Economic Crises and Pandemics: Mitigating the Effects through Sustainable Actions and Elements of Competitive Advantage

By Sivaldo Donizetti Teodoro, Orandi Mina Falsarella, Duarcides Ferreira Mariosa, Bruna Angela Branchi, Diego de Melo Conti, Samuel Carvalho de Benedicto & Juan Fernando Alvarez

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Abstract- The COVID-19 pandemic brought with it a serious economic crisis in 2020, affecting several sectors of the economy and companies extensively, especially Small and Medium Enterprises (SMEs). History shows the recurrence of economic crises with global impacts, such as the Great Depression of 1929 and the 2008 subprime crisis, as well as localized impacts, like the 2014 crisis in Brazil. Faced with the potential repetition of similar events in the future and the need to identify risk mitigation strategies for SMEs, this work aims to provide a set of guidelines based on actions related to sustainability and elements of competitive advantage that SMEs can employ to face economic crises or pandemics. Regarding the methodological aspects, this is an exploratory and descriptive research with a qualitative approach. Data were collected through documentary and bibliographical research in the scientific literature, focusing on sustainability actions and competitive advantages employable by SMEs to mitigate risks arising from economic crises and pandemics.

Keywords: economic crises, pandemics, sustainability, competitive advantage, small and medium-sized enterprises, risk mitigation, resilience, business strategy.


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Abstract - The COVID-19 pandemic brought with it a serious economic crisis in 2020, affecting several sectors of the economy and companies extensively, especially Small and Medium Enterprises (SMEs). History shows the recurrence of economic crises with global impacts, such as the Great Depression of 1929 and the 2008 subprime crisis, as well as localized impacts, like the 2014 crisis in Brazil. Faced with the potential repetition of similar events in the future and the need to identify risk mitigation strategies for SMEs, this work aims to provide a set of guidelines based on actions related to sustainability and elements of competitive advantage that SMEs can employ to face economic crises or pandemics. Regarding the methodological aspects, this is an exploratory and descriptive research with a qualitative approach. Data were collected through documentary and bibliographical research in the scientific literature, focusing on sustainability actions and competitive advantages employable by SMEs to mitigate risks arising from economic crises and pandemics. As a result, a set of guidelines is proposed, enabling SMEs to face fragile economic conditions, survive in scenarios of global economic paralysis, mitigate the reduction in employment levels, and cope with impacts related to reduced demand. In conclusion, SMEs that embrace elements of competitive advantage and sustainable practices stand a better chance of surviving the impacts and vulnerabilities caused by economic crises and pandemics.

Keywords: economic crises, pandemics, sustainability, competitive advantage, small and medium-sized enterprises, risk mitigation, resilience, business strategy.

1. Introduction

The year 2020 will be marked in history, mainly by the effects of the coronavirus pandemic (COVID-19) especially small and medium-sized enterprises (SMEs). In Brazil, as reported by Rodriguez-Morales et al. (2020), the first case of COVID-19 was registered on February 21, 2020, and showed rapid growth. For this reason, social isolation measures were taken throughout the country, following what had already been done in many other countries, as a means of containing the spread of the virus and the increase in the number of deaths, which caused major economic impacts.

In a survey carried out by Sebrae (2020), approximately 90% of individual microentrepreneurs (MEI) reported that there had been a reduction in revenue in the same period. 78% of those interviewed had their activities suspended due to state or municipal decrees; more than 60% reported needing temporary assistance to support their families; and 51% reported needing loans to avoid closing their businesses.

In the same way as the COVID-19 pandemic, the first major economic crisis of the era of capitalism, which gave rise to the beginning of "The Great Depression", according to Piketty (2014), occurred in 1929, lasting more than ten years, hitting rich countries with unprecedented brutality, with unemployment reaching 25% of the active population in the United States, United Kingdom, France, and Germany in 1932.

With the intensification of globalization and technology in recent decades, the economic crises of the new millennium have been overwhelming and have affected all continents on the planet. Stiglitz (2009) makes a scathing critique of the 2008 crisis, stating that it seemed evident that the economic growth of the United States of America was not sustainable, as when the real estate bubble burst, Americans withdrew hundreds of billions of dollars applied to mortgages, starting the economic crisis in the United States, which spread to Europe and quickly became global.

Given the historically recurring fact that pandemics and economic crises happen and will probably continue to happen, affecting the economy and the lives of thousands of people and companies, especially SMEs, the challenge is to face these contexts. A sustainable company can have a differentiator, which can be expanded if it also has elements related to the concept of competitive advantage.

