an effect of 0.668 units. Thus, Hypothesis 1 of the research is supported (See Figure 2).

Figure 2. Path diagram of the first hypothesis of the research



It is determined that organizational ambidexterity and digital transformation are positively related ($\beta=0.718$) ($t=20.226$; $p<0.01$). In addition, it is determined that digital transformation and competitive advantage are positively related ($\beta=0.622$) ($t=12,446$; $p<0.01$). In line with these results, Hypotheses 2 and 3 of the study are supported (See Figure 3).

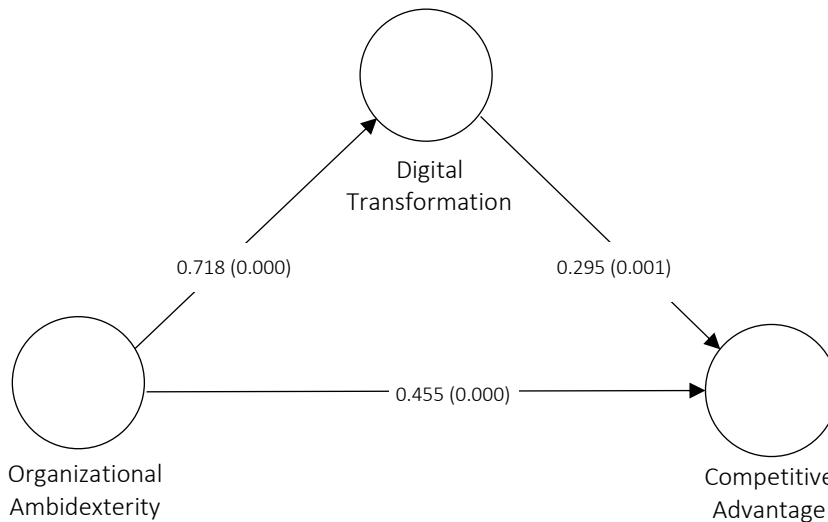
Figure 3. Path diagram of the second and third hypothesis of the research



Furthermore, when the model for the mediation test conducted to examine whether digital transformation mediates the relationship between organizational ambidexterity and competitive advantage is examined; it is seen that the path of Organizational Ambidexterity → Digital Transformation → Competitive Advantage is significant, in addition to this, the path of Organizational Ambidexterity → Competitive Advantage is also significant, and when the product of the coefficients in these paths is examined, it is seen that these products are positive ($0.718*0.295*0.455=96.37$). When these products are positive, it means that there is partial mediation. In addition, the VAF (Variance-Accounted-For) value in determining the mediation effect is: $0.718*0.295/(0.718*0.295)+0.668=0.241$. Since this value is between 0.20 and 0.80, it is determined that there is a partial mediation effect relative to the VAF value, and thus Hypothesis 4 is supported (See Figure 4).



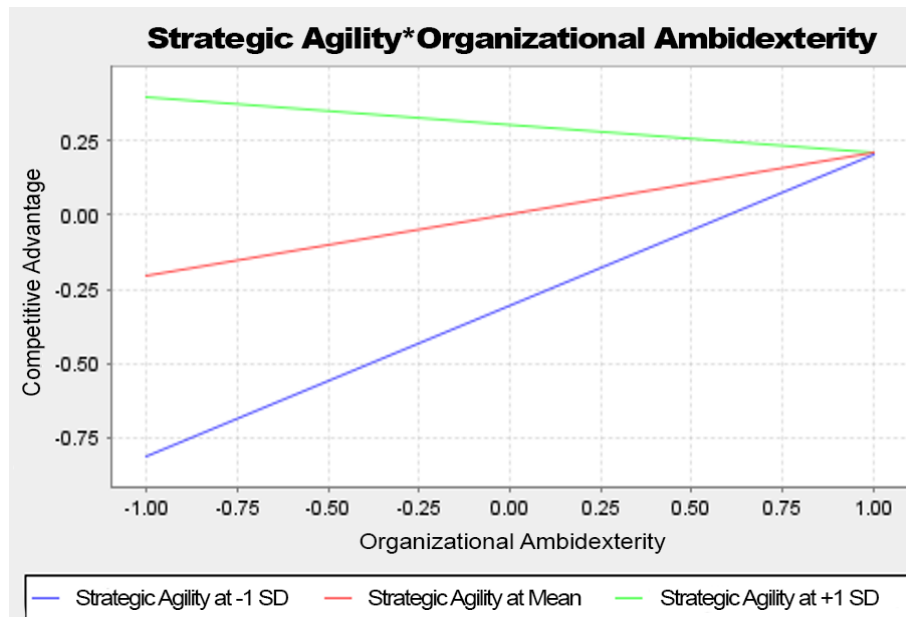
Figure 4. Path diagram of the mediating role of digital transformation on the relationship between organizational ambidexterity and competitive advantage



