Innovation and futuristic thinking are needed to derive better policies to address the COVID-19 pandemic. Policy considerations in terms of entrepreneurship will help understand the importance of future research on digital transformation, leadership, business impact, and social inclusiveness. The societal shifts due to COVID-19 impacts unveil opportunities for entrepreneurial adjustments to achieve competitiveness and growth.

KEYWORDS
COVID-19, crisis management, entrepreneurship

JEL CLASSIFICATION
L31; M14

INTRODUCTION

Much of the world’s attention currently is focused on the COVID-19 pandemic, particularly in terms of entrepreneurship public policy initiatives. The crisis resulting from this health pandemic has meant substantial alterations to mobility, international trade, consumption, and lifestyle patterns. The impact is still yet to be seen, but current projections mean that there will be ongoing policy interventions required, so more emphasis must be placed on the positive work that public policy planners are doing regarding societal changes derived from the COVID-19 pandemic. The findings of the current research available on entrepreneurial policy during the COVID-19 crisis are examined and extrapolated to suggest new practical suggestions and future research paths. Due to the ongoing and continuous nature of the COVID-19 crisis, research must continue to focus on entrepreneurship, management, and policy implications. The recent emergency use of approved vaccines for COVID-19 will likely further change how policy planners implement health and social directions. The present journal issue is titled “COVID-19 and entrepreneurship”. Therefore, it is on a very timely topic with great international importance. Before discussing the reason, entrepreneurship is needed in times of crisis, especially during the COVID-19 pandemic, I would like to thank Professor Carlo Milana for his help and advice in guest editing this special journal issue. I thank him very much for his support, which is very much appreciated.

The COVID-19 pandemic remains one of the most significant crises in modern times (Alon, Farrell, & Li, 2020). It is a global pandemic with most regions of the world involved, but with North America and Europe impacted more than other regions (Hall, Scott, & Gössling, 2020). Governments and policymakers are trying to utilize entrepreneurial thinking as a way of responding to the crisis. This policy orientation is due to the vast impact COVID-19 has had on business and society. Despite the obvious need for entrepreneurship due to COVID-19 related change, there is a lack of research that adequately explains the way entrepreneurial policy initiatives have been utilized in the crisis (Donthu & Gustafsson, 2020).

The uncertainty surrounding the COVID-19 pandemic has provided an impetus for entrepreneurship. There is an increased awareness about how innovation and futuristic thinking can turn the hardships caused by the pandemic into opportunities. Some studies have carried out research on COVID-19 and entrepreneurship. However, they have focused more on specific types of entrepreneurship such as family firm effects (Kraus et al., 2020) or social impact needs (Bacq, Geoghegan, Josefy, Stevenson, & Williams, 2020). In addition, so far, the literature does not include any comprehensive analysis of the role public policy plays in COVID-19 related entrepreneurship endeavors. In the present article, this gap in research on COVID-19 public policy and entrepreneurship is filled by taking into account multi-stakeholder interaction.

Entrepreneurship is essential in times of crisis as it provides a positive outlook to new conditions. This is necessary for turning a negative event into a positive event, thereby changing people’s perceptions about the crisis. The COVID-19 pandemic is a crisis in
magnitude not seen before, yielding unforeseen changes. Some of these changes are evident in policy practices that can lead to innovative solutions that occur quickly (Parnell, Widdop, Bond, & Wilson, 2020). These innovations can pave the way for further innovations developed quickly to respond to societal needs (Ratten & Braga, 2019). However, the response time for innovation depends on the feasibility of an idea and the perseverance of those involved (Marques, Santos, Ratten, & Barros, 2019).

During this unprecedented crisis, questions have been asked about the way governments, organizations, and society can utilize entrepreneurship. Although entities might already have been entrepreneurial within business practices, multiple questions arise about the crisis’s effects on entrepreneurship (Sheth, 2020). Due to the uncertainty of the crisis, there is a need to know more about how to maintain entrepreneurial thinking while under severe strain through policy directions (Ansell & Boin, 2019). Motivated by an interest in COVID-19 and entrepreneurship, this article discusses how innovation and risk-taking can lead to productive policy outcomes. Thereby, it outlines the contemporary challenges of implementing an entrepreneurial policy strategy in the wake of COVID-19 by suggesting new research avenues.

This article is structured as follows. In the next section, an overview of the COVID-19 pandemic is stated. A discussion follows about the role policy, and entrepreneurship plays in times of crisis. The challenge of achieving an entrepreneurial mindset in public policy initiatives is then stated. Suggestions for further policy research and practical implications complement the analysis.