In this context, the search for sustainability as a fundamental concept to be adopted by companies appears as an alternative for balancing economic objectives and socio-environmental practices. According to Laville (2009), business’s people must develop a long-term vision for the planet and companies. Almeida (2007) adds that sustainable development goes beyond purely economic aspects, as its paradigm includes social and environmental dimensions and must be considered from the planning stage to the operation and evaluation of the enterprise or development policy.
In this sense, a company can be a source of competitive advantage, according to Barney (1991), when it has the following attributes: i) Being valuable in terms of exploring opportunities and neutralizing threats; ii) Being rare, through a value creation strategy that competitors cannot implement; iii) Being difficult for competitors to imitate; iv) Having the ability to implement strategies to replace resources from other competitors.

Thus, in situations of crises and pandemics that affect SMEs economically and cause serious social problems and environmental consequences, the following questions arise: How can strategies in the context of sustainability and competitive advantage be established to favor the development of a sustainable basis for SMEs in the face of the impacts caused by economic crises or pandemics? In addition, could SMEs adopt guidelines resulting from sustainable actions and elements of competitive advantage to mitigate the effects of economic crises and pandemics?

a) Objectives

To answer this question, this work aims to present a set of guidelines for sustainable strategic management to identify risk mitigation alternatives so that SMEs face situations of economic crises or pandemics in the future based on actions related to sustainability and elements of competitive advantage.

b) Methodological Approach

The present study is characterized as exploratory and descriptive research utilizing a qualitative approach, as the "[...] chosen theme is little explored [...]" (Gil, 2002, p. 43) since it is current and there are no references that jointly address the topics of sustainability and sustainable development, economic and health crises, such as those arising from the COVID-19 pandemic and similar issues, competitive advantages and resilience, in the context of SMEs.

According to Silveira and Córdova (2009), this type of research also provides more familiarity with the topic, helping to make it better known. For Richardson (2017), qualitative research is a means to explore and understand a social or human problem. The analysis is based on the interpretations made by the researcher about the meaning of the data collected. Gil (2019) adds that exploratory research aims to provide greater familiarity with the problem and explain it or outline hypotheses.

The data for this study were obtained through documentary and bibliographical research on the CAPES Periodicals Portal, Scielo, Web of Science, Google Scholar, books, and publications from institutions such as Sebrae.

On the topic of sustainability and sustainable development, we sought to discuss the main concepts and use them to develop a set of sustainable guidelines (Table 1). Concerning the second theme, we sought to discuss the concepts of competitiveness and competitive advantage, focusing on SMEs. Moreover, the main elements arising from the concept of competitiveness that can help SMEs to be more competitive are summarized in Table 2.

The focus on the theme “economic crises and pandemics” was based on the concepts of crisis, some of which had a global impact and others at a national level. Still, to meet the study’s objective, they were presented in Table 3, constructed from the study by Teodoro et al. (2023), the vulnerabilities, impacts, and consequences of economic crises and pandemics.

The characterization of the research object has, at its core, SMEs. This focus is explained by the representativeness of SMEs in terms of job creation and the driving force of the economy of many countries, being responsible for a good share of the Gross Domestic Product (GDP), both in Brazil (SEBRAE, 2018), as well as in North America (LOVINS & COHEN, 2013).

For Koirala (2019), the technical or legal definition of SMEs, as it represents a broad and heterogeneous class of companies, does not follow a standard and varies by country. In Brazil, SMEs are classified according to Gross Operating Revenue (GOR). While a small company has an annual income of between R$360,000 and R$4.8 million, a medium-sized company has an annual income of between R$4.8 million and R$300 million (BNDES, 2023). Koirala (2019) emphasizes that, in Europe, SMEs are defined as companies with less than 250 employees and turnover of less than 50 million Euros, while in the United States, SMEs are broadly defined as having less than 500 employees. Emerging countries also have variations in the definitions of SMEs. Therefore, the criteria vary according to the type of company and the defining government body.

Guidelines will be proposed below so that SMEs can mitigate the vulnerabilities, impacts, and consequences described by Teodoro et al. (2023) in the future based on sustainable actions and elements of competitive advantage.

II. Sustainability in Small and Medium-Sized Enterprises

a) Definitions of sustainability

Society is sending out signals that it urgently awaits the implementation of a new perspective on the responsible use of resources involving social and environmental issues so that the next generations do not perish. Thus, since the end of the 20th century, the topic of sustainable development and sustainability has been gaining ground in various sectors of society, in addition to being part of intense debates at various events on climate change worldwide.

The term “Sustainable Development” began to be assimilated by the international community when, in
1987, the Brundtland Commission (WCED, 1987) defined sustainable development as "the ambition that humanity will meet its current needs without compromising the possibility that future generations can also do so" (VEIGA, 2015, p. 9). Subsequently, in the various agreements on the impacts of climate change established within the scope of the United Nations, signatory countries were set as targets for the Millennium Goals for the period 2000–2015 and the Sustainable Development Goals for 2015–2030 (VEIGA, 2015).

