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Business Model Innovations by SMEs In Response to Covid-19
Pandemic: Evidence from Case Study

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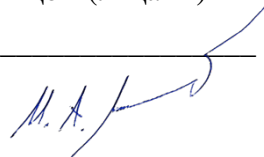
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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

Я, Мишенин Михаил Анатольевич, студент второго курса магистратуры направления «Менеджмент», заявляю, что в моей магистерской диссертации на тему «Иновации бизнес-моделей МСП в ответ на пандемию COVID-19: Результаты исследования эмпирических кейсов», представленной в службу обеспечения программ магистратуры для последующей передачи в государственную аттестационную комиссию для публичной защиты, не содержится элементов плагиата.

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Мне известно содержание п. 9.7.1 Правил обучения по основным образовательным программам высшего и среднего профессионального образования в СПбГУ о том, что «ВКР выполняется индивидуально каждым студентом под руководством назначенного ему научного руководителя», и п. 51 Устава федерального государственного бюджетного образовательного учреждения высшего образования «Санкт-Петербургский государственный университет» о том, что «студент подлежит отчислению из Санкт-Петербургского университета за представление курсовой или выпускной квалификационной работы, выполненной другим лицом (лицами)».

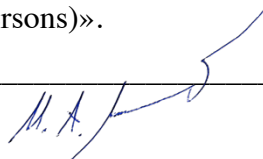
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Описание цели, задач и основных результатов	Цель исследования - изучить, как иновации бизнес-модели могут быть успешно внедрены в МСП в ответ на связанные с COVID-19 изменения в бизнес-среде для преодоления кризиса и использования новых возможностей. Тематический анализ был использован для поиска тем, имеющих отношение к познанию рассматриваемого явления, а также его влияния на деятельность МСП. Данные из других источников были получены и включены в процедуру. Перекрестный анализ кейсов был выбран в качестве метода исследования и был направлен на то, чтобы подчеркнуть различия и сходства между примерами. Во время длительного кризиса иновации бизнес моделей (ИБМ) особенно полезен для МСП. Изученные случаи убедительно демонстрируют, что внешний кризис является причиной ИБМ. Если внешний кризис оказывает значительное влияние на существующее МСП, то ИБМ может использоваться как способ преодоления кризиса. Используя ИБМ в качестве ответа на внешний кризис, компании должны руководствоваться ключевыми компетенциями, чтобы быстро добиться успеха. ИБМ не должна разрушать элементы докризисной бизнес-модели.
Ключевые слова	МСП, COVID-19, пандемия, кризис, иновации в бизнес-моделях, реагирование на кризис

ABSTRACT

Master Student's Name	Mishenin Mikhail Anatolevich
Master Thesis Title	«Career Strategies as Factors of Subjective Career Success: Business School Graduates Example»
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Academic Advisor’s Name	Bogatyreva Karina Alexandrovna, Associate Professor
Description of the goal, task and main results	<p>The research goal of the study of the study is to explore how business model innovations can be successfully implemented in SMEs in response to COVID-19 related changes in the business environment to overcome the crisis and seize new opportunities. Thematic analysis was used to look for themes relevant to the knowledge of the phenomenon under consideration, as well as its impact on the SMEs' operations. Data from other sources was acquired and incorporated into the procedure. Cross-case analysis was chosen as the research method and aimed to emphasize the distinctions and similarities between the examples. During a long term crisis, BMI is especially useful for SMEs. Studied cases demonstrate conclusively that an external crisis is the cause of BMI. If an external crisis has a significant impact on an existing BM, BMI can be used as a way to overcome the crisis. With BMI as a response to the external crisis, companies should be guided by core competencies in order to succeed promptly. BMI should not destroy elements of the pre-crisis business model.</p>
Keywords	SMEs, COVID-19, pandemic, crisis, business model innovations, response to crisis

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INTRODUCTION

Research motivation. Pandemic has changed the business worldwide, which is why it is essential to understand successful business innovations implemented into the new reality. Since SMEs rely on strong relationships with people, whether they are consumers or suppliers, the COVID-19 pandemic is predicted to have disastrous consequences for them. (Nugent & Yhee, 2002). SME owners have used a variety of tactics and approaches to deal with the crisis's effects. (Thorgren & Williams, 2020).

Since the beginning of the COVID-19 pandemic in late 2019, it has had a devastating impact not only on human health but also on countries' economies. The supply and demand system was destroyed as a result of various limitations imposed around the world to limit the spread of COVID-19, such as lockdowns and quarantines. Pandemics have far-reaching consequences that affect all countries and sectors. Small and Medium-Sized Enterprises (SMEs) according to many researchers, during crises, suffer more than large firms, due to “liability of smallness” and during crises are in the most vulnerable position, especially in protracted crises (Aldrich, Auster, 1986, Robbins and Pearce 1993, Latham 2009). It is obvious that COVID-19 is a prime example of a crisis in which all the negative consequences for SMEs manifest themselves in the most striking way. Due to prevention policies implemented by governments in several jurisdictions, SMEs have encountered an extraordinary lack of labor and production inputs. In Russia according RSPF report on the situation in Russian companies on against the backdrop of the COVID-19 pandemic possible to conclude that a fifth of companies are in a critical position: they are not able to service the principal debt or pay first priority payments (taxes, insurance premiums, salaries) to secure principal and interest external funding is needed and about 60% of small businesses have determined the level of financial impact on the company as high.

When studying such a topic, it would be relevant, as theoretical and practically meaningful, to focus on business models innovations that SMEs could implement during the pandemic and post-pandemic time of COVID-19 to find out the ways to survive and mitigate the effects of the crisis as well as to find new opportunities for growth and development. Various kinds of strategies, advantages, theories will consider studying the effectiveness of business models. The research can be done by analyzing different cases among industries in Russia as an emerging market and across the globe, exploring the main trends of activity globally, finding correlations between success and failure decisions. Such research will help to

fill the research gap associated with a lack of theoretical and practical studies on the current topic in post-pandemic time in terms of business model innovations for SMEs.

Research gap. The research gap is the lack of studies of innovation business models in terms of COVID-19 repercussions, especially in managerial innovations in Russian market. Previously, entrepreneurs living in our time never faced the challenges caused by the pandemic. That is the reason why they need scientifically supported approaches in purpose to answer to that problem effectively. Moreover, usually, innovations consider as something technological, but that study will enclose managerial innovation approach as well.

Whereas threat rigidity theory (Straw, Sandelands, Dutton, 1981) indicates that companies use established and known processes to respond to challenges by freezing innovation when confronted with a danger, a number of studies have found the opposite to be true, with organizations becoming more proactive in crisis situation by launching new strategies and innovations to overcome the barriers and challenges that SMEs face in order to succeed and survive.

The research goal of the study of the study is to explore how business model innovations can be successfully implemented in SMEs in response to COVID-19 related changes in the business environment to overcome the crisis and seize new opportunities. In order to achieve this goal, a number of research questions need to be answered:

Q1: Against the backdrop of the COVID-19 pandemic, what challenges do SMEs face?

Q2: How have business model innovations been implemented in response to COVID-19?

Q3: What has been the effect of business model innovation?

Research strategy. Used a multiple-case study as an empirical research approach to answer these research questions. To gather data, a variety of methods will be employed, including semi-structured interviews with SMEs' top executives, secondary data sources such as published interviews, company websites, and social media. The goal is to learn how the COVID-19 pandemic has affected SMEs in Russia and worldwide, how these businesses are reacting, focusing on successful and unsuccessful cases of business model innovations. The study comprises of five Russian SMEs which implemented business model innovations during the pandemic. The research is based on comparing cases and identifying patterns that can be explained by theoretical frameworks. The research focused on SMEs business model innovations as a response to COVID-19 pandemic.

Master thesis structure. This research is split into two chapters. The first chapter includes literature review and identification of research gap. The second chapter begins with an overview of the pandemic situation and its implications for the global economy and impact to small and medium enterprises. The research methodology, data collecting, and data interpretation methods are then discussed. The second chapter's final section is devoted to the description and analysis of examples, followed by main findings and discussions, conclusions, and implications.

CHAPTER 1. BUSINESS MODEL INNOVATIONS BY SMEs DURING COVID-19 PANDEMIC: LITERATURE REVIEW

1.1. The conception of SME and its importance for the sustainable development of the global economy

The term of «SME» refers to Small and Medium Enterprises and doesn't have a single definition due to influence of different factors such as business culture of a country it located, level of development of the state and where is that state located. Even within country the term could be not defined or defined in the different ways. In past, before industrial revolution everything that is now meant by Small and Medium Enterprises dominated fully in production area. For example, farmers, bakers, blacksmiths, fishermen and other types of industries that employed several people. After the industrial revolution, companies began to increase the volume of their production at times. Technology and mechanization of the process completely change the previously established approach to doing business. A high level of investment was now required in order to achieve the benefit from economies of scale.

From then until the 1970s, big business was a source of concentration of employment and value added, after which it began to turn towards small and medium enterprises. In a number of OECD countries, SMEs have again begun to become a source of a large number of jobs and competitive companies creating innovative products. Also, companies often want to outsource non-core activities, resulting in the creation of horizontally and vertically integrated production systems.

That kind of enterprise nowadays generates significant income and could be considered as one of the main drivers of poverty alleviation. Also, SMEs are identified as the largest source of goods and services in developing countries, so disruptions of that sector greatly influence welfare. Small and Medium Enterprises generally employ fewer than 250 employees and play a key role in most economies. International Council for Small Business (ICSB) stated that SMEs make up more than 90% of all companies, generate 50% of GDP, and provide 70% employment. It is about 500 mln of SMEs in the world and 300 mln of them located in the emerging markets. For instance, in European countries SMEs are the spine of their economies accumulating about 99.8% of all firms and approximately 65% of jobs. For manufacturing sector of European economy, it is 42% of value added (European Commission 2017). The share of SMEs in UK is about 99% and approximately 50% of private sector jobs and 33% of private sector turnover (Federation of Small Business, 2014).

SMEs are heterogeneous elements, as are small providers that offer services or products to the local market as well as high-tech enterprises that supply high-tech products around the

world. At the moment, it is not known which side the future will incline towards large companies or SMEs, since on the one hand globalization and the expansion of international corporations reduces the competitiveness of local small businesses, for example, the opening of McDonald's can ruin the burger located across the road. On the other hand, the development of the IT sector has opened up new opportunities and created a favorable environment for the activities of small and medium-sized businesses that can use e-platforms to change the rules of the market previously established by large businesses. The opportunities provided by the information and communication technology revolution made it possible to reduce the costs associated with the physical distance between the buyer and the seller in terms of simplifying the receipt of information. including the enhancement of market interaction between developed countries and developing countries. The increase in international trade and trade in global value chains caused by the ICT revolution has strengthened the position and increased the opportunities for SMEs in internationalization. Even though with the advent of new technologies and obtaining several advantages in relation to large firms, SMEs will still not be able to compete in a number of areas with large companies, at the same time they can perfectly integrate into existing GVCs by capturing the markets in which they have competitive advantages and create new ones. For example, a small business can use platforms like eBay or Amazon to sell their products worldwide from day one.

The inclusion of SMEs in international trade brings a number of benefits both to the SMEs themselves and to international trade in general. The ability to export goods increases both the productivity of small firms and the increase in the ability to improve the quality of the services and goods provided by increasing demand caused by a large number of customers, which contributes to increased profits that can be directed to investment in R&D. The international market, in turn, will receive the release of new products and services, including artisanal and custom-made products, as well as alternatives to the existing range. In addition, the activities of SMEs contribute to a more balanced distribution of benefits such as employment, income generation, local taxation, infrastructure development through increased business activity.

Overall, it is significantly important for any country to have a balanced firm size in purpose to achieve more dynamic economy, because if there a few large companies occupy an overwhelming share of the economy of one country, then risks in the stable development of the economy are seriously increasing. Moreover, the even distribution of companies of different sizes stimulates competition both at home and increases competitiveness abroad.

In fact, large firms are more productive than small ones according trade literature and large companies pay higher salaries as well as they have more opportunities to enter the international market (ITC, 2015). At the same time, the gap between productivity of the large firms and SMEs is not the same in developing and developed countries. For instance, in Germany productivity of SMEs is about 70% that of large firms while in Brazil it is 30% and in India large firms 10 times more productive compare with SMEs. Wherein, SMEs employ the most share of less educated and experienced employees as result low value added, productivity sectors, labor intensive (ITC, 2015). This means that as the productivity of SMEs increases, there will be an increase in wages in the low-paid segment, which will lead to a sharp increase in GDP and an increase in the standard of living of the population. That is especially important in the developing countries.