2 | IMPACT OF COVID-19

COVID-19 is a disease caused by the SARS-COV-2 virus originally reported in Wuhan, China (Cortez & Johnston, 2020). It was identified as a new pathogen in December 2019 that rapidly spread in early 2020. COVID-19 causes a severe respiratory illness and is transmitted via droplets (Heyden, Wilden, & Wise, 2020). Individuals with the disease can be symptomatic with symptoms or asymptomatic without symptoms, making it hard to discern who has the virus (World Health Organisation, 2020). The World Health Organization initially declared COVID-19 a public health emergency of international concern on January 30, 2020 and then upgraded it to a pandemic on the March 11, 2020 (Cankurtaran & Beverland, 2020). To reduce the spread of the disease, non-pharmaceutical interventions such as social distancing were implemented (Kuckertz et al., 2020). This policy reaction led to individuals working from home and telecommuting becoming the norm. Governments have implemented policies requiring masks to flatten the epidemic curve (He & Harris, 2020). This further measure resulted in reduced levels of person-to-person contact and an increased reliance on digital technology.

The rapid global dissemination of COVID-19 was due to human-to-human transmission capacity (Chesbrough, 2020). Other public health emergencies include Ebola, polio and Zika were centered on a specific geographic region and did not spread internationally. In addition, the outbreaks of these previous health emergencies were managed by effective government action. Governments and the health industry have had to work together (Kirk & Rifkin, 2020). In contrast to previous coronavirus diseases like MERS and SARS that remained concentrated on specific geographic regions, COVID-19 has had a global effect. Most countries on the planet are affected in some way by COVID-19, which makes it important to understand its evolution through a public policy perspective.

As a result of the pandemic, life has evolved considerably. Human life has transformed with the use of digital technologies becoming the norm. The current COVID-19 pandemic initially started in early 2020 and has since affected most sectors of the global economy. Countries and regions have been affected at varying rates of intensity. As a result, there have been concurrent economic and social effects derived from the COVID-19 pandemic. Physical and human contact trade has decreased due to the need for social distancing.

COVID-19 is neither the first nor the only pandemic in history but certainly will be remembered as a significant one due to its impact on society. Hao, Xiao, and Chon (2020) refer to COVID-19 as a disaster as it was neither predictable nor avoidable. Consequently, the impact of COVID-19 was sudden and resulted in significant structural changes. The biggest change from the COVID-19 pandemic has been a boost to digital change from the need to conduct transactions in an online environment. Transformational changes toward the digital economy were evident before the pandemic but quickened in the pandemic due to the need to conduct business online (Jamal & Budke, 2020). Safety-based policies, including quarantine and stay-at-home orders, have been utilized to decrease the virus’s transmission rates. As individuals switched to working and living from home, media consumption patterns changed (Ratten & Jones, 2020). These changes led to an increased usage of social media for business, entertainment and socialization.

The COVID-19 pandemic overshadows previous crises due to its unexpected nature. The resulting situation from the COVID-19 crisis is unprecedented due to its concurrent impact on the economy and society. The effects on the economy can be differentiated in terms of demand-side and supply-side issues. The demand-side issues relate to changes in the type and quantity of products or services purchased in the market. Consequently, there has been a rapid increase in digital services due to the need for people to stay at home. Customers have been more willing to buy online services during the crisis. Supply-chain issues relate to the difficulty in obtaining particular resources. Due to the restrictions on travel during the crisis, it has been harder to source some resources.

3 | ENTREPRENEURSHIP DURING THE COVID-19 CRISIS

There is a need for businesses to survive in the short term by utilizing an entrepreneurial mindset by committing to change that incorporates innovation. Entities need to be flexible in order to survive in the new
market conditions. Managers and policymakers need to harness the potential of entrepreneurship. Entrepreneurship is considered necessary in a vibrant economy as it provides the impetus for economic growth (Anggadwita, Ramadani, Luturlean, & Ratten, 2016). The role of entrepreneurship in society has evolved over the years with a realization that entrepreneurship can have a profit, non-profit and hybrid form. Traditionally, entrepreneurship was considered a purely economic agent, but this changed with acknowledging that entrepreneurship's social forms are essential (Jones, Jones, Williams-Burnett, & Ratten, 2017). From a public health perspective, entrepreneurship has been used to build public-private partnerships that are important drivers of economic and social change during the COVID-19 pandemic. Governments are collaborating with private entities on health matters to access funding and meet societal obligations.