In turn, the term sustainability has provoked many discussions without, however, there being a consensus. The word "sustainable" comes from the Latin vivere, a verb that symbolizes the action of defending, favoring, supporting, conserving, or caring. In dictionaries, sustainability is conceptualized as the ability to sustain or withstand one or more conditions (OLIVEIRA et al., 2017). Some studies consider sustainability and sustainable development synonymous, while others consider them different (FEIL & SCHREIBER, 2017).

b) Role of SMEs in sustainable development

In the context of organizations, there is the world-renowned TBL, or Tripod of Sustainability, coined by John Elkington in the 1990s, which refers to the three basic pillars of Sustainability: Environmental (Planet), Economic (Profit), and Social (People). Its central idea is that for a business to be considered sustainable, it must be economically viable, socially fair, and environmentally correct (ELKINGTON, 2012).

According to Barbosa (2018), more and more companies are implementing sustainability-oriented strategies, seeking business practices aligned with socio-environmental values to meet society's desires. Munck and Souza (2010) highlight that organizational sustainability is related to the ability of companies to maintain their performance in the long term within the context of economic, social, and environmental dimensions.

Boszczowski and Teixeira (2012) cite a new concept called "sustainable entrepreneurship," which aims to solve society's problems as it explores the opportunity to create social and environmental value through the generation of economic value, enabling the introduction of new goods and services that aim to solve society's social, environmental and economic problems.

Munck et al. (2016) emphasize that the evolving discussions about sustainability and sustainable development have started to be incorporated into the businesses of organizations, which, due to consuming environmental resources in an unruly, unequal, and harmful way with social consequences, has become essential to rethink its production processes.

Furtado (2005) argues that the definition of "sustainable development", used in the business area, requires that companies consider, in their business strategies, the inclusion of objectives related to the protection, improvement, and maintenance of natural and human resources that will be needed in the future.

Berlato et al. (2016) argue that, due to the great influence that companies impose on human, social, and environmental resources, it is essential that a long-term strategic vision adopts sustainable development. Despite its central objective still being profit, they also add that the company's success will depend on its broader social participation, involving social and environmental aspects.

In the context of the social dimension, Sachs (2008) argues that growth, driven by employment, should be better explored, covering all spheres of production of non-tradable goods through labor-intensive methods; that is, it is necessary to investigate how far you can get this way.

Yunus (2014) argues that it is necessary to introduce another type of company that recognizes the multidimensional nature of human beings: the social enterprise, which not only has profit as its objective but is focused on solving social and environmental problems.

This scenario does not only occur in Brazil. According to Lovins and Cohen (2013), SMEs are the new economic engine of any country since, in North America, more than half of non-agricultural GDP is generated by small companies and, in addition, they employ almost 60 million people, generating between 60 and 80% of new job openings per year. Therefore, business cannot be directed solely from an economic perspective with a profit-focused objective; it is necessary to integrate social and environmental issues into the companies' identity. Table 1 summarizes the discussion found in the literature on sustainability in SMEs.
Table 1: Sustainable actions that SMEs can apply.

<table>
<thead>
<tr>
<th>Sustainable Actions</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create and distribute goods and services that will help raise the quality of life of individuals.</td>
<td>Bansal (2005)</td>
</tr>
<tr>
<td>Focus the company’s activities on solving social and environmental problems. Integrate social and environmental issues as part of the company’s identity.</td>
<td>Berlato, Saussen and Gomez (2016) Boszczowski and Teixeira (2012) Yunus (2014)</td>
</tr>
<tr>
<td>Rethink production processes and incorporate sustainable development as an integral part of organizations’ business.</td>
<td>Munck, Bansi, and Galleli (2016)</td>
</tr>
<tr>
<td>Include objectives to protect and improve human and natural resources that will be needed in the future in the business strategies.</td>
<td>Furtado (2005)</td>
</tr>
<tr>
<td>Ensure that activities do not erode land, air, and water resources.</td>
<td>Bansal (2005)</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors.

Given that the global scenario for SMEs has become increasingly complex and competitive, considering sustainable actions, such as those listed in Table 1, can lead to obtaining competitive advantages, the concept of which will be explored further.

III. Competitive Advantage in Small and Medium-Sized Enterprises

According to Porter (1990), to obtain a competitive advantage, the long-term challenge for any company is to place itself in a position where it can perceive opportunities to expose itself to new markets, prepare for change, update and expand employee skills, improve the company’s scientific and knowledge base, and overcome inertia and complacency to act on new opportunities.

Galav (2020) makes an important contribution about why some organizations perform well while others fail. Among the possible answers, an important aspect to highlight is that high performance is based on the competitive advantages that the organization has and effectively capitalizes on when planning and implementing current and profitable strategies and policies. According to the author, competitiveness is an important mechanism in a market economy. Its foundation is effectiveness, that is, how the company capitalizes on its competitive advantages by using financial, material, natural, and human resources more efficiently.