1.2. Businesses' standard responses to a crisis

Economic crises are characterized by a decline in economic activity. Crisis (ancient Greek κρίσις - decision; turning point) is concentrated in a particular place and in time and in certain, a critical condition of a system wherein the system becomes unstable, the bifurcation moment is a turning point, a moment of truth for the system (Deviatkin, 2019). According to Hermann's (1963) definition, a crisis occurs when three elements are present: (1) a serious danger to the system's existence exists; (2) limited response time; and (3) the threat is unexpected. There are many classifications of crises are shaped and depend on the author's classifications sign. For example, crises are divided into long-term and short-term urgent, qualitative and quantitative, reversible and irreversible, private and public. Since each crisis is unique, the shape of every specific crisis may be broken down into many phases. There are four phases to an organizational crisis: identification, crisis, recovery, and evaluation (Mitroff et al. 1987) in the meantime according to Fink (1986) phases are classified as follows: prodromal, acute, chronic, and resolution and Turner (1976) separated crisis into six stages as beginning point, time of incubation, triggering event, commencement, rescue, and complete readjustment.

According to Webster's Dictionary crisis is the moment at which it must be chosen whether a certain affair or course of action should continue, be adjusted, or be terminated; the pivotal moment; the pivotal moment. Crises are defined as disasters caused by people, organizational structures, economics, and/or technology that inflict substantial harm to human existence and the natural and social environment in organizational terms (Mitroff et al., 1987). The definition which was given by Clark (1995,1996) is unforeseen incidents that result in the

death or serious injury of workers, customers, or the general public; close the company; interrupt operations; inflict physical or environmental damage; or jeopardize the facility's financial or public image. Organizational crises is harmful to businesses because they are described as low probability/high impact occurrences that threaten an organization's most basic objectives (Weick, 1998). As a result of the low frequency, many businesses do not place sufficient attention on crisis preparation. This is circumstance with a high degree of danger and a limited time to make a choice that shocks the managers. Burnett (1998) summarizes this idea well, concluding that «when timing an initial response matter as much, this could be fatal for a company». A crisis, according to organizational literature, is a circumstance that poses a major danger to an organization's existence (Nystrom and Starbuck, 1984, p. 324) and usually originates in the organization's environment (Nystrom and Starbuck, 1984, p. 324). (Starbuck et al., 1978, p. 112). Companies and their employees' emotional, cognitive, and behavioral capabilities are often frustrated by crises.

Simultaneously, there is a notion of managed (autogenous) crisis, which recommends that senior executives of the organization start in order to resolve contradictions, disproportions, and misbalance that occur during the life cycle of any living system. Latent dangers induce some levels of fear, anxiety, arousal, and stress, which may inspire both short-term business response and longer-term change including learning and renewal. In other words, a crisis is not always only a negative event from all sides, as it can give a stagnant or inefficient system an incentive to upgrade and improve.

Organizations face significant challenges in a crisis time, and in order to adapt, firms must adjust their strategies accordingly. In many cases, this is a matter of competitive advantage in an adverse business environment, but in other, more serious external threat environments, a proper strategic response is a matter of survival.

A studies are wide range of concerned with how organizations use crisis response strategies. In many circumstances, it is an issue of competitive advantage in an unfavourable business climate rapid change, but in other, more severe external threat situations, a right strategic reaction is a question of company survival. For instance, Barnett and Pratt (2000) claimed that when confronted with an external danger, decision-makers prefer to prioritize current assets and avoid taking chances with innovations.

The scholars Wenzel, Stanske and Lieberman (2020) studied the abstracts of all articles published in the SMS journals and after several stages of selection of relevant articles concentrated on the 13 studies that give compelling empirical evidence for or

conceptual arguments in support of various kinds of crisis management strategies. Scientists presented four distinct approaches for enterprises to use when confronted with a crisis: retrenchment, perseverance, exit and innovation.

Retrenchment is a well-known strategy for dealing with crises (Bruton, Ahlstrom, & Wan, 2003) and is a dominant strategy that managers use in times of crisis (Bruton et al., 2003). This strategy includes measures such as cost, asset, product, product line, and overhead reductions (Pearce & Robbins, 1993, p. 614). While retrenchment may be a necessary or even inevitable ad hoc reaction to crises in the near term, as long-term survival strategy is far from certain (Chadwick, Hunter, & Walston, 2004).

Perseverance refers to actions used to maintain a business's operations in the face of a crisis. Thus, in contrast to retrenchment strategy, such solutions try to maintain the status quo and mitigate the crisis's detrimental effects (Wenzel, 2015). In uncertain times, persistent enterprises may overcome competitors who engage in strategic renewal. This can be explained Stieglitz (2016) conclusion where he states that the benefit of [strategic renewal] is undermined by frequent directional shifts, which cause performance advantages to be shifted to inert companies. De Carolis, Yang, Deeds, and Nelling (2009) looked at company features that may help mitigate the effect of acute unfavorable occurrences. The authors examined pharmaceutical biotech enterprises after circumstances that resulted in the forced, premature end of their product development. This research implies that not all resources and competencies are equally critical for crisis survival. As this research demonstrates, exploiting a firm's unique core capabilities is the most powerful safeguard against an unfavorable occurrence. This strategy can be effective, but companies do not always have the means to support the company in the face of reduced resources. In general, managers can use loans, but if the crisis is prolonged, the company will not be able to successfully emerge from the crisis. Thus, perseverance strategy may help a business survive in the medium term, but it will be difficult, if not impossible, to implement this reaction if a crisis lasts for an extended length of time.

Exit strategy refers to the cessation of a business's operations in reaction to a crisis. When all other solutions fail, an exit one might be inevitable. Unlike bankruptcy, business activity closure may even be a wise strategic move from the start. Exit strategy may be a critical part of strategy renewal (Ren, Hu, & Cui, 2019), and may not mean the finish of business activity, liberate resources and so facilitate the establishment of new initiatives (Carnahan, 2017).

Innovating strategy considering as the process through which a strategy renewal is brought about in reaction to a crisis (Wenzel, Stanske and Lieberman (2020). Increased environmental unpredictability, such as that experienced during a crisis, favors broadening the scope of a venture's commercial operations (Reymen, Stephan, Andries, Mauer, van Burg's Berends (2015). Specifically, the authors demonstrated how enterprises begin to investigate new options, diversify their operations, and think on new business models in the face of environmental uncertainty. According to Wan and Yiu (2009), slack resources are only advantageous for corporate acquisition during times of crisis. Prolonged crises create irreversible imprints on the economic environment that make reverting to the prior order difficult, innovation is a critical, if not an inescapable, strategic reaction to crisis for long-term company survival.

The business innovations survival correlation has been shown in various studies.; it stays its expansion and growth and enhances its future success. Previous studies suggested using innovations to overcome the obstacles and challenges of SMEs' success and survival (Bruns & Stalker, 1961; Hurley & Hult, 1998; Porter, 1990; Schumpeter & Redvers, 1934). On the other hand, innovations are not an ultimatum solution to all emerging problems, and also carry risks. According Rhaiem and Amara (2019) between 40% and 90% of the innovations failing wholly or partly.

At the time of COVID-19 innovations could be considered as critical element for SME in terms of ways of doing business and introduction of new products and services at the time of the new reality. It is obvious that in times of crisis, such as Covid-19, it makes it difficult to invest in risky projects due to a decrease in the amount of funds. Other reasons for decreasing interest in investing in innovation may be market weakness, volatility, instability associated with possible restrictions. The ability to innovate technologically is critical for a company's competitive edge. During a pandemic, this refers to the adjustment or upgrading of products, services, or procedures to meet market demands (Bennett & McWhorter, 2021).

That is the reason why SMEs must reimagine their approach and implement innovations to their business models as a tool to survive and to find new opportunities. To reduce the risk of impact of pandemic, innovation is identified as a key aspect of business recovery in the ongoing and post COVID-19 pandemic period (Santiago-Omar Caballero-Morales).

1.3. Business model innovations as a response of SMEs to threats

Innovation helps environment development, encourages sustainable improvement, and supports social cohesion. To support these demands, development, monitor and assessment

realized policy, and innovation must be estimated. For innovation to be measured, it must be determined. "Innovation drives growth and helps address social challenges" (OECD, 2010a).

Before moving on to the business model innovation (BMI) and how it could help to SMEs, it is necessary to understand what is innovation, which innovation strategies exist and why is it important for the sustainable development of a company, especially during a crisis time. The term of innovation has no single definition. The term innovation is Latin and means change or renovations. The Oslo Manual (OECD/Eurostat, 2005) has presented determinations of innovation, however only for statistical analysis in the business sector. There have been innovation surveys in the public sector and the household's sector, but no universal measure fitting outlines these sectors. The interpretation used since 2005 to the statistical estimation of innovation in the consists of items 146 and 150 of the Oslo Manual (OECD/Eurostat, 2005), "An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations." and "A common feature of an innovation is that it must have been implemented. A new or improved product is implemented when it is introduced on the market. New processes, marketing methods or organizational methods are implemented when they are brought into actual use in the firm's operations." Overall, innovation is a three-step process: idea, invention, and diffusion (Fadijah et al., 2016). Accordingly, in a business context, innovation could be defined as the idea for a product or a service that never existed before and which has high market acceptance (Dorr and Müller-Prothmann 2014).

At the organizational level, it could be determined adoption of new ideas or behaviors which results in an outcome as technology, service or product (Amabile, 1988, Daft, 1978). Innovation in organization could be regarded as an outcome and as a process. Scholars usually considered innovations in terms of outcome as external and internal environment under the influence of which the company is engaged in innovative activities (Damanpour & Schneider, 2006). On the other hand, innovation in terms of process has been studied since the moment it appeared, developed, was implemented and commercialized. It defines as different kind of stages, models and phases (Roberts, 1988; Schroeder, Van de Ven, Scudder, & Policy, 2000). It is crucial to stress the difference between terms of innovation and invention. Innovation must include successful diffusion for resolving the current problem. Therefore, the novelty of an invention is not necessary innovation. Consequently, the change an invention causes must be novel (Granig and Hartlieb and Lercher 2014) Innovation is an idea placed both within the

technological or administrative/managerial dimension and which is extended over an invention which has a particular solution for an actual problem and admitted by a significant number of people and causes novel change (Victoria Wolf, Renata Dobrucka, Robert Przekop, Stephan Haubold, 2021). Schumpeter's identified several types of innovations in his early studies. It is new ways of organizing business, new markets, new sources of supply, new methods of manufacturing and new products (Schumpeter, 1983).

The most popular studies among scholars are product and process innovations. The first kind of innovations is about new product of service created that have found demand among consumers and the second one is about a new approach introduced in a company with the aim of providing a service or producing a product that has advantages over previous technology. The following popular innovation types for researchers are technical—administrative typology. This relates to general difference between technology and social structure respectively (Evan, 1966). Administrative innovations mainly related to management systems, while technical innovations affect its operating systems (Damanpour & Evan, 1984). According to N. Fadiyah et al. (2016) and C.Li (2020) there exist two main kinds of innovations which are technological innovation and managerial innovation. The differentiation between the two dimensions of innovation involve the extent of the change impacting the company's core operations. Technological innovation concerns only object or service related innovations and show differences in the firm's end product or service. In contrast, administrative/managerial innovation includes differences in a company's social structures, which indirectly influence the end product or service offered (Fadiyah et al.2016). Lin and Chen (2007) stated that the influence of managerial innovation on SME income outweighs technological innovation.

Managerial innovations are new management techniques, administrative systems of organization management, process, structures which could create values for the company (Birkinshaw et al., 2008; Kimberly, 1981). An examples of a such innovations could be such things as total quality management, 360 degree feedback, quality circle, divisional structure, «just in time» production system. One notable example is Henry Ford's assembly line for manufacturing car, a way of producing a product, which revolutionized machine building and made the car available to a wider range of people, not just the richest people on the planet. The solution was that each worker at the factory performed the same function at the same speed while on the conveyor belt throughout the working shift, as opposed to what used to be when workers were multitasking (Henry Ford: My Life and Work, 1921). Nowadays, entrepreneurs of SMEs, practitioner press as well as managers of the international corporations understand

the importance of implementation of managerial innovations in developing strategies of their companies in purpose to achieve growth, renewal, facilitating organizational change and to open new opportunities. In fact, only the companies who are able to implement different types of innovations over time could successfully compete and maintain performance which required in the environment of firms which practice continuous innovation strategy. In addition, it is significantly important for ability of organizations to implement up-to-date management ideas for increasing of effectiveness of companies operations and other processes, as well as improving its structure. Managerial innovations include three conceptions such as administrative, management and organizational innovations. Administrative innovations aimed at improving the efficiency and effectiveness of administrative systems and management processes. (Damanpour & Evan, 1984; Kimberly & Evanisko, 1981). Management innovations mean fundamentally new approaches used by managers in managing an organization in order to develop a new structure and strategies, management processes, motivation and employee rewards (Walker, Damanpour, and Devece 2011). Organization innovations are implemented in companies in order to change or modernize the internal structure and procedures of the organization in order to cause the growth of the company (F. Damanpour and D. Aravind 2011).