In times of crisis, entrepreneurs help improve product and service quality and advance new technologies. Entrepreneurs are a source of dynamism and ensure that an economy remains competitive (Santos, Marques, & Ratten, 2019). These skills are needed in the economy and act as an incentive for others to behave innovatively. Moreover, entrepreneurs are characterized by their vibrancy and positive energy. They act as risk-takers by seeing opportunities in the marketplace that others currently do not foresee. Best practices can be implemented, including creating a multidisciplinary stakeholder committee to discuss action plans evaluating the crisis at different times in order to ascertain what actions are required.

In the context of COVID-19 and future crises, entrepreneurship must be used to implement crisis management strategies. Due to the internationalization of the world economy, there is increased mobility between countries. During the COVID-19 pandemic, this mobility has decreased due to country borders being closed or limited to certain travelers. As a result, entrepreneurial strategies and policies need to be used in order to reinvigorate economic growth. Hao et al. (2020: p. 2) state “an organisation faces a crisis due to internal failures, while it confronts a disaster due to uncontrollable external factors.” This difference helps explain why a disaster is considered as more severe than a crisis. The word crisis implies that it can be solved in a short time frame, although this does not always occur (Doern, Williams, & Vorley, 2019). While the words “crisis” and “disaster” are frequently used as synonyms, COVID-19 pandemic is more referred to as a crisis when considering organizational effects but as a disaster when considering international ramifications.

### 3.1 COVID-19 public policy implications

The need to focus on public policy regarding what governments are doing comes from how COVID-19 has affected society. Public policy research is a priority due to the increased interest in how to solve COVID-19 related problems. Every aspect of policymaking needs to be examined while information about the COVID-19 pandemic has to be gathered to inform policy theory and practice.

Public policy involves studying the way government administrations have implemented change. Government officials are centrally involved in the COVID-19 policy-making process. They operate within a broader political framework based on prevailing conditions. Thus, the structures of power and influence are shaped by changing environmental conditions. Policymakers make critical choices based on assumptions about the impact of COVID-19. A core reason for policy change is to make society more efficient and effective. Policy that has an entrepreneurial nature is considered as more innovative and futuristic. Therefore, it differs from the priority policy that was rational, consistent, and predictable. The rapid way COVID-19 affected society has resulted in a need to make better policies to suit new market conditions.

Policy can be based on appropriate analyses in choosing alternatives or based on an evaluation of existing guidelines. Policymaking involves choosing what resources should be used and in what timeframe. Due to the limited availability of some resources during the COVID-19 pandemic, this is important. As few public goods are equally available to all, decisions need to be made about how, when, and where to use resources. This need leads to policymakers implementing decisions about usage.

Particular policy ideas regarding COVID-19 such as working from home have caught on quickly. It was due to the awareness of the high degree of infectiousness of COVID-19 and how some work can be done at home. Advocates of working from home stress how decreased social interaction is supplemented by increased digital engagement. To ensure that policies are implemented in the right way, it helps to have motivated individuals involved. The community of practice has to evolve regarding the usage of such policies in society.

Research on COVID-19 policy may be formed into two different but complementary research topics: healthcare and scientific practices, and public policy and societal impacts. Over the past year, there has been much discussion on COVID-19, including its impact on how businesses can recover. Therefore, it is time to focus on current progress to provide a foundation for building research on COVID-19 management. This research may help in avoiding ineffective management practices that stop the rebuilding of the global economy. The way policymakers deal with COVID-19 may seem to be a matter of good luck instead of deliberate management practice. In reality, the ways policies regarding COVID-19 can be complex and evolve. While much research exists in general on COVID-19, a more selective research approach is required to help policymakers build momentum on what they know and what they need to know regarding COVID-19.

Policymakers worldwide have been grappling with how to implement policies that protect the health of citizens while encouraging economic development. Such a task is not easy as the contrasting needs of multiple stakeholders need to be considered. The importance of implementing policies regarding COVID-19 has been widely recognized as a significant way to alleviate the stress caused by COVID-19. A glance at the economic conditions of countries that have successfully decreased the infection rates of COVID-19 reveals that their efficiency is due to the implementation of effective policies, thereby advancing a competitive advantage in the global market. Therefore, cooperation between policymakers and business entities can facilitate
economic growth and stimulate new economic gains. Such cooperation includes collaborative research or scientific consultancy regarding COVID-19-related issues.

Policymakers are constantly under pressure to change, which makes entrepreneurship important to regional competitiveness. The effectiveness of policy depends on interactions between business and governmental institutions in the health and scientific system. When this interaction progressively becomes more active, business and institutions' policy implementation will substantially affect the economy. Policy entrepreneurship and its contribution to COVID-19 processes increasingly appear high on current governmental agendas. The growing number of actors involved in COVID-19 policy is due to the need to find solutions to COVID-19-related problems. Some governments have decentralized policymaking regarding COVID-19 in order to give local authorities more autonomy. This approach is useful in responding quickly and in the appropriate way to COVID-19 problems. However, most governments are relying on local knowledge to support policy responses, thereby making policy implementation more of a community concern.