According to Roman et al. (2012), the company must have diverse capabilities to compete and remain active in the market. These capabilities are related to people, methods, and planning. Porter (1990) also adds that companies gain a competitive position when they perceive possibilities for new strategies, position themselves more actively to see signs of change before their competitors, and respond to new demands. The author advocates that improvement and innovation are at the heart of competitive advantage.

Olave and Amato Neto (2001) consider the applicability of cooperation networks as a form of competitive advantage for small companies, as they can compete on a global scale without individually bearing the costs and uncertainties involved in this type of operation. The association of small businesses can complement their competencies by combining differentiators, that is, core competencies, with the reduced cost resulting from sharing common resources, such as process technology, supplies, and personal and organizational skills, and add value as a result to the final client.

For Lloret (2016), the production capacity of a plant is an economic limitation. Individual preferences for goods and services represent social limitations. Scarce inputs such as energy, water, or waste management processes represent environmental limitations. When not considered in the strategy, these restrictions can limit the company’s competitiveness and, therefore, its performance.

According to Kosyva et al. (2015), for companies to increase their competitiveness and innovation in this global market, cooperation between independent organizations to achieve common
Objectives have become a prerequisite in the current context of a networked and knowledge-based economy. According to Lloret (2016), a company's competitiveness is reflected in its long-term performance and relationships within the industry and with competitors. A competitive company is always aware of the conditions required to generate value, particularly understanding how to create sustainable value through a strategy that meets organizational objectives. The author also highlights that the emphasis on the long term is significant, as sustainability implies continuity. However, to achieve this objective, it is necessary to include environmental sustainability, social resistance, and economic stability, as sustainable competitive advantage implies permanence amid the restrictions imposed by economic, social, and environmental systems.

For Smith (1995), companies can respond quickly to market opportunities when they master the disciplines of lean thinking, as they would have precision and speed with little waste and, most importantly, without the inertia that normally accompanies change. They can readily adapt their offering to face new markets and safely experiment and reinvent how they deliver their service.

Yadav et al. (2019) argue that the lean philosophy is not limited to large companies. Lean principles such as delivering value and customer satisfaction, eliminating waste, and continuous improvement are applicable to SMEs, as they have high flexibility, fast decision-making processes, and the ability to respond at the speed customers need, that is, a positive environment for the implementation of the lean philosophy.

In addition to the lean concept, Bhattacharya, Nand, and Castka (2019) highlight the importance of adopting the green concept in an integrated manner (green-lean). For Dúes et al. (2013), green lean is a strategic approach to managing organizations and their supply chains to improve organizational performance.

Duarte and Cruz-Machado (2013) state that the lean paradigm is a management philosophy aimed at improving quality and productivity, focusing on eliminating waste throughout the supply chain. The green strategy, in essence, means helping organizations seek positive impact in the environmental dimension; that is, it is an opportunity to obtain positive results by reducing the impact on the environment by eliminating environmental waste such as waste in the form of water, energy, solid and hazardous waste.

Siegel et al. (2019) add that the concepts of lean and green have become known in recent years and have a certain synergy, as both focus on reducing waste and efficient use of resources, which means they adhere to the concept of sustainability.

Caldera et al. (2019) state that sustainable business practice is an aspiration for a growing number of SMEs worldwide, promoting profitability, resilience, and positive impacts regarding social and environmental dimensions. Lean thinking has evolved as a business strategy for SMEs to achieve sustainable business practices to meet the need for production efficiency and waste reduction.

In line with the goals of optimizing processes, reducing costs, and offering better-added value to the customer, the role of technology has been fundamental. According to Prates and Ospina (2004), companies invest in new information technology tools for strategic objectives to increase continuity. This approach involves functional integration, intensified automation, rapid response; improved levels of control such as precision, accuracy, predictability, consistency, and certainty; and a greater understanding of productive functions such as visibility, analysis, and synthesis.

In many cases, SMEs struggle to increase their competitiveness and internationalization ability. However, Lecerf and Omrani (2019) state that the internationalization strategy must be aligned with the implementation of Information Technology (IT) so that knowledge is managed and used to guarantee the quality of services with the best use of each company resource.

One of the most urgent aspects to be addressed by companies, especially small and medium-sized ones, involves considering sustainability and its dimensions, sustainability and its dimensions as a competitive advantage and as a matter of survival. According to Silva et al. (2022), companies will increasingly be required to ensure that their products and services are in harmony with social and environmental issues, going beyond the economic sphere. Lovins and Cohen (2013) argue that companies will lose competitiveness if they do not implement sustainable processes and procedures, as established business habits are constantly changing.

According to Silva and Assis (2012), the idea of sustainable development, treated as a strategy to guarantee the preservation of resources necessary for production, should provide organizations with a competitive advantage over their competitors. To this end, investments must be made in sustainable methods and practices to enhance the efficiency of the resources used, guaranteeing value generation for the companies and communities in which they operate.