Technological innovations defined by F.M. Scherer (2001) as the economic function which introduced new technologies into output and intake. That kind of innovations play significant role in the development of humankind. In fact, technological innovations affect all processes that determine how societies, states, businesses, markets and even lifestyle of individuals develop throughout the history. They determine how important certain resources are, which markets will exist and which will be destroyed. For example, the invention of electric light destroyed industry of kerosene production which was needed for kerosene lamps, and the invention of the internal combustion engine, which created the automobile and other industries, opened a new page in the industrialization of mankind and created the market of gasoline as well as made the use of horses for transportation in the past. Nowadays, technological innovations are mainly perceived as digitalization and other technologies related to the IT sector. Technological innovation frequently necessitates business models, since it provides both the need to bring findings to market and the possibility to satisfy unmet customer needs. New business models, on the other hand, might be viewed as a kind of innovation in and of themselves, as previously stated.

An innovation strategy can be determined as a range of operations for all innovative procedures in a company includes strategic aims and guidelines to expand innovation (Goffin, Herstatt, Mitchell 2012).

According to Trillig and Blaeser-Benfer (2014), an innovation strategy can be reached within a paradigm of five dimensions: Technological-orientated, time-orientated, market-orientated, competition-orientated, and cooperation-orientated (Trillig, Blaeser-Benfer 2014).

A technological-orientated innovation the strategy provides to the improvement of new services or products. In this meaning, Varadarajan argues that innovation of an outcome expresses an idea for a novel product that fits a currently unmet demand of clients or an idea which is more valuable than current products or represents an improvement of an available product (Varadarajan 2018). The most popular approach of organizations for this strategy is focusing on research and development (R&D) activities.

A time-orientated innovation strategy is determined as diffusion theory of Rogers. In his diffusion of innovation strategy, he describes diffusion as the method in which an innovation is spread over a specific time through various communication channels among members of a human system (Rogers, 1993). Diffusion consists of four parts: innovation, communication channels, time, and the social system. It is also known as the “first-to-market” approach.

The market-orientated innovation strategy could be described as the opposite of the technological-orientated strategy. It has the focus on belief and determining the most important demands of a specific market and to develop an innovation which fits the identified market needs (Corniani 2008).

The theory which bears the competition-orientated strategy is the approach of Porter. He explains the strategy of firms in comparison to their competitive environment. In Porter's theory, there are two dimensions that are of high importance to establish a competition-orientated strategy (Porter, 2013). Strategic advantage (divided into unique recognized by customer and low-cost position) and strategic target (divided into industrywide and special part only). By putting these dimensions into connection, three main competition-orientated strategies may result in Differentiation, overall cost leadership, and focus strategy (Porter 2013).

In purpose to apply innovations, business must use innovation strategies.

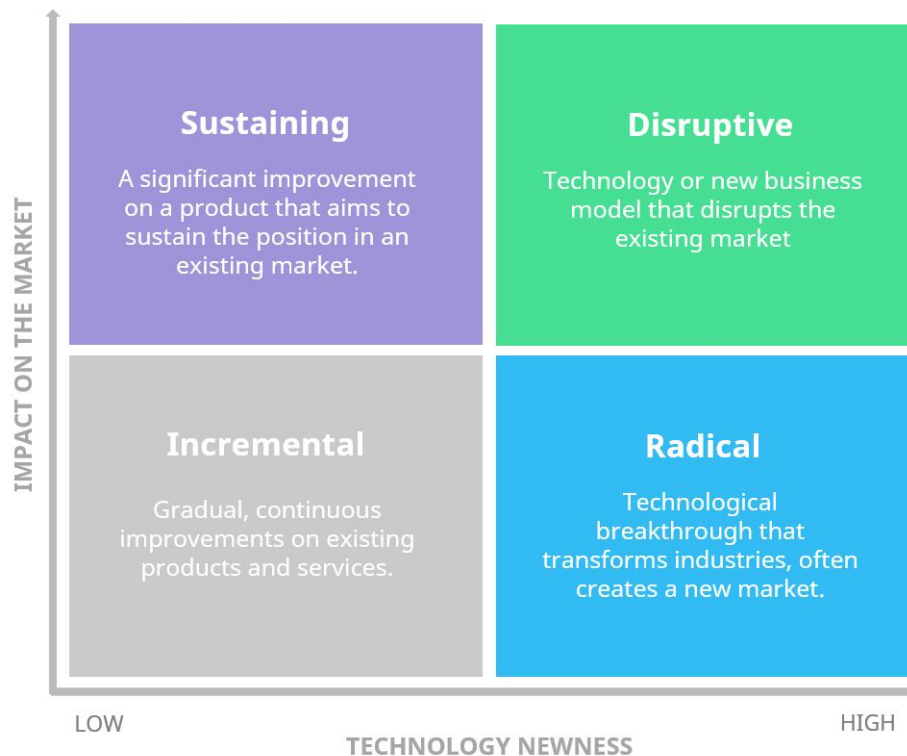


Fig. 1. Innovation strategies (source: appvizer)

The general approach of cooperation-orientated innovation strategies is that a firm presents itself to the environment and thus consults outside forces for the innovation process. This strategy is frequently adopted by small and medium-sized enterprises which have imitated resources for the innovation process and need help from external partners (Sarpong, Teirlinck 2017).

At present, the level of globalization and internalization, economic integration, innovation cycles, has reached an unprecedented level and made the market much more competitive, dynamic and complex. Enterprises must be able to quickly adapt to constantly changing market conditions. Business models have a significant role to play in helping companies stay competitive, develop new ideas, improve the effectiveness of current structures and strategies. Business model shows service systems and operational production of a firm (Wirtz 2020). A business model's core lies in how a company provides value to consumers, entices customers to pay for that value, and turns those payments to profit (David J. Teece, 2010). Accordingly, any viable enterprise existing in the world should has a business model that determines how the enterprise operates, delivers value to customers, motivates consumers to purchase a product or service and profit from these processes. Thus, it represents management's hypothesis about what consumers want, how they want it, and how the organization can arrange itself to best satisfy those demands, earn a profit, and do so. The

business model provides an opportunity to see the whole picture, from which it is clear how the company creates and increases value. In general, the concept of a business model is conceptual in contrast to a financial model. The business model is based on assumptions about who the customer is, what trends are currently in the market, what revenues and expenses will be, how needs change, who the competitor is and how to respond to the actions of competitors. Such a model should have a business logic that is necessary for making a profit, as well as a way for the company to enter the market to realize its intentions. According to the findings of IBM among 765 CEO's around the world, financially successful organizations place twice as much emphasis on consistent and long-term maintenance of business models as less financially successful companies. In addition, it has been demonstrated that business models play a critical role in a company's performance whether it comes to differentiating its product line, enforcing change, or implementing creative ideas (David J. Teece 2010). Seelos and Mair (2007) conceptualized a business model as a "set of capabilities that is configured to enable value creation consistent with either economic or social strategic objectives". Amit and Zott (2001) concluded four key value drivers through: efficiency, lock-in, complementarities, novelty. At the same time Hamel (2000) proposed that enterprises need to establish new business models in purpose to survive and succeed in the time of «age of revolutions» wherein value creation and capture take place inside a value network. This value network may include suppliers, partners, channels of distribution, and alliances that increasing the company's capabilities.

Oliver Gassmann et. al (2014) concluded that the business model has four key elements that should answer the questions who, what, how, why? The first question «who» should give an answer who is our client and will our business model cover our segment. The second question «what» is about value proposition, in the other words what we offer to our customers. The third question «how» should answer the question how we create our products. And the last question «why» must answer whether this model will generate profit or not.

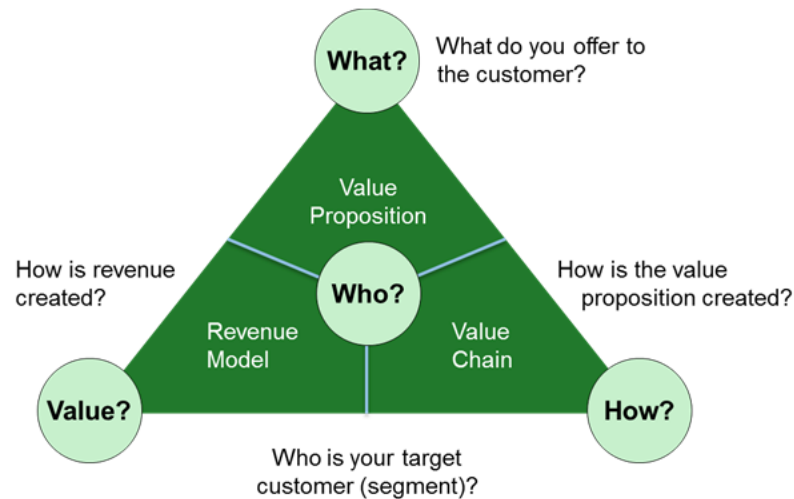


Fig.2. BMI transformation. Source: The St. Gallen Business Model Navigator

If one element of the business model has been changed, we can talk about creating an innovative product, and if two or more elements have been changed, then we can talk about creating an innovative business model.

Innovation is frequently a version on something that already existing in another field, environment, or market. Indeed, 90% of all successful new business ideas use components of an established business strategy in some form. While innovation is about comprehending, modifying, and recombining effective templates in their own field, business model innovation is frequently non-trivial only within the context of the relevant industry. It's all about comprehending the components of business models outside their industry and their interrelationships and adapting them to one's own scenario - in other words, creatively reproducing them (Oliver Gassmann et.al 2014).

«Product and service innovation are essential, but business model innovation can deliver more lasting competitive advantage, particularly in disruptive times» (BCG, 2022). According to BCG analytics, the average life cycle of a business model has been reduced from 15 years to 5 years. Therefore, business model innovation has become more relevant than ever, as it is necessary for companies that seek to develop, maintain and expand their market share. The same meaning of successful business model innovation was given both by BCG analytics and Oliver Gassmann, Karolin Frankenberger, Michaela Csik (2016) that it must create value proposition for customers and company as well as changes its core business model. These adjustments should be made at the value proposition level to the target segment, product or service offering, and revenue model. The operational model is concerned with maximizing profitability, competitive advantage, and value creation.

BCG analytics concluded that business model innovation have four different approaches.

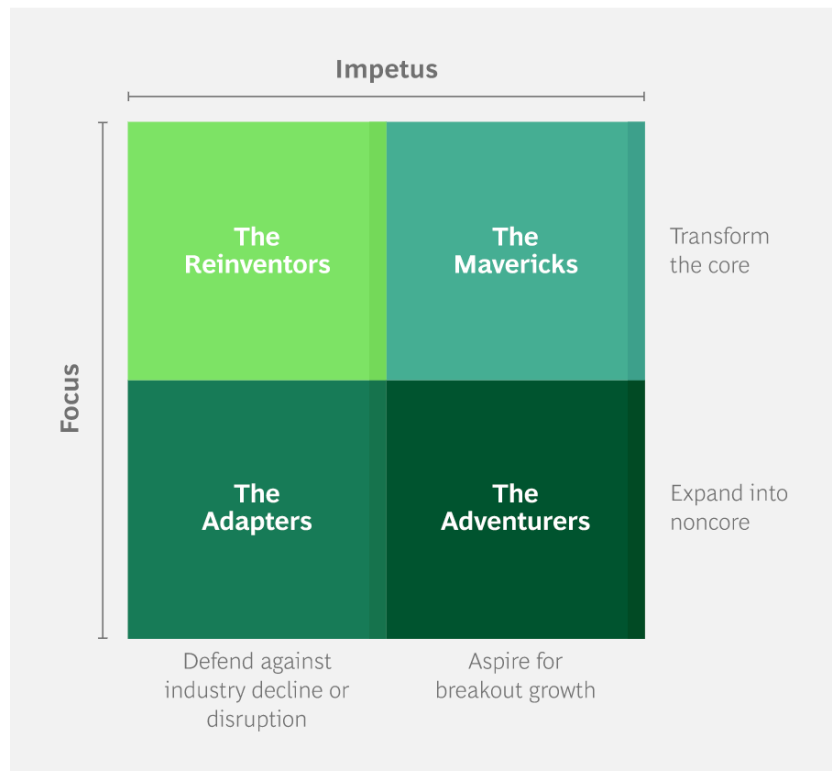


Fig. 3. Business model innovation approaches (source: BCG Analysis)

In case of reinventors approach, the company's customer value proposition must be reinvented and processes realigned in order to financially execute on the new better product. Adapters seek for complementary companies or markets, in some instances completely abandoning their primary business. Mavericks could be startups or insurgent existing businesses — use their fundamental advantages to disrupt their sector and create new standards. By exploring new markets, the adventurer approach requires a thorough grasp of the company's competitive advantage on novel applications of that advantage in order to succeed in other markets.