The COVID-19 crisis has disrupted policy planners' practices. Policymakers are learning to improvise and learn new behaviors in order to adapt to changing market conditions. There has been the introduction of new regulations and procedures regarding how individuals live in society. New policy recommendations have emerged regarding innovative ways society has learned to cope with the changing work, life, and business conditions (Weick & Sutcliffe, 2011). Questions need to be answered about the way COVID-19 has impacted policy planners. Will policymakers permanently change their processes due to lockdown and social distancing, or will they revert to old procedures once the crisis is over? Will policymakers find implementing COVID-19 decisions a hassle and, therefore, decide to approach decisions differently? Will there be new mechanisms such as working from home and telecommuting used in making policy decisions? These questions are relevant as COVID-19 has substantially changed the way policymakers make decisions.

All policies are location- and time-bound. Policies are developed based on what is required in a specific time frame. Policies are contextual as context matters. The context can be socially driven based on the emergence of new lifestyle practices. The social context includes communities and workplaces. Technology is a context as emerging technologies influence lifestyles. The most radical technology breakthroughs are related to digital communication and medical advances. In recent years, there has been more emphasis on artificial intelligence and biotechnology. Rules and regulations provide another context that relates to public spaces. In addition, private spaces have their own required set of conduct. Public policy has tended to try and encourage healthy and sustainable rules and regulations. Policymakers have had to improvise in terms of making the best use of available resources. Due to the changing nature of COVID-19, it has become apparent that new strategies need to be devised by emphasizing practicality and the timeliness of policies. Not all information is known. Therefore, policymakers need to do the best they can in the time they have by ensuring policy is relevant and makes efficient use of the available resources.

3.2 Overview of articles in the present journal issue

This special journal issue on “COVID-19 and entrepreneurship” comprises nine articles. The first article titled “Overview article: COVID-19 and entrepreneurship: Future research directions” by Vanessa Ratten provides an overview of some of the issues the world is currently facing as a result of the COVID-19 pandemic. It is thereby highlighting how the world has changed and how it can encourage a more entrepreneurial spirit to cope with this change. The second article titled “The resilience of the cooperative model: How do cooperatives deal with the COVID-19 crisis?” by Adrien Billiet, Frédéric Dufays, Stefanie Friedel, and Matthias Staessens further discusses the COVID-19 pandemic by providing a model incorporating resilience. It provides a way for cooperatives to handle change by focusing on their core activities. The third article titled “Prosocial skills development in children and social value creation during COVID-19” by Ahmad Arslan, Lauri Haapanen, and Shlomo Tarba take the view that social value creation can be encouraged in times of crisis. It is thereby enabling more cooperative behavior to emerge. The fourth article titled “The case of sales in the automotive industry during the COVID-19 pandemic” by Fabian Hoefr focuses on strategic implications of the crisis. Thus, it provides some management tools that can be helpful to navigate in times of crisis. The fifth article titled “Healthcare Enterprises and Public Policies on COVID-19: Insights from the Greek Rural Areas” by Nikolaos Apostolopoulos, Panagiotis Liargovas, Pantelis Sklias, and Sotiris Apostolopoulos focuses on the healthcare industry implications of the COVID-19 pandemic. It focuses on rural areas that are dealing with resource shortages. The sixth article titled “The Impact of COVID-19 on the Technology Sector: A case of TATA Consultancy Services” by Lazaros Ntasis, Konstantinos Koronios, and Theodoros Pappas analyses the changes apparent in the technology sector as a result of the COVID-19 pandemic. It highlights the massive shift to digital technology usage. The seventh article titled “Repercussions of COVID-19 on Small Restaurant Entrepreneurs: The Indian context” by Shinu Vig and Richa N. Agarwal focuses on the hospitality sector. It highlights the significant impact that the COVID-19 has on small businesses and restaurant entrepreneurs. The eighth article titled “Covid-19: SMEs challenges and responses with creativity, innovation, and entrepreneurship” by Esha Thukral analyses the pressures that small- and medium-size enterprises face during the COVID-19 crisis. The ninth article titled “Agri-food sector and entrepreneurship during the COVID-19 crisis: A systematic literature review and research agenda” by Nikolaos Apostolopoulos, Vanessa Ratten, Dimitrios Petropoulos, Panagiotis Liargovas, and Eleni Anastasopoulou provide an analysis and suggestions for future research on the subject of COVID-19 and entrepreneurship. The tenth article titled “Touristic preferences of hostel guests during COVID-19 times: the case of Oporto” by Fernando Tavares, Olavo Condurú, Eulalia Santos, and Vasco Taveres focuses on the impact of COVID-19 on the hospitality and tourism sector. The eleventh article titled “The Role of the Fourth Sector in the context of the COVID-19 Pandemic” by Vanessa Martins, Marisa Ferreira,
and Vitor Braga analyses the impact of the non-profit sector during the COVID-19 pandemic.

