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Exploring COVID-19 Challenges and Coping Mechanisms for SMEs in the South African Entrepreneurial Ecosystem

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Abstract: Globally, COVID-19 has caused significant damage, including business closures and changes in how entrepreneurial activities are performed. The pandemic has spawned a slew of publications with the majority thereof being editorials, commentaries, and concept notes. This implies a lack of empirical evidence on the pandemic. Therefore, the purpose of this paper was to explore the COVID-19 challenges and coping mechanisms for small and medium-sized enterprises (SMEs) in South Africa's entrepreneurial ecosystem. Data for the study were collected from 15 SME owners through semi-structured interviews using a generic qualitative research method. The findings revealed that the SME COVID-19 challenges included lockdown restrictions, customer loss, lack of government support, and scarcity of raw materials. The coping mechanisms used by the SMEs were having a positive entrepreneurial mindset followed by reduced service prices and the retrenchments of employees. Theoretically, the study contributes to the scarce empirical evidence on COVID-19 challenges and coping mechanisms for SMEs in the South African context; to the available literature in the entrepreneurial ecosystem context and to the world at large. Practically, it is recommended that during crises, businesses should network with one another to remain operational and, owing to e-commerce, they are encouraged to have an online presence.

Keywords: entrepreneurship; entrepreneurial ecosystems; SMEs; COVID-19 challenges; coping mechanisms; qualitative study; South Africa



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1. Introduction

As of 2020, the world has experienced a major shock that has had a global impact on society and economies on a scale not seen since the First and Second World Wars [1]. This shock is the coronavirus (COVID-19), which emerged in China in late 2019 and quickly spread to the rest of the world by early 2020. Since then, COVID-19 has attracted much attention from scholars due to the role and impact it has on entrepreneurship in general [1–3]. The contribution of small and medium-sized enterprises (SMEs) to economic growth has been well documented in international literature. Empirical evidence suggests that entrepreneurship, and particularly SMEs, can easily identify and commercialise changes in market trends [2]. Given this, as a result of COVID-19, entrepreneurs have been confronted with unexpected changes in almost every aspect of entrepreneurial activity, including changes in market trends, consumer demand, and control policies in place to reduce the spread of the virus [1,3]. The pandemic has accelerated innovation in all sectors of economies around the world [4]. Technological experts have described the pandemic as a global disruption that can be viewed as either an opportunity or a challenge to transform business models or implement new technology to support business processes [3]. As such, the pandemic has resulted in an increase in more entrepreneurial activity across the globe, most especially in biotech firms [5]. Evidence also suggests there was no wide application of technology by SMEs in the past years, but due to the *covidian* disruptions, SMEs have now adopted the application of digital technologies to avoid shutting down [3].

While COVID-19 may appear to provide entrepreneurial opportunities, the ongoing lockdowns in various parts of the world have slowed entrepreneurial activity, resulting in the closure of ventures. This view is supported by Alessa, et al. [6] who report that due to the impact of COVID-19, SMEs such as restaurants, tourism operators and movie theatres have been forced to shut down. In addition, there has been a sharp decrease in consumer demand as a result of cash shortages or the consumer's inability to visit stores to purchase basic necessities. These SMEs do not exist in a vacuum; they thrive and survive in entrepreneurial ecosystems.

The entrepreneurial ecosystem is a global phenomenon that has attracted the recent interest of scholars [7–11]. However, it remains elusive [7], under-theorized [12], and underdeveloped with many unanswered questions on what it is. 'Entrepreneurial ecosystems' have been defined differently by scholars, implying the lack of consensus on its definition. Some scholars [12,13] have proposed that entrepreneurial ecosystems are composed of different elements, including networks, infrastructure, culture, and intermediaries. All these elements interact with one another to foster entrepreneurial activities within a defined geographical setting.

COVID-19 has had a significant impact on SMEs in entrepreneurial ecosystems when compared to their larger counterparts. Research in this regard has generally been from the West [1,2,14–16]. Developing countries including South Africa have received little or no attention from scholars in this regard. This is despite the fact that South Africa stands out amongst the topmost affected countries in the world. Aside from the scarcity of research on COVID-19 in the developing world context (including South Africa), the plethora of research on the ongoing crisis has been editorials, commentaries, and conceptual write-ups [1]. More specifically, COVID-19 research in South Africa is limited, particularly in terms of COVID-19 challenges and coping mechanisms for SMEs in the South African entrepreneurial ecosystem. This demonstrates that there is a gap in empirical studies on COVID-19, which are crucial because they could provide invaluable insight into the impact of the crisis on entrepreneurship. Additionally, most research on entrepreneurial ecosystems has taken a theoretical approach, focusing on a single theory. As a result of this, Ratten [7] reports that strategic management theories, such as the resource-based view, already have a substantial body of knowledge and can thus be used to ground entrepreneurial ecosystems research. This article aims to fill the research gap by exploring the COVID-19 challenges and coping mechanisms for SMEs in the South African entrepreneurial ecosystem, using the resource-based view as a grounding theory. The research questions for this article are: (i) what are the COVID-19 challenges faced by SMEs in the South African entrepreneurial ecosystem? and (ii) what are the COVID-19 coping mechanisms for SMEs in the South African entrepreneurial ecosystem?

COVID-19, despite being a global disruption, is a new phenomenon that has piqued the interest of scholars who are researching it using various research methods. When compared to other research methods, such as quantitative methods, the qualitative method allows for a more in-depth understanding of the phenomenon under investigation [17]. However, it is disadvantageous due to the small sample size and the time commitment. The quantitative method, on the other hand, despite involving large samples, does not allow for a deeper understanding of a phenomenon [18]. As a result, the qualitative design was ideal for the study because the researchers wanted to gain a thorough understanding of the COVID-19 challenges and coping mechanisms for SMEs in the South African entrepreneurial ecosystem.

Consequently, this article will contribute to the body of knowledge on COVID-19 from a developing country perspective, as well as to the scant literature on COVID-19 and entrepreneurial ecosystems on a global scale. The following sections outline the literature review with a focus on SMEs, their challenges and coping mechanisms, entrepreneurial ecosystems, and the South African entrepreneurial ecosystem. This is followed by the research methodology highlighting the sampling design, data collection of the study, results, and discussion of results.

