

Effects of Teleworking and Strategic Orientations on Resilience in the Post-Pandemic Period

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January 2023

Volume:20

Issue:51

DOI: [10.26466//opusjsr.1207071](https://doi.org/10.26466//opusjsr.1207071)

Citation:

Yorulmaz, H., Baykal, E. and Eti, S. (2023). Effects of teleworking and strategic orientations on resilience in the post-pandemic period. *OPUS– Journal of Society Research*, 20(51), 30-42.

Abstract

This study investigates the effects of the strategic orientations of SMEs, which are in the group most affected by the COVID-19 pandemic process, which exemplifies volatility, uncertainty, complexity, and ambiguity (VUCA) conditions, on their organizational resilience, and the differentiation of SMEs organizational resilience according to the teleworking style they prefer. The research model and hypotheses were examined by using the Structural Equation Modeling technique on the data collected by the survey method by interviewing 500 SME owners/partners/senior executives operating in the service sector in Turkey. In addition, teleworking methods were compared with post-hoc tests. As the results, technology, market, learning, and entrepreneurial orientations affect organizational resilience positively and significantly. Technology orientation plays an important role for companies to have telework skills in order to ensure business continuity and to increase their organizational resilience. It was determined that organizational resilience in SMEs differed according to the type of telework. The systematic and regular types of telework adopted by firms provide higher organizational resilience than those applied in exceptional and temporary situations. And companies with different strategic orientations combinations will likely have higher organizational resilience. With its perspective and findings, this research both contributes to the relevant literature and is an eye-opener for practitioners.

Keywords: Organizational Resilience, Strategic Orientations, Telework, Remote Work.

Öz

Bu çalışma, değişkenlik, belirsizlik, karmaşıklık ve muğlaklık (VUCA) koşullarına örnek teşkil eden COVID-19 pandemi sürecinden en çok etkilenen grupta yer alan KOBİ'lerin stratejik yönelimlerinin örgütsel dayanıklılıkları üzerindeki etkilerini ve KOBİ'lerin örgütsel dayanıklılıklarının tercih ettikleri uzaktan çalışma tarzına göre farklılaşmasını incelemektedir. Araştırma modeli ve hipotezleri, Türkiye'de hizmet sektöründe faaliyet gösteren 500 KOBİ sahibi/ortağı/üst düzey yöneticisi ile görüşülerek anket yöntemiyle toplanan veriler üzerinde Yapısal Eşitlik Modellemesi tekniği kullanılarak incelenmiştir. Ayrıca uzaktan çalışma yöntemleri post-hoc testlerle karşılaştırılmıştır. Sonuçlara göre, teknoloji, pazar, öğrenme ve girişimsel yönelimler örgütsel dayanıklılığı olumlu ve anlamlı bir şekilde etkilemektedir. Teknoloji yönelimi, firmaların iş sürekliliğini sağlamak ve örgütsel dayanıklılıklarını artırmak için uzaktan çalışma becerilerine sahip olmalarında önemli bir rol oynamaktadır. KOBİ'lerde örgütsel dayanıklılığın uzaktan çalışmanın türüne göre farklılaştığı belirlenmiştir. Firmalar tarafından benimsenen sistematik ve düzenli uzaktan çalışma türleri, istisnai ve geçici durumlarda uygulananlardan daha yüksek organizasyonel dayanıklılık sağlar. Ve farklı stratejik yönelim kombinasyonlarına sahip şirketler, muhtemelen daha yüksek organizasyonel dayanıklılığa sahip olacaktır. Bu araştırma, bakış açısı ve bulgularıyla hem ilgili literatüre katkı sağlamakta hem de uygulayıcılar için ufuk açıcı niteliktedir.

Anahtar Kelimeler: Örgütsel Dayanıklılık, Stratejik Yönelimler, Tele-Çalışma, Uzaktan Çalışma.

Introduction

Unpredictable situations such as the rapid increase in competition in business life, globalization, digitalization, economic crises, natural disasters affect companies in various ways. The great shock was caused by the Covid-19 pandemic for all people and organizations created by people. Small and Medium Enterprises (SMEs) have an important place all around the world especially in emerging economies. They are among the groups most affected by this disaster. In the analysis published by the International Labour Organization (ILO) on the effects of Covid-19 on the business world in 2020, it is emphasized that the companies most negatively affected by the pandemic are SMEs (ILO, 2020b).

Because of the weaknesses of SMEs like lack of funds, having relatively backward technical equipment, and weak ability to withstand market risks may be vulnerable to uncertainties, crises, pandemics, and external shocks (Baykal, 2022; Zhong, 2021). SMEs show basic reflexes required for survival at first due to these weaknesses when unexpected conditions surround them. This feature is called resilience as an ability that includes to recover, react, and resist when an unpredictable situation or shock occurs (Annarelli & Nonino, 2016). Under similar conditions, resilient firms are more capable in responding to sudden, negative, and unexpected events and surviving than others (Fiksel et al., 2015).