Foss and Saebi (2017) distinguish BMI based on its novelty and extent. The first dimension quantifies the 'newness of the BMI.' It establishes if a BMI is novel to the business (Johnson et al., 2008; Bock et al., 2012) or to the whole industry (Santos et al., 2009). The second dimension defines the scope of the BMI by indicating how much of the existing BM is impacted by the innovation.

There are numerous business model variations, some of which will be better suited to client needs and business conditions than others. Business model selection, adjustment, and/or improvement is a difficult task. As history has shown, new business models may both facilitate

and represent innovation. For example, Southwest Airlines was founded on the assumption that most customers desired direct flights, reasonable prices, reliability, and exceptional customer service, but not 'frills.' Southwest avoids the hub-and-spoke concept associated with alliances, as well as allowing interlining of passengers and baggage and selling tickets through travel agencies, in order to attain these goals. The Boeing 737 is the standard aircraft, allowing for more efficiency and operational flexibility. This model was then successfully implemented by the company Ryan Air which is a leader among low-cost airlines in Europe. Another example of already well known business model is the 'razor-razor blade model' the essence of which is to sell inexpensive razors, but then sell consumables at high prices. The same kind of business model used by Nespresso the main source of income in the company is not produced coffee machines, but coffee capsules for them.

The development of the Internet has provided additional impulse, for creation of a new business models and as it has posed basic challenges about how businesses give value to customers and how they may capture value from delivering new information services that consumers typically expect to receive for free. Moreover, the Internet is not only a source of simple access to digital material; it is also a new channel of distribution and for piracy, making it harder for recording companies, performers, and songwriters to capture value from Internet transactions and flows. More broadly, the Internet is forcing many traditional businesses to reconsider their distribution tactics, if not their entire business models. Thus, if earlier the industry worked according to the model in which developers created video games, and users bought them, then nowadays there are a number of games in the "free to play" category, such as «Counter Strike: emergence of the Internet in most homes, opened up new opportunities in the field of storytelling or Internet television, which made it possible to create such a company as Netflix. Thanks to the business model created by Netflix, viewers have the opportunity to watch what they want, when and where, unlike how it was before, with a pre-scheduled program in several channels. Another example of an innovative model directly related to the Internet can be considered online services for the digital distribution of computer games Global Offensive» in Steam online launcher. Instead, they intend to make money by selling adverts or in-game stuff like upgrades, special skills, special objects, and expansion packs.

1.4. Summary of the Chapter

SME has no one definition because to the effect of several elements such as corporate culture, state development, and location. SMEs are creating employment again in several OECD nations. In emerging nations, SMEs are the main suppliers of products and services. This kind of business provides enormous revenue and is one of the key drivers of poverty reduction. SMEs account for 90% of all businesses, 50% of GDP, and 70% of jobs.

Globalization and corporate growth decrease local small company competitiveness. However, the growth of the IT industry has created new possibilities for SMEs. SMEs may utilize e-platforms to challenge major corporations' market regulations. Inclusion of SMEs in international commerce helps both the SMEs and the trade in general. Exporting commodities enhances small business efficiency and the potential to improve service and product quality.

Economic crises cause a drop in activity. A crisis (ancient Greek - choice; turning point) is an unstable situation of a system. Because each crisis is distinct, it may be divided into stages. Crises are rare but devastating events that jeopardize an organization's core goals. Due to the rarity, many firms fail to adequately prepare for crises.

Crises can frustrate companies' and people' emotional, cognitive, and behavioral capacities. A crisis might motivate a stagnant or inefficient system to update and improve. Scientists recommended four strategies for businesses facing a crisis: retrenchment, persistence, departure, and innovation. Perseverance is a crisis management technique. Durable businesses may outlast rivals who update their strategies.

This method can work, but firms don't always have the resources. Innovative strategy is the process of renewing a strategy in response to a problem. Increased environmental uncertainty encourages expanding a venture's commercial activities. Innovations do not solve all new issues and come with hazards. Innovation improves the environment, promotes sustainability, and strengthens social bonds.

To quantify innovation, it must be determined. In a commercial setting, innovation is the concept of creating a new product or service that is widely accepted by the market. Organizational innovation is both a result and a process. To solve the present issue, innovation must be successfully diffused. The early research of Schumpeter uncovered various advances. It's new business models, new markets, and new suppliers. There are two basic types of innovation: technical and managerial. Technological innovation solely affects the firm's ultimate product or service. The social structure of a corporation may impact the final product

delivered by administrative/managerial innovation. These are novel management approaches, organizational management processes, and structures that might provide value to the firm.

Total quality management, 360 degree feedback, quality circle, divisional organization, just in time manufacturing system are some examples. Input and output of new technologies are outlined by F.M. Scherer (2001). Nowadays, technical advancements are seen as digitalization and other IT-related technology. New business models may be considered as a kind of innovation.

Market-driven innovation is the polar opposite of technical innovation. It focuses on believing and establishing a market's most critical wants. Business models may help firms remain competitive, generate new concepts, and strengthen existing systems. The business model dictates how an organization functions, provides value to customers, and inspires consumers to buy. This model should contain a commercial rationale and a means for the firm to reach the market.

The typical business model life cycle has been decreased from 15 to 5 years. Successful business model innovation adds value to consumers and transforms the company's primary business model. Companies or markets that complement their principal business are sought by adapters. Their unique advantages enable them to disrupt industries and set new norms. These models may be tailored to specific customer demands and market situations.

The Internet has opened up new distribution and piracy channels, making it difficult for music companies, artists, and composers to profit from online transactions. Internet is driving many established firms to rethink their distribution strategies, if not their whole business structures. Using these basic concepts, as well as the theoretical background of BMI, seven enterprises will be analyzed that responded to the Covid-19 by business model innovation.

CHAPTER 2. EMPIRICAL EVIDENCE OF SMEs BUSINESS MODEL INNOVATIONS DURING 2020 COVID-19 PANDEMIC

2.1 Widespread of COVID-19 and its impact to humankind

A previously unknown virus that was discovered in the Chinese city of Wuhan was officially registered with the World Health Organization on December 31, 2019. Already in January 2020, 41 cases of infection with a new virus were registered in hospitals in Chinese cities (Huang et al., 2020). In the next two months, by mid-March COVID-19 was detected in 146 countries and then started to spread rapidly among all citizens around the world. The number of confirmed infection cases dramatically increased due to such kinds of events as ski destinations (Anderson et al., 2020; Johns Hopkins, 2020). By mid-April confirmed infections reached the number of 2 mln with 125,000 deaths worldwide (ECDC 2020). In fact, due to limited testing, it is possible to conclude that much more cases existed. Since at that time there was no vaccine against Covid-19, and since there was no understanding of how to be treated for this previously unknown infection, the governments of most countries implemented different kinds of restrictions such as lockdowns, home isolation, social distancing, launched vocations for schools and universities, switched workspaces and education to online if possible, cancelled concerts, festivals, sports events, summer Olympics, limited numbers of people could be one time one place.

The first data received showed a drop by 60% of GDP in early 2020 in Wuhan (Bloomberg, 2022). It was an extremely strict level of lockdown, that is why the fall of GDP was so keen. The same situation was in Italy at first time during the first wave, but the next lockdowns were not thus destructive in terms of GDP fall and recovery was faster than from the first lockdown. The reason for that was the policies of the government which filled the economies with money. It is also important to emphasize that, unlike other crises, in which citizens' spending was reduced in the field of social activities, but at the same time, spending increased in services from home, such as home delivery of food. For example in the USA GDP dropped mainly because of the service sector, while consumption of the goods increased which turned out to be a big surprise (Krapova, 2020). However, the impact on the global economy caused by the pandemic has been unprecedented. GDP of EU dropped by 3.8% in the first quarter. It was the sharpest drop since 1995 when first record was compiled in France, Italy and Spain (Eurostat 2020). In the USA GDP has fallen by 1.2% in the first quarter (PWC, 2020). In the UK GDP reported by the Office for National Statistics (ONS) declined by 10.4% for March and April (Office for National Statistics ONS, 2020).

Those restrictions touched and travelling for all levels like local, regional and international. British airline FlyBe declared bankruptcy, well knows airlines such as Virgin, Scandinavian Airlines, Singapore airlines, German TUI requested billions of dollars of aid on March 2020 Stefan Gössling, Daniel Scott & C. Michael Hall (2021). The Overtourism system moved to nontourism which could be confirmed in illustrations of different sources like newspapers, blogs, popular tourism sites (Conde Nast Traveller, 2020). Some belief in scenarios that tourism sector will be recovered as it happened from GFC, but nowadays a lot of different pieces of evidence that COVID-19 will transform entire tourism sector, and governments start to understand that tourism sector will now be recovered soon as well as tourism revenue permanently lost due to unsold capacity such as accommodation (Stefan Gössling, Daniel Scott & C. Michael Hall 2021).

COVID-19 has an enormous impact on consumer behavior because all consumption is limited in time and location. Customers get used to a certain way of consuming certain types of services or products over time (Sheth, 2020a, Sheth, 2020b) and this also applies to search online, shopping. During the pandemic time, the habits of consumers changed significantly and that could be a problem for business as well as opportunity. Several major contexts influence consumers' behaviour, which creates or destroy consumer habits. The social context includes such events as city migration, children, marriage status, friends, workplace, neighbours. The next context is the technology context which includes the internet, smartphones, online shopping etc dramatically changed the way consumers search for products and buy them. Another very important context is the legislation of the state. In terms of consumption habits, it is related to public spaces rules and measures for deconsumption of harmful products such as alcohol or smoking. And the most unpredictable context is disasters such as hurricanes, wars, GFC, pandemics as COVID-19. Measures followed after COVID-19 spread over the world as social distancing and lockdowns led to mobility change, thus many places of employment and education have moved to an online format. Since consumers no longer need to follow the usual daily routine associated with physical movement around the city, consumers have more control over their time, as they no longer spend it on movement. It is possible to conclude the immediate effects of COVID-19 on consumer behavior as follows:

1. People started to hoard essential products such as meat, water, toilet paper, bread. That happened due to uncertainty of future of basic needs products.
2. COVID-19 unleashed provoked new non-standard ways of solving different situations. An example of such events would be a funeral using Zoom or a wedding

on the street. It leads to innovative practices such as online education or telehealth. Such improvisation is impossible without such triggers as a pandemic.

3. During the uncertain time, customers' behaviour switched to postpone purchase and consumption of non-basic products and services such as automobiles, property, sports, bars, concerts etc. But it leads to transferring that demand to the future with a pent-up demand effect.
4. One of the main significant shifts of the pandemic is the accelerated digitalization of most areas of life activities of most people. For example, Zoom became one of the most important platforms for job and education in the world.
5. During the pandemic, lockdowns were regularly introduced, which created a transition of stores into the house. This happened because customers in different countries of the world simply physically could not get into stores or shopping centres that were either closed or restricted access. This includes not only grocery stores or clothing stores but also streaming services such as Netflix, Amazon, etc., which have completely broken the old habits of going to the cinema, for example. The so-called "IN-home everything" reality was formed which changed previous customer behavior.
6. The social confinement that has brought the majority of the world's population into their homes has blurred and confused the boundaries between work, education, personal life and socialization due to the limited space and many different activities in it.
7. The pandemic had a great impact on the relationship of people among themselves since after the onset of this disaster, people began to wonder how each other was doing against the backdrop of this event. People who hadn't talked to each other for a long time began to communicate again. At the same time, there has been a boom in the use of messengers such as WhatsApp and programs like Zoom. It also accelerated the introduction of digital technologies into people's lives and led to significant changes in consumer behavior.
8. With people having more time to spend at home due to the lifestyle changes brought about by the pandemic, there has been a surge of new talent. For example, people began to create new ways of how to play music, opened educational courses. Youtube is full of such success stories (Jagdish Sheth,2020).

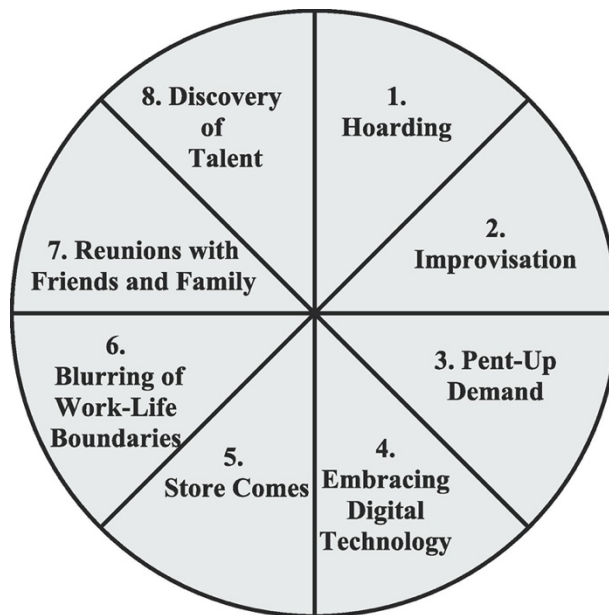


Fig 4. Immediate Impact of Covid-19 on Consumption Behavior (source: sciencedirect)

It has had a significant impact on the further development of all human development processes. «Even with the promise of a vaccine edging closer, economic recovery could be years away for some sectors. Yet companies that reimagine their operations will perform best in the next normal» McKinsey & Company, 2021. «Faced with the consequences of the global pandemic, we have a rare, but narrow window of opportunity to reflect, reimagine and reset our world” Pioneers of Change Summit.