2. Literature Review

2.1. Importance of SMEs in Entrepreneurial Ecosystems

SMEs offer a plethora of opportunities for economic growth and development, both locally and globally. This viewpoint is supported by Buraiki and Khan [19], who posit that SMEs are the strategic boosters for the economy of any country. SMEs are of great importance to all economies since they create jobs, thereby reducing unemployment and generating wealth. As such, they accelerate the total revenues of countries as they serve as power engines. SMEs have also been found to develop innovative entrepreneurial ideas which in turn add value to the economic growth [19]. This implies that SMEs are generally very innovative in order to stay competitive. Despite their importance, SMEs in entrepreneurial ecosystems are faced with numerous challenges which can hinder their growth. The next section elaborates on these challenges.

2.2. Challenges Facing SMEs in Entrepreneurial Ecosystems

In the business world, a challenge can be any situation that harms a company's success [20]. Limited access to finance and credit for start-ups has been identified as a major challenge that is faced by SMEs in entrepreneurial ecosystems [21–24]. In developing countries such as South Africa, banks and credit providers usually do not provide start-up capital for SMEs. Rather, they provide resources such as capital to SMEs at the later stage of the SMEs' development [25]. Yoshino and Taghizadeh Hesary [24], who support this assertion, add that SMEs usually struggle to raise capital compared to their larger counterparts. This struggle to raise capital as well as the lack of access to credit facilities could be attributed to the fact that SMEs do not have the collateral needed to get a loan from lenders [21,26]. Lack of access to physical infrastructure, especially information infrastructure is also a challenge which is faced by SMEs [22,24]. In this regard, SMEs face greater challenges in obtaining information about funding opportunities compared to large corporations, which typically list their companies on stock exchange markets, attracting investors who want to invest in such companies. Lack of networks could also be a major reason for SMEs' lack of information since networking with other businesses can provide access to relevant and valuable information that can help SMEs grow and develop.

Previous studies [24,25] also suggest that there are low levels of research and development (R&D) in SMEs. This is despite the fact that R&D is very important for all businesses, as it generates innovative ideas to keep the business competitive. The low levels of R&D in SMEs could also be attributed to the lack of funds to pay for such research. Lack of skills such as managerial skills [22,27], accounting skills, and sales capabilities [25] are also major challenges for SMEs. Lack of support from the government [19,28], inhibiting government policies [23], inaccessible markets [24], lack of innovation [29], high cost of labour, and lack of self-confidence [23] are other challenges faced by SMEs in entrepreneurial ecosystems.

2.3. Coping Mechanisms of SMEs in Entrepreneurial Ecosystems

Algorani and Gupta [30] assert that when individuals are exposed to a stressful situation, the steps they take to overcome such a situation can be referred to as coping styles. Relating this assertion within the business world, coping mechanisms refer to the various procedures that a business uses to overcome challenges. Due to their importance, measures have been proposed which could be a solution to the challenges that are faced by SMEs in entrepreneurial ecosystems. In response to the lack of access to finance and credit, governments in both developed and developing countries established the credit guarantee scheme, which aims to close the funds demand-supply gap for SMEs [24]. It can be concluded that the creation of the credit guarantee scheme was to increase the availability of funds for SMEs. To address the lack of access to credit lending for SMEs, countries such as Japan created private banks aimed at financing SMEs in the form of loans called 'shinkin banks'. Only small and medium-sized companies are allowed to borrow funds from the shinkin banks, with loans being limited to one loan per customer [31]. In addition, the South African government established the Ministry of Small Business Development

in 2014, whose mission is to facilitate and promote the development of small businesses in the South African economy [25]. Furthermore, the government created the Small Enterprise Finance Agency (SEFA), whose mission is to offer finance to survivalist businesses and SMEs.

Researchers such as Brink, Cant and Ligthelm [28] and Bilal and Al Mqbali [22] also propose some guidelines which can be implemented to solve the challenges faced by SMEs. To address the issue of a lack of skills, they propose that governments should provide appropriate training programs for entrepreneurs. In light of this, the South African government has established colleges such as the Ekurhuleni Artisans and Skills Training Centre, in order to train individuals who can then establish and manage their own SMEs [32]. Taking an entrepreneurial action [33,34] and having an entrepreneurial mindset [35] could be other coping mechanisms that entrepreneurs should use to overcome challenges as they operate their businesses in the entrepreneurial ecosystem, especially in a time of crisis such as COVID-19.

Entrepreneurial action refers to “behaviour in response to a judgmental decision under uncertainty about a possible opportunity for profit” [34]. Entrepreneurs take actions to create value for themselves in the form of profits or to meet the needs of their customers; additionally, entrepreneurs are more likely than non-entrepreneurs to recognise and capitalise on opportunities [36]. While some situations, such as a crisis, may be viewed as a challenge, entrepreneurs could view them as opportunities. This means that when faced with a challenge of any kind, entrepreneurs can make business decisions with the intention of profiting. These decisions can be to diversify their businesses, enter new markets, change their business model, or identify new opportunities. This is what distinguishes entrepreneurs from non-entrepreneurs, as non-entrepreneurs may not be able to make such sound decisions in times of crisis or when confronted with challenges. Entrepreneurial mindset, on the other hand, refers to the “ability and willingness of individuals to rapidly sense, act, and mobilise in response to a judgmental decision under uncertainty about a possible opportunity” for gain [35]. As a result, in unprecedented times such as the ‘*covidian*’ era, entrepreneurs can use their entrepreneurial mindset to make critical business decisions to stay in business, as opposed to novice entrepreneurs who may lack an entrepreneurial mindset [37].

During global disruptions such as COVID-19, businesses must strive to cope with the emerging threats, adapt to turbulent environments, change processes, and still meet the needs of stakeholders [29]. SMEs, to maintain their position in a competitive environment, have to display higher levels of innovation. The same can be said with regards to SMEs staying operational during COVID-19. More specifically, technological changes can have a positive impact on economic efficiency while providing a competitive advantage in markets [38]. When compared to its larger counterparts, SMEs have been found to provide the most conducive environment for innovation and entrepreneurship [38,39]. SMEs that were previously found to be lacking in their use of digital technology have now adopted and are utilising digital technology as a means of dealing with COVID-19 disruptions [3]. This highlights the importance of innovation in the business environment. While innovation could be a source of income [38], it could also be a very difficult task for some SMEs since they do not have the financial capability for such innovations. Based on a systematic scoping review, Giancotti and Mauro [29] have highlighted some resilient strategies and capabilities that SMEs can employ to cope, particularly during crisis periods. Some of these strategies and capabilities are adaptability, agility, innovativeness, positivity, resourcefulness, collaboration (partnerships and networking) and flexibility. In light of COVID-19, it is possible that some SMEs have closed down because their owners did not employ such strategies or because they lacked the necessary capabilities.