Companies have certain competitive strategies for the actions they take to strengthen their positions in the environments and markets in which they operate (O'Regan & Ghobadian, 2006). Strategic orientations that symbolize the characters of companies and their outlook on life not only affect external processes such as the creation of competitive strategies, but also constitute a source for features based on internal dynamics such as resilience (Contreras and Baykal, 2021). Strategic orientations are the firm's philosophy on how to run a business, and where resources and talents will be channeled (Zhou et al., 2005). This is an important and basic building blocks on the road to resilience.

Ensuring business continuity for SMEs was the main problem in the first place when the Covid-19 pandemic occurs. SMEs, which planned flexible working models as recommended in the business continuity planning guide for SMEs published by the ILO in 2009, in order to prevent the devastating effects of pandemics and be prepared for such situations (ILO, 2009), were able to provide business continuity in this process. In addition, flexible working practices of SMEs were supported by the states. According to the World Bank data, the support measures given to SMEs by countries during the pandemic period are concentrated in eight categories, one of which is the practices that encourage flexible working (World Bank, 2020).

Teleworking, which is one of the most common flexible working models, is provided using information and communication technologies in work outside the workplace (Eurofound & ILO, 2017). Digitalization includes the use of tools such as converting analog information to digital information, facilitating remote access and collaboration, cloud computing, and work schedule applications, which lead to business continuity during the pandemic period (ILO, 2020c) enabling companies to survive and gain a competitive advantage in all circumstances.

Previous studies linking resilience and strategic management literatures have been conducted in the context of entrepreneurial strategies and innovation strategies (Baykal, 2019; Senbeto & Hon, 2020). Sheffi and Rice Jr (2005) considered resilience as a strategic initiative that increases the competitiveness of the firm. While Teixeira and Werther (2013) consider resilience as the ability of companies to achieve above-average income by adapting to all kinds of environmental conditions. They concluded that this can be achieved through innovations such as new products, processes, technologies, or business models to be made through strategic planning.

In this study, the authors examine the strategic orientations holistically (technology, market, learning, and entrepreneurial) and investigate the effects of strategic orientations on organizational resilience. With this aspect, the study aims to bring a new perspective to the literature and contribute to the lack of work in this field. This study's scope

is that examined the relationship between the flexible working type preferred by SMEs, which have flexible working skills and can continue their activities during the pandemic period, in accordance with the recommendation of the ILO, and organizational resilience.

SMEs constitute 99.8% of enterprises in Turkey in 2020 and provide 72% of employment (TURKSTAT, 2020a). In the service sector (TURKSTAT, 2020b), where 43.2% of the enterprises in Turkey operate, factors such as the tendency to do business through digital technologies, the uninterrupted provision of services and the changes in customer expectations indicate and explain the increase in importance of flexible working arrangements in this sector. For these reasons, research on SMEs is important. It is desired for the economies of the countries that these companies, which have similar majority ratios in the country's economies all over the world, to be resilient, to provide business continuity with their flexible working competencies, especially in extraordinary situations such as the pandemic process we are experiencing. This study is among the initial studies that examine these relations on SMEs in the context of Turkey and hopes that it makes an important contribution to the literature.

Literature review and Hypotheses Development

Organizational resilience: It is not possible to talk about a consensus in the literature, as there are various opinions about it in which field or by whom the ideas about resilience as a research area were first put forward (Ruiz-Martin et al., 2018). Resilience concept as the subject of research has been discussed in many areas over a wide period. In the field of business and management, the origins of the concept of resilience are based on the theme which refers to the responses of organizations to external threats.

The basis of organizational resilience can also be referred to as the ability to cope with unexpected events and to bounce back to the original situation forms (Zehir & Narcikara, 2016). According to this view, organizational resilience as a capability includes to protect and absorb from unexpected

events. Adaptation, which is the process occurring after unexpected events, includes activities for organizations to deal with unexpected situations and go beyond returning to the initial state (Hillmann & Guenther, 2021).

The starting point of this perspective is to answer the questions that while some organizations collapse in the face of events such as negative environmental developments, major disruptions, crises, and disasters, some organizations continue to develop, increase their skills, and continue to grow beyond their existence (Vogus & Sutcliffe, 2007). Thanks to its adaptability feature, resilient organizations will adapt to the new situation after positive or negative unexpected events, and beyond that, they will be able to turn these situations into opportunities. In other words, they will be able to emerge stronger from crises thanks to their adaptability.

In the organizational resilience literature, most studies define organizational resilience in the context of a single perspective. This singular perspective includes before, during, and after unexpected events. Recently, organizational resilience has begun to be discussed from multiple perspectives. In this study, the concept of organizational resilience is argued from multiple perspectives covering before, during, and after unexpected events. In our opinion, organizational resilience is the organization's preparations to ensure the continuation of its activities in possible events that may pose a threat in the event of negativity, to be able to get rid of the destructive effects of these events when such events occur and to return to their pre-event state, to evaluate the experienced events as development and gain, and from the processes passed that learn is to create new opportunities (Duchek, 2020; Williams et al., 2017).