For Santos and Porto (2013), the sustainable development strategy concerns the company's ability to engage and commit to facing society's socio-environmental problems and challenges. In addition to serving as a reference for other companies, this marks the intention of business continuity by avoiding the generation of short-term profits through irresponsible exploitation of the environment.

According to Evangelista (2010), sustainability has become an inevitable priority for managers in any
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Country. Governments, activists, and the media hold companies responsible for the social consequences of their activities. Although companies face certain competitive disadvantages in producing and supplying their goods and services, the difference will be in those that quickly realize how much sustainability can add value by transforming socio-environmental responsibility into a strong competitive advantage.

Falsarella and Jannuzzi (2020) state that business sustainability can be achieved through a management model that balances economic, social, and environmental dimensions. They also add that the competitiveness of companies can improve as they adopt practices of extracting only the minimum necessary resources from the environment for their consumption. Primarily, they must invest in social and environmental areas to obtain an immediate financial return and build a positively sustainable institutional image to gain a competitive advantage.

According to Cantele and Zardini (2018), a company's contribution to sustainable development largely depends on its perceptions of the advantages of sustainability strategies and, consequently, its practices. By analyzing a set of 348 small and medium-sized Italian companies, the authors identified that the social-economic dimensions and formal practices of sustainability positively affect competitive advantage, mediated by corporate reputation, customer and organizational satisfaction, and commitment, contributing to good financial performance.

When dealing with the dimensions of sustainability in organizations, Galav (2020) maintains that the social and ecological aspects are closely related to economic performance, taking the form of eco-efficiency or social productivity. In this turbulent business environment, it is necessary to move from reactive to proactive behavior and consider social and environmental dimensions not as costs but as opportunities to capitalize on new sources of competitive advantage. Thus, companies that come first in the new sustainability logic will have notable image successes that will lead to tangible long-term advantages, placing them in a better position than their competitors. Table 2 presents the main elements that can give an SME a competitive advantage.

Table 2: Elements that provide a competitive advantage

<table>
<thead>
<tr>
<th>Elements that provide a competitive advantage</th>
<th>Authors</th>
</tr>
</thead>
</table>
| Have the ability to perceive and respond to new demands through improving innovation. Adapt your offer to face new markets by reinventing how you provide your service. | Porter (1990)  
|                                                                                                                     | Smith (1995)                                                           |
| Compete globally without individually bearing the costs and uncertainties through cooperation networks.          | Kossyva et al. (2015)  
|                                                                                                                     | Olave and Amato Neto (2001)                                             |
| Add value to the production and supply of your goods and services through sustainability and corporate social responsibility. | Evangelista (2010)                                                     |
| Emphasize the long term to ensure permanence or continuity                                                          | Lloret (2016)  
|                                                                                                                     | Prates and Ospina (2004)                                                |
| Consider economic, social, and environmental limitations in the company's strategy.                                 | Lloret (2016)                                                          |
| Adopt highly flexible processes, be quick in decision-making, and have the ability to respond quickly to demands.  | Yadav et al. (2019)                                                    |
| Establish lean thinking as a business strategy to respond to market opportunities quickly.                           | Caldera et al. (2019)  
|                                                                                                                     | Smith (1995)                                                           |
| Adopt the concepts of lean and green as a strategy to reduce waste and efficiently use resources.                   | Bhattacharya et al. (2019)  
|                                                                                                                     | Duarte and Cruz-Machado (2013)  
|                                                                                                                     | Siegel et al. (2019)                                                    |
| Invest in new information technology tools to achieve strategic, operational, and internationalization objectives. | Lecerf and Omrani (2019)  
|                                                                                                                     | Prates and Ospina (2004)                                                |
| Adopt sustainable methods and practices to enhance the efficiency of resources and commit to solving society's socio-environmental problems and challenges. | Lovins and Cohen (2013)  
|                                                                                                                     | Santos and Porto (2013)                                                 |
|                                                                                                                     | Silva and Assis (2012)                                                 |
| Invest in social and environmental areas, making the institutional image positively sustainable.                    | Cantele and Zardini (2018)  
|                                                                                                                     | Falsarella and Jannuzzi (2020)  
|                                                                                                                     | Galav (2020)                                                            |
| Adopt critical competitiveness factors: strategic alliance, human capital, knowledge, and innovation.            | Roman et al. (2012)                                                    |

Source: Prepared by the authors.
IV. Economic Crises and Pandemics

For Schumpeter (1997), collapses and crises always appear as forms of a peculiar phenomenon. However, most crises affect individuals and the economic system in the form of external and internal disturbances in the economic life of society. In essence, crises belong to the economic sphere, and, therefore, a crisis is established in the form of a simple process, which requires a new adaptation of economic life to new conditions.

Booth (2017) defines a crisis as a situation faced by an individual, group, or organization in which they cannot deal with employing normal routine procedures, leading them to improvise. According to the author, there are three types of crises: gradual threat, periodic threat, and sudden threat.