Prior research holds that continuous advertising is a strategy for updating customers on new products, promoting repeat business, publicising new products and services and attracting new customers [40,41]. As a result, advertising can be viewed as a coping mechanism for businesses to survive in a competitive environment. A reduction in

cost (cost of goods and services) could increase profits and annual income of a business, but this may not be the case with all businesses operating in a given market [42]. While this can be viewed as a coping mechanism, it could also be a setback for some SMEs because a reduction in price may not necessarily increase the SMEs net profit margin [43].

2.4. SMEs and COVID-19 in the South Africa Entrepreneurial Ecosystem

SMEs play an important role in world economies including South Africa, because they create jobs, reduce the inequality gap and contribute to the country's economic growth. SMEs have been defined differently by scholars, implying a lack of consensus on its definition. This is because SMEs exist in different sizes and forms across different parts of the world. In South Africa, small businesses range from street trading businesses, backyard manufacturing services, and home-based enterprises [25]. A small business is defined by the National Small Business Amendment Act 29 of 2004 [44] as "a separate and distinct business entity, including co-operative enterprises and non-governmental organizations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or sub-sector of the economy". These SMEs in the South African entrepreneurial ecosystem have been heavily impacted by COVID-19.

Starting in China in December 2019, the contagious COVID-19 infected individuals in Wuhan. Initially, the virus was thought to have originated in Wuhan's live animal markets but there has since been some debate about the disease's precise origins. As a result of the virus's spread, the Chinese government closed down Wuhan and prohibited residents from leaving their homes-except for essential services [15]. The virus soon spread to other parts of the world, including South Africa. After a few weeks, specifically, on 23 March 2020, the South African government declared that the country would go into a 21-day lockdown to stop the spread of the virus. The government issued an Alert Level 5 warning for people to stay at home. Most businesses were ordered to close except essential service providers. In this light, the Minister of Cooperative Governance and Traditional Affairs ruled out exemptions and restrictions that would have allowed SMEs that provide essential goods and services to apply for and obtain a permit to operate during the lockdowns. The lockdown regulations were relaxed by August 2020 to Alert Level 2. Despite this relaxation, it was difficult for some businesses to start operations again and other businesses had closed their doors permanently, most especially SMEs and SMMEs. Though some businesses were forced to close their doors as a result of COVID-19, other individuals took advantage of market opportunities brought about by the pandemic. This includes the production and sale of masks and hand sanitisers; implying that some businesses simply changed their business model and product offerings to cope with the changes in the market.

The South African government introduced a business relief scheme to keep businesses afloat. However, businesses owned by immigrants were barred from applying for the fund, and only a few businesses owned by locals benefited from it; most formal businesses benefitted from the support scheme provided by the government. Due to their informal nature and bottlenecks in the small business development department, the majority of SMEs were not eligible for the relief fund. Empirical evidence also suggests that Black-owned SMEs were not very successful in taking advantage of the government's support scheme, resulting in the closure of their businesses [45]. In early 2021, the lockdown (which was now on Alert Level 1) was adjusted to Alert Level 4 again, making it impossible for SMEs to carry on with their activities. South Africa stands out as the country with the longest lockdown in the world. The prolonged lockdown has forced SMEs in the South African entrepreneurial ecosystem, particularly those operating informally, to close down completely. If these SMEs are not present, the entrepreneurial ecosystem cannot function optimally, since SMEs are the building blocks of the entrepreneurial ecosystem.

2.5. Entrepreneurial Ecosystems and COVID-19

While the entrepreneurial ecosystem has attracted the interest of scholars [8,10–12,15] recently, it has also become increasingly popular in both business and policy domains.

This is as a result of publications such as *Startup Communities* by Feld [46], first published in 2012, and the research by Isenberg [13] in the *Harvard Business Review*. Stam and Spigel [47] posit that these publications are of great importance since they inform policymakers and entrepreneurs on the role of community and its culture in the entrepreneurship process. Despite its popularity and the fact that it is the most discussed topic in international business, the entrepreneurial ecosystem lacks a definitive consensus, mainly due to so many scholars having defined it differently. For instance, while Spigel [48] defines it as “combinations of social, political, economic, and cultural elements within a region that support the development and growth of innovative start-ups and encourage nascent entrepreneurs and other actors to take the risks of starting, funding, and otherwise assisting high-risk ventures”, Shwetzter, et al. [49] posit that it is “a set of interconnected entrepreneurial actors, organisations, institutions, and entrepreneurial processes, which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment, involving a dynamic and systemic nature, within a supportive environment”; hence the lack of a definitive consensus.

These different definitions could be attributed to the fact that entrepreneurial ecosystems emerged from different origins or because ecosystems vary and are studied within different research designs [50]. As with Shane and Venkataraman [51], who contend that entrepreneurship cannot exist without entrepreneurial opportunities, Stam and van de Ven [12] posit that the entrepreneurial ecosystem is composed of two separate words; entrepreneurial and ecosystem. The first component *entrepreneurial* refers to “situations in which new goods, services, raw materials, and organisational methods can be introduced and sold at a higher price than their cost of production” [51]. The second component, *ecosystem*, is a word that emerged from biology and describes the interaction of living organisms and their environment. Relating this biological phenomenon to business research, the entrepreneurial ecosystem is the surroundings, and entrepreneurs and their businesses are living organisms. This biological perspective explains the complex relationships and interdependencies that shape entrepreneurial ecosystems [52]. As a result, the entrepreneurial ecosystem represents a type of social interaction in an environment that occurs continuously. It also represents an understanding of a set of factors that are essential for entrepreneurship in a defined geographical location [53].

As SMEs exist within an entrepreneurial ecosystem, the ecosystem perspective outlines the interactive and collaborative systems that can affect business interdependence. In line with this assertion, Rashid and Ratten [14] posit that “entrepreneurial ecosystems have affected many small businesses particularly during the COVID-19 pandemic as surviving in the new economy is tough”. COVID-19 has changed not only people’s lives but also the general business environment [16]. The domains of an entrepreneurial ecosystem identified by Isenberg [13] are of great importance during crisis periods such as the *covidian* era. Components of an entrepreneurial ecosystem cannot thrive in isolation; they must remain interconnected, especially during times of crisis, to enable entrepreneurial activities. This is because entrepreneurial ecosystems provide resources to entrepreneurs within the ecosystem [14]. In these unprecedented times, there is a need for ongoing entrepreneurial activities to meet the market demand. Rashid and Ratten [14] report that today, environmental conditions are both negative and positive; as a result, entrepreneurial ecosystems facilitate and provide the necessary support required by ecosystem actors. In line with this assertion, Ratten [16] emphasises that the entrepreneurial ecosystem as a business environment is a critical way of understanding the effects of COVID-19 now and in the future regarding entrepreneurial activities. Entrepreneurial ecosystems are dynamic in nature and as such, they may change based on environmental conditions, such as COVID-19 [16].