In the calculation of the interaction terms for testing the moderation effects in the research model, the two-stage method is used in Smart PLS 4. As a result of the analysis conducted to determine whether strategic agility moderates the relationship between organizational ambidexterity and competitive advantage, the effect of the interaction term (Strategic Agility X Organizational Dual Orientation) on competitive advantage is found to be significant ($\beta=-0.301$; $t=2.989$; $p<0.01$). While the relationship between organizational ambidexterity and competitive advantage is normally positive ($\beta=0.207$; $t=2.664$; $p<0.01$), the beta coefficient of the interaction term turns negative when strategic agility is included in the model. According to the results of the Simple Slope Analysis conducted for a deeper understanding of the moderation effect of strategic agility, it is seen that small-scale SMEs' low and medium level of strategic agility further strengthens the positive relationship between their ambidexterity and competitive advantage, while small-scale SMEs' high level of strategic agility weakens the positive relationship between their ambidexterity and competitive advantage, and even very high level of strategic agility turns this relationship negative (See Figure 5). All these results revealed that small-scale SMEs' strategic agility moderates the relationship between their ambidexterity and competitive advantage, and thus, Hypothesis 5 of the study is supported. In this model, where the moderation effect of strategic agility is seen when the R^2 value is examined, it is determined that competitive advantage is explained by 65.8%. The relevance of the moderation effect is evaluated by examining the f^2 values of 0.005, 0.010, and 0.025, which indicate small, medium, and large effects, respectively, as suggested by Kenny (2018) and Hair et al. (2021), and it is seen that the results of the moderation effect of strategic agility on the relationship between organizational ambidexterity and competitive advantage indicated a large effect ($f^2 = 0.080$). In addition, the predictive power of the model is found to be greater than zero ($Q^2_{\text{predict}}=0.534$) and high.



Figure 5. Simple slope analysis of the moderation effect of strategic agility



Furthermore, as a result of the analysis conducted to determine whether environmental dynamism has a moderation effect on the relationship between organizational ambidexterity and competitive advantage, it is found that the effect of the interaction term (Environmental Dynamism X Organizational Ambidexterity) on competitive advantage is not significant ($\beta=-0.108$; $t=1.798$; $p>0.05$) and Hypothesis 6 of the study is not supported.

5. DISCUSSION and CONCLUSION

Research findings indicate that the relationship between the ambidexterity of small-scale SMEs and competitive advantage is positive. Accordingly, small-scale SMEs that can use different strategies at the same time can differentiate from their competitors and take a step forward. Findings show that the relationships between small-scale SMEs' ambidexterity and their digital transformation and between their digital transformation and competitive advantage are also positive. These findings also show that small-scale SMEs that realize their digital transformation in many different operational and managerial processes gain a significant competitive advantage compared to their competitors. In addition, the findings of the study show that digital transformation partially mediates the positive relationship between small-scale SMEs' ambidexterity and competitive advantage. This result shows that the relationship between small-scale SMEs' ambidexterity and competitive advantage is positive if digital technologies, which are an element of digital transformation, are used throughout the enterprise and the adaptation required by digital transformation is ensured. In other words, the ability to use different skills at the same time, which is required to be ambidextrous, is positively associated with a competitive advantage when supported by digital technologies. It is determined as an important finding that the mediating effect here is "partial", that is, the positive relationship between small-scale SMEs' ambidexterity and competitive advantage cannot be



