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**THE COVID – 19 CRISIS AS A GAME-CHANGING
EVENT TOWARD SMES DIGITALIZATION**

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***Abstract:** The world economy has been seriously impacted by the coronavirus pandemic. Micro, small, and medium-sized businesses (SMEs) have been particularly affected by the COVID-19 crisis facing with numerous challenges in their efforts to overcome the crisis. In this rapidly changing environment, digital transformation has become a key priority for each company to deal with business interruption. This paper aims to analyze the importance and need of going digital in order to enhance SMEs resilience to external shocks, focusing on the Covid-19 pandemic as an event that caused high adoption of digital technology.*

***Keywords:** The Covid – 19, digital transformation, SMEs, strategy, new environment*

1. Introduction

The global impact of the Covid-19 pandemic was unexpected and is likely to have a long-term effect on economies around the world.

The COVID-19 outbreak is a global crisis that has placed small and medium enterprises (SMEs) under huge pressure to survive, requiring them to respond effectively to the crisis (Guo H. at all., 2020). SMEs have limited resources in their operations, which makes them even more vulnerable of external shocks than other companies.

Working conditions of enterprises are becoming increasingly more uncertain and dynamic with everyday technological innovations, and even more complex for smaller businesses that have limited financial and human resources. Businesses that employ digital

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technologies and Internet in their day-to-day operations become more competitive and more efficient, while time and space constraints are no longer an issue for them. Consumer needs and habits changed as a result of the Internet in our daily lives, and this forces changes in traditional business processes as well. (Angeloska- Dichovska et.al., 2019).

The restrictions and barriers caused by COVID-19 have contributed to the faster spread of the digital revolution, deep penetration into all spheres of society, accelerating digital business transformation and participation in e-commerce. The competitive environment of all companies is changing drastically; a different set of rules and new challenges are emerging, which require a different approach from the previous one. Also, consumer behavior and their expectations are changing. Today, consumers accepted new patterns of behavior for considerable lengths of time in response to the multiple waves of this pandemic.

This paper was prepared through a systematic literature review that examined the impact of the Covid -19 crisis on SMEs performance and their digital transformation. Hence, we are particularly interested in the following research question: What are the opportunities and challenges of digital transformation for SMEs? To answer this research question, we have conducted secondary research of the most relevant research and white papers, conference papers, open-access materials, study reports related to the research topic.

This paper is structured as follows: section two presents the literature review, followed by the analysis of the impact of the Covid-19 crises on Macedonian SMEs applied in section three. The benefits and challenges of digital transformation in SMEs are presented within the fourth section of the article, alongside a discussion of the empirical findings. The last section of the paper presents the conclusions and recommendations of the study.

2. Literature review

The literature provides a theoretical analysis of the contribution of the SMEs to the economic activities of various countries worldwide. Many analysts and policymakers recognize the significance of SMEs for sustainable economic development, contribution to GDP growth, development of entrepreneurial skills and jobs creation. According to the analysis of the European Commission, SMEs are the pillar of the European economy and contribute to 99% of all business in the euro area, employ around 100 million of the euro area workforce and generate more than half of the GDP of Europe (OECD, 2021). In developing countries, SMEs play a fundamental role in reducing poverty and promoting sustainable growth (Singh, A. and Venkata NA, 2017). According to The World Bank (2019), in emerging economies, formal SMEs contribute up to 40% of GDP and are the ones that create the most formal job opportunities, creating seven out of ten jobs. Petkovska (2015) emphasises that creativity and innovation are key characteristics for the continued competitiveness and growth of SMEs. Compared to large companies, SMEs have the ability to quickly and efficiently develop and implement new ideas to improve their business practice and performance.

The Covid-19 crisis has shown how important it is for companies to be able to adapt quickly and efficiently to changes in their external environment in order to avoid risks and take advantage of opportunities. In their profound research, Klein and Todesco (2020)

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concluded that the Covid-19 crisis has enhanced the race for digital transformation, changes in client behavior and emphasizes the managerial and technological knowledge gap that are required to address those issues. In fact, the pandemic showed the significance of business digital transformation for running a successful business, nowadays.