With the advent of COVID-19, widespread lockdowns and crashed business processes hit the business complex, governments across the world as previously mentioned, implemented a wide range of restrictions, that had the strongest impact on the performance of SMEs, especially small and medium enterprises in emerging economies, due to lack of resources, unstable supply chain, and business-to-business relationships compared to developed markets. In such circumstances, many enterprises bankrupted and disappeared. As a result, millions of people became unemployed, and markets collapsed. Since, SMEs have lower capital assets, lower level of productivity and smaller amount of assets compare to large firms, this means that such restrictions put them in an even more vulnerable position. However, due to flexibility and the size of SMEs, new opportunities and points of strength of these enterprises appear as well as new strategies which possible to launch for sustainable business operations (Davidsson, 2015; Shepherd & Williams, 2018). At the same time, the situation in SMEs is also not homogeneous and the impact of the pandemic is highly dependent on the specific sector. For

example, business areas such as tourism, hospitality, restaurants, sports, public entertainment and retail were more vulnerable and suffered more than others sectors such as IT, pharmaceuticals, food, healthcare.

The main reasons for the high vulnerability of SMEs to a pandemic are due to several reasons. Firstly, the activities of small and medium-sized businesses are in the sectors of the economy that have been most affected by the crisis. Second, small companies more susceptible to pandemic impact compare to large firms in the same sector of the economy of the same country. Thirdly, SMEs have less option to respond to that challenge. SMEs due to COVID 19 are more 8% likely to have temporarily shut down than large firms (Ikmal Adian, Djeneba Doumbia, Neil Gregory, Alexandros Ragoussis, Aarti Reddy, Jonathan Timmis, 2020)

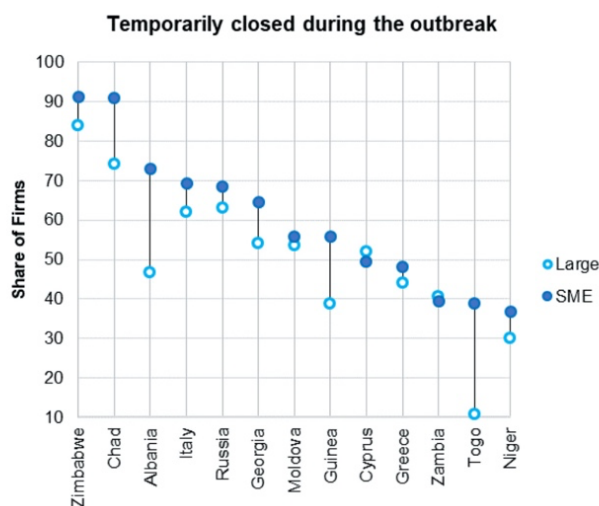


Fig. 4. Comparison of temporarily closed small and medium-sized enterprises to large firms during COVID-19 (source: World Bank Enterprise Follow-Up Surveys)

As mentioned earlier, SMEs have less capital to allow them to suspend their activities for a long time, so a temporary closure can become permanent after a certain period. SME has less liquidity from external financing than big business, and COVID 19 made that situation even worse. In addition, income is not the same as in was previous years due to lockdowns and demand decreasing.

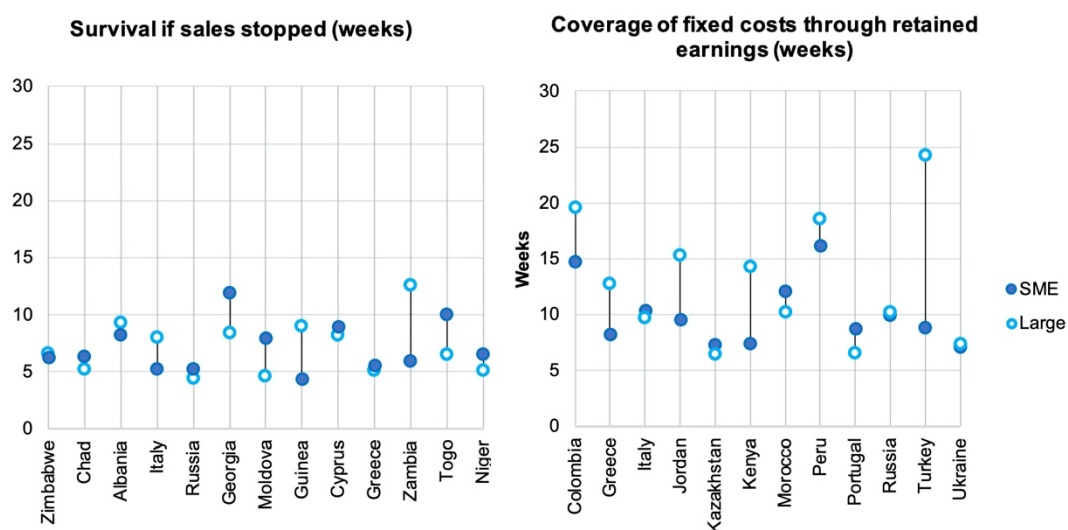


Fig. 5. Comparison of temporarily closed small and medium-sized enterprises to large firms during COVID-19 (source: World Bank Enterprise Follow-Up Surveys)

SMEs have an average of 10 weeks of fixed cost reserves, which is 3 weeks less than it is for large companies (Bosio et al., 2020). In this case, if the activity stopped completely, namely, no income from sales, in this case, the average survival time is 4-5 weeks for SMEs, which is generally similar for large firms. An analysis across countries showed that half companies will be closed in one month and 75% by the end of 10 weeks.

Moreover, the gap in specific knowledge makes it challenging to respond to that troubles effectively immediately. To abovementioned problems of SMEs struggled from limited managerial capacity, which including tools, procedures, and techniques), no knowledge management (only tacit knowledge, nothing is formalized; Garengo, Biazzo, and Bititci, 2005). In addition, according to Eggers (2020), Small and Medium Enterprises face a liability of smallness (Freeman, Carroll & Hannan, 1983). That means that small companies are more defenseless to internal and external events (Eggers, 2020). Also, more vulnerable new firms compare to older ones (Freeman et al., 1983; Stichcombe, 1965). For example, in America, a study published on April 3rd by MetLife, an insurer, and us Chamber of Commerce determined that 54% of non-sole-proprietor companies with fewer than 500 employees were both bankrupt or assumed to close in a few weeks. The situation in China looks the same way. Though SMEs are frequently nearly incapable, they can play a role in supply chains that would be difficult to repeat. To reduce the risk, some large companies, such as Unilever, are trying to buoy up suppliers by paying them faster.

On the other hand, it is essential to mention the restrictions when the SARS outbreak of 2003 supported stimulate China's embrace of e-commerce which is significant sector of current SMEs, the same situation happened worldwide and during COVID-19 even though in 2020 e-commerce is a widespread and pretty developed sector worldwide. For instance, Chris Grigg, boss of British Land, one of Britain's largest retail, declared that Covid-19 pandemic forced the industry of online retail to rocket from its current 20% to half of the market in Britain, which is one of the biggest indicators across the planet. So Covid-19 could not only highlight the usefulness of online but also make some of its drawbacks less difficult. Traditionally, Germans have a high level of privacy concerns and oppose everything that could resemble "surveillance capitalism". Although Karl Haeusgen, director of HAWE, a producer of water-powered pumps, states an app that served support public health by tracking COVID-19 viruses could decrease careness of that people in terms of their data. In that case, people could mature to another data business.

In purpose to achieve competitive advantage, SME for the most part depends on their ability to satisfy their clients' needs which directly depends on their ability to continuously improve the efficiency of processes such as planning, operational performance, controlling production (Apics 2005).

GFC of 2008-2010 impact analysis can also help draw some conclusions about how the crisis affects SMEs and what measures have been taken by entrepreneurs to overcome the crisis, including using new approaches to doing business. COVID-19 and 2008-2010 GDC have to important similarities such as exogenous shocks and reduced liquidity. Both the GFC and the COVID-19 crisis sharply reduced turnover, and in both cases financial stringency forced companies to make strategic decisions and take care of holdings and had an impact to innovation activity.

International research literature shows that innovations are strongly procyclical, as well as R&D. Consequently, it is necessary to expect a sharp drop of about 30% of innovative companies with a slow recovery to the previous level of innovative activity. For example, the percentage of innovation active firms dropped during 2006-2008 period 58.2% to 36.8% in the recession period and not recovered to pre-crisis level even in 2016. It is necessary to underline that large firms recovered faster than SME, because only large firms reached pre-crisis innovation activity in 2016. About 20% which have been implementing product of service innovation showed drop from 23.0% in 2006-2008 to 18.9% during recession and fully recovered in 2016. Percentage of process innovator also dropped from 12.6% to 10.3% but

surpassed the pre-crisis level and reached 15.8%. In all cases sustaining innovation activity more complicated for smaller firms, but in cases where SMEs could sustain it, innovations could bring benefits to firms. (Stephen Roper and Joanne Turner, 2020). Jung et al (2018) analyzed 588 Korean SMEs during the GFC time and concluded that technologically capable firms increasing their opportunities to survive in case if they investing to R&D and innovations. Same conclusion was made by Castillejo et al. (2019) who examined effectiveness from innovation in Spanish SMEs in the time of crisis of 2008-2010.

For example, Zoom, a company that provides video conferencing service, served 10m clients a day at the year's opening. Most of them in business meetings rocketed to 200m customers only for conferences and many different services as Sport classes and online lessons. It is not just young tech-companies and tech firms that were before frequently practiced by the young that have prospered. For example, Microsoft's Teams product is getting many converts. However, nobody assumes the amount of online operation will return to the level as it was before the virus hit.

As mentioned earlier, COVID-19 has significantly changed the way people live and, as a result, approaches to doing business. On the one hand, unprecedented restrictions were introduced, and on the other hand, entrepreneurs had to find new ways that would allow their business models to survive and develop in a new reality. That situation that forced businesses to reimagine how they operate also opened new opportunities for further development and the post-COVID 19 pandemic period. To withstand a pandemic, innovations were identified as one of the most effective responses to that disaster (Santiago-Omar Caballero-Morales,2021).

2.2. Empirical research strategy

A variety of sources were used to gather the information for this study, including semi-structured interviews, follow-up calls, archive data such as e-mails, internal reports, and presentations; the firms' websites, social media activity on Telegram, and VK; as well as on-site visits and observation of the new BMs, among other things in doing so, followed Yin (2009)'s recommendation to employ several sources of information in order to improve the overall quality of the case analysis, triangulated the findings of the interviews wherever feasible.

For the semi-structured interviews, a guide was produced that included questions and answers. As a result, at the commencement of the interviews, a number of main issues were identified and discussed. It was required to ask very precise questions in order to get the necessary in-depth information on the new BMs, their origins, and first impacts, as well as to

investigate the developing BMI phenomenon, which was the goal of this study. With greater precision, the content of the interview guide was centered on how the participating SMEs had dealt with the crisis thus far; which measures were chosen and why; what the temporary BM looked like; how the process of implementation worked; and whether the firms had already been exposed to significant consequences and changes as a result of their BMI. Because of the exploratory nature of the current research, it was not feasible to rely on existing questionnaires, necessitating the development of new questions. It was possible to analyze a complicated issue while also include the experiences and perspectives of those who were engaged via the use of semi-structured interviews. Between the 10th of April and the 20th of April in the year 2022, a total of five interviews were performed. This occurred at a period in which the countries were reopening after their Covid-19 lockdowns were lifted. They also consented to be called at a later time should any more questions arise throughout the interview process.

The data analysis process was mostly guided by inductive reasoning (Creswell and Poth, 2016). Thematic analysis was also used to its advantage because of the underlying notions that were there. An exploratory method to data analysis looks for themes that seem to be relevant to the knowledge of the phenomenon under consideration (Fereday and Muir-Cochrane, 2006). It is possible to help data reduction here by segmenting, classifying, and summarizing key ideas within the given data under consideration (Ayres, 2008).

During the conversation, the researcher took notes. After generating all interview data, the initial stage was to identify all data associated with a list of specified subjects covering three areas: (1) variance between the previous and new BMs, (2) changes to BM parts, and (3) perspective of the BMI. To minimize the possibility of misinterpretation, all writers reviewed the transcripts and discussed the results. While data from other sources was acquired and incorporated into the above-mentioned procedure, the semi-structured interviews received priority. After this procedure was finished, separate case reports were generated for each business involved, which also served as the foundation for a subsequent within-case investigation (Eisenhardt, 1989). The cross-case analysis sought to emphasize the distinctions and similarities between the examples (Eisenhardt and Graebner, 2007), which was aided by the subjects highlighted in the preceding stage. Between four and ten cases usually works well (Eisenhardt, 1989). Additionally, comparison tables were created to facilitate cross-case analysis. This also aided in the evaluation of the results and agreement on the pertinent issues necessary to fulfill the study objective.

