Reviewing COVID-19 Literature on Business Management: What It Portends for Future Research?

Margarida Rodrigues 1, Mário Franco 1, Mário Franco 1, Nuno Sousa 2 and Rui Silva 2,*

1 CEFAGE-UBI Research Center, Department of Management and Economics, Universidade da Beira Interior, Estrada do Sineiro, 6200-209 Covilhã, Portugal; mmmrodrigues@sapo.pt (M.R.); mfranco@ubi.pt (M.F.)
2 CETRAD Research Center, Universidade de Trás-os-Montes e Alto Douro, 5000-801 Vila Real, Portugal; nsousa@utad.pt
* Correspondence: ruisilva@utad.pt

Abstract: Who could have imagined that the COVID-19 crisis would affect the whole world? This means that all aspects of society, in general, have felt the consequences of the measures imposed to reduce contagion. Firms, businesses, and their management had to be and must continue to be resilient, and entrepreneurs creative to overcome the present and future impacts of the pandemic, which will be long-lasting. This study aims to map the existing literature on the topic and identify emerging ones. To provide a robust response to this objective, qualitative methodology was adopted through content analysis of the selected documents and the use of MAXQDA software to analyze qualitative data. In addition, a descriptive analysis of the selected documents is presented. The results obtained show there is still a shortage of studies, principally empirical ones, addressing this subject, to complete existing knowledge and thereby contribute to understanding the effects of the virus on businesses and their management. The main contribution of this article lies in a first systematization and coding of the literature, to identify emerging topics for study by academics, the foremost agents of knowledge.

Keywords: COVID-19; crisis; business; management; responses

1. Introduction

On 11 March 2020, the World Health Organisation (WHO) announced that the world was facing a pandemic of coronavirus—COVID-19, due to its exponential spread [1]. Following this declaration, restrictive measures and lockdowns were introduced worldwide in an attempt to reduce the curve of contagion. However, by 29 June, 216 countries were affected by the pandemic, with almost 10,000,000 people infected and 500,000 deaths [2], revealing a dramatic evolution of the virus with a severe impact on public health, in addition to the major effect on economies everywhere associated with incalculable uncertainty. In this connection, Pacces and Weimer [3] proposed that the fight against COVID-19 is a marathon rather than a race, in which survival depends on how the exit from this crisis is dealt with. This means that “the virus may in fact be as contagious economically as it is medically” [4] (p. 1).

In these circumstances, a study by Açikgöz and Günay [5] on the economic impact of the pandemic concluded that this had serious, adverse effects on collaborators, clients, supply chains and financial markets, resulting in a global economic recession. However, the uncertainty regarding the end of the pandemic prevents a forecast of the scale of this recession which has caused changes in all domains [5]. Corroborating these arguments, Baldwin and Weder [4] consider that various questions related to the spread of economic damage are urgent and must be raised, particularly regarding its duration, the mechanisms of economic contagion, and mainly, how governments can act to mitigate this. No less importantly, the OECD [6] reported that it is crucial to ensure employment and firms’ economic viability, due to the fall in demand. This argument is also valid for small
and medium-sized enterprises (SMEs), which are hardest hit by the coronavirus crisis, since the majority were forced to close, reducing their liquidity flow and leading to their insolvency [7]. COVID-19 required governments to implement actions based on mitigation or suppression strategies, which implied drastic restrictions [8], with serious impacts on social life and the economy [9]. Corroborating these arguments, Facebook/OECD/World Bank [10] (p. 3) explained that “Small businesses are the unsung heroes of the global economy—creating jobs and growth in every country and helping to reduce poverty and income inequality. But they are facing the challenge of a lifetime. The COVID-19 pandemic isn’t just a public health emergency; it’s also an economic crisis that is hitting small and medium-sized businesses exceptionally hard.”

However, the lack of scientific knowledge about COVID-19 remains, particularly about how to manage the negative impacts on the economy caused by non-medical interventions [9], and so recovery from this crisis depends on how managers/business-people face up to it—as a threat or an opportunity—[8]. Previous research on crises has shown that countries, industries and firms have suffered significantly from the consequences of the global pandemic, due to the shock between supply and demand [8]. Previously, organizational crises and crisis management, and the associated constructs, were addressed by various authors [11–13]. Greiner [12] studied the relevant changes in the system and in parties regarding the crisis; Hills [14] investigated the time/moment of decision-making; Faulkner [15] studied the positive effects of crises in the field of innovation and identifying new markets; Elliott and McGuinness [16] highlighted the stakeholders involved in these processes and Coombs, Pfarrer et al. [17,18] the changes in the relations with these stakeholders in the post-crisis; Hale, Dulek and Hale [19] emphasized the financial and accounting perspectives and crisis management, while Baron, Harris and Elliott [20] underlined the importance of strategic responses to the crisis; Llampel et al., Veil [21,22] showed the effects of firms’ adaptation and learning and their liquidity in crisis situations; Brockner and Erika, Dane and Pratt [23,24] presented the crisis as an opportunity for more flexible work and open management. However, the lasting effects of COVID-19 on the economy depend on how the authorities, firms and families react to the changes caused by the disruption, and consequently, to the unavoidable recession, given that coronavirus has provoked a major fall in gross domestic product (GDP), the worst observed in the last 100 years [25]. Finally, a recent study found that it is essential to provide input on management methods to deal with the impacts of crises [26].

Given the scenario of uncertainty caused by this pandemic, scientific research has grown exponentially. However, the area of business and management has not produced systematic literature reviews [27], leaving a gap to be filled, at the time of redaction of this article. Atkeson [28] also concluded on the need for an economic analysis of the consequences provoked by the various stages of COVID-19 mitigation. Corroborating this line of thought, Moradian et al. [29] called for multi-disciplinary scientific studies, claiming that economists/managers can and must stress the need for firms to become more resilient, through strategies, operations and financial resilience. In these circumstances, there is a global gap in scientific research, in the area of business and management, among others, regarding the impacts caused by this virus in the short and long term [30,31]. So academic research from a management perspective is required [8].

In this context, this study aims to map the business literature from a management perspective, through a bibliometric literature review. To fulfill this aim, qualitative methodology was adopted through content analysis of the selected documents and use of MAXQDA software to analyze qualitative data. In addition, a descriptive analysis of the selected documents is presented. The design of this bibliometric research includes: co-words analysis, citation analysis, of journals with the highest impact and the intellectual structure of the literature [32]. The bibliometric research review provides a scientific mapping that offers knowledge on the quantitative and analytical structure of a knowledge base, besides, allowing its replication at any temporal moment, so it differs from the traditional systematic literature review [33]. Finally, the main contribution of the research lies in filling the gaps
identified, specifically the one mentioned by Haghani et al. [27], besides giving critical added value to a completely unknown subject in all its aspects and providing a range of pertinent possibilities for future research [34–40].

This introduction is followed by the methodology, the results obtained and their discussion, ending with the contributions, limitations and a future research agenda.

2. Methodology
2.1. Type of Literature Review

This study takes the form of documentary, descriptive and retrospective research, considering the knowledge produced up to the year 2020 on COVID-19 and the impact on business and management. This methodological strategy was chosen, as it would allow a summary of the available evidence and critical analysis of the subject. Carrying out this type of methodological analysis implies that the systematic literature review should be duly defined regarding its objectives and methodological procedures [41]. In other words, this type of review should include a methodological research design, showing the steps followed and the eligibility criteria used, to allow replication at any time. It should be transparent throughout all the stages [42] and thereby produce critical added value [36]. This critical compilation should involve a descriptive summary of the literature on the topic analyzed, identification of gaps and a future research agenda [36]. Specifically, this method is marked by transparency in data collection and in the criteria for classing documents as eligible [43]. The systematic review presented here is the result of a qualitative method, similar to the review published by Lopez-Morales [44]. Therefore, the systematic review allows rigorous, impartial and inclusive assessment of the literature [45].