Strategic orientations: Strategic orientations as adaptive mechanisms are capable of influencing and directing the activities of an organization and include some principles that lead to the production of behaviors that ensure the performance and mobility of the organization (Hakala, 2011). They allow the organization's resources to be focused to achieve desired results. Strategic orientations play

a leading role in the organization's strategy formation processes in challenging competitive conditions, and they are at the center of the decision-making process at organizations (Cho et al., 2022).

Firms can choose and change their strategic orientation according to the situation. However, firms may have a combination of several strategic orientations according to their goals, objectives, and environmental conditions (Hakala, 2011). This study also has the point of view that companies may have one or more strategic orientations according to the conditions.

The general trend in the literature is towards the relationship between organizational performance and strategic orientations (Dionysus & Arifin, 2020; Shim et al., 2021). This study presents a different context by focusing on the relationship between strategic orientations and organizational resilience of organizations. The reason of the different perspective in this paper is the difficulties brought by today's environmental conditions that companies are exposed and must be resilient.

For SMEs facing issues such as pandemic, economic fluctuations, technological infrastructure and compliance to ensure business continuity, the necessity of internal competencies such as resilience rather than external results such as performance comes to the fore. From this point of view, in this paper, the strategic orientation or orientations of the companies and the relationship between this relationship and their organizational resilience will be discussed.

Although strategic orientations have various dimensions and sub-dimensions in the literature, the main strategic orientations are classified by Hakala (2011) as technology, market, learning and entrepreneurial orientations.

Entrepreneurial Orientation: The concept of entrepreneurial orientation, emerged in the literature with the discussing of entrepreneurship at the organizational level defines entrepreneurship as an organizational quality (Anderson et al., 2015; Wales et al., 2020). Within the framework of this concept, answers are sought to the questions of what makes organizations

entrepreneurs and how to distinguish these entrepreneurial organizations from others (Anderson et al., 2015).

Hakala (2011) argued that organizations with an entrepreneurial orientation has the ability to change and shape the environment. In the context of entrepreneurial orientation, basic entrepreneurial processes are based on five features characterized as risk-taking, proactivity, innovation, competitive aggressiveness, and autonomy (Wales et al., 2020).

Previous studies empirically revealed that entrepreneurial orientation has a positive effect on organizational resilience. For instance, Al-Hakimi and Borade (2020), Goail and Al-Hakimi (2021), Mandal and Saravanan (2019) found positive relationship between entrepreneurial orientation and organizational resilience.

In the Covid-19 pandemic context, Zighan et al. (2021) investigated the planned or improvised practices behind the resilience of SMEs and found that the development of new capabilities protects companies against different threats by entrepreneurial orientation. Eshagheri and Korgba (2017) found that entrepreneurial orientation is significantly positively related to organizational resilience in a similar study conducted in Nigeria. Being inspired by these studies we hypothesized that:

H1: Entrepreneurial Orientation has a positive effect on Organizational Resilience

Market Orientation Today, modern marketing is built on market orientation (Grinstein, 2008). Market orientation was put forward in the 1990s as the actions undertaken by companies within the framework of customer orientation, the behaviors they perform and the organizational culture they have in parallel with this (Narver & Slater, 1990). Market orientation can be defined as the company's ability to understand and use the information it has about its customers, competitors, and the market in order to create value (Hakala, 2011).

Previous studies empirically revealed that market orientation has an effect on organizational resilience. Mandal and Saravanan (2019) concluded that market orientation has a strong negative effect on organizational resilience as a

result of their research with 276 companies operating in the tourism sector. Unlike this study, Okello and Luttah (2022) concluded that market orientation positively affects organizational resilience. Martinelli and Tagliazzucchi (2019) also showed that market orientation has a positive and significant effect on resilience. Later, Huang and Farboudi Jahromi (2021) also argued that market orientation increases resilience in firms operating in the service sector. Being inspired by these studies we hypothesized that:

H2: Market Orientation has a positive effect on Organizational Resilience

Learning Orientation: Learning orientation is defined as the activity of creating, acquiring, and using knowledge throughout the organization to increase competitive advantage (Chiva et al., 2014). Organizations can understand the needs of their customers better and faster than their competitors, thanks to their learning orientation.

Learning orientation reflects the attitudes of organizations towards supporting the process of learning. It includes the entire process of creating, acquiring, sharing and using knowledge throughout the organization. It relates to what types of information will be collected, and how it will be interpreted and shared (Chiva et al., 2014).

Previous studies empirically revealed that learning orientation has an effect on organizational resilience. Chowdhury and Quaddus (2016) concluded in their research in the apparel industry in Bangladesh that an increase in learning increases resilience. Similarly, Mandal and Saravanan (2019) obtained the result that learning orientation positively affects resilience in their study in the tourism sector. Brykman and King (2021) discovered a positive relationship between learning behaviors and resilience capacity in their research on start-ups operating in the technology sector in Canada. Being inspired by these studies we hypothesized that:

H3: Learning Orientation has a positive effect on Organizational Resilience

Technology Orientation: Technology orientation is based on the idea of investing in new technologies to develop new products and services

and ensure long-term success through the technological solutions offered (Grinstein, 2008). Technology orientation enables organizations to develop technical solutions for the new needs of customers by having an important technological infrastructure and to develop new products using this infrastructure. A technology-oriented organization is open to new ideas and tends to adopt new technology during product development stages (Tsou et al., 2014). These types of firms are R&D-oriented and willing to acquire and incorporate new technologies (Masa' deh et al., 2018).