2.3. Within case analysis

The following part provides an analysis of the main business model modifications implemented by each of our example firms. Table 1 summarizes the differences between the old and new BMs in terms of value proposition, value chain, and revenue model according to Gassmann et al. (2014) proposed business model. Each case description highlights the new BM, and other case-specific data.

Case A

Company A provides healthcare services within the walls of the clinic. This is a private medical clinic that falls under the concept of a diversified multidisciplinary medium-sized business, as it employs 2,500 employees of various profiles in 3 cities in Russia, of which 14 branches are located in St. Petersburg, which makes it the largest private clinic in the northwestern district of Russia. The company's mission is to provide high-class and quality services. The target segment consists of middle- and upper-middle-class individuals, who prefer to be treated in private clinics. The clinic could provide the full cycle. In other words, a client of any age can receive almost any medical care without contacting other organizations. In 2019, the clinic was among the top 4 most profitable private clinics in Russia. The company suffered greatly from the pandemic because all planned care was closed, including all outpatient care (which was the main business of the company). The company lost 85% of revenue. Due to the restrictions caused by the coronavirus, only the department of the maternity hospital was able to work with restrictions. The company's management decided that it was necessary to urgently change the business model that could respond to the consequences of the pandemic. While other clinics, including maternity hospitals, began to close, this company introduced innovative business approaches. Since there were a large number of restrictions on personal visits to the clinic, the company introduced digital tools for interaction with the patient, such as telemedicine, which implies remote medical support. With the introduction of telemedicine, without emergency, all pregnant patients received consultations via telemedicine. As part of digitalization, a virtual tour of the maternity hospital has been created, allowing it to continue to show potential clients what kind of environment they will be in. Thanks to this, it was possible to demonstrate the clinic offline at any time convenient for potential clients. To increase customer loyalty, YouTube was created, in which live broadcasts were conducted daily in order to reduce the level of panic among customers who were worried that this maternity hospital would close like many others. In addition to that, the company created a free program called "School for Pregnant Women and Young Parents," which, among other things,

gave additional traffic to the clinic. The result of the changes in the structure of the business model was to maintain the financial stability of the company during the pandemic and also make it possible to avoid staff cuts, as was the case in competing clinics. Moreover, part of the staff of temporarily closed departments was transferred to the maternity hospital, which made it possible to ensure an increased load on the maternity hospital. The clinic, as a response to COVID-19, realized BMI. Company created a new interface in the form of a mobile application, and a new value proposition called "telemedicine," in which the specifics of consultations were developed and adapted by medical professionals for online consultations. Also, that approach reaches a target segment that before wasn't reachable for customers from other cities and opens a new segment of people who prefer online consultation to offline if possible. This is what a representative of the company said: Even after all the pandemic consequences, these new ideas have a positive effect on the core competencies of the business.

Case B

Company B having several gyms in several cities of Russia, which specialize in original courses and programs, seminars, competitions, and master classes inside of gym that allow clients who with an average income and above and lead an athletic lifestyle and mostly live not too far from the gym to achieve any kind of sporting achievement and to gain new knowledge and sports skills as well as provide all possible conditions for the implementation. The concept of the company is not only to provide sports equipment for use in the gyms, but also to support the training processes with a professional team of the club. The safety of individuals who are actively participating in sports inside during a pandemic is very hard to secure during a pandemic and after the onset of the pandemic, the government-imposed restrictions on visiting the gyms, as a result of which the business was on the verge of bankruptcy. As a response to COVID-19 restrictions, company began to provide services for group and personal training online as business response to outbreak. This business model is new for that kind of business, as previously there were no incentives for organizing such activities and therefore such a model can be considered as appropriate case for that research. The company used its core competencies, which is a team of professional fitness instructors and experience in sports programs that have been tested for effectiveness during offline training. The company created new value proposition by given to customers the chance continue training at home, as the offered by the company have been specially adapted programs for training without special equipment that is in the gym. In addition, group meditation sessions were added to the schedule, which was a completely new activity. Value chain of the company changed as well due to the

way of how value proposition created also reverted from offline format to online. In addition, as online enabled the expansion of the audience due to a change in the distribution channel due to clients who live far from the gyms did not go to them due to transport inaccessibility or other reasons. The revenue model also was partly changed. While it stayed the same for personal training, for group training it changed due to the integration of advertising to its free content. However, the subscription type business model for this model has been eliminated. After the restrictions were lifted, this BMI continued to exist and became additional to the main one, many clients found this way of exercising more convenient for themselves for various reasons.

Case C

The onset of the pandemic has had a significant impact on the network of ateliers in Almaty, which was established in 2009 and is primarily engaged in sewing wedding dresses for individuals and taking orders for tailoring designers. The prohibition of the workshop posed the first and most serious threat to the project. The second consequence of Covid-19 was that it caused a disruption in the supply chain for the necessary fabrics, many of which were imported from other countries. The third, and no less serious, threat to the business model that existed prior to the outbreak was a sharp decline in orders for tailoring wedding clothes as a result of the ban on holding such events as a result of the pandemic. As a result of the circumstances, it became impossible for the company to continue its operations for an indefinite period of time. As a response to the current situation, the company's owner decided to change the current business model by introducing new approaches to doing business that would make use of the company's existing resources, such as equipment and the skills of the company's employees, as well as contracts with fabric suppliers who would be able to supply fabric despite the restrictions imposed by the pandemic. It was decided to begin the production of masks and medical gowns because there was an acute shortage of these items during the first wave of the pandemic. Due to the fact that it was a commodity in high demand, this type of activity made it possible for workers to obtain official employment authorization. Furthermore, the company created proposed masks in a variety of designs and sizes, which drew the attention of both customers and sanitizers. Aside from that, the business previously operated solely under the B2C model by selling retail to order to individuals, but this has now been changed to B2B by selling to businesses by bulk because they need that kind of goods in purpose to guard its clients, staff etc and because of legal requirements under the new business model. As a result, both the product and the customer were fundamentally changed. The value proposition, target segment, and revenue model of BM have all been altered since the early

origins. Because of these solutions, the company was not only able to avoid bankruptcy, but it was also able to increase its revenue by a factor of several. When the shortage of masks was mitigated, the company began sewing clothes for the home and resuming its pre-pandemic business activities. During the pandemic, the company developed a business model for tailoring home clothes that was successful and continued to be in demand even after the majority of the restrictions had been removed. Despite the fact that people were spending more time at home, some of them were even working from home.

Case D

A Russian company founded in 2016 is engaged in the production of high-quality cosmetics from natural ingredients, improving and enhancing the composition of high-tech formulations. The company's clients are beauty salons and barbershops all over Russia. These customers bought the company's products in bulk in order to use them for their own needs and sell them at retail to their own customers. In the plans of the company before the pandemic was to enter the international market using international marketplaces such as Amazon. The pandemic seriously affected this company due to the fact that the company's clients, which are beauty salons and barbershops, were closed during the quarantine. Therefore, it was impossible to maintain the same production volumes to save the company in the event of a prolonged period of crisis, which is Covid-19. Management has decided to make changes to the current model in order to overcome the challenges posed by the pandemic. They chose to use the company's current resources, such as qualified employees in the field of chemistry production equipment. Since there was an acute shortage of antiseptic in the country, it was decided to refocus the company on their production. For this purpose it was necessary to partially buy additional equipment to the already existing one and buy the necessary chemicals in order to be able to produce antiseptics. After notifying the governor of the region about the possibility of such production, the company was approached by many companies that needed them. Since the company was not a large factory and could not make deliveries that factories could make, the company focused on manufacturing antiseptics according to all WHO recommendations in order to make deliveries to schools, boarding schools, kindergartens, public institutions in the region and other companies in the city. The firm's value chain enabled it to transition from the manufacturing of cosmetics to a disinfectant. Additionally, the value proposition has shifted, since new customers are being targeted with a new product. Thanks to the decision to change the business model as a response to the effects caused by the pandemic, the company was able to survive the pandemic without cutting personnel or losing profits. This BMI after the removal

of restrictions became an additional activity for the company, since the demand for antiseptic products will remain at a high level, and antibacterial soap was developed as a new product in the product line of the company in this area.

Case E

One brand of two beauty salons offering a wide range of services offer all kinds of procedures for face, body and hair. This beauty salon considers its peculiarity the developed philosophy, where the masters like genius artists look for their inspiration in true feminine beauty, working on each image as if it were a fine work of classical art. In this case, special attention was paid to the selection of brands of cosmetics for clients' needs. As an additional form of income inside the salon operated cosmetics store of different brands, including own brand cosmetics made in Russia and the opportunity to buy only in their beauty salons. With the onset of the pandemic, the activities of beauty salons were banned. Because of this, the salon could not function for many months. The financial state of the beauty salons could not afford downtime for more than three weeks, because there was no money at the end of this period to pay salaries to employees, which, according to the head of the company are main core competency of the company. In the event of the loss of the team during the pandemic, the continued existence of the salon was at great risk. At the same time the company's management noticed that there were no restrictions on the sale of products from the stores. The company's management decided to develop its inside store to open an online store in order to meet the demand for their products. In order to make sales profitable and also convenient for customers to buy, cosmetics products were combined into "boxes". That is, customers of the online store did not need to assemble each individual cream, mask, foam, and so on on their own, which helped save time and energy costs for customers. And it also eliminated the risk of the customer forgetting to buy something and going to buy it only after receiving delivery. For example, a client would simply choose a box by "face", "body", "hair" and other selections and everything client need will be included in these kits. Thanks to this solution, beauty salons did not have to lay off their staff because the profits from sales were enough to pay the salaries and rents agreed for the duration of the pandemic. The business model was changed significantly, namely the target audience was expanded to those who only needed products without beauty salon services, and customers were now not only visitors to the beauty salon, but also those who had never visited it or even live in the same city, as delivery is made all over Russia. Value chain has also changed as it used to be a companion offline sale, but now it is an online shop with delivery to a location where products are also sold in a different concept (in kits). The revenue

model has also changed, as the main income before the pandemic was from beauty salon services, and during the pandemic the main sources of income have been from sales of beauty boxes in the online shop. In this case, In this case, this BMI has evolved from a collateral source of income, to a mainstream business model for the duration of the pandemic and as a full-fledged separate business model once restrictions are lifted, which can compete with the beauty salon business model for the title of mainstream business of this founder.

Case		Who?	What?	How?	Why (Value)?
Case A	Old	Patients living in the same city as the clinic, who prefer private clinics	Healthcare services offline	The traditional way of providing services within the walls of the clinic	Because company provides high-class and quality services
	New	Patients, including those living in other cities, who accept online consultations when possible	Healthcare services online	Implementation of digital tools for interaction with the patient	Because company provides service delivery despite pandemic restrictions
Case B	Old	Clients who live nearby and prefer to go to the gym or the pool	Sports services offline	Provision of the necessary equipment, SPA, pool and sports programs for use in the gym	Because the company provides all the necessary conditions for sports activities in the walls of its gyms

	New	Clients regardless of residence and accept personal or group training from home	Sports services online	Provides an adapted personal or group programs for exercising from home in the online format	Because the company provides an ability to continue quality training from home when all gyms are closed due to pandemic
Case C	Old	Individuals and designers	Wedding dresses and designer's orders	The use of equipment and skills of workers in the field of tailoring	Because the company provided individualized services for weddings and designer collections
	New	Organizations or institutions working during a pandemic	Masks and medical gowns	The use of equipment and skills of workers in the field of tailoring	Because the company provides a scarce commodity needed during a pandemic
Case D	Old	Beauty salons and barbershops all over Russia	Cosmetics	The use of equipment and skills of workers in the field of chemistry	Because the company provides unique products made from

					natural ingredients
	New	Organizations or institutions working during a pandemic in the city	Antiseptic	The use of equipment and skills of workers in the field of chemistry	Because the company provides a scarce commodity needed during a pandemic
Case E	Old	Customers visiting the beauty salon	Beauty products	Offline sales in beauty salons	Because the offline shop offers to buy exclusive cosmetics recommended by beauty salon staff after treatments
	New	Customers across Russia who buy cosmetics products online	Beauty products	Online sales via online shop with home delivery	Because the exclusive cosmetics packaged in boxes offered by the online shop are delivered nationwide

Table 1. Description of old and new BM based on Gassmann's BMI dimensions

The next section focuses on cross-case results. It evaluated businesses from a variety of industries and circumstances, with general recommendations. Table #2 summarizes the case findings. The data reveal three critical stages of a BMI. These phases define the cause and impact of a BMI, provide insight into the integration of a BMI, and provide a view on the prospective repercussions. It is possible to build a table based on the full examination of the instances that shows the similarities and differences between them and enables the discovery of certain patterns for BMI. The cross-case study findings, in particular, concentrate on three areas throughout the BMI process: (1) The trigger and causes for a BMI (2) The process of integration and main concerns (3) Business model success of BMI. (4) Identified patterns.