2.2. Methodological Procedures

Among all the possible methods, the Prisma method was adopted. This consists of a set of items based on evidence to elaborate a systematic review, via a checklist and a flow diagram [45]. That flow diagram allowed the definition of a protocol with the eligibility criteria to carry out the systematic review, fundamental to obtain relevant, primary studies on the topic studied [46]. This method consists of 5 stages followed in this research, namely: (1) Definition of eligibility criteria; (2) Defining sources of information; (3) Selection of literature; (4) Data collection; and (5) Selection of data items [47]. Subsequently, content analysis of the final documents selected is shown, followed by categorization using MAXQDA to identify the occurrence of key-words used (TOP 10) in the final documents obtained from WoS and Scopus (through the Prisma method), which are considered units of meaning and allow establishing hierarchies and suppositions among the coded categories. This program is appropriate for the purpose of the study as a tool of qualitative analysis, frequently used in the area of social and human sciences, due to its capacity to generate outputs that help to support interpretative analyses [48]. This tool can also organize and graphically present correlations between the units of meaning resulting from the text-mining process [49].

2.3. Research Strategy and Systemizing of the Sample

The research methods adopted include the selection of studies from the main academic databases of reference, Web of Science (WoS) and Scopus, published in 2020 on the subject analyzed. The research strategy followed is shown in Table 1 with the research strings, the systematization filters and the eligibility criteria used for data collection, from the research design followed in this study (Figure 1) to determine the final database. The four strings (Table 1) used for the seriation of the documents resulted from the previous reading of articles on other economic and financial crises, highlighting the terms applied [11,19,20,22,50].
Table 1. Data collection and systematization.

| Item                      | Description                                                                                                      |
|---------------------------|-----------------------------------------------------------------------------------------------------------------|
| Research strings          | String 1: “COVID-19” or “coronavirus” or “corona” and “crisis management” or “corona crisis” or “famil* firm*” or “business”  |
|                           | String 2: “COVID-19” or “coronavirus” and “enterprise*” or “business” or “businesses” or “firm*” or “small business” or “small businesses” |
|                           | String 3: “COVID-19” or “coronavirus” and “employment” or “job” or “occupation” or “labor market” or “unemployment” |
|                           | String 4: “COVID-19” or “coronavirus” and “disruption of business” or “disruption of businesses” or “economic crisis” or “economic impact” or “financial crisis” or “financial impact” |

Online databases

| Period     | Web of Science (WoS) and Scopus |
|------------|---------------------------------|
| 2020       |                                 |

Area of research

| Language | Business and Management |
|----------|-------------------------|
| English  |                         |

Documents

| Date of search | Article and Review and editorial |
|----------------|----------------------------------|
| 19 June 2020   |                                  |

Figure 1. Research design adapted from [45–47].

Although Paez [51] argues that the inclusion of these documents is beneficial for systematic reviews (grey literature), there was direct and immediate exclusion of books, book chapters and procedures, where the full text might not be peer-reviewed and available online in the WoS and Scopus databases. The use of these two databases is justified by
allowing reduction of the margin of bias in journals indexed exclusively in one database [52] and their widespread use by the academic community [53]. Exclusive adoption of English is supported by the arguments of Deng [54], as these articles are peer-reviewed, besides being accepted by high-impact journals (SJR) [44]. The use of only two databases is also based on the argument of Guz and Rushchitsky [55], who state that these two databases are the most widely used in different scientific fields.

The dataset obtained was reviewed in three phases: (1) first, the titles and key-words were considered, involving the exclusion of duplicate articles and those not meeting the pre-defined criteria; (2) secondly, through reading of the abstracts, articles not meeting the inclusion criteria were eliminated. Finally, (3) data were extracted systematically from the eligible studies through content analysis, to be treated and analyzed by MAXQDA 18 software.

Based on the information shown in Table 1, Figure 1 presents the research design followed in this systematic literature review, according to the line of thought of Hadengue et al. [43] and the Prisma method [45,47], to proceed to mapping the topic analyzed and identifying gaps and future directions [36] arising at the present time, given the lack of knowledge of all the effects of the current pandemic on businesses and their management, besides the effects on health.

3. Qualitative Synthesis with Maxqda

The descriptive analysis of the 52 documents selected shows the journals, their impact factor (SJR) and country, among other aspects. The top 10 journals appear in Table 2.

Table 2. Journal publications (TOP 10).

| Journal                                      | N° of Publications | Journal Impact Factor Trend 2019 | Contributions by Country (2019) | Total Citations | Country of Journal |
|----------------------------------------------|-------------------|----------------------------------|---------------------------------|-----------------|-------------------|
| Asian Business & Management                  | 3                 | 2192                             | China                           | 330             | England           |
| International Journal of Production Research | 3                 | 4577                             | China                           | 21.419          | England           |
| Journal of Leadership Studies                | 3                 | Emerging Sources Citation Index (not included) |                                  |                 |                   |
| Tourism Geographies                          | 3                 | 3159                             | USA                             | 1.996           | England           |
| Applied Health Economics and Health Policy   | 2                 | 2442                             | England                         | 1.234           | Switzerland       |
| Contemporary EconomicPolicy                  | 2                 | 1087                             | USA                             | 1.063           | USA               |
| Industrial Marketing Management              | 2                 | 4695                             | USA                             | 11.205          | USA               |
| Journal of Business Research                 | 2                 | 4874                             | USA                             | 28.945          | USA               |
| Journal of Risk Research                     | 2                 | 1931                             | USA                             | 2.124           | England           |
| Small Business Economics                     | 2                 | 4803                             | USA                             | 8.307           | Netherlands       |
| Others                                       | 28                |                                  |                                 |                 |                   |
| Total                                        | 52                |                                  |                                 |                 |                   |

Table 2 shows the quality of journals publishing on the topic analyzed, highlighting the articles by He and Harris [56] and Sharma et al. [57] in Journal of Business Research, with an SJR of 4874. These authors address the COVID-19 pandemic and stress the importance of more research on the changes in business and social responsibility, respectively, at the theoretical and exploratory levels. From another perspective, researchers from China, England and the USA have done the most research on the current pandemic and the impact on business and management, generally focused on their own countries. There is a clear difference between the number of publications in the area of health and that of business and management, as of the 52 documents analyzed, 28 journals only published one article on such an important topic in combating the major economic recession experienced worldwide,
because as argued by El-Hani and Machado [58], there is a problematic dichotomy between health and economics, where the short-term impact on the economy due to lockdown is high, and so it is difficult to avoid long-term damage [25]. This dichotomy is shown by the database analyzed (N = 52) only including one empirical article about COVID-19 and the impact on firms in Europe, and the journal is not included in the top 10—[8]. These arguments were corroborated by Haghani et al. [27], who concluded that the area of business and management has not produced, for example, systematic reviews about this virus and its impacts on companies, and that it is important for researchers in these fields to stimulate the elaboration of research on organizational policies, for example [59], at a time when most academics are focusing their research on the impacts on health [60].

More important than the above description is the mapping and content analysis of the 52 documents, which will show the state-of-the-art on this topic, since the duration of the impacts will depend on how firms and families react to the recession and the disruption caused by COVID-19. This depends on the speed with which the necessary changes are faced in an uncertain environment [25].

In the first analysis by MAXQDA, we obtained the frequency of the words most used by researchers in the 52 documents (e.g., [57,61–66]). So, Table 3 allows understanding of the dynamics in the literature, where “crisis” and “covid” are clearly the terms most frequently used, (174) and (143), and with the greatest percentage of the text analyzed, (1, 87) and (1, 54) respectively.