3.3 Future research directions

The conditions and timing are right for research on COVID-19, entrepreneurship, and policy. Despite some challenges, the research on COVID-19 may produce many benefits. New theories and tests may arise. The implicit assumptions in current research need to be examined in light of the COVID-19 crisis. The COVID-19 context presents a unique condition to test theories and offers numerous research opportunities (Wenzel, Stanske, & Lieberman, 2020).

The present article seeks to provide a roadmap on the literature linking the COVID-19 pandemic to entrepreneurship and public policy, thereby providing useful future research directions that are needed in this new area of research. This task is not an easy one due to the recent nature of the COVID-19 pandemic and public policy planners’ desire to contribute to entrepreneurial solutions. While the subject of COVID-19 has received constant media attention, its linkage to the entrepreneurship and public policy literature remains limited. There is an urgent need for researchers and public policymakers to join forces to build new scientific literature on COVID-19. It would be useful in the current economic conditions and serves to help manage future crises. Being COVID-19 a coronavirus, it will likely give rise to a family of new viruses in the future. COVID-19 is a topic that has an interdisciplinary nature due to its economic, health and social ramifications. It is a contentious topic due to the complex ways it has affected society. The present article aims to guide direct researchers and public policymakers toward understanding how entrepreneurship can address the issues raised by COVID-19 by focusing on the most critical questions and matters relating to the pandemic.

3.4 Digital transformation

Research on COVID-19 and entrepreneurship can pave the way for more in-depth insights about crisis management through digital transformation. The topic is experiencing a phase of exponential growth due to the acknowledgment that entrepreneurship is particularly needed in crisis times. At the core of the interest around this topic derives from the highly practical relevance of the topic. Organizations are increasingly alert to the plethora of opportunities enabled by digital transformation and entrepreneurship. There is more emphasis due to the COVID-19 crisis prioritizing investments based on digital technology. However, much research remains to be done reading how to embrace a digital mindset due to the COVID-19 crisis. Digital technology provides a way to augment innovation processes by making them easier to implement. This result is helpful in the competitive global economy that is based on multi-sided ecosystems and digital platforms.

Research on COVID-19 and entrepreneurship can help understand how policy issues regarding digital technology are resolved. Concerning a future research agenda, studies are needed that explore the power relations regarding policy implementation. It would facilitate knowledge sharing about the intermediaries and mechanisms systems technology has been enhanced as a way to track real-time data. These developments have revolutionized the health sector and created new business opportunities. The problems related to the COVID-19 crisis can be addressed using digital technology to preserve people’s mental and physical wellbeing. All industrial contexts have changed as a result of digital disruption. The use of digital solutions enables better connectivity within society that has coincided with the fourth industrial revolution based on the systematic inter-connection of all entities through technical means.

Scholars are encouraged to conduct more research into how digital transformation has been utilized during the COVID-19 crisis. The interest in the topic is not surprising; given the way the pandemic has affected society. There has been a particular emphasis on analytical information processing capabilities to understand the impact of COVID-19. While entrepreneurship can have a social or non-profit nature, in most cases, it is financially motivated. The entrepreneurial opportunities derived from the COVID-19 crisis can be exploited by using the available resources in society. Furthermore, as COVID-19 is a health crisis, entrepreneurs need to manage the institutional setup in regions. Entrepreneurs are connecting opportunities with innovations related to healthcare-based digital transformation showing awareness about how business can be conducted in an online environment.

The concept of digital transformation is complex as it is a multidimensional phenomenon that affects entities differently depending on the context. It is a new research paradigm because it introduces a multifaceted perspective on the use of digital technology in society. Most management and entrepreneurship scholars would agree that the digital transformation we are undergoing due to the COVID-19 crisis is unparalleled in history. It is an excellent time to rethink the different views that co-exist digital technology to grow the field. Due to the highly fragmented research landscape regarding digital technology, it is useful to take a broad approach as to how it has and continues to occur. The lack of the literature on COVID-19 and entrepreneurship is the main reason that motivated to write this article. It is believed that further research is necessary to illuminate the intricate relationship between COVID-19, entrepreneurship and public policy.