Past studies in the literature mostly relate to the moderating role of technology orientation. Mandal and Saravanan (2019) did not discover a significant effect of technology orientation on resilience, although they have positive path coefficients in the tourism sector. Moreover, Mandal (2017) found that technology orientation increases the impact of organizational culture on resilience in the health sector (Mandal, 2020), and that it increases the effect of IT capacities on resilience in the tourism sector (Mandal, 2019). Being inspired by these studies we hypothesized that:

H4: Technology Orientation has a positive effect on Organizational Resilience

Flexible working (Teleworking): Flexible working arrangements are the non-standard application of the working style, defined as standard working in the literature, occur five days a week and eight hours a day, more flexibly, both in terms of working place and in terms of working time (Brummelhuis et al., 2012). Flexible working arrangements have different forms of working time and workplace flexibility.

Although the application examples of flexible working arrangements are encountered in almost every sector, the increase in the share of the service sector in the economy in terms of employment is one of the main reasons for the rise in flexible working arrangements. The tendency of the service sector to conduct business through digital technologies and changes in customer expectations and the fact that services must be provided uninterruptedly impact this.

Organizations and employees have an option with flexible working arrangements to choose the location, timing, or amount of their work, and allowing employees to provide their work-life balance more effectively (De Menezes & Kelliher, 2017). Teleworking is a type of flexible working model classified within flexible working arrangements. Type of the work is done through information and communication technologies and tools, is called *teleworking* in Europe, and the term *telecommuting* is used in USA, India, and Japan (Eurofound & ILO, 2017) as the equivalent of the same concept.

According to the ILO (2020a), the concept of remote work is the umbrella concept that includes the concept of telework. The concept of telework is defined as doing the work partially or completely in an alternative place outside the workplace, by using information and communication technologies. The emphasis here to show that telework is different from remote work which is to do the work, especially through information and communication technologies.

Although there are various types of telework in the literature, in this study, we deal with telework by adhering to the types and classification in the "Covid-19: Guidance for labor statistics data collection" (ILO, 2020a) published by the ILO in 2020. Types of telework according to this classification:

1. *Home-based telework*: All work is carried out from home by the employee.
2. *Regular work at home*: At least 1 day a week at workplace, however the main workplace of the employee is still not home.
3. *Occasional work at home*: Working mostly at office, in exceptional cases work at home but the main workplace of the employee is not home.
4. *High-mobility telework*: Work is carried out from any place other than the workplace.
5. *Low-mobility telework*: Working from a place other than the workplace once in the last four weeks.

According to Syed et al. (2020) technology adoption in organizational level can lead to greater levels of organizational resilience. It is a kind of business continuity strategy. Practices like teleworking increase organizational performance

(Busu and Gyorgy, 2021) and ensure organizational resilience in times of shock (Geciene, 2021). Teleworking is an essential tool for companies to maintain their services and communication with their customers in times like the Covid-19 pandemic (Mokline & Abdallah, 2021).

Telework also supports the establishment of social resilience (Moglia et al., 2021), as it provides the opportunity to work even when various crises or disasters occur (Campisi et al., 2020). Based on the studies in the literature, the authors of this study assume that telework has a positive effect on organizational resilience, and in this study, it is tested whether there is any differentiation in organizational resilience according to the teleworking style. Hence, it is hypothesized that:

H5: Organizational Resilience differs according to teleworking type of organizations.

Methodology

Sample and measures: In this research, businesses that have flexible working arrangements and comply with the definition of SME were selected among the service businesses registered in the Istanbul Chamber of Commerce. Face-to-face questionnaires were collected from candidates who are owners, partners, or senior executives who are critical employees close to strategic decision-making mechanisms, and from HR managers who have at least five years of managerial experience. The reason for choosing Istanbul is the fact that this city is the main business center of Turkey and has a commercial density higher than the population density it hosts throughout the country.

In this study, the 60-question strategic orientations scale, adapted by Bulut (2007) was used. The scale consists of 4 dimensions as entrepreneurial, market, learning and technology orientations and 12 sub-dimensions related to them. To measure the concept of organizational resilience, a scale developed by Wicker et al. (2013) measuring organizational resilience with 21 expressions was used.

The scales were prepared with a 5-point Likert scale to measure the participants' level of

agreement with the stated statements. The degree of agreement with the statement was arranged as (1: lowest-5: highest).

In addition, with the socio-demographic information form of 10 questions, besides reaching descriptive information, the preferences of the companies for the type of telework and the factors that are effective in the transition to flexible working were ask to gain an understanding of their choices.

Validity and reliability of the questionnaire: Exploratory factor analysis (EFA) and confirmatory factor analyzes (CFA) were performed to measure and evaluate whether the variables were loaded together as seen in Table 1.