Table 3. Top 10 of abstract terms.

| Word     | Word Length | Frequency | % of Text | Rank |
|----------|-------------|-----------|-----------|------|
| Crisis   | 6           | 174       | 1.87      | 1    |
| Covid    | 5           | 143       | 1.54      | 2    |
| Pandemic | 8           | 89        | 0.96      | 3    |
| Research | 8           | 76        | 0.82      | 4    |
| Business | 8           | 74        | 0.80      | 5    |
| Global   | 6           | 69        | 0.74      | 6    |
| Family   | 6           | 65        | 0.70      | 7    |
| Financial| 9           | 53        | 0.57      | 8    |
| Tourism  | 7           | 53        | 0.57      | 8    |
| Impact   | 6           | 47        | 0.51      | 10   |

Source: Adapted from MaxQDA.

The 52 documents analysed use quantitative ([65,67], qualitative [68,69] and exploratory [57,70] methodologies. Regarding the theoretical frameworks used in the final database, in most this was not identified, which is understandable given the lack of knowledge of all the impacts this virus may cause and for how long, and so it is argued that all these studies contributed to the Grounded Theory Approach [71], which is used when the intention is to study complex, little explored phenomena in the field of health, in empirical studies [72,73] and systematic reviews [74,75]. However, this could be convergent with the research presented in the 52 documents analyzed, since they aim to understand how COVID-19 affects the wide world of management and business in its various constructs, in both empirical [76,77] and conceptual [78,79] research. From another perspective, the 52 documents analyzed address various sub-topics related to COVID-19’s impacts on business and management, including the supply chain, management systems, small and medium-sized enterprises, the online factor, the pertinence of changes and others. The following paragraphs present a content summary of these documents, linked holistically.

The WHO’s declaration of a global pandemic, given the spread of COVID-19, generated a global, regional, national, political, social, economic and commercial crisis, characterized by disturbances, instability and uncertainties, but representing an opportunity for the accelerated spread of digital technology at the micro level and the intensive use of some resources [30]. Contributing to this uncertainty were some factors for the exponential growth of the pandemic crisis, which were identified by Collins, Florin and
Renn [80]: (a) the rate of contagion and the rapid enforcement of mitigation measures; (b) the reproduction ratio (R); (c) the health sector’s response capacity; (d) the State’s role in the response to COVID-19; (e) transition of the risk from the health system to the economy (mitigation), which inevitably led to economic slowdown; (f) the fragility of some economies. Consequently, there is the perception that a decision process on how to act is crucial, and so Karnon [81] argued that authorities can be classified according to their decisions. Standing out among the typologies identified by this author are lockdowners (obligatory quarantine for all), who aim to shorten the duration of the crisis and reduce the number of cases of infection, with the final aim of reducing the period of disturbance in the economy; gradual steppers do not support an immediate lockdown, but a policy based on advice and awareness, where people remain active in their jobs as long as possible, so that there is a greater likelihood of a functional economy afterward. In addition, Filipe [82] argued that the sense of opportunity of decisions made is crucial, based on the drop of honey effect, and that the delay in decision-making contributed to a more serious overall sanitary, social, economic and financial effect of COVID-19. In these circumstances, the way governments acted or could act implies questions being raised related to the spread of economic damage, namely regarding the duration and the mechanisms of economic contagion [83]. Various studies address the global economic impacts, with Danylyshyn [84] and Danylyshyn and Bohdan [85] highlighting the shortage of scientific studies on other crises to allow some conclusion to be drawn and studying the current economy in the Ukraine; Ilyin and Morev [86] studied the economic shock in Russia compared to other countries, as a function of government decisions; Ataguba [68] compared this pandemic with a war, in which the economic impacts, both micro and macro, will be devastating for Africa. Another empirical study, based on Hubei data, estimated the economic impact of this virus on China and on the global economy, highlighting that coronavirus has some effect on the nature of the economic impact, where the exit effect is crucial, as businesses function as a network [87]. Also on the effect on economies, Ruui [88], based on Italy’s response to this crisis, argued that the pandemic crisis was affected by mismanagement of communication.

Another research stream studied supply chains, which were greatly affected by the pandemic, with severe or lockdown effects, which raised questions about the sustainability of international organizations, characterized by great fragmentation of work, particularly those with a high level of specialization [89]. These authors argued that this situation revealed a conflict between the economy and the costs of fragmented specialization, suggesting the transition to a structure of near shopping with less specialization. From another perspective, firms continuing with operations had to manage interruption in supply chains together with demand and with the speedy implementation of changes in their operations and activities to contain the spread of the virus [59,90]. Other authors explored the commercial policy of imported health-related goods to combat COVID-19 [91] and the importance of supply chains functioning in interconnected networks, as a means to mitigate interruptions [92]. Finally, of note are studies relating the importance of academics being involved in the changes required in these chains, caused by the coronavirus [61,70], which was corroborated in the empirical study by Remko [64], who demonstrated that supply chain executives look for literature to help them face this type of crisis with resilience, aiming to reduce the risk, maximize the use of technology, talent management and increased social responsibility. In the same line of thought, researchers were not prepared to handle a new situation [61].

Technology has been determinant in the response to the pandemic, particularly in business, which reveals the pertinence of talent management, since added competencies and capacities in information technology and abandoning traditional work have transformed talent into something movable, generating competitiveness among firms [93]. This means that human resource managers can play a strategic role as agents of change in the way of working, particularly if working from home becomes the norm, to prepare people and organizations [94]. However, the new normality must create innovation, which is an
important variable for recovery in times of pandemic [95]. In other words, good ideas can come from anywhere, and so open innovation generates interaction and sharing between people and business, representing synergy for business in times of recession [95]. All these changes debated in business lead the discussion to social issues caused by COVID-19 and which also affect firms. Therefore, companies are increasingly required to consider their social responsibility as a way to alleviate the crisis, besides responding to economic problems [59]. Corroborating this position, He and Harris [56] stated that the pandemic gives firms and people opportunities to engage in actions of social responsibility, as catalysts of a new era.

Furthermore, in times of pandemic, risk [80] and uncertainty [57] are unavoidable, and so Collins et al. [80] consider it fundamental to establish priorities and the inherent risks, without neglecting technology and investment in resilience to achieve gains in organizational efficiency, for better management of communication in similar situations to those experienced at present and to adopt management practices based on uncertainties [57]. However, the COVID-19 crisis has highlighted the importance of forecasting risk, in terms of international business, which in itself is a challenge, meaning that management of uncertainty should be associated with every step of confinement, to avoid a second wave and its economic consequences [57]. These authors defend that uncertainties concern social aspects and information, which have been neglected, despite their unavoidable economic repercussions.

Similarly, uncertainty has had a drastic effect on tourism, where the adoption of robotics and artificial intelligence is suggested by Zeng, Chen and Lew [96] as a solution to improve this activity and provide more quality and sustainability, with an economic and social resetting also being fundamental, as people change their priorities [97]. In these circumstances, COVID-19 provides an opportunity for all the actors involved in tourism (private, public, academic), to project and consolidate the transition to a greener environment and more balanced tourism [98], since tourists’ consumption patterns have changed [99].

In the field of management, the database analyzed includes other sub-topics such as: the development of systems to support the demand for health products [67]; the situation of online purchases [62,100]; the rupture in health systems [69]; tele-working in technology firms [101].

Approaching the COVID-19 crisis from another angle, this can be understood as an opportunity for change [83], concerning inequalities and negative externalities of the economy, as argued by Karnon [102], environmental impacts [103] and learning by firms themselves and academics [104]. Specifically for academics, Fernandez and Shaw [105] concluded that in times of pandemic they should follow good management practices. In other words, if thinking outside the box, this pandemic can be interpreted as a factor leading to a creative, technological economy, economizing on work and disruptive innovation [104].