explained only through digital transformation. The research findings also show that small-scale SMEs' strategic agility moderates the relationship between their ambidexterity and competitive advantage. Moreover, it is found that small-scale SMEs' low and medium levels of strategic agility further strengthened the positive relationship between their ambidexterity and competitive advantage. In contrast, small-scale SMEs' high levels of strategic agility weakened the positive relationship between their ambidexterity and competitive advantage, and even a very high level of strategic agility turned this relationship negative. This result shows that when small-scale SMEs react instantly to rapid changes and ups and downs in the business environment, when they see opportunities and evaluate them immediately before their competitors when they immediately update their existing plans according to continuous changes, and when they can do different jobs at the same time, their competitive advantage is decreased. Furthermore, environmental dynamism is found to have no moderation effect on the relationship between organizational ambidexterity and competitive advantage. This finding can be explained by the fact that small-scale SMEs, which have been operating in a frequently changing, dynamic business (task) environment in our country for decades, have internalized this situation and have become somewhat immune to it and maintain their existence accordingly. It can be assumed that small-scale SMEs, which are struggling for survival under the frequency of change in both economic, political, and social parameters, as revealed by Turkish Statistical Institute ([TURKSTAT, 2022](#)) data between 2000 and 2022, have gained a natural immunity to living in this ecosystem, and thus, there is a positive relationship between their ambidexterity and competitive advantage, independent of this environmental dynamism.

5.1. Managerial Impacts

As a result, the success of small-scale SMEs today depends not only on their financial capabilities but also on what they can do differently and in a value-creating way compared to their competitors. Organizations gain competitive advantage through the capabilities and competencies that create value and are rare and hard to imitate. When these characteristics are combined with the positive contributions of organizational ambidexterity and combined with digital technologies, competitive advantage can be achieved by making fast decisions and adapting to change more easily.

5.2. Theoretical Impacts

The theoretical contribution of this study can be explained as examining and explaining the relationship between organizational ambidexterity and competitive advantage through digital transformation for the first time in a model, proposing new moderating variables on this relationship, and filling the gap in this field. The practical contribution of the study is that the relationship between organizational ambidexterity and competitive advantage through digital transformation in small-scale SMEs in the wholesale/retail sector in Turkey has been tested for the first time in a model including moderating variables.



5.3. Limitations of the Study and Future Research Suggestions

In addition to these contributions, the study also has some limitations. First, methodological limitations such as sample size and cross-sectional research design should be taken into consideration. Since the convenience sampling method is used in this study instead of the simple random sampling method due to time and financial constraints, the results of the study should be evaluated within the selected sample and should not be generalized. Another limitation is that the study is conducted in only one province, considering the duration and pandemic conditions. Thirdly, the use of a cross-sectional research design that limits causality inferences is another limitation. A longitudinal research design may be preferred in further research to clearly understand the causal relationships between organizational ambidexterity, digital transformation, and competitive advantage, and how this relationship evolves. A limitation of the scope of this study is that it does not cover all variables that potentially predict competitive advantage. Therefore, the results are specific to our model and another model with other predictor variables may reveal different patterns. Further research could examine the moderating role of environmental uncertainty on the relationship between SMEs' ambidexterity, digital transformation, and competitive advantage through various dimensions such as government policy uncertainty and economic uncertainty.