According to Fabeil et al. (2020), the COVID-19 crisis can visibly be considered a sudden threat, as it developed suddenly and affected the entire organization and sectors of the economy.

Among the major economic crises, we can mention i) the great global economic crisis of 1929, known as the “great depression,” ii) the 2008 crisis that started in the United States and affected other countries, and iii) the 2014 crisis that occurred in Brazil.

Bruner and Miller (2019) state that the boom of the 1920s coincided with the beginning of the second great industrial revolution, electrification, the automobile, and new technologies. The first major economic crisis of the capitalist era that gave rise to the “great depression” occurred in 1929 and lasted for more than ten years. Cano (2009) adds that Europe had barely recovered from the negative effects of the First World War and was already facing a global financial catastrophe.

For Kirman (2010), the 2008 crisis was essentially a liquidity crisis, as banks could not sell the assets necessary to cover the losses they had made and to avoid the collapse of the global banking system. The solution adopted, which may or may not have eliminated or reduced the problem, was to inject huge amounts of money into the system to increase liquidity. Even so, private banks were nationalized in the US and Europe, and insurance companies like AIG were rescued to avoid insolvency.

Mazzucchelli (2008) maintains that there is a clear similarity regarding the origin of the disturbances that caused the “great depression” of 1929 and those that gave rise to the 2008 crisis. In both situations, the collapse was preceded by the vulnerability of regulation and the loosening of risk perception, resulting in disastrous consequences.

For Cervo and Lessa (2014), the lack of internal investment and technological progress, combined with the absence of an international trade policy, stimulated a reduction in growth, product exports and competitiveness, starting in 2014, the economic crisis in Brazil.

Likewise, the 1918 (Spanish Flu) and 2020 (COVID-19) pandemics have similar characteristics and impacts in the economic and social context. For Souza (2005), the Spanish flu epidemic occurred in 1918 (from August to December) amid the movement of troops involved in the First World War, traveling across all continents, intensely infecting communities, and condemning thousands of people to death.

Asquith (2020) adds that, historically, pandemics share two common side effects: i) there is significant long-term health damage in the surviving population, which can reduce labor force participation during recovery, and ii) returns on stocks, bonds, and other assets are generally reduced as a result.

Gössling et al. (2020) assert that the world has experienced a series of major epidemics in recent decades, but none have had as many similar consequences for the global economy as the COVID-19 pandemic. For Asquith (2020), the COVID-19 pandemic has revealed how deforestation, density, urbanization, travel, and international trade are all vectors that act as catalysts for outbreaks to begin again.

Regardless of the causes that permeate economic crises, whether arising from conflicts between people, nations, internal or external, or even caused by social issues of global scope, the immediate and, in many cases, irreversible effects that fall on SMEs. Such causes point to the need for a more forceful and planned approach in the context of the fundamental principles of sustainable development to avoid an escalation of unprecedented consequences in the social and economic sphere.

Table 3 presents a list of vulnerabilities, their impacts, and consequences generated by economic crises and pandemics that could be minimized, given the occurrence of this type of event.
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Table 3: Impacts and vulnerabilities generated by economic crises and pandemics

<table>
<thead>
<tr>
<th>Vulnerabilities</th>
<th>Impacts and Consequences</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragile economic conditions</td>
<td>Cash flow difficulty</td>
<td>Kossyva et al. (2015)</td>
</tr>
<tr>
<td></td>
<td>Decline in financing options</td>
<td>Alves et al. (2020)</td>
</tr>
<tr>
<td></td>
<td>Resource Constraints</td>
<td>Geloso and Pavlik (2020)</td>
</tr>
<tr>
<td></td>
<td>Inability to fulfill contracts</td>
<td>Oreiro (2017)</td>
</tr>
<tr>
<td></td>
<td>Acceleration of inflation</td>
<td>Eggers (2020)</td>
</tr>
<tr>
<td></td>
<td>Business bankruptcy</td>
<td>Mazzucchelli (2008)</td>
</tr>
<tr>
<td></td>
<td>Greater dependence on local government/agencies</td>
<td>Gregurec et al. (2021)</td>
</tr>
<tr>
<td>Global economic shutdown</td>
<td>Vulnerable to external and internal circumstances</td>
<td>Eggers (2020)</td>
</tr>
<tr>
<td></td>
<td>International supply chains</td>
<td>Alves et al. (2020)</td>
</tr>
<tr>
<td></td>
<td>Fear and uncertainty about the future</td>
<td>Leal Filho et al. (2020)</td>
</tr>
<tr>
<td></td>
<td>Sudden change in the business environment</td>
<td>Blundell et al. (2020)</td>
</tr>
<tr>
<td></td>
<td>Digital vulnerability</td>
<td>Robinson et al. (2020)</td>
</tr>
<tr>
<td>Employment level</td>
<td>Loss and reduction of employees</td>
<td>Eggers (2020)</td>
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<tr>
<td></td>
<td>Increase in unemployment</td>
<td>Vieira (2016)</td>
</tr>
<tr>
<td></td>
<td>Disengagement from the workforce</td>
<td>Alves et al. (2020)</td>
</tr>
<tr>
<td></td>
<td>Worsening social and health conditions</td>
<td>Leal Filho et al. (2020)</td>
</tr>
<tr>
<td>Demand reduction</td>
<td>Reduction in household consumption</td>
<td>Eggers (2020)</td>
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<td></td>
<td>Drop in revenue</td>
<td>Oreiro (2017)</td>
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<td></td>
<td>Reduction in trade due to business closures</td>
<td>Gregurec et al. (2021)</td>
</tr>
<tr>
<td></td>
<td>Low level of preparation and confidence</td>
<td>Sebrae (2020)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leal Filho et al. (2020)</td>
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</tbody>
</table>