Digital transformation is the process of digital technology integration into all areas of business processes to create new or change the way it operates and delivers value to clients. In their white paper, Veritis Group Inc. (2020) list the benefits of digital transformation for business, including the following: improved client satisfaction and engagement, improved digital traffic, improved conversion rate, etc.

The research study carried out by OECD (2021) indicates that 70% of SMEs intensified the use of digital technology in their business activities due to the Covid-19 pandemic; 55% of SMES surveyed in Brazil noticed an improvement in client relations as a result of digitalization during the corona crisis, while 72% of small businesses online surveyed in Canada consider that e-commerce is essential for a successful business. Despite the necessity of quick and efficient business digitalization, OECD also identified the existence of several structural barriers in the process of SMEs digital transformation, such as: infrastructure, financial and internal skill gaps. These barriers have a negative effect on the ability of certain companies to adapt effectively to the external changes caused by the Covid-19 restrictions. Many countries are taking various measures to overcome these barriers and to facilitate the process of business digitalization, for instance: offering low - cost assistance for digital solutions, providing skills training and technology support for SMEs, various knowledge network programmes, infrastructure upgrading etc.

Today's turbulent and unpredictable environment changes the pace of work and the behavior of enterprises. They need to be prepared for a change and adaptable if they want to survive in their dynamic and competitive environment. Therefore, the acceptance of innovations is increasingly present in business activities (Angeloska Dichovska & Boskoska, 2018).

3. The impact of the Covid – 19 crisis on SMEs – the case of North Macedonia

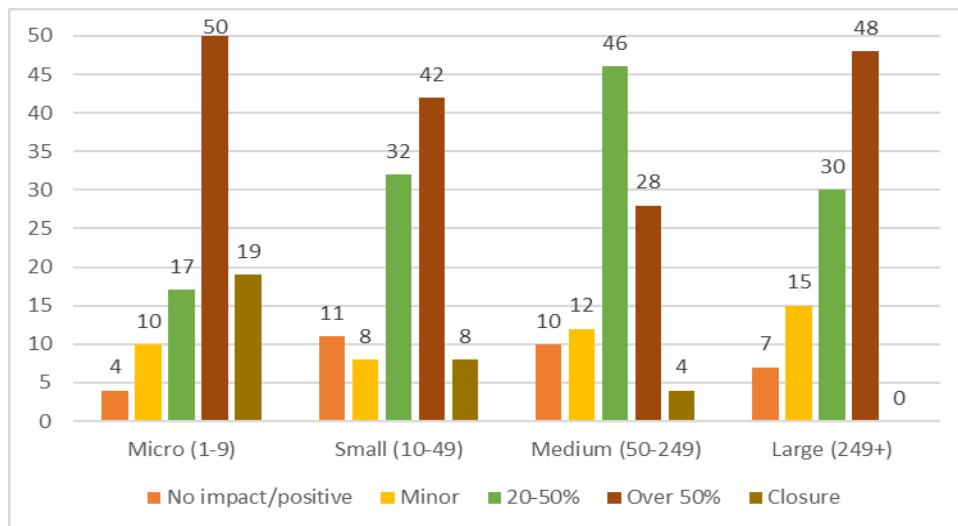
SMEs can be classified as micro, small, and medium enterprises and due to their high share of employment and value added, they have become the backbone of each economy in the world. In North Macedonia the classification of micro, small and middle-sized enterprises is regulated by the Trade Companies Law according to which all others companies that don't belong to the below classifications are the large ones (Boshkoska, 2016):

- Middle-size enterprises either have up to 250 employees or annual income less than 10 million euros and average assets value less than 11 million euros;
- Small enterprises either have up to 50 employees, annual income less than 2 million euros and average assets value less than 2 million euros;
- Micro-enterprises are the ones that have up to 10 employees and less than 50.000 euros annual income;

The SME's sector is an important factor for the development and growth of the Macedonian economy and it is crucial for the living standard improvement in the country. In fact, SMEs account for 75% of job generation and 65% of value added in the Macedonian economy, indicating that they are the backbone of our economy. These businesses, particularly micro-enterprises, are the most vulnerable and severely affected by the recent corona crisis (Fiti, 2020).