Table 1. Factor loadings

| Construct | Items | Factor Loading | | Scale Reliability |
|-----------------------------|-------|----------------|-------|--|
| | | EFA | CFA | |
| Organizational Resilience | 1 | 0,753 | 0,829 | Cronbach α; 0,942 CR; 0,931 AVE; 0,772 KMO = 0,946 Total Variance: %75,791 |
| | 2 | 0,771 | 0,746 | |
| | 3 | 0,824 | 0,879 | |
| | 4 | 0,663 | 0,79 | |
| | 6 | 0,739 | 0,769 | |
| | 7 | 0,644 | 0,751 | |
| | 9 | 0,786 | 0,838 | |
| Entrepreneurial Orientation | 10 | 0,720 | 0,802 | Cronbach α; 0,944 CR; 0,88 AVE; 0,647 KMO = 0,941 Total Variance: %75,449 |
| | 12 | 0,794 | 0,663 | |
| | 13 | 0,746 | 0,859 | |
| | 14 | 0,659 | 0,837 | |
| | 19 | 0,796 | 0,829 | |
| | 20 | 0,787 | 0,836 | |
| | 21 | 0,683 | 0,867 | |
| | 1 | 0,749 | 0,828 | |
| | 2 | 0,839 | 0,888 | |
| | 3 | 0,822 | 0,862 | |
| | 4 | 0,731 | 0,747 | |
| Market Orientation | 5 | 0,727 | 0,778 | Cronbach α; 0,889 CR; 0,762 AVE; 0,518 KMO = 0,900 Total Variance: %62,793 |
| | 6 | 0,732 | 0,805 | |
| | 8 | 0,716 | 0,769 | |
| | 9 | 0,830 | 0,789 | |
| | 10 | 0,775 | 0,837 | |
| | 11 | 0,796 | 0,796 | |
| | 12 | 0,697 | 0,762 | |
| | 13 | 0,789 | 0,831 | |
| | 14 | 0,815 | 0,841 | |
| | 15 | 0,744 | 0,844 | |
| Market Orientation | 16 | 0,823 | 0,836 | Cronbach α; 0,919 CR; 0,837 AVE; 0,563 KMO = 0,913 Total Variance: %64,343 |
| | 17 | 0,776 | 0,831 | |
| | 18 | 0,608 | 0,884 | |
| | 19 | 0,806 | 0,765 | |
| | 20 | 0,709 | 0,677 | |
| Learning Orientation | 21 | 0,792 | 0,773 | Cronbach α; 0,852 CR; 0,865 AVE; 0,571 KMO = 0,810 Total Variance: %64,152 |
| | 22 | 0,809 | 0,794 | |
| | 23 | 0,718 | 0,678 | |
| | 24 | 0,707 | 0,7 | |
| | 25 | 0,667 | 0,668 | |
| | 26 | 0,663 | 0,619 | |
| | 27 | 0,867 | 0,876 | |
| | 28 | 0,880 | 0,85 | |
| | 29 | 0,787 | 0,754 | |
| | 30 | 0,604 | 0,687 | |
| 31 | 0,724 | 0,758 | | |
| 32 | 0,760 | 0,717 | | |
| 33 | 0,711 | 0,671 | | |
| 34 | 0,756 | 0,702 | | |
| Technology Orientation | 35 | 0,784 | 0,783 | Cronbach α; 0,852 CR; 0,865 AVE; 0,571 KMO = 0,810 Total Variance: %64,152 |
| | 36 | 0,688 | 0,699 | |
| | 37 | 0,824 | 0,798 | |
| | 38 | 0,739 | 0,764 | |
| | 39 | 0,733 | 0,76 | |
| | 42 | 0,748 | 0,755 | |
| | 43 | 0,784 | 0,811 | |
| | 44 | 0,728 | 0,647 | |
| | 45 | 0,663 | 0,687 | |
| | 46 | 0,773 | 0,787 | |
| Technology Orientation | 47 | 0,780 | 0,812 | Cronbach α; 0,852 CR; 0,865 AVE; 0,571 KMO = 0,810 Total Variance: %64,152 |
| | 48 | 0,739 | 0,735 | |
| | 49 | 0,797 | 0,789 | |
| | 50 | 0,704 | 0,735 | |
| | 52 | 0,650 | 0,73 | |
| | 53 | 0,561 | 0,616 | |
| | 54 | 0,727 | 0,758 | |
| | 55 | 0,766 | 0,741 | |
| | 56 | 0,765 | 0,659 | |
| | 57 | 0,576 | 0,583 | |
| Technology Orientation | 58 | 0,553 | 0,459 | Cronbach α; 0,852 CR; 0,865 AVE; 0,571 KMO = 0,810 Total Variance: %64,152 |
| | 59 | 0,861 | 0,844 | |
| | 60 | 0,905 | 0,89 | |
| | 61 | 0,808 | 0,723 | |
| | 62 | 0,829 | 0,785 | |