In South Africa, the domains of an entrepreneurial ecosystem as identified by Isenberg [13] have manifested themselves, most especially during the *covidian* period. As mentioned earlier, to combat the spread of the virus, the government imposed a lockdown divided into Alert Levels (levels 1–5). Furthermore, essential service providers and businesses were permitted to operate under clearly defined rules and regulations. In order

to control the spread of the virus, the government imposed curfews, social distancing, and the wearing of masks as new policies. Finance became a major issue for businesses in the South African entrepreneurial ecosystem, prompting the introduction of loan facilities from both the private and public sectors to help businesses overcome financial difficulties. For support, the government introduced the support scheme to keep businesses afloat, but many businesses were ineligible due to their informal nature, information asymmetry, long waiting times to process applications, and the fact that they were immigrant-owned. In terms of culture, while most businesses have been forced to close due to ongoing COVID-19, there has also been a corresponding introduction of new businesses, thus supporting the entrepreneurial culture, action, and mindset that characterises the South African entrepreneurial ecosystem. To meet changing market trends, new businesses have emerged, such as the production of face masks and hand sanitisers, and restaurants have shifted their business models from sit-in to drive-through and delivery. This suggests that the necessary skills (in particular, human capital) are available in the South African entrepreneurial ecosystem.

2.6. Resource-Based View Theory

The resource-based view was initially developed as a theory in the field of strategic management. It has formed an integrating ground for most of the research that has been conducted on strategic human resource management over the last decades [54,55]. It is as a result of this assertion that this theory is continually regarded as one of the most influential theories in the field of management [56]. The theory focuses on the relationship which exists between a firm's resources, its capabilities, and its competitive advantage [57]. The central point of the resource-based view is the fact "that organisational advantages are enhanced to the extent that an organisation possesses strategic resources" [56]. West and Noel [58] posit that the theory seeks to identify essential organisational factors which generate a sustainable competitive advantage for both start-up performance and long-term growth. In this regard, competitive advantage stems from the firm's entrepreneurial or managerial knowledge. In an organisation, management has the responsibility to identify, evaluate, manage and distribute resources to all departments of the organisation, based on perceived entrepreneurial opportunities or the changes in the market.

Resources may include human, physical, and organisational capital [59]. Resources could also be tangible resources, for example, buildings and human capital, and intangible resources for example reputation, patent, and goodwill [60]. As such, the resource-based approach is critical in assisting an organisation to learn to develop structures and systems to transform itself to become more adaptive and responsive to changes in the business environment; for instance, the changes resulting from the ongoing pandemic. The resource-based view is relevant in entrepreneurial ecosystems research because the general ecosystem can identify and distribute resources to system components, including SMEs, based on the interconnectedness of ecosystem components. To increase its performance and stay sustainable, the entrepreneurial ecosystem must identify and distribute scarce resources within the ecosystem to its components, just as a firm's management is responsible for identifying and distributing resources to different departments to maintain a competitive advantage over its competitors. This relates to Rashid and Ratten [14], who report that environmental conditions are both negative and positive during times such as the COVID-19 period; as a result, entrepreneurial ecosystems facilitate and provide the necessary support required by ecosystem actors.

3. Materials and Methods

As stated earlier, a qualitative research design was used for the study since qualitative research focuses on a specific situation, individuals and words and not numbers, thereby enabling an in-depth understanding of a phenomenon under exploration [61]. This study aimed to explore the COVID-19 challenges and coping mechanisms for SMEs in the South African entrepreneurial ecosystem. As such, a generic qualitative research design was, therefore, appropriate to obtain detailed and in-depth information from the interview

participants [62]. This research design is used for the study since it assists the researchers in articulating the participants' perspectives [63].

The rationale for using a generic qualitative data collection method was because it could enable the researchers to understand the opinions, beliefs, perceptions and experiences of interview participants on the topic under exploration [64–66]. As a result, the researchers chose generic qualitative research for this study because it could allow them to understand the opinions, perceptions and experiences of SME owners regarding COVID-19 challenges and coping mechanisms in the South African entrepreneurial ecosystem. Merriam [67] posits that most research in disciplines such as business uses a generic qualitative research design because such research cannot be classified as grounded theory, ethnography, case study, or phenomenological. The researchers therefore adopted the generic qualitative designed based on the fact that the data collection method could not suit the other qualitative research designs [67]. Also, the generic qualitative design was suitable for the study since it is the least theoretical of the qualitative research designs.

3.1. Sampling

The study was conducted in South Africa (a developing country), which has been heavily impacted by COVID-19. South Africa has approximately 2.25 million SMEs, 1.5 million of which are informal, primarily in the trade and accommodation sectors. These SMEs are dispersed unevenly across South Africa. The unit of analysis for the study was SMEs in the South Africa entrepreneurial ecosystem located in various municipal areas, while the units of observation for the study were the interview participants who are the owners of the SMEs. Scholars [68–70] have proposed that a minimum sample size of 12 participants is required for qualitative research to achieve data saturation. As a result, a sample size of 15 participants was deemed adequate for the study. Consequently, purposive sampling was used to select 15 SME owners located in the South African entrepreneurial ecosystem to participate in the study [63,71]. The rationale for selecting the SMEs owners is because their personal experiences with battling COVID-19 rules and regulations could allow them to provide detailed and rich information for the study. Purposive sampling was therefore suitable for the study as it involves the judgemental and deliberate selection of interview participants who could provide detailed and in-depth information on the phenomenon being studied [72]. The summary of the samples in the study is presented in Table 1.

Table 1. Profile of samples for the study.