The need for more research on COVID-19 and entrepreneurship derives from the highly practical relevance of the topic. Organizations are increasingly alert to the plethora of opportunities enabled by digital transformation and entrepreneurship. There is more emphasis due to the COVID-19 crisis prioritizing investments based on digital technology. However, much research remains to be done reading how to embrace a digital mindset due to the COVID-19 crisis. Digital technology provides a way to augment innovation processes by making them easier to implement. This result is helpful in the competitive global economy that is based on multi-sided ecosystems and digital platforms.

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policymakers utilize. More research could examine the relationship between policy and society, which may more accurately capture the effects of the COVID-19 crisis.

### 3.5 | Leadership

Leadership is a characteristic valued by policymakers due to the COVID-19 crisis. The need for quick and rapid action meant that leaders who could take these necessary steps were valued in society. Leaders who dithered or did not act lead to the region facing a higher level of COVID-19 related issues. While acting decisively, leaders still had to show respect of authority demonstrating their need for stakeholder engagement in matters related to COVID-19. Influential leaders were those who foresaw the impact COVID-19 was having on society and took strategic action. A fruitful context to test theory-based predictions on COVID-19 data is to focus on cross-cultural leadership. The results obtained will enable a better understanding of whether leadership behavior varies across cultures or is the same.

Although there is much data available on COVID-19, there are many research areas not widely addressed by researchers in the strategy and business literature. The research gap is mainly due to the newness of the data and the uncertainty about the crisis length. While several studies are emerging on COVID-19, there are emerging topic areas that can stimulate future research. For this article, the critical topic areas discussed are strategy, supply-side issues, demand-side issues, networks, performance, and context. Each of these topic areas needs to be researched further regarding how leaders can contribute to existing literature while building new knowledge.

Tax incentives and other relief forms to mitigate the economic impact of the virus on businesses. In December 2020, the United Kingdom became the first country to approve the use of a COVID-19 vaccine. Other countries are likely to follow their lead and approve the use of the vaccine. Life before COVID-19 will never be the same again due to the societal changes that have occurred. However, the governments have responded to COVID-19 differently with some countries closing their borders and significantly restricting movement while other countries have remained open and downplayed the impact of the virus. Governments have also had to weigh up the economic versus social effects of policies regarding the virus. Due to concern about the health system’s capacity to cope with the medical treatment of COVID-19 patients, governments have implemented stay-at-home orders. While useful in preventing the spread of the disease, this policy has economic effects in curtailing business activity. The COVID-19 crisis has already curbed global GDP growth. To decrease the impact of the COVID-19 pandemic on the economy, governments have provided economic stimulus in welfare payments and tax decreases.

### 3.6 | Business impact

During the COVID-19 crisis, businesses have tried to preserve their cash flow by cutting nonessential expenses. This behavior helps in saving money and in maximizing the use of existing resources. Businesses have tried to renegotiate contracts with suppliers and landlords in order to reduce losses from the crisis. Such reactions were supplemented by governments introducing legislation banning evictions during the crisis. Other strategies include modifying existing business models in order to maintain or grow revenue. In addition to all these types of actions, it can help alleviate losses by looking at new business opportunities. By investigating in new growth ventures, it can be easier to re-orientate a business to different market conditions.

Each industry sector in the economy has its way of dealing with the crisis, including different action types. Most businesses are trying to accelerate digital transformation by focusing on the use of digital platforms. Changing the way they offer products and services to a digital business model. Digital marketing has become an essential part of a business’s strategy during the crisis. Moreover, digital communication enables businesses to disseminate information in an online format. It enables flexibility in terms of making businesses adaptable and proactive in the crisis. As it is unclear how long the crisis will last for, it is helpful to have a flexible approach that enables a business to change direction on short notice.

Many countries have imposed restrictions on people working nearby and on social congregations. Even with these restrictions being removed in countries with low transmission rates, there has been a fundamental shift in the way people live and work. As a result of these restrictions, labor-intensive firms, mainly factories, have had to shut down or minimize work hours. The COVID-19 crisis has resulted in an enormous loss of human life, and psychologically impacted individuals worldwide. No amount of crystal ball gazing can determine the full effects of the crisis on individuals. The world is likely not to come out of it unscathed but rather be affected for years to come.