Finally, a group of researchers studied specifically firms, businesses and their management regarding the impacts caused by the coronavirus crisis. Mullins [106] showed it was crucial for business-people/managers to carry out an appropriate financial analysis of their balance sheets in times of pandemic, in order to implement suitable management measures to ensure firms’ continuation and solvency. Cankurtaran and Beverland, Mora Cortez and Johnston [107,108] addressed the impacts in a particular business sector—B2B (business-to-business), concluding that firms must make changes in their business practices to avoid intra and inter-organizational tension when faced with decreased sales [107], and future resilience can be maximized by adopting design thinking [108]. Another study focused on firms and their collaborators who carry out their activity in undeclared economies, who are prevented from accessing government support and should be encouraged to transfer to the mainstream economy [65]. No less importantly, the research by De Vito and Gómez [109], on how the health crisis caused by COVID-19 affected the liquidity of firms quoted on the stock market in 26 countries, concluded that the scenario for these companies is not
positive and that they are subject to high liquidity risk, with alternative strategies being necessary to mitigate that risk.

Given the liquidity risk of quoted or unquoted firms, studies have emerged on small and medium-sized enterprises, family-owned or otherwise, faced with the repercussions of mitigation measures on their business and the possible responses to get around them. Here, resilience has been indicated as a way to cope with crises [110], which was supported by a study made of 195 business-people operating as family firm managers [111]. Moreover, this study concluded that when business-people have a strong tendency towards personal resilience, this has a positive effect on collaborators’ performance [111]. In addition, entrepreneurial actions, with the available resources, in small and medium-sized enterprises are fundamental at times of crisis, as argued by Tsilika et al. [112], although these authors point out that this study was made in 2017/2018, and so the conclusions are not applicable to the current crisis. Nevertheless, Liu et al. [110] claim that resilience and entrepreneurship are interlinked in the response to COVID-19 and allow capitalizing on the opportunities presented by this crisis, and also that strategic agility, associated with these two constructs, is a way for firms to respond successfully to the challenges caused by a global health crisis. In the same line of thought, business survival after a recession depends on entrepreneurial capacity, regarding the way of reacting to the crisis and managing to make the most of the existing opportunities, with small and medium-sized firms being seriously affected by the current crisis as their very characteristics make them more vulnerable [31].

As small and medium-sized firms, whether family-owned or not, are an important part of the business sector worldwide [113,114], it is crucial to understand their risks in a post-disaster scenario. They present a similar structural typology everywhere and they must be resilient [63]. These authors demonstrate, through an empirical study, that such firms’ decisions to take on risks involve economic and socio-emotional criteria, as their owners make an assessment of the financial and non-financial loss. The authors highlight that these arguments cannot be generalized due to the specific context of Chile in which the data were collected.

In the scenario of generalized lockdown, the daily life of people, their family firms [8] and also start-ups [115] were severely and immeasurably impacted exogenously in economic terms [8,115]. Furthermore, the change in people’s daily lives included negative changes in the labor market [116] and in consumption levels [117]. Consequently, companies face a number of challenges, which include the adoption of measures of sanitary protection, and adjusting production to demand, among other aspects [8], and also COVID-19 triggering the transition from crisis management by business-people (micro level) to management with government help (macro level) [115]. Given these exogenous shocks, Kraus et al. [8] made a qualitative study aiming to explore how family firms are responding to the COVID-19 crisis. The empirical evidence in this research was obtained from firms in Germany, Austria, Italy, Switzerland and Liechtenstein, through semi-structured interviews (27). In a clear, structured way, Kraus et al. [8] conclude that family firms have responded decisively and rapidly to the continuous evolution of the epidemic, by implementing preventive measures to mitigate contagion and safeguard their business activities for the future as well as possible. This means they put into practice managerial measures to safeguard their liquidity, their operations and their form of communication and to support the process of adaptation and innovation enforced by coronavirus, which may promote a change in organizational culture and business models. Following the same orientation, start-ups also responded well to the crisis, despite needing to be integrated into a wider business ecosystem in order to ensure their survival and rapid growth [115].

Summarising, the mapping of the literature presented here (n = 52) covers a number of heterogeneous themes, leading on from the numerous harmful effects that the current pandemic has caused, and may yet cause, in the business sector, particularly how to manage a business and ensure survival and competitiveness, in a market in transition with changing consumer preferences. In other words, emerging thematic categories are identified, this means that MAXQDA software, based on the imported scientific documents,
analyses them algorithmically and identifies the units of significance that are common to them. These themes are presented in the next section.

4. Emerging Thematic Categories Created by Maxqda

After an exhaustive analysis of the 52 documents, using MAXQDA, 10 emerging categories were determined, namely: Unemployment, Impact on companies, Government support, Family businesses, Entrepreneurship, Employment, Organizational response, Economic impact, Crisis and COVID-19. The categories were selected based on the criteria of the presence of strong themes (identical meaning units with a higher percentage of occupation in the papers under analysis), on their co-occurrence in global terms and on the empirical variations considered relevant. These categories were assigned 328 units of meaning, that is, a set of relevant text segments was distinguished, as they are considered the most representative of the categories previously established, resulting from the systematic review and mining of the content of the sample documents, thus originating, the results presented in this section. Figure 2 organizes and summarizes the core of the analysis made in this study, giving a first view of the impact of each emerging theme in the 52 documents.

| Code System                  | Sample (52 articles) | SUM |
|------------------------------|----------------------|-----|
| Unemployment                 |                      | 20  |
| Impact on business           |                      | 41  |
| Governments support          |                      | 20  |
| Family firms                 |                      | 22  |
| Entrepreneurship             |                      | 30  |
| Employment                   |                      | 16  |
| Organizational response      |                      | 42  |
| Economic impact              |                      | 50  |
| Crisis                       |                      | 43  |
| COVID-19                     |                      | 44  |
| SUM                          |                      | 328 |

| SUM                          | 328                  |

Figure 2. Core of analysis.

Figure 2 above results from a simple analysis of the document contents reveals that the most significant theme in the sample is the Economic impact (50), followed by COVID-19 (44), Crisis (43), Organizational response (42) and Impact on business (41). This means that these areas highlighted in content analysis are the most influential ones in this study (e.g., [5,30,31,59,63,68,69,80,84,85,107–109,116,118–120]).

Making a deeper correlational analysis between the emerging themes, the network of connections between documents’ content is shown in Figure 3. This figure reveals the relation between the emerging themes and the units of meaning highlighted during content analysis and text-mining. Careful analysis of this output shows a clear trend of studies to address questions such as COVID-19, Crisis, Economic impact, Impact on business, and Organizational response, which present a relevant correlation with each other. It is also important to mention that Entrepreneurship and Organizational response are significantly aligned and closely related to the Impact on business. Then, a consistent relation between Organizational response and Family firms is found. It is of note that Unemployment is seen to be more related to Crisis and Impact on business. Except for Family firms, Government support is related to all the emerging themes, but this link is not particularly pronounced. In terms of influence on the content analyzed, this category seems to be more present in matters related to Unemployment than to Employment.
The greater co-occurrence between Crisis and Economic Impact (51), followed by COVID-19 and Economic Impact (43) and COVID-19 and Crisis (33). According to the same data, the link between Organizational response and the emerging themes of Entrepreneurship (27) and Family firms (24) can also be highlighted.

Finally, Figure 4 below results from a detailed, in-depth analysis of the 52 studies in the sample. This process consisted of reviewing the objectives and conclusions of the articles, aiming to create a map demonstrating in summary form how the themes are studied and explored scientifically. Observing the map (Figure 4) and considering the size and direction of the arrows between themes, it is clear what paths were explored by the main studies on this subject and their influence on this field of research.