Source: Adapted from Teodoro et al. (2023).

V. Proposal for Guidelines for Sustainable Strategic Management (SSM) in Times of Economic Crises and Pandemics

The survival of SMEs in times of economic crises and pandemics, such as COVID-19 and others similar to those presented in this work, will increasingly depend on preparation, planning, and strategies that objectively seek: 1) be aligned with the concepts of sustainability, in particular, with the responsible use of natural resources and the continuous search for solutions to social problems; 2) be competitive in an increasingly competitive market and, above all, be prepared for the technological challenges brought about by the demand for more sustainable products that are less harmful to the environment.

In this way, the proposal for guidelines originates with the impacts and vulnerabilities identified and recorded in Table 3 presented by Teodoro et al. (2023) as a basis for achieving this objective, which is characterized into four blocks, namely: i) fragile economic conditions; ii) global economic shutdown; iii) reduction in the level of employment; and; iv) reduction of demands.

The application of the guidelines proposed here should not only be used in times of economic crises and pandemics, but in day-to-day activities, during the existence of the SME, so that when these events occur, the company will have better conditions to survive.

a) Strategic guidelines to mitigate situations of fragile economic conditions

One of the main vulnerabilities SMEs faces in crises is fragile economic conditions. The importance of focusing on long-term strategies, as described in the two strategies arising from sustainable actions is notable. Resilience can be built gradually to allow SMEs to reestablish the level of balance if they adopt the pursuit of sustainable development as a premise, being proactive in managing threats and the reality of extreme events, in addition to emphasizing their efforts to ensure the continuity and permanence of your business.

As Porter (1990) argues, the long-term challenge for any company is associated with perceiving opportunities to expose itself to new markets and prepare for changes. Alternatively, as Lloret (2016) states, a competitive company must be aware of the conditions required to generate value, especially sustainable value, as sustainability implies continuity.

By adopting the strategic guideline Place emphasis on the long term, to guarantee permanence or continuity, a condition that occurs even in times of calm due to the competitive environment experienced by SMEs, it is expected that they will be better prepared than the competition to face adverse situations such as those that occur in times of crisis.
By considering such guidelines in their strategic planning, SMEs will be able to become more solid over time, with a more consolidated image with a significant number of customers, enabling them to mitigate certain risks of cash flow difficulties, inability to fulfill contracts, decline in financing options, fear and uncertainty about the future, as well as the sudden change in the business environment.

b) Strategic guidelines to survive in scenarios of global economic standstill

If, on the one hand, situations of fragile economic conditions are already a nightmare for SMEs, even in normal times, the scenario gets even worse when extreme events occur, such as a global economic shutdown like the one experienced in 2020 due to the COVID-19 pandemic, which requires strategies to face it.

One of the fundamental aspects to avoid mishaps in the supply of goods and services in times of economic storm, which can be better addressed, is the human and natural resources necessary to guarantee operations. In this sense, adopting the strategic guideline Include in your business strategies objectives to protect and improve human and natural resources that will be needed in the future allows SMEs to prepare better to face global supply crises and/or resource shortages.

In line with the objective of protecting the use of resources, another fundamental point refers to investment in information technology tools to achieve strategic and operational objectives. During the pandemic, this point was highlighted as a way out for the survival of SMEs. Many of them had to resort to this action to keep their operations running during the economic crisis generated by the COVID-19 pandemic, such as the implementation of online shopping and delivery.

In this sense, adopting investment in information technology tools as a strategic guideline to achieve strategic and operational objectives can mitigate the exposure of SMEs to competitiveness risks, mainly due to their digital vulnerability.

It is also worth highlighting that "competing on a global scale without bearing, individually, the costs and uncertainties, through cooperation networks" (Author, Year, p. XX) could function as an antidote to facing vulnerable situations such as impacts on international supply chains or sudden change in the business environment. This strategy, once adopted, can allow SMEs to share certain costs with other companies and thus remain competitive in their local or regional businesses.