Small businesses are more location-dependent than large businesses. They are a fundamental engine for economic growth and employ a substantial percentage of the workforce. Therefore, it would be useful for further research to focus on how small business coped during the COVID-19 crisis. Differentiating small versus large businesses in order to understand the way a crisis affected their strategy. Small businesses in different industries such as retail, tourism, and manufacturing need to be studied in detail. The results would produce information on how networks, family members, and government entities have helped small business adjust to the new market conditions. The use of policies for small business to survive has been highlighted, but more evidence about its role in sustaining small businesses is needed. Besides, the role of education based on government-sponsored programs to support small businesses requires more research enabling an assessment of how policies have been effective. There is still much to be learnt about the challenges of small business during the COVID-19 crisis.

The unfolding economic catastrophe resulting from this crisis has impacted businesses in a significant way. In particular, retail businesses have been significantly affected by the shift to online operations and reduced opening hours. The effect on business has been most observable with the tourism and hospitality industry shut down.
Due to the emphasis on services and human interaction, the tourism industry has had to devise new operating ways by ensuring that human interaction occurs safely. The tourism industry has encountered severe challenges with how to respond to changing market conditions. The prolonged nature of the crisis has meant there is uncertainty about whether and if the market changes. All stakeholders in the tourism industry, including customers, employees, government, suppliers, and policymakers, have been affected.

3.7 Social inclusiveness

Due to the lockdowns necessitated by the COVID-19 crisis, vulnerable populations were especially affected. An upsurge in mental health issues, but on the positive side resulted in homeless people being provided shelter. It would be interesting to examine how communities became more inclusive due to the COVID-19 crisis. Alternatively, it would also be useful to research how unequal access to necessities during the crisis-affected society. For example, due to the need for online learning poorer members of society that did not have internet access were disadvantaged.

Moreover, there has been much media attention placed on gender inequity during the crisis because of working and learning from home policies. Thus, the seemingly positive policy of working from home can negatively impact those needing childcare or eldercare. Future research could address the role of social inclusiveness in implementing COVID-19-related policies. It could also examine community-based and social forms of entrepreneurship to address inequity in the COVID-19 crisis.

The social disruption caused by the COVID-19 pandemic is devastating with increasing levels of mental illness and poverty. As a result, COVID-19 represents a challenge to the global society in responding to public health and social needs. Informal workers are particularly vulnerable as they are not formally identified as members of the global economy. This procedure makes it hard to understand the impact of COVID-19 on the informal economy regarding lost wages and productivity. Many informal workers lack access to health care and social protection. During lockdowns and periods of low economic growth, they do not have access to essential services.

The fragility of the global economy based on open borders has been laid bare by the crisis. No longer are individuals and businesses able to conduct frequent and easy transactions due to trade restrictions. During the crisis travel, bans and social distancing requirements have crushed businesses leading to bankruptcies as businesses could not cover fixed costs. As retail stores closed and the number of COVID-19 infections climbed, businesses have been urged to think in an entrepreneurial manner.

Few studies have focused on the role of strategy in response and management of the COVID-19 pandemic. Due to the sudden and unforeseen nature of the crisis, businesses trended not to have strategic plans to know how to respond strategically. The lack of strategic plans meant for most businesses that their response behavior was reactive rather than proactive. This type of reaction changed once businesses became more comfortable with the new market conditions. The way COVID-19 became a source of competitive advantage for businesses needs to be examined for several reasons, including the need to understand how continuous learning impacted corporate strategy. The question is how businesses learnt during the crisis and utilized it to increase their competitive advantage in the marketplace. Existing strategy literature may require a reconfiguration in order to take into account new perspectives. Research with a strategic perspective will be valued as it will shed light on creating business opportunities due to the COVID-19 crisis.

4 CONCLUSION

This article contributes to the ongoing discourse on the effects of COVID-19 on entrepreneurship. Specifically, the article examines the opportunity to utilize entrepreneurship in times of a crisis. From a practical perspective, the challenges derived from the COVID-19 pandemic require an entrepreneurial way of thinking. More research is needed to focus on how policy has been impacted by digital transformation, leadership, business conditions, and social inequality. It is hoped that this article will be used as a roadmap by researchers interested in entrepreneurship, public policy, and COVID-19.