Reading of this figure complements and corroborates the emerging themes identified in the previous figures, finding a broad, holistic sequencing between them and that the conclusions of the 52 studies have a common objective, i.e., to understand, explore and analyze the impacts of COVID-19, the crisis it caused as regards the economic impacts on business, jobs and family firms, what were the micro and macro responses to this crisis and how this can be an opportunity for the re-emergence of more sustainable entrepreneurship in the future.
These innovative analyses through key-words created categorization indices that led to the identification of the emerging themes presented here, and so it is not a question of text-mining of the content of the 52 documents. However, the content analysis presented previously allowed the conclusion, for example, that those trend topics were addressed in the documents covered by this study, where Organisational Responses is clear in the research by Bapuji et al., Collins et al., Cucculelli and Peruzzi, Everingham and Chassagne, Liu et al., Santoro et al., Sharma et al., Zeng et al. [31,57,59,80,96,97,110,111], from which it is extracted that the effect on business was severe, with the capacity and form of response being the drivers of survival before and after the crisis; Economic Impact was mentioned by Atagua, Baldwin and di Mauro, Danylyshyn and Bohdan, De Vito and Gómez, Ilyin and Morev, Ruiu [68,83,85,88,109], who argued that the scenarios found are not positive and the way governments managed the crisis was important in mitigating the economic consequences at the micro (firms/businesses) and macro (regional/global) level; Employment and Unemployment, indirectly implicit in all the studies, were emphasized particularly by Bell and Blanchflower, Karnon, Prasad et al., Williams and Kayaoglu [65,101,102,116], whose arguments are situated in the changing consumption patterns following the reduction in families’ incomes, the inequalities caused by forced unemployment, the adoption of tele-working and the precarious situation of firms and their collaborators in the undeclared economy during the pandemic; Government support, certainly crucial to minimize the exogenous shock of the lockdown and the disruption caused by the spread of COVID-19 [65,81]; Family Firms, Impact of business and Entrepreneurship were studied by various authors [8,63,83,103,104,106–108,115], who considered that family firms are more vulnerable to crises, although with a capacity to respond positively and discover opportunities to survive. Finally, the topics of Crisis and COVID-19 are included in the 52 final documents.

For Kraus et al. [8], the challenges imposed by this pandemic require a research effort by academics. In this context, Table 4 shows the gaps identified in the reviewed documents that are emerging in future research.
Table 4. Emerging future research.

| Researchers                                      | Gap                                                                                                                                                                                                 | Trends Topics                                                                 |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Cucculelli & Peruzzi; Kraus et al. [8,31]         | The literature on crises has been dominated by research on the financial axis, related to models of performance, ownership and governance during recessions. Thus, studies in the business and entrepreneurial domains are scarce. | ✓ Strategic options.  
✓ Bridging the gap of organizational learning.  
✓ Liquidity, survival and long-term viability.  
✓ Communication, digitalization, business models, organizational cultural changes. |
| Kuckertz et al. [121]                            | There is still no literature with available information on entrepreneurship.                                                                                                                                                     | ✓ Evaluation of the effectiveness of different policy measures on entrepreneurial activity in various countries.  
✓ Understanding the different responses to the crisis, in terms of temporariness.  
✓ Monitoring the effects of measures taken during the pandemic, to prepare in advance for the response to similar future events. |
| Lu, Wu, Peng, & Lu [122]                         | “However, even though SMEs are major contributors to economic growth, they are often the most vulnerable when there are major public crises.” (pp. 1–2)                                                                                 | ✓ Assessing the effect of government policies to support the survival of small and medium-sized enterprises (SMEs). |
| Fairlie [123]                                    | Shops, factories and many other businesses have been temporarily closed by the total blockage or downward shifts in demand. Many of these closures can be permanent due to the inability to pay running costs and survive, which represents a severe consequence of COVID-19 for small businesses around the world. | ✓ Explore how social distancing measures and declining demand have affected SMEs. |
| Fabeil, Pazim, & Langgat [124]                   | Scarcity of research investigating pandemics and their impacts on business management.                                                                                                                                            | ✓ Identification of the typology of SME response to the pandemic crisis (during and after the crisis). |
| Amankwah-Amoah, Khan, & Wood [125]              | Unequal access to resources made available by governments may affect the way organizations deal with the effects of the COVID-19 crisis.                                                                                   | ✓ Research into how companies have adapted to cope with exogenous shocks, such as this pandemic, in order to avoid bankruptcy in this uncertain environment. |
| Llanos-Contreras et al. [63]                     | Understanding risk-taking by family businesses in a post-disaster scenario.                                                                                                                                                        | ✓ Analysis of the decision process for risk-taking by family businesses, based on economic and non-economic criteria. |

5. Contributions, Limitations and Future Agenda

Writing up any article, whether empirical or conceptual, is always a challenge for any researcher, principally when the aim is to conclude on a topic marked by a profound lack of knowledge. Consequently, the analysis presented here aimed to contribute to lessening that shortage, through qualitative mapping and text-mining of the literature produced in 2020 about COVID-19 and its effects on the spheres of business and management. In this context, the aim was fulfilled using mixed methodological procedures able to situate the state-of-the-art on the topic and clearly identify trend topics, which added critical value to the theme analyzed, this being the main contribution of the study. This principal contribution outlined a theoretical implication for scientific knowledge, lying in the use of a qualitative search of content and MAXQDA (used mostly in qualitative empirical studies), which has been considered the best method to study unknown phenomena and extend a theory, as corroborated by Bluhm, Harman, Lee and Mitchell [120] who recognized the...
legitimacy of this methodology to contribute to accumulating knowledge. This argument consolidates that the theoretical frameworks of future empirical articles should be based on the Grounded Theory Approach [71], which is used when the intention is to study complex phenomena, here specifically how the coronavirus crisis impacts the vast area of management and business, which forms an implication for practice.

Another contribution concerns filling the gaps identified, namely the need to carry out more research on this topic. Here, the presentation of a systematic literature review is crucial to minimize the gap between theory and practice in an unprecedented crisis in the history of humanity, which extends far beyond a sanitary crisis. This means that the state-of-the-art identified and the text-mining direct this contribution towards defining emerging topics in need of future research. The implications for practice concern the speed of governments and firms’ response capacity to the disruption caused by this crisis, in which resilience is a driver to transform a threat into an opportunity, and in this way, act to overcome an economic crisis that is likely to be long-lasting. Firms and their managers, besides benefiting from governments’ financial support, should bank on management strategies that can make their operations, processes and communication more agile, so as to prepare for the effects of a second wave of the virus.

Sustained in the previous discussion (e.g.,[4,7,10,21,22,29,56,57,61,64,80,93,95,109–111]), we present the Figure 5. In this context, the conclusions drawn from this conceptual study led to developing a theoretical framework (Figure 5) to make firms’ recovery process more agile, keeping them solvent and with sufficient liquidity to continue their operations, particularly as regards small and medium-sized enterprises, family-owned or not.

Figure 5. Conceptual framework to overcome the crisis in companies.

This framework is another contribution of the study, with the current crisis requiring a response from all public actors (financial support) and all private actors, so that the various aspects of this crisis can be faced in a holistic, wide-ranging and integrated way. This means that firms will play a fundamental role in the global economic recovery, specifically small and medium-sized ones which are the majority worldwide. The practical implication
of this argument is that it is necessary to encourage, promote and implement changes in how business is done and managed, the people and the operations, to reach a level where social responsibility really exists, as a way to prevent the social and economic inequalities caused by the pandemic. Some research has revealed that innovation plays a key role in circumventing the harmful effects of this pandemic crisis, specifically the social and economic ones. Thus, it is crucial that future studies focus on how entrepreneurship is a driver to generate open innovation processes that add value to businesses.

Additionally, it would still be extremely interesting to study if DIY entrepreneurship will be a predictor for the survival of SMEs during this crisis, if these companies opted for digitalization during the crisis and why, by the use of a mixed methodology.