| Construct | Items | Factor Loading | | Scale Reliability |
|-----------------------------|-------|----------------|-------|--|
| | | EFA | CFA | |
| Organizational Resilience | 1 | 0,753 | 0,829 | Cronbach α; 0,942 CR; 0,931 AVE; 0,772 KMO = 0,946 Total Variance: %75,791 |
| | 2 | 0,771 | 0,746 | |
| | 3 | 0,824 | 0,879 | |
| | 4 | 0,663 | 0,79 | |
| | 6 | 0,739 | 0,769 | |
| | 7 | 0,644 | 0,751 | |
| | 9 | 0,786 | 0,838 | |
| Entrepreneurial Orientation | 10 | 0,720 | 0,802 | Cronbach α; 0,944 CR; 0,88 AVE; 0,647 KMO = 0,941 Total Variance: %75,449 |
| | 12 | 0,794 | 0,663 | |
| | 13 | 0,746 | 0,859 | |
| | 14 | 0,659 | 0,837 | |
| | 19 | 0,796 | 0,829 | |
| | 20 | 0,787 | 0,836 | |
| | 21 | 0,683 | 0,867 | |
| | 1 | 0,749 | 0,828 | |
| | 2 | 0,839 | 0,888 | |
| | 3 | 0,822 | 0,862 | |
| | 4 | 0,731 | 0,747 | |
| Market Orientation | 5 | 0,727 | 0,778 | Cronbach α; 0,889 CR; 0,762 AVE; 0,518 KMO = 0,900 Total Variance: %62,793 |
| | 6 | 0,732 | 0,805 | |
| | 8 | 0,716 | 0,769 | |
| | 9 | 0,830 | 0,789 | |
| | 10 | 0,775 | 0,837 | |
| | 11 | 0,796 | 0,796 | |
| | 12 | 0,697 | 0,762 | |
| | 13 | 0,789 | 0,831 | |
| | 14 | 0,815 | 0,841 | |
| | 15 | 0,744 | 0,844 | |
| Market Orientation | 16 | 0,823 | 0,836 | Cronbach α; 0,919 CR; 0,837 AVE; 0,563 KMO = 0,913 Total Variance: %64,343 |
| | 17 | 0,776 | 0,831 | |
| | 18 | 0,608 | 0,884 | |
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| | 20 | 0,709 | 0,677 | |
| Learning Orientation | 21 | 0,792 | 0,773 | Cronbach α; 0,852 CR; 0,865 AVE; 0,571 KMO = 0,810 Total Variance: %64,152 |
| | 22 | 0,809 | 0,794 | |
| | 23 | 0,718 | 0,678 | |
| | 24 | 0,707 | 0,7 | |
| | 25 | 0,667 | 0,668 | |
| | 26 | 0,663 | 0,619 | |
| | 27 | 0,867 | 0,876 | |
| | 28 | 0,880 | 0,85 | |
| | 29 | 0,787 | 0,754 | |
| | 30 | 0,604 | 0,687 | |
| 31 | 0,724 | 0,758 | | |
| 32 | 0,760 | 0,717 | | |
| 33 | 0,711 | 0,671 | | |
| 34 | 0,756 | 0,702 | | |
| Technology Orientation | 35 | 0,784 | 0,783 | Cronbach α; 0,852 CR; 0,865 AVE; 0,571 KMO = 0,810 Total Variance: %64,152 |
| | 36 | 0,688 | 0,699 | |
| | 37 | 0,824 | 0,798 | |
| | 38 | 0,739 | 0,764 | |
| | 39 | 0,733 | 0,76 | |
| | 42 | 0,748 | 0,755 | |
| | 43 | 0,784 | 0,811 | |
| | 44 | 0,728 | 0,647 | |
| | 45 | 0,663 | 0,687 | |
| | 46 | 0,773 | 0,787 | |
| Technology Orientation | 47 | 0,780 | 0,812 | Cronbach α; 0,852 CR; 0,865 AVE; 0,571 KMO = 0,810 Total Variance: %64,152 |
| | 48 | 0,739 | 0,735 | |
| | 49 | 0,797 | 0,789 | |
| | 50 | 0,704 | 0,735 | |
| | 52 | 0,650 | 0,73 | |
| | 53 | 0,561 | 0,616 | |
| | 54 | 0,727 | 0,758 | |
| | 55 | 0,766 | 0,741 | |
| | 56 | 0,765 | 0,659 | |
| | 57 | 0,576 | 0,583 | |
| Technology Orientation | 58 | 0,553 | 0,459 | Cronbach α; 0,852 CR; 0,865 AVE; 0,571 KMO = 0,810 Total Variance: %64,152 |
| | 59 | 0,861 | 0,844 | |
| | 60 | 0,905 | 0,89 | |
| | 61 | 0,808 | 0,723 | |
| | 62 | 0,829 | 0,785 | |

Notes
Principal Component Analysis with Varimax Rotation
All Construct's Bartlett Test are; p < 0.001
All CFA Paths are statistically significant at p < 0.001
CFA X2/df = 2,494; RMSEA = 0,055