References

- Achrol, R. S., & Stern, L. W. (1988). Environmental determinants of decision-making uncertainty in marketing channels. *Journal of Marketing Research*, 25(1), 36-50. <https://doi.org/10.1177/002224378802500104>
- Ahammad, M. F., Glaister, K. W., & Gomes, E. (2020). Strategic agility and human resource management. *Human Resource Management Review*, 30(1), 1-3. <https://doi.org/10.1016/j.hrmr.2019.100700>
- Akdoğan, Ş., Akdoğan, A., & Cingöz, A. (2019). Organizational ambidexterity: An empirical examination of organizational factors as antecedents of organizational ambidexterity. *Journal of Global Strategic Management*, 3(2), 17-27. <https://doi.org/10.20460/JGSM.2009318458>
- Battistella, C., De Toni, A., De Zan, G., & Pessot, E. (2017). Cultivating business model agility through focused capabilities: A multiple case study. *Journal of Business Research*, 73, 65-82. <https://doi.org/10.1016/j.jbusres.2016.12.007>
- Berghaus, S., & Back, A. (2016). Gestaltungsbereiche der digitalen Transformation von Unternehmen: Entwicklung eines Reifegradmodells. *DieUnternehmung*, 70(2), 98-123. <https://doi.org/10.5771/0042-059X-2016-2-98>
- Bodwell, W., & Chermack, T. J. (2010). Organizational ambidexterity: Integrating deliberate and emergent strategy with scenario planning. *Technological Forecasting & Social Change*, 77(2), 193-202. <https://doi.org/10.1016/j.techfore.2009.07.004>



- Brannen, M. Y., & Doz, Y. (2012). Corporate languages and strategic agility: Trapped in your jargon or lost in translation?. *California Management Review*, 54(3), 77-97. <https://doi.org/10.1525/cmr.2012.54.3.77>
- Bråthen, M., Doan, E., & Breunig, K. J. (2021). Ambidexterity to overcome digital transformation challenges: A bibliometric review. In *Proceedings on the 2021 ISPIM innovation conference: Innovating our common future*. International Society for Professional Innovation Management, Berlin, Germany.
- Braunscheidel, M. J., & Suresh, N. C. (2009). The organizational antecedents of a firm's supply chain agility for risk mitigation and response. *Journal of Operations Management*, 27(2), 119-140. <https://doi.org/10.1016/j.jom.2008.09.006>
- Büyüköztürk, Ş. (2009). *Sosyal bilimler için veri analizi el kitabı: İstatistik, araştırma deseni, SPSS uygulamaları ve yorum* (9. Baskı). Pegem Yayınları.
- Chan, A., Ngai, E., & Moon, K. (2017). The effect of strategic and manufacturing flexibilities and supply chain agility on firm performance in the fashion industry. *European Journal of Operational Research*, 259(2), 486-499. <https://doi.org/10.1016/j.ejor.2016.11.006>
- Chan, H. K., Yee, R. W., Dai, J., & Lim, M. K. (2016). The moderating effect of environmental dynamism on green product innovation and performance. *International Journal of Production Economics*, 181(B), 384-391. <https://doi.org/10.1016/j.ijpe.2015.12.006>
- Clauss, T., Kraus, S., Kallinger, F. L., Bican, P. M., Brem, A., & Kailer, N. (2021). Organizational ambidexterity and competitive advantage: The role of strategic agility in the exploration-exploitation paradox. *Journal of Innovation and Knowledge*, 6(4), 203-213. <https://doi.org/10.1016/j.jik.2020.07.003>
- Duncan, R. B. (1976). The ambidextrous organization: Designing dual structures for innovation. In R. H. Kilmann, L. R. Pondy, & D. R. Slevin (Eds.), *The management of organization design: Strategies and implementation* (pp. 167-188, Vol. I). North-Holland.
- Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2014). Embracing digital technology: A new strategic imperative. *MIT Sloan Management Review*, 55(2), 1-12.
- Fleisher, C. S., & Bensoussan, B. E. (2003). *Strategic and competitive analysis: Methods and techniques for analyzing business competition*. Prentice Hall.
- Fourné, S. P. L., Rosenbusch, N., Heyden, M. L. M., & Jansen, J. J. P. (2019). Structural and contextual approaches to ambidexterity: A meta-analysis of organizational and environmental contingencies. *European Management Journal*, 37(5), 564-576. <https://doi.org/10.1016/j.emj.2019.04.002>
- Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, 47(2), 209-226. <https://doi.org/10.5465/20159573>