Like any study, this one is not without limitations. The first limitation is inherent to the time period in which this review was written (July 2020), as further studies of this nature were subsequently offered where one of them for being editorial was not considered [126] and the other study is from 2021 [127]. However, this does not remove the internal and external validity of this review, as at that time the exponentiality of the publications was focused on the health area. It is evident that at today’s date (April 2021) the initial research could be redone, but this would remove the value of the objective of this review, which aimed to show that in the first half of 2020 there was a scarcity of research on business and management, as mentioned by some authors [27,31,109]. The second limitation is associated with the exclusion of the so-called grey literature, which led, for example, to the exclusion of the editorial of Donthu [126].

Besides these suggestions, this will be an inexhaustible subject in the coming years in any area of knowledge, management being no exception. The trend topics identified reinforced the need to carry out empirical studies on the consequences of mitigation measures on firms and their business, on how managers solve these consequences, if government support was important and effective or not, if they managed to survive and how they did so. This is a topic that cannot be separated from other constructs determined by MAXQDA, and so any future study will have to adopt an integrating approach to them in order to accumulate science about COVID-19’s impact on business and management, and as such, minimize the effects of a similar crisis in the future. Another future investigation is a detailed analysis of how the mitigation measures to mitigate the harmful effects of this pandemic and its risks can be transformed into opportunities for organizations, as well as, it would be important to perceive how the effects of the failures that occurred in the fight against the pandemic will or may be a new source of problems for SMEs and health care units. A final appealing suggestion would be the elaboration of a bibliometric systematic review, to allow the identification of clusters, and consequently, the previous research with co-citations about other similar or different crises, which could be synergistic for subsequent research.

6. Conclusions

It is important to highlight the significance units used in the MAXQDA analyses (Figure 2) with greater relevance to the literature’s intellectual structure and which are: Economic impact, COVID-19, Crisis, Organizational response and Impact on business. Of course, these units cannot be discussed and analyzed per se, but through a holistic approach. This means that COVID-19 has generated an unprecedented current and future crisis, causing a disruption in business and management, since the mitigation measures for the spread of the virus imposed a global blockade in all axes of society. In turn, the full assumption of these measures by individuals, companies and society in general, may have directed the world to an economic crisis with serious consequences, implying the relevant intervention of governments or similar. However, the impact on companies may not have been fully covered with these occasional supports, being necessary to prepare organizations to give a flexible response to the advance or not of the pandemic. In short, there is a causal relationship between these units of significance that should not be neglected.
in future research, because only then will scientific knowledge advance and can be a tool to assist managers.

It is important to note that the main topics addressed in the literature reviewed reveal constructs that are fundamental to address the health, economic and social crisis caused by the pandemic. This means that SMEs that have transformed themselves to survive and continue to respond to the market, has moved from disruption to seizing opportunities, by adopting new business models, supported by resilience and risk acceptance, which led them to embark on new management practices, sharing, creativity, entrepreneurial spirit, digitization, new management of human resources (which includes labor flexibility) and open innovation. Therefore, SMEs that have transitioned to this new way of doing business are potential survivors of this crisis, by obtaining liquidity flows, adapting to changes in consumer behavior, adopting corporate and individual social responsibility. Ultimately, SMEs with this attitude will be creators of wealth and jobs.

We should also highlight the relationship between sustainability and resilience, whose concepts are independent, as far as economic systems are concerned, being necessary more criteria than just resilience in the conception of sustainable development policies [128]. Sustainability and resilience can be considered different concepts for explaining the same phenomenon. Both concepts are defined and used differently despite sharing common goals and approaches, where a balance is sought between human beings and nature [129].

Research in the area of business and management needs to increase rapidly in the form of studies showing the real results of companies since the day the worldwide pandemic was declared by the WHO, as only in this way can it be ensured that future crises will not be characterized by a general lack of information and various severe interruptions that cast doubt on the continuity of operations in the global supply chain, at the micro, meso and macro level. From another perspective, the introspection of all stakeholders activating social responsibility measures will be a synergy for the progress of business and a hard lesson learned from experience on the spot. Finally, it is hoped this literature review will revive the scientific spirit among academics so that the gaps identified in other articles and these are quickly filled, as this is also a dichotomic crisis and not just one of public health.

A final note on the originality of this study in relation to other existing or subsequent ones; firstly, the two main online databases were used; secondly, emerging themes for future research pointed out by other studies were identified; and thirdly, the identification of units of significance by the MAXQDA is a guiding vehicle for approaching this topic upstream and downstream of its effects on business and its management.

**Author Contributions:** Conceptualization, M.R., M.F. and R.S.; methodology, M.R., R.S. and N.S.; software, N.S. and R.S.; validation, M.R., M.F., N.S. and R.S.; formal analysis, M.R., R.S. and N.S.; investigation, M.R., M.F., N.S. and R.S.; writing—original draft preparation, M.R., M.F., N.S. and R.S.; writing—review and editing, M.R., M.F., N.S. and R.S.; visualization, M.R., M.F., N.S. and R.S.; supervision, M.R. and M.F.; project administration, M.R. and M.F.; funding acquisition, M.R., M.F., N.S. and R.S. All authors have read and agreed to the published version of the manuscript.

**Funding:** The work of the author Rui Silva is supported by national funds, through the FCT—Portuguese Foundation for Science and Technology under the project UIDB/04011/2020.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** Not applicable.

**Acknowledgments:** The authors are grateful to the anonymous referees of the journal for their extremely useful suggestions to improve the quality of the paper. The authors gratefully acknowledge financial support from National Funds of the FCT—Portuguese Foundation for Science and Technology within the project «UIDB/04007/2020» and the project «UIDB/04011/2020».