A report of International Labour Organization (2020, p.5,14), titled as "The impact of the COVID-19 pandemic on enterprises in North Macedonia", indicates that the Covid-19 crisis has severely affected 82% of the surveyed enterprises, which reported substantial financial losses and temporary suspension of their business operations, while 11% announced that their businesses are completely closed. The reduction in revenue varies depending on the size of the companies. As indicated previously, micro-enterprises as the most vulnerable group faced with more than 50% dropped in their revenue, while 19% of the surveyed micro-enterprises closed down their business completely. Despite the fact that none of the surveyed large companies closed their business temporarily, 48% faced revenue falls of over 50%. Many small and medium-sized businesses experienced more than 50% reduction in their revenues (42% of the small-sized and 28% of the medium-sized companies). Furthermore, 46% of medium-sized and 32% of small-sized companies recorded a revenue decline of 20-50% compared to the period before the crisis (Figure 1).

Figure1. Impact of Covid – 19 on revenues, by enterprise size (%)



Source: ILO (2020). *The impact of the COVID-19 pandemic on enterprises in North Macedonia*, ILO publishing, p.14.

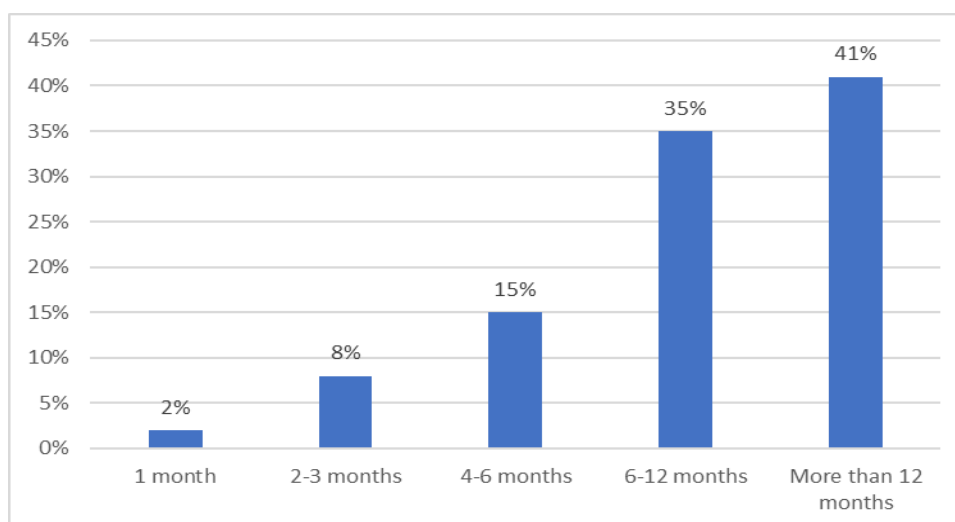
According to the recent analysis of the web portal Pari (August, 2021): in the first half of 2021, 5,022 Macedonian companies shutdown their business. Most of the closed companies are in the trade sector where 1,622 companies were closed, or 32.3% of all closed companies. Then follow companies in the sector of accommodation and food service activities, where 604 companies were closed, or 12% of all companies, and in third place

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were the companies in the processing industry with 543 companies, or 10.8% of all companies. Regarding the type of entity, out of 5,022 closed companies, 3,540 are micro-sized companies with sole proprietorship.

The results of the second report, where most of the Macedonian surveyed companies were micro-sized (32%) or small companies (35%), show that despite the fact that most of the surveyed businesses estimated a complete comeback, they also anticipated a slow recovery. Around 41% of the businesses expected their recovery to take longer than a year, 35% predicted it to take 6–12 months and 15% expected that this process will take up to 4-6 months (Blazhevski - Mojsoska, 2021).