- Gil-Gomez, H., Guerola-Navarro, V., Oltra-Badenes, R., & Lozano-Quilis, J. A. (2020). Customer relationship management: Digital transformation and sustainable business model innovation. *Economic Research-Ekonomika Istraživanja*, 33(1), 2733-2750. <https://doi.org/10.1080/1331677X.2019.1676283>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A Primer on partial least squares structural equation modeling (PLS-SEM)* (3rd Edition). SAGE.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152. <https://doi.org/10.2753/MTP1069-6679190202>
- Henriette, E., Feki, M., & Boughzala, I. (2016). Digital transformation challenges. In *Proceedings Mediterranean Conference on Information Systems (MCIS)*, Cyprus.
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., Ketchen, D. J., Hair, J. F., Hult, G. T. M., & Calantone, R. J. (2014). Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, 17(2), 182-209. <https://doi.org/10.1177/1094428114526928>
- Hock, M., Clauss, T., & Schulz, E. (2016). The impact of organizational culture on a firm's capability to innovate the business model. *R&D Management*, 46(3), 433-450. <https://doi.org/10.1111/radm.12153>
- Hofer, C. W., & Schendel, D. (1978). *Strategy formulation: Analytical concepts*. West Pub. Co.
- Hu, L.-t., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424-453. <https://doi.org/10.1037/1082-989X.3.4.424>
- Hughes, M. (2018). Organisational ambidexterity and firm performance: Burning research questions for marketing scholars. *Journal of Marketing Management*, 34(1-2), 178-229. <https://doi.org/10.1080/0267257X.2018.1441175>
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195-204. <https://www.jstor.org/stable/3094025>
- Jiao, H., Alon, I., & Cui, Y. (2011). Environmental dynamism, innovation, and dynamic capabilities: the case of China. *Journal of Enterprising Communities: People and Places in the Global Economy*, 5(2), 131-144. <https://doi.org/10.1108/17506201111131550>
- Junni, P., Sarala, R., Tarba, S., & Weber, Y. (2015). The role of strategic agility in acquisitions. *British Journal of Management*, 26(4), 596-616. <https://doi.org/10.1111/1467-8551.12115>
- Kenny, D. A. (2018). *Moderation*. <https://davidakenny.net/cm/moderation.htm> (Accessed: 28 September 2022).
- Kofler, T. (2018). *Das digitale Unternehmen*. Springer. <https://doi.org/10.1007/978-3-662-57617-5>



- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Lavikka, R., Smeds, R., & Jaatinen, M. (2015). A process for building inter-organizational contextual ambidexterity. *Business Process Management Journal*, 21(5), 1140-1161. <https://doi.org/10.1108/BPMJ-12-2013-0153>
- Liu, D., Chen, S., & Chou, T. (2011). Resource fit in digital transformation: Lessons learned from the CBC Bank Global e-banking project. *Management Decision*, 49(10), 1728-1742. <https://doi.org/10.1108/00251741111183852>
- Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and performance in small-to medium-sized firms: The pivotal role of top management team behavioral integration. *Journal of Management*, 32(5), 646-672. <https://doi.org/10.1177/0149206306290712>
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71-87. <https://doi.org/10.1287/orsc.2.1.71>
- Morakanyane, R., Grace, A. A., & O'Reilly, P. (2017). *Conceptualizing digital transformation in business organizations: A systematic review of the literature*. Bled eConference, Bled, Slovenia. <https://doi.org/10.18690/978-961-286-043-1.30>
- Moreno-Luzon, M., & Pasola, J. V. (2011). Ambidexterity and total quality management: Towards a research agenda. *Management Decision*, 49(6), 927-947. <https://doi.org/10.1108/00251741111143612>
- Preda, G. (2014). Organizational ambidexterity and competitive advantage: Toward a research model. *Management and Marketing Journal*, (1), 67-74.
- Probst, G., & Raisch, S. (2005). Organizational crisis: The logic of failure. *Academy of Management Perspectives*, 19(1), 90-105. <https://doi.org/10.5465/ame.2005.15841958>
- Rosing, K., & Zacher, H. (2017). Individual ambidexterity: The duality of exploration and exploitation and its relationship with innovative performance. *European Journal of Work and Organizational Psychology*, 26(5), 694-709. <https://doi.org/10.1080/1359432X.2016.1238358>
- Scherer, R. F., Wiebe, F. A., Luther, D. C., & Adams, J. S. (1988). Dimensionality of coping: Factor stability using the ways of coping questionnaire. *Psychological Reports*, 62(3), 763-770. <https://doi.org/10.2466/pr0.1988.62.3.763>
- Schilke, O. (2014). On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism. *Strategic Management Journal*, 35(2), 179-203. <https://doi.org/10.1002/smj.2099>



- Schuchmann, D., & Seufert, S. (2015). Corporate learning in times of digital transformation: A conceptual framework and service portfolio for the learning function in banking organisations. *International Journal of Advanced Corporate Learning*, 8(1), 31-39. <https://doi.org/10.3991/ijac.v8i1.4440>
- Stähle, P., & Grönroos, M. (2009). *Dynamic intellectual capital: Knowledge management in theory and practice*. Werner Soderstrom Osakeyhtio, Porvoo.
- TURKSTAT. (2022). *Turkish Statistical Institute*. <https://data.tuik.gov.tr/Turcat> (Accessed: 30 October 2022).
- Ürü Sanı, F. O., Wolff, R. A., & Demir, B. (2016). Çevresel determinizmin stratejik karar alma sürecindeki rolü. *Eurasian Academy of Sciences Social Sciences Journal*, 1(1), 444-465.
- Ürü, F. O., & Ünsal, A. A. (2022). KOBİ'lerde örgütsel çift yönlülük, dijital dönüşüm, rekabet avantajı, stratejik çeviklik ve çevresel olumsuzluk arasındaki ilişkiler. *İşletme Araştırmaları Dergisi*, 14(4), 3238-3258. <https://doi.org/10.20491/isarder.2022.1560>
- Ürü, F. O., Çalışkan, S. C., Atan, Ö., & Aksu, M. (2011). How much entrepreneurial characteristics matter in strategic decision-making?. *Procedia Social and Behavioral Sciences*, 24, 538-562. <https://doi.org/10.1016/j.sbspro.2011.09.112>
- Westerman, G., Tannou, M., Bonnet, D., Ferraris, P., & McAfee, A. (2017). The digital advantage: How digital leaders outperform their peers in every industry. *Capgemini Consulting, and MIT Sloan Management Report*.
- Yaşar Uğurlu, Ö., Çolakoğlu, E., & Öztosun, E. (2019). Stratejik çevikliğin firma performansına etkisi: Üretim işletmelerinde bir araştırma. *İş ve İnsan Dergisi*, 6(1), 93-106.
- Yazıcıoğlu, Y., & Erdoğan, S. (2004). *SPSS uygulamalı bilimsel araştırma yöntemleri*. Detay Yayıncılık.

Declaration of Contribution Rate: The authors have contributed equally.

Declaration of Support and Appreciation: The research did not receive any support from any institution or organisation.

Declaration of Conflict: The authors declare that there is no conflict of interest.

In this study, the rules stated in the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed.

This article has been screened with **similarity** detection software.