**Conflicts of Interest:** The authors declare no conflict of interest.
References
1. SNS (Serviço Nacional de Saúde). Covid-19 | Pandemia. Available online: https://www.sns.gov.pt/noticias/2020/03/11/covid-19-pandemia/ (accessed on 11 March 2020).
2. WHO—World Health Organization. Available online: www.who.int/covid-19/information%20A%20A%20A (accessed on 11 March 2020).
3. Paces, A.M.; Weimer, M. From diversity to coordination: A European approach to COVID-19. Eur. J. Risk Regul. 2020, 11, 283–296. [CrossRef]
4. Aldwin, R.; Di Mauro, B.W. Economics in the time of COVID-19: A new eBook. VOX CEPR Policy Portal 2020.
5. Açikgöz, Ö.; Günay, A. The early impact of the Covid-19 pandemic on the global and Turkish economy. Turk. J. Med Sci. 2020, 50, 520–526. [CrossRef] [PubMed]
6. OECD. Supporting People and Companies to Deal with the Covid-19 Virus Options for an Immediate Employment and Social-Policy Responses; OECD: Paris, France, 2020; pp. 1–12.
7. Baker, T.; Judge, K. How to Help Small Businesses Survive COVID-19. Columbia Law Econ. Work. Pap. 2020, 620. [CrossRef]
8. Kraus, S.; Clauss, T.; Breier, M.; Gast, J.; Zardini, A.; Tiberius, V. The economics of COVID-19: Initial empirical evidence on how family firms in five European countries cope with the corona crisis. Int. J. Entrep. Behav. Res. 2020, 26, 1067–1092. [CrossRef]
9. Anderson, R.M.; Heesterbeek, H.; Klinkenberg, D.; Hollingsworth, T.D. How will country-based mitigation measures influence the course of the COVID-19 epidemic? Lancet 2020, 395, 931–934. [CrossRef]
10. 2020 Global State of Small Business. Available online: https://dataforgood.fb.com/global-state-of-smb/ (accessed on 20 April 2020).
11. Runyan, R.C. Small Business in the Face of Crisis: Identifying Barriers to Recovery from a Natural Disaster1. J. Contingencies Crisis Manag. 2006, 14, 12–26. [CrossRef]
12. Greiner, L.E. Evolution and revolution as organizations grow. In Readings in Strategic Management; Palgrave: London, UK, 1989; pp. 373–387.
13. Bundy, J.; Pfarrer, M.D.; Short, C.; Coombs, W.T. Crises and crisis management: Integration, interpretation, and research development. J. Manag. 2016, 43, 1661–1692. [CrossRef]
14. Hills, A. Seduced by reduction: The consequences of misunderstanding disaster. J. Contingencies Crisis Manag. 1998, 6, 162–170. [CrossRef]
15. Faulkner, B. Towards a framework for tourism disaster management. Tour. Manag. 2001, 22, 135–147. [CrossRef]
16. Elliott, D.; McGuinness, M. Public inquiry: Panacea or placebo? J. Contingencies Crisis Manag. 2002, 10, 14–25. [CrossRef]
17. Coombs, W.T. Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. Corp. Reput. Rev. 2007, 10, 163–176. [CrossRef]
18. Pfarrer, M.D.; DeCellettes, K.A.; Smith, K.G.; Taylor, M.S. After the fall: Reintegrating the corrupt organization. Acad. Manag. Rev. 2008, 33, 730–749. [CrossRef]
19. Hale, J.E.; Dulek, R.E.; Hale, D.P. Crisis response communication challenges: Building theory from qualitative data. J. Bus. Commun. 2005, 42, 112–134. [CrossRef]
20. Baron, S.; Harris, K.; Elliott, D. Crisis management and services marketing. J. Serv. Mark. 2005, 19, 336–345.
21. Veil, S.R. Mindful learning in crisis management. J. Bus. Commun. 2010, 48, 116–147. [CrossRef]
22. Lampel, J.; Shamsie, J.; Shapiro, Z. Experiencing the improbable: Rare events and organizational learning. Organ. Sci. 2009, 20, 835–845. [CrossRef]
23. Brockner, J.; Erika, H.J. Toward an understanding of when executives see crisis as opportunity. J. Appl. Behav. Sci. 2008, 44, 94–115. [CrossRef]
24. Dane, E.; Pratt, M.G. Exploring intuition and its role in managerial decision making. Acad. Manag. Rev. 2007, 32, 33–54. [CrossRef]
25. Slater, A. After the pandemic: Medium-term growth uncertainties. Econ. Outlook 2020, 44, 5–9.
26. Abdalla, M.; Alarabi, L.; Hendawi, A. Crisis management art from the risks to the control: A review of methods and directions. Information 2021, 12, 18. [CrossRef]
27. Haghani, M.; Bliemer, M.C.; Goerlandt, F.; Li, J. The scientific literature on Coronaviruses, COVID-19 and its associated safety-related research dimensions: A scientometric analysis and scoping review. Saf. Sci. 2020, 129, 104806. [CrossRef] [PubMed]
28. Atkeson, A. What Will Be the Economic Impact of COVID-19 in the US? Rough Estimates of Disease Scenarios; National Bureau of Economic Research: Cambridge, MA, USA, 2020.
29. Moradian, N.; Ochs, H.D.; Sedikies, C.; Hamblin, M.R.; Camaro, C.A., Jr.; Martinez, J.A.; Biamonte, J.D.; Abdollahi, M.; Torres, P.J.; Nieto, J.J.; et al. The urgent need for integrated science to fight COVID-19 pandemic and beyond. J. Transl. Med. 2020, 18, 1–7. [CrossRef] [PubMed]
30. Karabag, S.F. An unprecedented global crisis! The global, regional, national, political, economic and commercial impact of the coronavirus pandemic. J. Appl. Econ. Bus. Res. JAEBR 2020, 10, 1–6.
31. Cucculelli, M.; Peruzzi, V. Post-crisis firm survival, business model changes, and learning: Evidence from the Italian manufacturing industry. Small Bus. Econ. 2018, 54, 459–474. [CrossRef]
32. Zapic, I.; CATER, T. Bibliometric methods in management and organization. Organ. Res. Methods 2014, 18, 429–472. [CrossRef]
33. Suriyankietkaew, S.; Petison, P. A Retrospective and Foresight: Bibliometric Review of International Research on Strategic Management for Sustainability, 1991–2019. Sustainability 2019, 12, 91. [CrossRef]
34. Connor, D.O.; Voos, H. Empirical laws, theory construction and bibliometrics. *Libr. Trend* **1981**, *30*, 9–20.
35. Garfield, E. Is citation analysis a legitimate evaluation tool? *Scientometrics* **1979**, *1*, 359–375. [CrossRef]
36. Mentzer, J.T.; Kahn, K.B. A framework of logistic research. *J. Bus. Logist.* **1995**, *16*, 231–250.
37. Powell, W.W.; Koput, K.W.; Smith-Doerr, L. Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology. *Adm. Sci. Q.* **1996**, *41*, 116. [CrossRef]
38. Quinlan, K.M.; Kane, M.; Trochim, W.M.K. Evaluation of large research initiatives: Outcomes, challenges, and methodological considerations. *New Dir. Eval.* **2008**, *2008*, 61–72. [CrossRef]
39. Wasserman, S.; Faust, K. *Social Network Analysis: Methods and Applications*; Cambridge University Press: Cambridge, UK, 1994.
40. White, H.D.; Griffith, B.C. Author cocitation: A literature measure of intellectual structure. *J. Am. Soc. Inf. Sci.* **1981**, *32*, 163–171. [CrossRef]
41. Tranfield, D.; Denyer, D.; Smart, P. Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *Br. J. Manag.* **2003**, *14*, 207–222. [CrossRef]
42. Briner, R.B.; Denyer, D. Systematic Review and Evidence Synthesis as a Practice and Scholarship Tool. In *The Oxford Handbook of Evidence-Based Management*; Rousseau, D.M., Ed.; Oxford University Press: New York, NY, USA, 2012; pp. 112–129.
43. Hadengue, M.; De Marcellis-Warin, N.; Warin, T. Reverse innovation: A systematic literature review. *Rev. Int. Bus. Strat.* 2014, 34, 116. [CrossRef]
44. Lopez-Morales, J.S. *Multilatinas: A systematic literature review*. *Rev. Int. Emerg. Mark.* **2017**, *12*, 142–182. [CrossRef]
45. Lopez-Morales, J.S. *Multilatinas: A systematic literature review*. *Rev. Int. Emerg. Mark.* **2017**, *12*, 142–182. [CrossRef]
46. Adiyarta, K.; Napitupulu, D.; Syafriullah, M.; Mahdiana, D.; Rusdah, R. Analysis of smart city indicators based on prisma: Systematic review. *IOP Conf. Ser. Mater. Sci. Eng.* **2020**, *725*, 012113. [CrossRef]
47. Liberati, A.; Altman, D.G.; Tetzlaff, J.; M ulrow, C.; Gotzsche, P.C.; Ioannidis, J.P.A.; Clarke, M.; Devereaux, P.J.; Kleijnen, J.; Moher, D. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. *J. Clin. Epidemiol.* **2009**, *62*, e1–e34. [CrossRef]
48. Saillard, E.K. Systematic versus interpretive analysis with two CAQDAS packages: NVivo and MAXQDA. *Forum Qual. Soc. Res.* **2011**, *12*. [CrossRef]
49. Kuckartz, U.; Rädiker, S. *Analyzing Qualitative Data with MAXQDA*. *Analyzing Qualitative Data with MAXQDA 2019*; Cham, Switzerland, 2019.
50. Park, Y.; Hong, P.; Roh, J.J. Supply chain lessons from the catastrophic natural disaster in Japan. *Bus. Horiz.* **2013**, *56*, 75–85. [CrossRef]
51. Paez, A. Gray literature: An important resource in systematic reviews. *J. Evid. Based. Med.* **2011**, *14*, 213–228. [CrossRef]
52. Mongeon, P.; Paul-Hus, A. The journal coverage of Web of Science and Scopus: A comparative analysis. *J. Am. Soc. Inf. Sci.* **2019**, *1*, 359–375. [CrossRef]
53. Sharma, P.; Leung, T.; Kingshott, R.P.; Davcik, N.S.; Cardinali, S. Managing uncertainty during a global pandemic: An international business perspective. *J. Bus. Res.* **2020**, *116*, 188–192. [CrossRef] [PubMed]
54. El-Hani, C.N.; Machado, V. COVID-19: The need of an integrated and critical. *Ethinobiol. Conserv.* **2020**, *9*, 1–20.
55. Bapuji, H.; Patel, C.; Ertug, G.; Allen, D.G. Corona crisis and inequality: Why management research needs a societal Turn. *J. Manag.* **2020**, *46*, 1205–1222. [CrossRef]
56. Corbera, E.; Anguelovski, I.; Honey-Rosés, J.; Ruiz-Mallén, I. Academia in the Time of COVID-19: Towards an Ethics of Care. *Plan. Theory Pract.* **2020**, *21*, 191–199. [CrossRef]
57. Kabadayi, S.; O’Connor, G.E.; Tuzovic, S. The impact of coronavirus on service ecosystems as service mega-disruptions. *J. Serv. Mark.* **2020**, *34*, 809–817. [CrossRef]
58. Nguyen, H.V.; Tran, H.X.; Van Huy, L.; Nguyen, X.N.; Do, M.T.; Nguyen, N. Online Book Shopping in Vietnam: The Impact of the COVID-19 Pandemic Situation. *Publ. Res. Q.* **2020**, *36*, 437–445. [CrossRef]
59. Llanos-Contreras, O.; Alonso-Dos-Santos, M.; Ribeiro-Soriano, D. Entrepreneurship and risk-taking in a post-disaster scenario. *Int. Entrep. Manag. J.* **2020**, *16*, 221–237. [CrossRef]
60. van Remko, H. Research opportunities for a more resilient post-COVID-19 supply chain—Closing the gap between research findings and industry practice. *Int. J. Oper. Prod. Manag.* **2020**, *40*, 341–355. [CrossRef]
61. Williams, C.C.; Kayaoğlu, A. COVID-19 and undeclared work: Impacts and policy responses in Europe. *Serv. Ind. J.* **2020**, *40*, 914–931. [CrossRef]
62. Fernandez, A.A.; Shaw, G.P. Academic Leadership in a time of crisis: The Coronavirus and COVID-19. *J. Leadersh. Stud.* **2020**, *14*, 39–45. [CrossRef]
67. Govindan, K.; Mina, H.; Alavi, B. A decision support system for demand management in healthcare supply chains considering the epidemic outbreaks: A case study of coronavirus disease 2019 (COVID-19). Transp. Res. Part. E Logist. Transp. Rev. 2020, 138, 101967. [CrossRef] [PubMed]