Using the Varimax Rotation for Explanatory Factor Analysis, it was evaluated whether the variables were sufficiently related and loaded as expected by the Principal Component Analysis method. The results of the Kaiser-Meyer-Olkin (KMO) sample adequacy test and Bartlett equality of variance test used to test the fit of the data set show that the data set was compatible. The KMO values of the variables were above the desired 0.50 level and the Barlett tests are at the 0.001 significance level. According to the Factor Analysis results, the smallest KMO value was 0.81, and it can be said that the sample size is sufficient for all dimensions. In addition, the exploratory factor loads of the expressions are above 0.5. Cronbach's alpha value was checked for the reliability of the dimensions created, and it was considered reliable because it was above 0.6 for the dimensions. The dimensions created after the exploratory factor analysis were analyzed by CFA. According to CFA analysis, factor loadings were found to be appropriate. The CR values were checked for the reliability of the dimensions in the DFA, and it was seen that all of them were above 0.6. The model

goodness values of the CFA model were examined. The χ^2/Df value was found to be 2,494 and the RMSEA value to be 0.055. According to these results the fit of the model is seems good. As a result, when Table 1 is examined, it was seen that the dimensions to be used in the study are appropriate according to the reliability and validity statistics of the scales.

Table 2. Correlation matrix

| Construct | OR | EO | MO | LO | TO |
|----------------------------------|----------|----------|----------|----------|-------|
| Organizational Resilience (OR) | 0,879 | | | | |
| Entrepreneurial Orientation (EO) | 0,729*** | 0,805 | | | |
| Market Orientation (MO) | 0,62*** | 0,742*** | 0,72 | | |
| Learning Orientation (LO) | 0,595*** | 0,64*** | 0,888*** | 0,75 | |
| Technology Orientation (TO) | 0,698*** | 0,751*** | 0,46*** | 0,505*** | 0,756 |

“*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, ns = not significant”

“Note: All correlations are statistically significant at $p < 0.001$. Squared AVE values are represented in diagonals for Discriminant Validity.”

The relationships between the dimensions obtained by factor analysis are given in Table 2. When Table 2 is examined, it is seen that all dimensions have a positive and significant relationship with each other. In other words, it can be said that institutions with a high value in one dimension also have a high value in the other dimension.

Results

Structural equation modeling was used to test the hypotheses. Analysis results supported all hypotheses. According to the results, technology, entrepreneurial, learning and market orientations affect organizational resilience positively and significantly. The results are presented in Table 3. Thus, hypotheses H1, H2, H3, and H4 are confirmed.

Table 3. Structural model and hypothesis testing

| Hypothesis | β | S.E. | C.R. | P |
|---------------------------------------|---------|-------|-------|-----|
| <--- Entrepreneurial Orientation | 0,255 | 0,035 | 7,261 | *** |
| Organizational<--- Market Orientation | 0,292 | 0,067 | 4,341 | *** |
| Resilience <--- Learning Orientation | 0,166 | 0,045 | 3,715 | *** |
| <--- Technology Orientation | 0,405 | 0,056 | 7,19 | *** |

“*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, ns = not significant”

As can be seen in Table 3, technology orientation has the highest coefficient in the H4

hypothesis (0.405), and it has been discovered that it is the variable that most positively affects organizational resilience. In the H3 hypothesis, learning orientation has the lowest coefficient (0,166) and it has been determined as the variable with the least effect, although it positively affects organizational resilience. In the H1 and H2 hypotheses, the coefficients have average values compared to other hypotheses.

Table 4. Comparison of organizational resilience by type of telework

| | Types of telework | Mean | Standard deviation | H | p | Post-Hoc |
|---|-------------------------|-------|--------------------|--------|--------|----------|
| 1 | Home-based work | 3,795 | 0,817 | | | 3<->2 |
| 2 | Regular work at home | 4,009 | 0,495 | | | 5<->2 |
| 3 | Occasional work at home | 3,854 | 0,473 | 19,646 | <0,001 | 3<->4 |
| 4 | High-mobility telework | 3,936 | 0,587 | | | 5<->4 |
| 5 | Low-mobility telework | 3,655 | 0,723 | | | |

It was determined that organizational resilience in institutions differed according to the type of telework ($H=19,646$; $p<0.001$). Working patterns were compared in pairs with post hoc tests. According to this comparison result seen in Table 4, companies applying regular work at home have higher organizational resilience than those applying occasional work at home and applying low-mobility telework. Also, those who applying high-mobility telework have higher organizational resilience than those who applying occasional work at home and applying low-mobility telework.

Discussion

This article tests the effect of the main strategic orientations (technology, market, learning, and entrepreneurial) (Hakala, 2011) on organizational resilience and makes an empirical analysis of the relationship between different types of telework in practice and organizational resilience. The path analysis of the study is quite explanatory when trying to understand how various strategic orientations affect organizational resilience and how organizational resilience differs according to different telework types. In the current literature, there are studies examining the effects of various

strategic orientations on organizational resilience and obtaining results in line with the findings of this study (Coleman & Adim, 2019; Tortorella et al., 2022). However, the number of studies that deal with strategic orientations holistically is quite limited and there is not any study examining the relationship between telework types and organizational resilience.