Figure 2. The estimated time required to restore operations



Source: Blazhevski – Mojsoska, N. (2021). *Evolving challenges and expectations facing Macedonian enterprises during the COVID-19 pandemic*, ILO publishing, p.32.

OECD in their recent paper (2021, p.3-4) indicated that there are several reasons why SMEs have been more affected by the pandemic compared to the large firms: small companies are generally more financial fragile and have less cash reserves; have weaker supply chain capabilities than large ones; SMEs are lagging behind in terms of digital transformation of their activities which is essential for running a successful business.

4. Benefits and challenges of digital transformation in SMEs

According to Gartner's terminology, digitalization is the use of digital technology to transform a business model and generate new revenue and value-producing opportunities. In fact, digitalization or digital transformation can assist businesses in gaining and maintaining competitive advantages by increasing organizational flexibility and adaptability (Guo at el., 2020, p.5).

The COVID-19 pandemic has irreversibly altered internet consumer shopping habits. The report, conducted by UNCTAD and Netcomm Suisse Observatory (UNCTAD, 2020) focused on how the Covid-19 crisis has affected consumer behavior in China, Switzerland, Germany, Italy, the Republic of Korea, South Africa, the Russian Federation, Brazil and Turkey. According to this report, in the aftermath of the pandemic, more than half of the respondents said that they shop online more often and rely on the internet for health information, news and digital entertainment. According to the results of the report, consumers in emerging economies have made the greatest shift to internet purchasing. “Companies that put e-commerce at the heart of their business strategies are prepared for the post-COVID-19 era,” said Yomi Kastro, founder and CEO of Inveon.

Other research (Charm T. et al., 2020) about consumer behavior highlights that in total, 75% of US consumers have tried a new shopping behavior and over a third of them (36%) have tried a new product brand. In part, this trend has been driven by popular items being out of stock as supply chains became strained at the height of the pandemic. However, 73% of consumers who had tried a different brand said they would continue to seek out new brands in the future.

The impact of the pandemic on the habits and behaviors of customers is followed by a dramatic transformation of business models, with companies moving operations online or applying smart working solutions at short notice to stay in business and avoid supply chain interruptions. According to company surveys conducted throughout the world, up to 70% of SMEs have increased their use of digital technologies as a result of Covid-19. (OECD, 2021, p.6).

In the event of a worldwide pandemic, SMEs began to recognize the necessity of digitalization of their business processes in order to overcome the implications of the current crisis, as well as similar future scenarios. In this process, SMEs face many benefits and challenges as they embrace the new digital technology. The following are some of the most significant advantages from business digitalization: accelerating business processes, easier and faster access to financial services, effective transaction management, cost reduction, improved profit margins, increased productivity, introduction of new products and services, expanded customer reach thanks to online purchasing, maintain customer loyalty and enhanced their satisfaction etc. It also encourages innovation and increased access to innovation assets, as well as the ability for businesses to collect data and analyze their own operations in innovative ways in order to improve performance (OECD, 2021, p.3). Businesses that employ digitalization and digital technologies have proved that they enhance their value by 25% and productivity by 16% on average. SMEs can benefit from digitalization and digital tools by lowering expenses, standardizing and automating their business operations. Furthermore, adopting digital will improve SMEs' competitiveness and allow them to better understand client's behavior (Abanmai, 2020).

Despite its many benefits, the digital transformation of SMEs poses a number of challenges for companies in their process of adopting new digital technologies. Among the many challenges of this type, we can emphasize the following: lack of finance to make the necessary investments, lack of digital knowledge, lack of awareness, human resources, and expertise to assess and manage digital security and privacy risks (OECD, 2019). Furthermore, SMEs face challenges in lack of innovative capacity, managers who do not encourage changes and don't inspire their employees to think "outside of the box" as well as selecting the right technology (Noack, 2021). Angeloska-Dichovska and Petkovska-

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Mirchevska (2016, p.36) highlight the following five challenges to conducting e-business (e-commerce) in Republic of North Macedonia: concern in regards to privacy and security (46%), insufficient information on starting or implementing e-business (43,4%), consumers who aren't using technology (35%), finding staff with appropriate experience in e-commerce (29%) and need of organizational changes (28%).