Pseudonym	Gender	Operation Years	Business Type	Formal or Informal
P1	Female	3	Airport car parking	Formal
P2	Male	8	Tenders contractor	Formal
P3	Male	7	Airport parking services	Formal
P4	Male	7	Transport	Informal
P5	Male	4	Construction	Informal
P6	Male	5	Photo studio	Formal
P7	Male	5	Scrapyard	Formal
P8	Male	6	Graphic designing	Informal
P9	Female	6	Cosmetics	Formal
P10	Female	3	Cleaning services	Formal
P11	Male	8	Cybercafe	Informal
P12	Male	7	Restaurant	Informal
P13	Female	14	Beauty Salon	Informal
P14	Male	12	Corporate training	Formal
P15	Male	6	Construction	Formal

3.2. Data Collection and Analysis

Semi-structured interviews [73–75] were used to collect data for the study. Semi-structured interviews were appropriate for the study because they allowed for flexibility during the interviews, permitting respondents to express their views, opinions, and ex-

periences more freely [76]. Interview questions for the study consisted of open-ended questions. This allowed the researchers to gain a better understanding of the research topic. A discussion guide was prepared for the study, which aimed at ensuring that interviews were conducted systematically. Before the actual interviews were conducted, a pilot test was conducted with one SME owner to confirm the suitability of the research questions and the actual time required to complete each interview. Ethical clearance with protocol number EMS225/21 was approved for the data collection in November 2021. Data for the study was collected through face-to-face interviews and via Google Meet and Microsoft Teams during November 2021. The recordings from the interviews were transcribed verbatim. Transcriptions were reread while listening to the recordings to ensure that there was no discrepancy between the transcripts and recordings.

The collected data was analysed using thematic analysis, which is a method of data analysis that involves identifying, organising, and reporting themes identified from data sets [77,78]. Thematic analysis was chosen for the study since (i) it provides an entry point into qualitative research by teaching researchers how to systematically code and analyse qualitative data linked to research questions [77] and (ii) it could enable the researchers to identify patterns within small and large data sets based on the opinions, perceptions and lived experiences of the interview participants [78]. The transcribed interviews were perused and inductive codes were created during the process [79]. Deductive codes drawn from the literature were then combined with the inductive codes from the interviews. A final codes list was compiled, and data extracts from interview transcripts were linked to these codes to identify themes and subthemes for the study. The themes identified were then analysed and linked to the research questions as presented on Table 2.

Table 2. Summary of research questions, themes, and subthemes for the study.

Research Question	Main Theme	Sub-Theme	Frequency
What are the COVID-19 challenges faced by SMEs in the South African entrepreneurial ecosystem?	COVID-19 challenges for SMEs	Lockdown restrictions	15
		Loss of customers	13
		Lack of government support	12
		Unable to pay rent	7
		Unable to pay employees	6
		Reduction in income	3
		Closure of airports	3
		No request for work quotations	2
		Lack of raw materials	2
What are the COVID-19 coping mechanisms of SMEs in the South African entrepreneurial ecosystem?	COVID-19 coping mechanisms for SMEs	Having a positive entrepreneurial mindset	7
		Improved advertising and communication efforts	4
		Networking	3
		Identification of new entrepreneurial opportunities	3
		Change in business model	3
		Family support	2
		Retrenched employees	1
		Reduced service prices	1

4. Results

The study identified two main themes, which were then subdivided. The first theme was the challenges faced by SMEs in the South African entrepreneurial ecosystem, while the second theme was the coping mechanisms employed by SMEs. Table 2 depicts the themes and subthemes identified in the research.

4.1. Theme 1: Challenges Faced by SMEs as a Result of COVID-19

4.1.1. Lockdown Restrictions

Lockdown restrictions were identified as a major challenge that has impacted all participants' businesses since the start of COVID-19. Participants expressed regret that the first lockdown imposed by the South African government (which lasted for 6 months) had severely harmed their businesses and personal lives. This is even though there have been several other lockdowns since the first lockdown on 27 March 2020. One participant said that:

Yeah, the lockdown, it impacted us quite heavily. It was basically, first we made nothing; our business is related to travels. People traveling, so if people aren't allowed to travel in and out, our business is affected by that as well. The more, there is restricted travel, the more basically we don't have work. We had no business at all during the first lockdown; we only started having some business when the lockdown was relaxed to alert level 4. The restrictions which also made people start working from home meant we had no much business again, as it was not the case before COVID-19 (P3).

4.1.2. Loss of Customers and Clients

Prior evidence suggests that the customer is king, implying that if there are no customers, there will be no business. According to the findings, 13 participants lamented the loss of customers as a result of COVID-19, implying that they had little or no business. One participant said:

Also, the clients were in fear, everyone was in fear, no one wanted to be in contact with anyone, mostly because they [the employees] travelled through public transport to get there [to see clients]. That's another issue. The public transport started not being as regular as it was before. So the employees would get to work very late. So, some clients cancelled their contracts with us. A lot of them actually about 60, to 70% of them, didn't come back after the lockdown, the first lockdown (P10).

4.1.3. Lack of Government Support

This study's findings indicated that lack of government support was a major challenge faced by the majority of the businesses. Three participants however posited that they did not apply for government support because they did not need it. Regarding lack of government support, one participant said:

Yes, I did apply for the support scheme but I did not get any response from the government. There was an application for SMEs which I did submit but there was no feedback. They did not even come to say my business did not qualify or that my application was declined (P14).

4.1.4. Unable to Pay Rent and Employees

Some businesses were run by one person, while others had a few employees. Furthermore, some businesses were run from the owners' homes, while others were run from rented premises, implying that the owners had to pay rent as well as pay their employees. COVID-19 posed a significant challenge for some business owners, particularly those who operated from rented premises. One participant posited that:

One of them was that I had to go home because I did not have any money to pay rents for the business as a result of COVID-19 and for myself. So I had to go back to the location (P1).

Relating to the payment of employees, one participant said:

We were not able to pay workers on time because there was no business. So we got people to work on a temporal basis. So if they work, they get a small amount depending on the hours they put it. So it was really a major challenge for us. This was not the case before COVID-19 (P3).

4.1.5. Reduction in Income

The goal of any business is to make profits, which cannot be achieved if the capital invested does not yield any returns. Respondents stated that they were losing money and were on the verge of going out of business. The following quotes support this:

There was, I would say it's almost 100% decrease in income. There's no income at all. Actually at the time, I didn't have a car [had any clients car] and maybe if I had maybe a client's car, it could be better because I would be making more money since the client will be away. But unfortunately, with me all my cars were out (P1).

Yes, a lot, a lot of decrease in income, over 50% of my business has collapsed (P2).

Loss of revenue in the sense that you still have customers but they are not doing any training, or because they sent us an email to cancel the training contract we had with them for the whole year (P14).

4.1.6. Closure of Airports

Another significant challenge identified by participants was the closure of airports. Some participants primarily conducted their business on airport grounds, while others were more akin to specialised contractors performing airport repairs. As a result, the airport closures and lockdown meant that they had no business. One participant noted that:

Firstly, because of the lockdown, we were not able to work so it was just basically a standstill okay, so there was no sort of income. So yeah, especially because we work in the airport and the airports were closed, yeah, so the first closure of the airport during the first lockdown was a disaster for me (P1).