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REFERENCES

Alon, I., Farrell, M., & Li, S. (2020). Regime type and COVID-19 response. FIIIB Business Review, 1–9.
Anggadwita, G., Ramadani, V., Luturlean, B., & Ratten, V. (2016). Sociocultural environments and emerging economy entrepreneurship: Women entrepreneurs in Indonesia. Journal of Entrepreneurship in Emerging Economies, 9(1), 85–96.
Ansell, C., & Boin, A. (2019). Taming deep uncertainty: The potential of pragmatist principles for understanding and improving strategic crisis management. Administration & Society, 51(7), 1079–1112.
Baq, S., Geoghegan, W., Josefy, M., Stevenson, R., & Williams, T. (2020). The COVID-19 virtual idea blitz: Marshalling social entrepreneurship to rapidly respond to urgent grand challenges. Business Horizons, In Press, 63, 705–723.
Cankurtaran, P., & Beverland, M. (2020). Using design thinking to respond to crises: B2B lessons from the 2020 COVID-19 pandemic. Industrial Marketing Management, 88, 255–260.
Chesbrough, H. (2020). To recover faster from COVID-19, open up: Managerial implications from an open innovation perspective. Industrial Marketing Management, In Press, 88, 410–413.
Correia, R., & Johnston, W. (2020). The coronavirus crisis in B2B settings: Crisis uniqueness and managerial implications based on social exchange theory. Industrial Marketing Management In Press.
Doern, R., Williams, N., & Vorley, T. (2019). Special issue on entrepreneurship, public policy, and COVID-19. Emerging Economies, 97.
Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. Journal of Business Research, 117, 284–289.
Hall, C. M., Scott, D., & Gössling, S. (2020). Pandemics, transformations and tourism: Be careful what you wish for. Tourism Geographies, 1–22.
Hao, F., Xiao, Q., & Chon, K. (2020). COVID-19 and China's hotel industry: Impacts, a disaster management framework, and post-pandemic agenda. International Journal of Hospitality Management, 90, 102636.
He, H., & Harris, L. (2020). The impact of COVID-19 pandemic on corporate social responsibility and marketing philosophy. *Journal of Business Research*, 116, 176–182.

Heyden, M., Wilden, R., & Wise, C. (2020). Navigating crisis from the backseat? How top managers can support radical change initiatives by middle managers. *Industrial Marketing Management*, 88, 305–313.

Jamal, T., & Budke, C. (2020). *Tourism in a world with pandemics: Global responsibility and action*. *Journal of Tourism Futures*, In Press.

Jones, P., Jones, A., Williams-Burnett, N., & Ratten, V. (2017). Let's get physical: Stories of entrepreneurial activity from sports coaches/instructors. *International Journal of Entrepreneurship and Innovation*, 18(4), 219–230.

Kirk, C. P., & Rifkin, L. S. (2020). I'll trade you diamonds for toilet paper: Consumer reacting, coping and adapting behaviors in the COVID-19 pandemic. *Journal of Business Research*, In Press, 117, 124–131.

Kraus, S., Clauss, T., Breier, M., Gast, J., Zardini, A., & Tiberius, V. (2020). The economics of COVID-19: Initial empirical evidence on how family firms in five European countries cope with the corona crisis. *International Journal of Entrepreneurial Behavior & Research*, In Press.

Kuckertz, A., Brändle, L., Gaudig, A., Hinderer, S., Reyes, C. A. M., Prochotta, A., & Berger, E. S. (2020). *Startups in times of crisis—a rapid response to the COVID-19 pandemic*. *Journal of Business Venturing Insights*, In Press.

Marques, C. S., Santos, G., Ratten, V., & Barros, A. B. (2019). Innovation as a booster of rural artisan entrepreneurship: A case study of black pottery. *International Journal of Entrepreneurial Behavior & Research*, 25(4), 753–772.

Parnell, D., Widdop, P., Bond, A., & Wilson, R. (2020). COVID-19, networks and sport. *Managing Sport and Leisure*, In Press.

Ratten, V., & Braga, V. (2019). Tourism innovation. *Journal of Tourism and Hospitality Management*, 41, 171–174.

Ratten, V., & Jones, P. (2020). New challenges in sport entrepreneurship for value creation. *International Entrepreneurship and Management Journal*, 16(3), 961–980.

Santos, G., Marques, C. S., & Ratten, V. (2019). Entrepreneurial women’s networks: The case of D’Uva–Portugal wine girls. *International Journal of Entrepreneurial Behavior & Research*, 25(2), 298–322.

Sheth, J. (2020). Business of business is more than business: Managing during the COVID crisis. *Industrial Marketing Management*, 88, 261–264.

Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144.

Weick, K. E., & Sutcliffe, K. M. (2011). *Managing the unexpected: Resilient performance in an age of uncertainty* (Vol. 8), New York: John Wiley & Sons.

Wenzel, M., Stanske, S., & Lieberman, M. (2020). Strategic responses to crisis. *Strategic Management Journal*, In Press.

World Health Organisation. (2020). *Who, Coronavirus disease (COVID-19) outbreak*. Retrieved from www.who.int/emergencies/diseases/novel-coronavirus-2019

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