In the case of North Macedonia, in regard to the digitalization process, there are a few things to keep in mind. North Macedonia is classified in the second half of the world's economies in terms of digitalization, according to ratings from key international organizations. According to the Network Readiness Index of The World Information Technology and Services Alliance (WITSA), North Macedonia is ranked 65th out of 121 countries, and on the 79th place when it comes to the economic influence of digital technology. Furthermore, according to the digitalization of businesses and e-commerce indicators, North Macedonia lags behind the European average in terms of business connection (82% vs 97%) and cloud service usage (11% vs 26%) Macedonian SMEs are less digitalized than large enterprises and require greater assistance in integrating digital technology into their daily operations, market relations and business processes. The general lack of digital literacy among Macedonian customers is a significant limitation to the widespread usage of digital tools and services, including electronic shopping, which has an impact on the demand of businesses for electronic sales of goods and services. (YES Fondation, 2020).

Each company that wants to make a digital transformation and achieve success in the e-market, should build strategies with a clear focus with the following features: availability of strong internet technology (operative infrastructure) and its knowledge; building distinctive strategies (strategic vision) with a clear focus (Porter 2009; Venkatraman, 2000); emphasis and focus on creating value for consumers; distinctive ways of performing physical activities; deep knowledge of the activity and creation of own skills, connections and information (Porter, 2009); clear overview of new competitors; selection of products suitable for the e-market; special department for e-activities (Phillips, 2003); allocation of the key resources; suitable management team and governing (Venkatraman, 2000).

Short-term emergency and long-term strategies are two types of public crisis response techniques used by businesses. Short-term response strategies seek to adjust to a changing crisis situation, but long-term response strategies seek to discover chances for future development, emphasizing the relevance of dynamic capacities (Guo at al. 2020, p.7). In their study, these authors considered three forms of short-term strategies: production recovery strategies, employee protection strategies and firm donation strategies, as well as, two long-term strategies: strategic reforms and digital transformation. The following items indicate production recovery strategies: actively investing in technological innovation, reducing production and operating costs, adopting online telecommuting, enhancing business models to meet changing customer demands, expanding into new business sectors, integrating supply chain, divesting loss-making/less-profitable business units and developing marketing channels and reducing reliance on offline transactions.

Conclusion

The new conditions imposed by Covid-19 and accelerated digital transformation in many areas of life and businesses have drastically changed the environment. Those changes have affected consumer behavior and SMEs, as well. The Corona crisis has caused significant consequences for many companies, especially for the small businesses that suffered heavy financial losses and were forced to temporarily or completely close their businesses.

New developments in the business environment create new problems and challenges, but also opportunities to find solutions for them. In order to be efficient in their operations, SMEs need to respond to the changing demands and needs of their customers. The changes that constantly occur in the external environment become a critical factor for the operation and success of SMEs, and hence the need for constant study of the environment and appropriate adaptation to it.

SMEs that responded in a timely manner and embraced the process of digital transformation in their work operations, more easily coped with the consequences of the crisis. Structural barriers in the process of SMEs digital transformation are evident, such as: infrastructure, financial and internal skill gaps, but also numerous benefits from the same process.

SMEs, in order to achieve success in the e-market, need to build strategies with a clear focus such as: having a strong Internet technology and its knowledge (to train or hire appropriate staff), build distinctive strategies with a clear focus, create value for consumers, creating their own skills, connections and information, selection of products suitable for the e-market; special department for e-activities etc. In the process of digital transformation of SMEs and access to the e-market, special attention should be paid to consumer behavior and opportunities where consumer demands can be met, and the choice of the channel for communication with Internet consumers. Research confirms that digital transformation will enable expansion of the existing SMEs market, cost reduction, improved profit margins, increase the number of consumers, as well as the opportunity to introduce new brands etc.

Although the process of digital transformation is complex, it will provide numerous benefits for the survival and development of SMEs, and especially after this long and uncertain period of pandemic, it is clear that this transformation is inevitable for SMEs.

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