4.1.7. No Request for Work Quotations

Some of the businesses in the sample specialised in government and other private sector tenders. As a result of COVID-19, these businesses were impacted heavily. Businesses that submitted quotations for jobs almost every month have been unable to submit any quotations since the beginning of COVID-19. The following quote supports this:

Yes, it [COVID-19] has affected my business a lot. I do supply and maintenance in most government departments like the police, home affairs, even schools but everything now is at standstill. We are not getting requests for quotations. Everything is just a standstill. So it has affected me a lot. Personally, my business is just stagnant now (P2).

4.1.8. Lack of Raw Materials

Surprisingly, one participant stated that COVID-19 was a breakthrough for their business, as they were out of stock of certain items for the first time since their establishment. They are an essential service provider and as such were allowed to operate during the lockdown. In addition, the fact that they own an online store gave them an additional advantage over their competitors who did not have an online presence. Therefore, their major challenge was the lack of raw materials to meet the demand for their products:

Yes, we could not produce anymore. So for the first time, we were doing very well so much so that we were out of stock and because we couldn't get raw material in the country [due to lock down and closure of airports], we couldn't get packaging in the country. We were stuck for a while without products, it was good and bad (P9).

4.2. Theme 2: COVID-19 Coping Mechanisms for SMEs

4.2.1. Having a Positive Entrepreneurial Mindset

Respondents identified entrepreneurial mindset, which according to [37] refers to the “constellation of motives, skills, and thought processes that distinguish entrepreneurs from non-entrepreneurs” as their coping mechanism. Despite the uncertainty and difficulties that plagued all businesses, some SMEs remained optimistic, hoping that the situation would improve. One participant posited that:

I stayed positive and I was like, I know that the lockdown will end and the economy will open, and then we will start to do something and exactly like that, it started, and like now, I am even working on some small projects right now, some people ask us to make them invitations and some videos. So I stayed positive (P8).

4.2.2. Improved Advertising and Communication

Some respondents had to constantly advertise their services to stay in business. They also had to contact and update their clients via email about whether or not they were open for business. One participant said that:

... it was so difficult that we had to advertise like trying to contact customers by email and telephone to convince them not to give up on coming for our services, coming to the business place or bringing some work. We even had to contact clients and ask them to send their work through WhatsApp, then we would call them to come for collection when it is ready (P6).

4.2.3. Networking

Businesses are more likely to succeed when they network with other businesses to share ideas that can facilitate their growth. The findings indicated that some businesses used networking as a strategy to stay functional, even with the difficulties that came with COVID-19. Two participants mentioned that:

Yes, so I kept in touch through networks with other businesses, that's how I knew who was working and who is not [which business was operating or not] and when I came back, I think there were other businesses, that were still not back so who would maybe give me their clients at that time, until they came back as well [used networking to exchange clients] (P1).

So we also networked with other businesses in our same line of business to get clients and give them clients, in situations where we were not available (P3).

4.2.4. Identification of New Opportunities

The series of lockdowns implemented by governments, including the South African government, harmed SMEs such as those listed in Table 2. Some businesses had to temporarily close down due to an inability to pay rent or employees. Being entrepreneurs, with their uncanny ability to think quickly and creatively, enabled some participants to identify and commercialise new opportunities. Some of these opportunities included; engaging in agricultural activities and working for Mr Delivery, as evidenced by the following quotations.

So when the first lockdown started, I started an agricultural business, which was after I could not pay rent and relocated to the village. I planted spinach, potatoes, and tomatoes for sale. So that's how I survive for the first six months of lockdown (P1).

So after the first lockdown, things were very difficult for me. I was unable to pay rent for my business. So I got a job with Mr Delivery as a delivery guy. So I used my private car in delivering food around Kempton Park. I made a lot of money, most especially the tips in Glen Marais, with this, I was able to pay my shop's rent (P11).

4.2.5. Change in Business Model

Participants stated that because business was slow and they had lost a lot of customers, they needed to change their business model to include services that were in demand as well as services that could be offered while adhering to the COVID-19 rules and regulations. According to one participant, they had to change their business model to include an airport shuttle. This participant emphasised that:

We did shuttling [airport shuttle] as well at this stage, if people need to go somewhere we provided shuttle services to them, but this was not in our business model before

COVID-19, so this was or is one of the strategies that we have been using after the first 6 months of lockdown (P3).

So the first thing, we being a training business, we moved into virtual, so instead of going in physically and having people in the classroom, we then found a way to convert our training into a virtual component (P14).

Another participant who also changed their business model to include new services pointed out that:

Yes, the upholstery services, windows cleaning services, and disinfection services that started during COVID. So we tried to implement the services that limit contact in order to respect COVID-19 rules and regulations (P10).

4.2.6. Family Support

Most small businesses receive start-up capital from friends and family because their novelty and lack of collateral make it difficult to obtain loans from financial institutions. Family support was identified by participants as a specific coping mechanism for their business during COVID-19. One participant said that:

Almost all the support you need, you get it from your family, because when you can't get funding, when you cannot get anybody to whatever, your family will come around. So in my case, my children are young boys, so they really use social media in studying how the economy was evolving and they were very helpful in terms of getting us to be compliant during COVID-19 and with COVID-19 rules and regulations (P9).

4.2.7. Retrenched Employees

COVID-19 made it difficult for some businesses to make any profits; as a result, businesses that paid their employees monthly before COVID-19 were unable to pay their salaries. Therefore, to reduce costs, some businesses had to retrench some of their employees. One participant said:

... we had to lay off some employees; we only retained the person who needs to be in the office physically and two others on a contract basis. So we only pay them per the service they provide (P14).

4.2.8. Reduced Service Prices

A participant claimed that the only way for his business to cope was for him to reduce the prices of the different services he was offering without compromising on the quality of the service. This was also a strategy for his business to get more clients. This is supported by the following quote:

So due to the lockdown, we were not getting any requests for quotations and when I got a call from a client or someone who needed my services, I would charge them less compared to the normal service price. So when I charge less and provide a quality service, they will recommend my services to other people. So that's how I have been coping since the first hard lockdown (P5).

5. Discussion

The overall aim of this study was to explore the COVID-19 challenges and coping mechanisms for SMEs in the South African entrepreneurial ecosystem. Figure 1 is a summary of the COVID-19 challenges and coping mechanisms for SMEs in the South African entrepreneurial ecosystem, as derived from Table 2. The size of the circles in Figure 1 represents the frequency with which respondents mentioned each COVID-19 challenge and coping mechanism. Lockdown restrictions were the most mentioned challenge in the study with a frequency of 15, while no request for work quotations was the least mentioned challenge with a frequency of two. Regarding COVID-19 coping mechanisms for SMEs, having a positive entrepreneurial mindset was the most mentioned with a frequency of

seven, while reduction of service prices and retrenchment of employees were the least mentioned, each with a frequency of one respectively.