		Case A	Case B	Case C	Case D	Case E
Situation	The extent to which the crisis has had an effect	Highly effected	Highly effected	Highly effected	Highly effected	Highly effected
	Reason for BMI	Necessity	Necessity	Necessity	Necessity	Necessity
Elements	«Who» element	Changed within the scope	Changed within the scope	Changed completely	Changed completely	Changed within the scope
	«What» element	Changed within the scope	Changed within the scope	Changed	Changed	Changed within the scope
	«How» element	Changed	Changed	Remained	Remained	Changed
	«Value (Why)» element	Changed	Changed	Changed	Changed	Changed
Other	Built on core competencies	Yes	Yes	Yes	Yes	Yes

	Resources for realisation BMI	Employee s skills and digitalizat ion	Employee s skills and digitalizat ion	Current equipment and employees skills	Current equipment and employee s skills	Existing products
	Temporary BMI	No	No	Yes	Yes	No
	BMI become additional	Yes	Yes	No	No	No
	BMI become basic business model	No	No	No	No	Yes
	BMI surpassed revenues from the previous BM	No	No	Yes	No	Yes
	Could appear in the future without a pandemic	Yes	No	No	No	Yes

Table 2. Cross case analysis.

2.4 Main findings and discussions

Finding 1- the trigger and causes for a BMI

The pandemic caused by Covid-19 was the reason that prompted executives in all of the above cases to make the decision to urgently transform business models. The impact of the pandemic was strongly felt by all the companies surveyed in this study. In all cases other than in case E, BMI was developed as an emergency measure to overcome the limitations caused by the pandemic due to the banning either of their activities or those of their clients as in case D. In case E it can be said that BMI was already starting to emerge, and the pandemic proved to be a stimulus to accelerate the development of a new model. Having said that, in cases C and D, BMI was clearly intended to be a temporary measure, lasting only for the duration of

the lockdown and to meet the demand for goods created by shortages caused by the pandemic, and this was clearly the case. The BMI was required in cases A and B because it was necessary to continue providing services to existing customers in the event of a pandemic while also expanding the geographic reach of potential customers through digital opportunities.

Finding 2- The process of integration of BMI

The cases studied showed that the process of integrating BMI was carried out at the expense of already existing core competencies from pre-pandemic business models. Thus, in case A, the principal activity - the provision of health care services was preserved, while the ways of providing this service changed. In this case, the main part of this business model is digitalization, which was accelerated as much as possible because of the pandemic. Case B generally has the same features as in case A, namely the change of elements of the previous model on BMI, which can be characterized as digitalized BM. In cases C and D we can observe very different principles of BMI which have nothing to do with digitalization, but have to do with saturation of the market with necessary goods which have become scarce because of the pandemic. The processes and equipment existing in the previous business model allowed us to adapt quickly to the new reality. In case E, we can say that the pandemic accelerated the process of implementing a new business model, provoking the business owner to focus on an additional type of business that needed to refine and run at full capacity,

Finding 3- Effects of BMI

The findings revealed that the implementation of a BMI had a favorable impact on the case companies. The study involved small and medium-sized businesses that felt the strong impact of the pandemic on their operations. Thus, in case B and E (the main activity) there was a complete ban on activities, in case C and D there was a ban on customer activities and in case A there were strong restrictions compared to the pre-pandemic level. In all cases, given the duration of the crisis, the use of Retrenchment and Perseverance strategies was not possible, so the options remained innovations and exit. Due to the fact that the companies transformed their business models in case A, B companies created BM which allowed in some way to create a source of income which supported the companies for the time of restrictions, as well as after the removal of restrictions to leave BM as additional. Cases C and D can be characterized as temporary BMI, as they were relevant only for the duration of the pandemic, but helped companies survive the crisis and even earn super profits. Case E is an example of how BMI of an additional business in response to a pandemic helped make it mainstream both during the pandemic and after. Thus, the BMI let these companies to be more adaptable by generating

multiple income streams, enabling them to better adapt to changing circumstances while focusing on the development of new value.

CHAPTER 3. DISCUSSION AND CONCLUSION

3.1 Summary of essential results

The main theoretical contribution of this research is adding a study on business model innovations by SMEs in response to COVID-19 pandemic. This paper provides addition to the body of knowledge. To begin, it was added to the body of knowledge on crisis management in SMEs by identifying and elaborating on a management strategy that enables enterprises to survive and maybe develop during a severe exogenous crisis, such as the one created by the Covid-19 outbreak. Due to their small size and lack of resources, SMEs must respond quickly and successfully to emergencies. The findings of that report corroborate earlier research indicating that exploration techniques, innovation involvement, and entrepreneurial attitude may all aid organizations in surviving a crisis. Gassman et al. (2020) discuss the beneficial influence of an entrepreneurial mindset on the ability to use business model innovation as a strategy for achieving competitive advantage and identifying new possibilities in the Blue Ocean. This paper add to this previous knowledge as we further develop of that in terms of crisis and combine that with crisis response strategies developed by Wenzel et. al, 2020 considering the peculiarities of a pandemic crisis. More precisely, incremental adjustments to current business models enable SMEs to explore alternative business models that might be pursued during/following a crisis. In addition to that, this research shows that innovation strategy is the most effective for SMEs in a prolonged crisis, thus supporting the theory of Wenzel et. al, (2020). Thus, SMEs are more likely to engage in BMI during long crisis as since other strategies are unsuitable for long-term use.

Proposition 1. During a long term crisis, BMI is especially useful for SMEs.

In the studied cases we can observe a change in two or more elements of the BM. Therefore, according to Gassaman's theory, we can consider these cases as BMI. Studied cases demonstrate conclusively that an external crisis is the cause of BMI. In every analyzed examples, the crisis prompted the innovation process. This is consistent with the research showing how crises provide new innovative possibilities (Brockner and James, 2008). Saebi et al. (2017) highlighted that when companies feel threatened, they tend to modify their BMs. Significantly limited businesses may be required to shift away from the real BM in order to generate other revenue streams.

Proposition 2. If an external crisis has a significant impact on an existing BM, BMI can be used as a way to overcome the crisis.

The crisis caused by the COVID-19 pandemic is an external crisis that has massively affected most companies. In this study, all companies faced an external kind of crisis which they overcame with the help of BMI.

Proposition 3. With BMI as a response to the external crisis, companies should be guided by core competencies in order to succeed promptly.

In all of the cases studied, companies used her core competencies as the foundation of their BMI. This allowed them to quickly adapt to the new reality. In other words, companies did not create something fundamentally new, but only transformed the current BM, which as a result helped them succeed.

Proposition 4. BMI should not destroy elements of the pre-crisis business model.

The case studies have shown that BMI can be both temporary and permanent, including additional ones once all restrictions have been lifted completely. Therefore, entrepreneurs should also think about not destroying the pre-crisis business model, as in some cases it will need to be restored in its entirety.

3.2 Contribution to research

The most important contribution of this study is to find and develop a management methodology that enables businesses to withstand a major exogenous crisis, such as that caused by the Covid-19 outbreak, and possibly even improve it. Findings are consistent with prior research indicating that exploratory techniques and innovation involvement may help organizations survive a crisis. However, this study did not look at the general situation of how SMEs can respond to a crisis, but rather at the long-term crisis caused by a pandemic, which has its own specific features, in contrast to a financial crisis.

The case studies confirmed the scientific research of Wenzel, Stanske and Lieberman (2020) that innovation activities may be the best way to respond to a long-term crisis. The study also examines innovation itself and concludes that BMI is a fairly universal response to the crisis because different activities are affected differently by the pandemic and therefore product or service innovation may not always be enough to respond to the crisis. According to Gassman's work, the studied SMEs from various sectors changed several elements of their business model to overcome the crisis and at the same time they always used their core competencies. Gassman's work on BMI transformation has not explored the issue of BMI transformation in a crisis, this paper explores that BMI in crisis follows the same scenario, only in a time of urgency and with the impact of the crisis on the market, which can be dramatically transformed when goods can suddenly become scarce, the business needs to go digital to

continue to operate or/and operations could be banned. It should be noted, however, that BMI as a response to a crisis can be either a temporary BM or a permanent BM. Therefore, the distinguishing feature of BMI in a crisis is that it is necessary to maintain the ability to return to pre-crisis BM, because when the crisis ends, the new BM can become either primary or additional, or irrelevant. In other words, a return to the pre-crisis model is very likely, unlike if BMI occurs outside of crisis times.

We can see from several of the companies in the study that the crisis has forced companies to close down their current operations, but it has also opened up new markets and revenue opportunities for companies that have transformed their BMI using core competencies to do so. In this case, BMI may not require investment, a word often associated with the word innovation, but only a change in BM elements that can immediately begin to bring profit to the company.

Thus this study concludes that SMEs in the event of a sudden and long term crisis should consider BMI as a response to the crisis, by understanding what limitations the crisis has caused to the company itself and its customers and caused a sudden need for any services or products, then analyze the elements of the current BM and find out which need to be transformed to respond quickly to the challenges while using core competencies in order to succeed in market entry of new business model.

3.3 Managerial implications

Entrepreneurs and managers may use the results of this research to determine solutions when confronted with a sudden and extended crisis. This study illustrates that if organisations are agile, prepared, and willing to investigate opportunities during a crisis, unforeseen crises may open up vast opportunities for them. In a rapidly-changing world, businesses may uncover new opportunities, but they must be cognizant of their core competencies to recognise possibilities that could be far from their current business models (BMs). Throughout a crisis, unutilized resources may be rapidly packed into new BMs.

Aside from the issue of sustainability, our investigation reveals clear advantages for companies. The introduction of a BMI has a positive effect on the previous BM. Understanding of one's business model grows as a consequence of exposure to other industries and methods and the acquisition of new customer segments. Moreover, a business's responsiveness increases its adaptability and demonstrates its potential. A keener understanding of one's fundamental talents may have long-term advantages.

3.4 Limitations and outlook

This research focused on the investigation of BMI as a response to the pandemic crisis, offering first insights into its potential consequences and implementation procedures. This research is constrained by its scientific methodology. Only companies suffering during a crisis were analysed in detail. Moreover, that companies are from Russia and Kazakhstan. The enterprises originated from low-tech sectors, which were more severely hit by the pandemic. Some businesses made a profit throughout the crisis, but in this study such firms were left out of the scope of the study. To resolve these concerns the links discovered in this study should be examined using quantitative methods. Moreover, the findings of this research represent merely a preliminary investigation of BMI as a pandemic response. Future study must develop this concept and provide other methods depend on additional cases or quantitative research. Furthermore, in the present study, a heterogeneous sample of SMEs was chosen, meaning that all of the companies operate in different industries, making it impossible to identify industry-specific patterns. However, future research may be able to create a homogeneous sample and focus on one industry in order to identify more industry-specific patterns.