Previously, Mandal and Saravanan (2019) revealed the significant positive effects of learning orientation on organizational resilience and significant negative effects of market orientation on organizational resilience in the tourism industry. They discovered that there is not any significant effect of entrepreneurial and technology orientations. Our findings, except for learning orientation, differ from this study. However, in studies that deal with strategic orientations singularly in the literature, have showed that entrepreneurial orientation (Al-Hakimi & Borade, 2020; Eshegheri & Korgba, 2017; Goail & Al-Hakimi, 2021; Zighan et al., 2021), market orientation (Huang & Farboudi Jahromi, 2021; Martinelli & Tagliazzucchi, 2019; Okello & Luttah, 2022), learning orientation (Brykman & King, 2021; Chowdhury & Quaddus, 2016), technology orientation (Mandal, 2019) positively affect organizational resilience.

According to the results of this research, which deals with strategic orientations holistically, significant positive effects of each basic strategic orientation on organizational resilience were discovered, although at different rates. The technology orientation has the highest coefficient of positive effect on organizational resilience. Studies in the literature, the organizational information processing model (Gupta et al., 2022), which is beneficial in acquiring telework competence in order for companies to ensure business continuity, develops thanks to openness to technological innovations and technology orientation (Yu et al., 2022). As supported by the results of this research, it can be concluded that technology orientation plays an important role for companies to have telework skills in order to ensure business continuity and to increase their organizational resilience.

Moreover, strong correlations were found between strategic orientations in this study. These findings confirm the high correlation results found between strategic orientations in studies in the literature (e.g., Grinstein, 2008; Hakala, 2011). Based on this, in line with the view that the probability of high performance will increase if companies adopt more than one strategic orientation combination depending on the situation (Masa'deh et al., 2018; Sahi et al., 2020), it reveals the possibility that companies with different strategic orientation combinations will have higher organizational resilience puts. In other words, firms should adopt multiple strategic orientations simultaneously, albeit at different rates, to increase their organizational resilience. By incorporating these orientations into established behaviors and abilities, they can gain an advantage on the road to organizational resilience.

According to the prominent view in the literature, having a single strategic orientation or focusing on a single strategic orientation can create some disadvantages (Quinton et al., 2018). This view is also supported by empirical studies. For example, a firm that focuses solely on market orientation may miss opportunities in the market that is associated with entrepreneurship, or a non-market-oriented entrepreneurial orientation is in contrast and therefore must have both (Matsuno, Mentzer, & Özsomer 2002). Having only market orientation hinders market-based innovation (innovation) or having only technology orientation leads to less interest in market-based innovation (innovation) and therefore it is also important to have an entrepreneurial orientation concurrently with these orientations (Zhou et al., 2005). In line with the views in the literature, as supported by the results of our research, companies should have multiple strategic orientations. Especially when factors such as turbulence in today's business conditions and the high speed of development in technology are evaluated together, having a single strategic orientation causes some areas to be missing, some opportunities to be missed, and to be weak in resilience, which is the main subject of our research.

As supported by the research results, companies should be technology-oriented and

invest in new technologies, so that they should both have technological equipment for skills such as remote working and be able to take steps towards developing new products and services. Firms should be in a position to be sensitive and actively respond to customer demands and competitor moves by ensuring interdepartmental coordination and market orientation. Firms should exhibit a competitive approach with an entrepreneurial orientation, develop a risk understanding to evaluate the opportunities that will arise in the market, and be innovation-oriented. Firms should be learning-oriented and should use the knowledge obtained through learning in a way that supports all other processes such as innovation, competition, and technology. In short, to increase their organizational resilience, companies should melt all these in a common pot and have a strategic orientation mix in proportions that are appropriate for their context.

This research also revealed differences in organizational resilience level according to telework types. In this regard, the pair comparisons revealed that regular work at home creates a high level of organizational resilience compared to occasional work at home and low-mobility telework. Moreover, it was revealed that when companies make telework regular and continuous for a few days a week their organizational resilience is higher in comparison to the condition occurs when they work temporarily/exceptionally from a place outside the office or temporary work from home. Firms that apply high-mobility telework for business purposes have higher organizational resilience compared to firms that apply occasional work at home. However, high-mobility telework, is associated with relatively high durability compared to low-mobility telework which is usually exceptional work outside the workplace.

Based on these findings, it can be concluded that the types of telework that are accepted, systematized and regular by the companies provide higher organizational resilience compared to the types of telework applied in exceptional and temporary situations. At the same time, it can be deduced that such companies are more resilient

and more prepared for possible negative situations.

Limitations and suggestions for future studies

Data on the empirical research of this study were collected in a limited geographical area. In the research, companies in Istanbul were contacted. The density of service companies in this region and the facilitation of communication with these companies have shifted the focus of the fieldwork to this particular geographical area. Therefore, the representativeness of the data is limited by the nature of the companies located in Istanbul. In addition, the research was conducted on SMEs in the service sector. The service sector is a wide spectrum and includes many sub-sectors within itself. There is a need for specification of the sector criterion and sector-based research, especially in the separation of organizational resilience according to telework types. However, future studies may focus on measuring organizational resilience by types of telework.

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