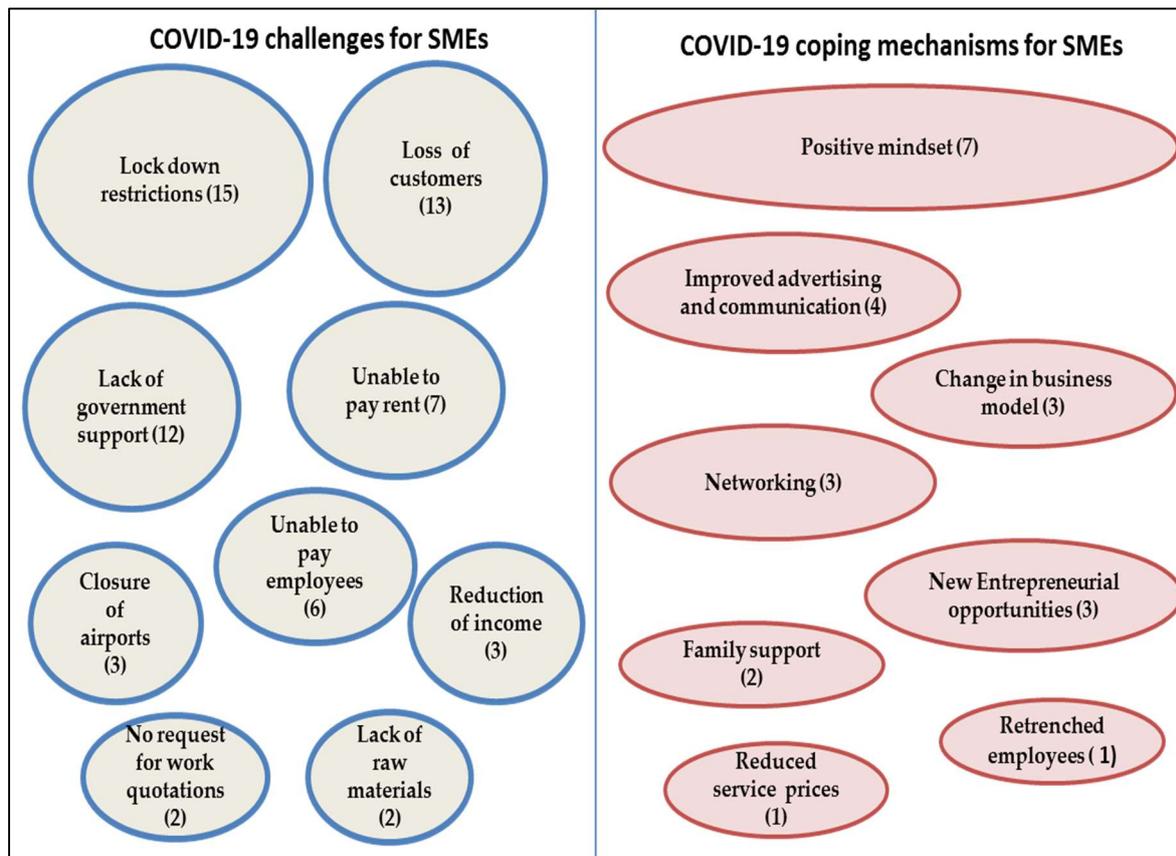


Figure 1. Summary of the COVID-19 challenges and coping mechanisms for SMEs and frequencies from respondents.

The findings indicate that COVID-19 had an impact on all of the SMEs that took part in the study in some way. The series of lockdowns implemented by the government to reduce the spread of the virus has been a major challenge for all businesses, with the worst being the first lockdown implemented. All other difficulties encountered by SMEs were the result of a series of lockdowns. The findings also show that COVID-19 had a different impact on each SME in South Africa's entrepreneurial ecosystem. This is similar to the findings of Aderemi, et al. [80] who reported that SMEs in their survey were impacted differently by COVID-19. While some SMEs lost customers, others gained new ones; this is supported by the respondents' claims. While some businesses struggled and continue to struggle, COVID-19 was a breakthrough for others. This is supported by respondents (such as P9) who stated that, since the inception of their business, the *covidian* era was the first time that demand for their product exceeded supply. Still, in support of the breakthrough, another respondent (P15) who had been in business for six years, stated that his income before COVID-19 was six million rands, but it is now twenty million rands. These assertions, therefore, support the fact that COVID-19 was a breakthrough for some businesses. This confirms the findings of Gregurec, Tomičić Furjan and Tomičić-Pupek [3] who posited that due to the changes in the business environment such as lockdowns, some industries made more profits since there was high demand for their products.

Since SMEs operate in a variety of industries (for example, construction, cosmetics, travel, and tourism) and locations, their requirements differ because they are accessed differently in terms of government rules and regulations. Some SMEs in the study did not apply for government assistance because they did not see the need for it. They argued that

their businesses performed well during the *covidian* era in comparison to their performance before the pandemic. The findings also show that some SMEs required government assistance but did not apply because they were ineligible, while others did not apply due to information asymmetry or a lack of knowledge about where to apply. Another participant who required government assistance and applied for it did not even receive a response. Networking has been identified as a coping mechanism for all businesses, no matter how big or small. This is due to the fact that networks (such as family, business, and social networks) provide businesses with resources such as information, knowledge, and access to expert advice, all of which can help any business grow. Surprisingly, some of the study's SMEs are not yet members of any networks.

When compared to the challenges that businesses faced before COVID-19, the COVID-19 challenges are somewhat different, as illustrated in Figure 1. Participants, for example, did not lament the lack of access to credit, which is a frequently mentioned challenge by SMEs in entrepreneurial ecosystems [21–24]. Lack of government support [19,28] is a recurring challenge for SMEs both before and during the pandemic. As a result, while the daily challenges for SMEs are similar to those faced before COVID-19, they are also distinct. For example, airport closures, a lack of raw materials, no request for work quotations, and difficulties in paying employees are all major challenges identified by participants that differ in some way from the challenges that SMEs typically face.

In terms of coping mechanisms, all SMEs in the sample approached COVID-19 challenges differently, with having a positive entrepreneurial mindset being the most frequently mentioned coping mechanism. Respondents with a positive entrepreneurial mindset were able to stay calm and identify the opportunities that came with the pandemic, whereas others simply hoped that business activities would resume. The findings also suggest that some SMEs took entrepreneurial action to cope with the uncertainty brought about by COVID-19 [33,36].