REFERENCES

1. Rhaiem K and Amara N (2019) Learning from innovation failures: A systematic review of the literature and research agenda. *Review of Managerial Science*. Epub ahead of print 28 March. DOI: 10.1007/s11846-019-00339-2
2. Stephen Roper and Joanne Turner (2020) R&D and innovation after COVID-19: What can we expect? A review of prior research and data trends after the great financial crisis <https://journals.sagepub.com/doi/pdf/10.1177/0266242620947946>
3. Jung H, Hwang JT and Kim BK (2018) Does R&D investment increase SME survival during a recession? *Technological Forecasting and Social Change* 137: 190–198
4. Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., Zhang, L., Fan, G., Xu, J., Gu, X., Cheng, Z., Yu, T., Xia, J., Wei, Y., Wu, W., Xie, X., Yin, W., Li, H., Liu, M., ... Cao, B. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan. *The Lancet*, 395(10223), 497–506. [https://doi.org/10.1016/S0140-6736\(20\)30183-5](https://doi.org/10.1016/S0140-6736(20)30183-5)
5. Anderson, R. M., Heesterbeek, H., Klinkenberg, D., & Hollingsworth, T. D. (2020). How will country-based mitigation measures influence the course of the COVID-19 epidemic? *The Lancet*, 395(10228), 931–934. [https://doi.org/10.1016/S0140-6736\(20\)30567-5](https://doi.org/10.1016/S0140-6736(20)30567-5)
6. Hopkins, J. (2020). Coronavirus COVID-19 global cases by Johns Hopkins CSSE. <https://www.arcgis.com/apps/opsdashboard/index.html>
7. Stefan Gössling, Daniel Scott & C. Michael Hall (2021) Pandemics, tourism and global change: a rapid assessment of COVID-19, *Journal of Sustainable Tourism*, 29:1, 1-20, DOI: 10.1080/09669582.2020.1758708
8. Cond e Nast Traveller. (2020). Before and after: How coronavirus has emptied tourist attractions around the world. Retrieved March 31, 2020, from <https://www.cntravellerme.com/before-and-after-photos-tourist-attractions-during-coronavirus>
9. Крапова (2020) Эффект COVID-19: как мировая экономика переживает пандемию и каким будет 2021 год <https://www.forbes.ru/karera-i-svoy-biznes/416461-effekt-covid-19-kak-mirovaya-ekonomika-perezhivaet-pandemiyu-i-kakim>

10. Jagdish Sheth (2020). Impact of Covid-19 on consumer behavior: Will the old habits return or die?, *Journal of Business Research*, Volume 117, 2020, Pages 280-283, ISSN 0148-2963
11. Caballero-Morales, S. O. (2021). Innovation as recovery strategy for SMEs in emerging economies during the COVID-19 pandemic. *Research in International Business and Finance*, 57, 101396. <https://doi.org/10.1016/j.ribaf.2021.101396>
12. *The changes covid-19 is forcing on to business.* (2020). Economist. <https://www.economist.com/briefing/2020/04/11/the-changes-covid-19-is-forcing-on-to-business>
13. Corniani, M. (2008). Push and Pull Policy in Market-Driven Management. *Symphonya. Emerging Issues in Management*, 1. <https://doi.org/10.4468/2008.1.05corniani>
14. Dorr, N., & Müller-Prothmann, T. (2014). Innovationsmanagement: Strategien, Methoden und Werkzeuge für systematische Innovationsprozesse. [Innovation Management: Strategies, methods and tolls for systematical innovation processes]. *München: Hanser*. Published.
15. Gault, F. (2018). Defining and measuring innovation in all sectors of the economy. *Research Policy*, 47(3), 617–622. <https://doi.org/10.1016/j.respol.2018.01.007>
16. Granig, P., Hartlieb, E., & Lercher, H. (2014). . Innovationsstrategien: Von Produkten und Dienstleistungen zu Geschäftsmodellinnovationen [Innovation strategies: From product to services for innovations of society models]. *Wiesbaden: Springer*. Published.
17. Helmers, C., & Rogers, M. (2010). Innovation and the Survival of New Firms in the UK. *Review of Industrial Organization*, 36(3), 227–248. <https://doi.org/10.1007/s11151-010-9247-7>
18. Kretchmer, H. (2020, June). *From dining pods to see-through masks: 6 ways innovations are helping in the pandemic.* Weforum. <https://www.weforum.org/agenda/2020/06/inventions-coronavirus-covid19-innovation/>
19. Lin, C., & Chen, M. (2007). Does innovation lead to performance? An empirical study of SMEs in Taiwan. *Management Research News*. Published.
20. *Marketing Innovation for SMEs during COVID-19 Pandemic: A case study of the hospitality industry in Norrbotten.* (2020). Diva Portal. <https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1439188&dswid=-97>

21. Mohd Zawawi, N. F., Abd Wahab, S., Al-Mamun, A., Sofian Yaacob, A., Kumar AL Samy, N., & Ali Fazal, S. (2016). Defining the Concept of Innovation and Firm Innovativeness: A Critical Analysis from Resorce-Based View Perspective. *International Journal of Business and Management*, 11(6), 87. <https://doi.org/10.5539/ijbm.v11n6p87>
22. Nugent, J. B., & Yhee, S. J. (2002). Small and medium enterprises in Korea: Achievements, constraints and policy issues. *Small Business Economics*, 18(1/3), 85–119. <https://doi.org/10.1023/a:1015181911497>
23. Ortiz-Villajos, J. M. (2013). Patents, what for? The case of Crossley Brothers and the introduction of the gas engine into Spain,c.1870–1914. *Business History*, 56(4), 650–676. <https://doi.org/10.1080/00076791.2013.837890>
24. Porter, M. (1990). The competitive advantage of nations. *Harvard Business Review*, 73–93.
25. *Russia Small Business Index (RSBI) from January 2020 to March 2021*. (2021). Statista. <https://www.statista.com/statistics/1118489/russia-small-business-index/>
26. *Small and Medium Enterprises in the Pandemic : Impact, Responses and the Role of Development Finance*. (2020). Openknowledge. <https://openknowledge.worldbank.org/handle/10986/34552>
27. Thorgren, S., & Williams, T. A. (2020). Staying alive during an unfolding crisis: How SMEs ward off impending disaster. *Journal of Business Venturing Insights*, 14, e00187. <https://doi.org/10.1016/j.jbvi.2020.e00187>
28. Wolf, V., Dobrucka, R., Przekop, R., & Haubold, S. (2021). Innovation strategies in the context of the paradigm of the five dimensions of innovation strategy. *Scientific Journal of Logistics*. Published.
29. The European Commission defines SMEs as firms with less than 250 employees and have an annual turnover of up to 50 million Euros, or a balance sheet of no more than 43 million Euros (as set out by the Commission Recommendation of 6 May 2003) (European Commission 2019).
30. Apics. 2005. Apics Dictionary. Chicago, IL: The American Production and Inventory Control Society.
31. The International Trade Centre (ITC) is the joint agency of the World Trade Organization and the United Nations www.intracen.org/publications..

32. Office for National Statistics (ONS) GDP monthly estimate UK: April 2020.2020
<https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/april2020> (Accessed 15-06-2020)
33. PWC, 2020 COVID-19. UK economic update 2020 Available at:
<https://www.pwc.co.uk/premium/covid-19/uk-economic-update-covid-19.pdf>
 (Accessed 15-06-2020 (2020))
34. Eurostat, 2020. Eurostat news release.
<https://ec.europa.eu/eurostat/documents/2995521/10294708/2-30042020-BP-EN.pdf/526405c5-289c-30f5-068a-d907b7d663e6> (Accessed: 18-06-2020)
35. Federation of Small Business, 2014 <http://www.fsb.org.uk/stats> [Accessed on 19-06-2020]
36. Cepel, M., Gavurova, B., Dvorsky, J., & Belas, J. (2020).The impact of the COVID-19 crisis on the perception of business risk in the SME segment. *Journal of International Studies*, 13(3), 248-263. doi:10.14254/2071-8330.2020/13-3/16
37. Bosio, E, S Djankov, F Jolevski and R Ramalho (2020), “Survival of Firms during Economic Crisis”, World Bank Policy Research Working Paper No. 9239
38. Birkinshaw, J., Hamel, G., & Mol, M. 2008. Management innovation. *Academy of Management Review*, 33(4): 825-845
39. Amabile, T. M. 1988. A Model of creativity and innovation in organizations. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*: 123-167. Greenwich, CT: JA1 Press.
40. Daft, R. L. 1978. A dual-core model of organizational innovation. *Academy of Management Journal*, 21(2): 193-210.
41. Roberts, E. B. 1988. Managing invention and innovation. *Research Management*, 31(3): 11-29
42. Schroeder, R. G , Van de Ven, A. H., Scudder, G. D., & Polley, D. 2000. The development of innovation ideas. In A. H. Van de Ven, H. L. Angle & M. S. Poole (Eds.), *Research on the management of innovation: The Minnesota studies*: 107-134. New York: Oxford Press
43. Schneider, M. 2007. Do attributes of innovative administrative practices influence their adoption? *Public Performance and Management Review*, 30(4): 598-622
44. Evan, W. M. 1966. Organizational lag. *Human Organizations*, 25(1): 51-53.

45. Damanpour, F., & Evan, W. M. 1984. Organizational innovation and performance: The problem of organizational lag. *Administrative Science Quarterly*, 29: 392-409.
46. David J. Teece, *Business Models, Business Strategy and Innovation, Long Range Planning*, Volume 43, Issues 2–3, 2010, Pages 172-194, ISSN 0024-6301,
47. Bennett, E. E., & McWhorter, R. R. (2021). Virtual HRD's role in crisis and the post Covid-19 professional lifeworld: Accelerating skills for digital transformation. *Advances in Developing Human Resources*, 23(1), 5–25
48. David J. Teece, *Business Models, Business Strategy and Innovation, Long Range Planning*, Volume 43, Issues 2–3, 2010, Pages 172-194, ISSN 0024-6301
49. Seelos, C., & Mair, J. 2007. Profitable business models and market creation in the context of deep poverty: A strategic view. *Academy of Management Perspectives*, 21: 49-63.
50. Гассман О, 2016. Бизнес-модели: 55 лучших шаблонов / Оливер Гассман, Каролин Франкенбергер, Микаэла Шик; Пер. с англ. — М.: Альпина Пабlishер (Oliver Gassmann, Karolin Frankenberger and Michaela Csik, 2014 This translation of the Business Model Navigator 1/e is published by arrangement with Pearson Education Limited.)
51. Wenzel, M., Stanske, S., and Lieberman, M.B. (2020) Strategic responses to crisis. *Strategic Management Journal*, 41, 7/18
52. Mitroff, I.I., Shrivastava, P. and Udwadia, F. (1987), "Effective crisis management", *The Academy of Management Executive*, Vol. 1 No. 4, pp. 283-92.
53. Clark, J. (1995-1996), "Hope for the best, but plan for the worst – the need for disaster planning", *Employment Relations Today*, Vol. 22 No. 4, pp. 41-53.
54. Weick, K. (1998), "Enacted sensemaking in crisis situation", *Journal of Management Studies*, Vol. 25 No. 4.
55. Bloomberg, 2022 « China Lockdowns Cost at Least \$46 Billion a Month, Academic Says» <https://www.bloomberg.com/news/articles/2022-03-29/china-lockdowns-cost-at-least-46-billion-a-month-academic-says>

APPENDIX 1. INTERVIEW QUESTIONS

1. Tell us about your business: what prompted the founders to set it up and when did it happen?
2. What are the special features of your company and its competitive advantages?
3. At the end of 2019, how would you define your company's activities and results?
4. Have you noticed a reduction in operations as a result of the constraints associated with Covid-19?
 - 4.1 If yes, how have the constraints associated with Covid-19 affected your company and to what extent?
5. What business strategy was chosen during the pandemic?
6. Did the product or service change?
 - 6.1 If so, how exactly?
 - 6.2 What resources were used for this and where did they come from?
7. Has the target audience changed or expanded?
 - 7.1 If so, how?
 - 7.2 What resources have been used for this and where did they come from?
8. Has the way in which the product or service is made or delivered changed?
 - 8.1 If yes, how was it done?
 - 8.2 What resources were used for this and where were they obtained?
9. Have the sources of income or costs changed? If so, how?
 - 9.1 If yes, how?
 - 9.2 What resources were used and where did they come from?
10. What was the main constraint in implementing the change?
11. How much of an impact has it had on your sales?
12. Is the change temporary or permanent?
 - 12.1 If permanent, will the changed business model be primary or secondary once all the constraints are complete?
13. Has your company returned to pre-quarantine levels?
14. Can you argue that the current circumstances have forced you to rethink your business model or would the change have happened anyway?
15. Do you have any other comments on this?

APPENDIX 2. INTERVIEW QUESTIONS (RUSSIAN VERSION)

1. Расскажите о своем бизнесе: что побудило основателей создать его и когда это произошло?
2. В чем особенность вашей компании и ее конкурентные преимущества?
3. В конце 2019 года, как бы вы определили деятельность и результаты вашей компании?
4. Заметили ли вы сокращение операций в результате ограничений, связанных с Ковид-19?
 - 4.1. Если да, как ограничения, связанные с Ковид-19, повлияли на вашу компанию и насколько сильно?
5. Какая стратегия ведения бизнеса была выбрана в период пандемии?
6. Изменился ли продукт или сервис?
 - 6.1. Если да, то как именно?
 - 6.2. Какие ресурсы для этого были использованы и где они были взяты?
7. Изменилась или расширилась ли целевая аудитория?
 - 7.1. Если да, то как именно?
 - 7.2. Какие ресурсы для этого были использованы и где они были взяты?
8. Изменился ли способ изготовления продукта или оказания услуги?
 - 8.1. Если да, то как именно?
 - 8.2. Какие ресурсы для этого были использованы и где они были взяты?
9. Изменились ли источники доходов или затрат? Если да, то как именно?
 - 9.1. Если да, то как именно?
 - 9.2. Какие ресурсы были использованы и где они были взяты?
10. Что было основным ограничением во внедрении изменений?
11. Насколько сильно это повлияло на ваши продажи?
12. Данные изменения носят временный или постоянный характер?
 - 12.1. Если постоянный, будут ли измененная бизнес модель или после завершения всех ограничений основной или дополнительной?
13. Ваша компания вернулась к до карантинным показателям?
14. Можете ли вы утверждать, что нынешние обстоятельства заставили вас переосмыслить свою бизнес-модель или такие изменения были бы в любом случае?
15. Есть ли у вас другие замечания по этому поводу?