Another important factor that can help small and medium-sized businesses deal with the challenges of a global economic shutdown is related to the efficient use of resources in their business operations. To this end, a strategy that enables a change of direction in management is to "establish lean thinking to respond quickly to the market", as it can help companies do more with fewer resources. Furthermore, as one of the pillars of lean management is eliminating waste, it also contributes to improving the sustainable company image of SMEs.

c) Strategic guidelines to mitigate the reduction in employment levels

The resulting impacts of the 2020 crisis were seen in several negative consequences. In line with this premise, it should be noted that by including in its strategy the guideline Focusing the company’s activities on solving social and environmental problems, it will certainly make SMEs contribute to mitigating the related impacts, not only in the drop in the workforce in its operations, as well as enabling the creation of jobs in the communities where they operate. Furthermore, integrating social and environmental issues as part of the company’s identity could positively affect the image of the SMEs. As Berliato et al. (2016) argue, the company's success, despite its central objective still being profit, will depend on its broader social participation, involving social and environmental aspects.

In line with the strategic guideline listed above, by Adopting sustainable methods and practices to enhance the efficiency of the resources used and committing to solving society’s socio-environmental problems and challenges, SMEs will be able to increase their chances of competitiveness by adopting policies for the efficient use of its resources to fulfill its socio-environmental responsibility in the correct application of all resources in its production processes.

d) Strategic guidelines to face impacts due to reduced demand

Economic crises cause a series of changes in the business environment, and one of the impacts most felt by companies refers to the drop in revenue due to reduced demand. One of the biggest challenges for companies, especially small businesses, is dealing with the sudden reduction in demand, as it directly impacts revenue and, consequently, the ability to honor financial commitments.

During situations of severe impact on demand, SMEs must consider in their management process the strategic guidelines rethink production processes and incorporate sustainable development as an integral part of the organizations’ business and have the ability to perceive and respond to new demands through improving innovation and adapt your offer to face new markets by reinventing the way you provide your service. When approached jointly by SMEs, they can contribute to increasing competitiveness with their competitors by offering innovative products and services.

The guideline create and distribute goods and services that will help raise the quality of life of individuals
focuses on pursuing economic prosperity, as argued by Bansal (2005). By integrating characteristics such as innovation, efficiency, and wealth creation, they can generate incentives to increase demand by meeting customer needs in open and competitive markets.

Furthermore, adopt highly flexible processes, be quick in decision-making and have the ability to provide quick responses is a strategic differentiator that allows SMEs to be better prepared in the search for alternatives to survive periods of economic turmoil and adjust their operations to the new low-demand scenario.

VI. Conclusions

In an increasingly troubled global scenario due to economic crises and worldwide pandemics, such as the coronavirus (COVID-19), the severity of its consequences increases, especially concerning the survival and sustainability of SMEs. The great challenge for SMEs has been to mitigate the impacts caused by previously thoughtless situations, such as social isolation and market closures, decreed by governments in Brazil and several nations on all continents.

During the COVID-19 pandemic, the consequences faced by SME managers worldwide were devastating, affecting the longevity of their businesses. This situation occurred due to their fragile economic situation, low capacity to create alternatives for survival, and the need for new investments such as logistics and technology. In addition, there is also the social issue that is greatly aggravated by being unable to keep its employees, having to make layoffs or suffering impacts in meeting customer demand, or its absence due to the worsening of the COVID-19 pandemic crisis.

There is a need to adopt a strategic approach to mitigate the effects of these extreme events to face the challenge of maintaining your business and avoiding the loss of competitiveness in the chaotic market that has befallen SMEs in economic crises or pandemics. To this end, strategic guideline attributes such as elements of competitiveness or sustainable actions were sought in the theoretical foundation to mitigate the impacts and vulnerabilities caused by crises.

As seen in Tables 1 and 2, the sustainable actions and elements of competitiveness identified can serve as encouragement for SMEs in the search for better preparation to face crises that will certainly arise in the future.

In times of turbulence caused by economic crises and pandemics such as COVID-19, it is essential to establish strategies to create a virtuous sustainability cycle for SMEs. It is also important to guide the reconciliation of sustainable practices that, added to the elements of competitiveness, can prepare them to face adverse situations and the consequent impacts and vulnerabilities surrounding their business environment.

Although this study has limitations, it certainly allows one to delve deeper into the scope of survival strategies or mechanisms that can alleviate the vulnerabilities surrounding SMEs’ competitive environment. Therefore, the following additional studies are proposed: i) Field research that can identify which strategic guidelines proposed in this work were adopted by some SMEs and, thus, highlight how some of the impacts caused by the economic crisis were mitigated; ii) Analyze whether the applicability of the proposed strategic guidelines can be effective during crises that arise in the future.

The elements of competitive advantage associated with sustainable actions as a way of mitigating impacts and vulnerabilities do not present themselves as a unique or definitive solution for SMEs to develop their business projects successfully. However, it proposes a way to face other crises that will certainly arise in the future.

Bibliographic References