The findings back up previous research [40,41], as some SME owners (four participants) mentioned during interviews that they creatively improved their advertising and communication, primarily to keep their customers up to date on the status of their business. Continual advertising and communication with these clients during such crisis periods provide businesses with a competitive advantage over those who fail or limit their advertising efforts. Also, the findings showed that one participant reduced the service price without compromising on the quality of the service while another participant retrenched employees as a strategy to stay operational during the *covidian* period. It can be said that the participant focused his pricing on the current situation in the market and current customers, rather than on the competitors. This supports the findings of De Toni, Milan, Saciloto and Larentis [43] on the importance of focusing the price more on potential and current customers than on competitors only. Three participants described how networking with other businesses gave them access to new customers, resulting in increased sales thus supporting Broad [81]'s claim that networking reduces cost while increasing sales.

COVID-19 has exposed flaws in the operations and business models of SMEs [3]. The expositions of these flaws have given SMEs owners the opportunity to rethink their business model. It is possible that some SMEs might have shut down because of flaws in their business models, but due to the entrepreneurial spirit and innovative nature of other SME owners, they were able to strategise and change their business models to focus on offering that could benefit the customers and themselves (SME owners). Participants stated that they had to change their business model in order to stay operational. As Gregurec, Tomičić Furjan and Tomičić-Pupek [3] states that the global "COVID-19 pandemic is a passive entity because organisations have no influence on its appearance or spread; nevertheless, they have to act accordingly and rethink (or rebuild) their business models". Therefore, these participants acted accordingly by rebuilding their business model to cope in the *covidian* era.

When compared to SMEs coping mechanisms prior to COVID-19, the identified mechanism may not be novel, but the speed with which they were adopted or implemented

supports the definition of entrepreneurial action by McMullen and Shepherd [34], namely “behaviour in response to a judgmental decision under uncertainty about a possible opportunity for profit”. As a result, it can be concluded that SMEs adopted the coping mechanisms in Figure 1 as a means of dealing with daily COVID-19 challenges. Again, because SMEs differ depending on the sectors in which they operate and their location, their coping mechanisms differ as well. This is supported by the differences in the coping mechanisms of the SMEs that took part in the study.

5.1. Managerial and Practical Implications

Since the findings indicated that a majority of the SMEs did not network with similar businesses to stay operational, it is recommended that businesses network with one another, particularly during times of crisis, in order to remain operational. Since e-commerce may be the future of all businesses, small and large, businesses are encouraged to establish themselves online. Government support for businesses in times of crisis should not only be in financial terms. Government incubation agents should meet with businesses one-on-one to understand their problems and offer solutions. This is practically possible if SMEs register with incubation centres and are assigned to incubation mentors who can mentor them as needed. Businesses, particularly in times of crisis, are encouraged to be proactive and innovative. According to the interviews, most businesses suffered as a result of the owners’ lack of creativity and foresight (lack of entrepreneurial mindset and the ability to take an entrepreneurial action). Some participants also stated that their business is doing well in comparison to how it was doing before COVID-19, which could be attributed to their creativity and ability to take entrepreneurial action in unprecedented times.

The majority of businesses complained that they did not receive government assistance; this was due to their informal nature, as well as the fact that they did not meet the requirements to apply for such assistance. Two participants did not apply for the assistance—not only because their businesses were doing well but also because they were aware of the requirements for such financial assistance. As a result, it is recommended that all businesses adhere to the operating rules of an entrepreneurial ecosystem. It is recommended that SMEs should not only apply or wait for government support schemes during a crisis; they should seek loans from credit facilities as well. Finally, SMEs are advised to follow up when applying for funding or other forms of assistance, as one respondent stated that they applied for government assistance but did not receive a response. Perhaps the respondent should have received the funding if they had followed up on their application for government assistance.

5.2. Theoretical Implications

The plethora of research on the ongoing crisis consists of editorials, commentaries, and conceptual write-ups implying limited empirical evidence exists with regards to COVID-19 [1]. Also, there is limited research in terms of COVID-19 challenges and coping mechanisms for SMEs in the South African entrepreneurial ecosystem. Therefore, this study contributes to the scarce empirical evidence which exists on COVID-19 challenges and coping mechanisms for SMEs in the South African context and the world at large. Entrepreneurial ecosystem research, while taking the theoretical lens, focused on a single theory. As a result, Ratten [7] proposes that theories, such as the resource-based view, already have a substantial body of knowledge and contributions to the field of strategic management and as such could be used in grounding entrepreneurial ecosystems research. This study, therefore, is underpinned on the resource-based view as called for by Ratten [7], therefore advancing knowledge on the theory from the entrepreneurial ecosystems perspective.

5.3. Conclusions, Limitations and Directions for Future Research

This study set out to explore the COVID-19 challenges and coping mechanisms for SMEs in the South African entrepreneurial ecosystem. According to the findings, all SMEs, whether similar or distinct, face unique challenges, particularly during times of crisis.

In addition, these SMEs use a variety of coping mechanisms to address the challenges they face. This means that no two SMEs are alike. Even though they are in the same industry, their operations are not the same. Some industries have become more vulnerable than others during COVID-19. While some SMEs were forced to close for a period of time, others remained open due to their nature (essential service providers). This explains why some participants stated that they did not see the need for government assistance because they experienced higher demand and, as a result, higher profit during COVID-19 compared to previous years of operations.

No study is without limitations. The sample size of the study was limited to 15 participants. Future research in the same direction could increase the sample size to gain more insights on the COVID-19 challenges and coping mechanisms for SMEs in entrepreneurial ecosystems. Furthermore, the study employed a qualitative data collection method; future research could employ quantitative or mixed methods to obtain robust findings as well as to confirm or contradict the findings of this study. Given that COVID-19 has proven to be the new normal, future studies could be longitudinal, comparing the COVID-19 challenges and coping mechanisms for SMEs over time. This study only looked at SMEs; future research could look at COVID-19 challenges and coping mechanisms in large corporations to see if they differ or are similar to those in SMEs. This study was conducted in the context of the developing world; future research on the same phenomenon could conduct a cross-country comparison of COVID-19 challenges and coping mechanisms for SMEs in the developing and developed worlds to see if they are similar or different. Finally, this study could be replicated in the developed world context, to provide insights into whether the COVID-19 challenges and coping mechanisms for SMEs in a developing country's entrepreneurial ecosystem differ from those in a developed country.

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