68. Ataguba, J.E. COVID-19 pandemic, a war to be won: Understanding its economic implications for Africa. Appl. Heal Econ. Heal Policy 2020, 18, 325–328. [CrossRef] [PubMed]

69. Avgar, A.C.; Eaton, A.E.; Givan, R.K.; Litvin, A.S. Paying the price for a broken healthcare system: Rethinking employment, labor, and work in a post-pandemic world. Work. Occup. 2020, 47, 267–279. [CrossRef]

70. Knight, L.; Meehan, J.; Tapinos, E.; Menzies, L.; Pfieffer, A. Researching the future of purchasing and supply management: The purpose and potential of scenarios. J. Purch. Supply Manag. 2020, 26, 100624. [CrossRef]

71. Strauss, A.; Corbin, J. Grounded theory methodology. In Handbook of Qualitative Research; SAGE: Thousand Oaks, CA, USA, 1994; pp. 273–285.

72. Phoenix, M.; Jack, S.M.; Rosenbaum, P.L.; Misuiana, C. A grounded theory of parents’ attendance, participation and engagement in children’s developmental rehabilitation services: Part 2. The journey to child health and happiness. Disabil. Rehabil. 2019, 42, 2151–2160. [CrossRef] [PubMed]

73. Murray-Davis, B.; Berger, H.; Melamed, N.; Mawjee, K.; Barrett, J.; Ray, J.G.; Geary, M.; McDonald, S.D. Gestational weight gain counselling practices among different antenatal health care providers: A qualitative grounded theory study. BMC Pregnancy Childbirth 2020, 20, 1–10. [CrossRef]

74. Lima, P.; Medeiros, L.; Santos, C.; Erdmann, A.L. Materno-infantil, E. Grounded theory in research on women’s health: Bibliometric study. J. Nurs. UFPE 2013, 7, 1531–1538.

75. Capilla-Díaz, C.; Rn, M.I.D.; Martínez-Guerrero, J.M.; Reina-Leal, L.M.; Gómez-Urquiza, J.L.; Gálvez-González, M.; Hueso-Montoro, C.; Durán-López, M.I. Bibliometric analysis of qualitative research on patients’ experiences of intestinal stoma published between 2002–2018. J. Adv. Nurs. 2020, 76, 1182–1191. [CrossRef] [PubMed]

76. Božić, B.; Siebert, S.; Martin, G. A grounded theory study of factors and conditions associated with customer trust recovery in a retailer. J. Bus. Res. 2020, 109, 440–448. [CrossRef]

77. Mac Donald, K.; Rezania, D.; Baker, R. A grounded theory examination of project managers’ accountability. Int. J. Proj. Manag. 2020, 38, 27–35. [CrossRef]

78. D’Alpaos, C.; Andreoli, F. Urban quality in the city of the future: A bibliometric multicriteria assessment model. Ecol. Indic. 2020, 117, 106575. [CrossRef]

79. Hossain, N.U.I.; Dayarathna, V.L.; Nagahi, M.; Jaradat, R. Systems thinking: A review and bibliometric analysis. Perspect. Manag. 2020.

80. Collins, A.; Florin, M.-V.; Renn, O. COVID-19 risk governance: Drivers, responses and lessons to be learned. J. Risk Res. 2020, 23, 1073–1082. [CrossRef]

81. Karnon, J. A simple decision analysis of a mandatory lockdown response to the COVID-19 Pandemic. Appl. Health Econ. Health Policy 2020, 18, 329–331. [CrossRef]

82. Filipé, J.A. Epidemics and pandemics: Covid-19 and the ‘The Drop of Honey Effect. Int. J. Econ. Bus. Adm. 2020, 8, 240–249.

83. Baldwin, R.; di Mauro, B.W. Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes; CEPR Press: London, UK, 2020.

84. Danylyshyn, B. The peculiarities of economic crisis due to COVID-19 pandemic in a developing country: Case of Ukraine. Probl. Perspect. Manag. 2020, 18, 13–22. [CrossRef]

85. Danylyshyn, B.; Bohdan, I. Developing a system of anti-crisis measures for Ukraine’s economy in the spread of the coronavirus pandemic. Banks Bank Syst. 2020, 15, 1–15. [CrossRef]

86. Ilyin, V.; Morev, M. Efficiency of the State’s ‘Manual’ Management. Challenges of 2020. Econ. Soc. Chang. Facts Trends Forecast 2020, 13, 9–24. [CrossRef]

87. Luo, S.; Tsang, K.P. China and world output impact of the hubei lockdown during the coronavirus outbreak. Contemp. Econ. Policy 2020, 38, 583–592. [PubMed]

88. Ruiu, M.L. Mismanagement of Covid-19: Lessons learned from Italy. J. Risk Res. 2020, 23, 1007–1020. [CrossRef]

89. Fritsch, M.; Matthes, J. On the Relevance of Global Value Chains and the Intra-European Division of Labour. Natl. Inst. Econ. Rev. 2020, 252, 4–8. [CrossRef]

90. Ivanov, D. Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case. Transp. Res. Part E Logist. Transp. Rev. 2020, 136, 101922. [CrossRef]

91. Evenett, S.J. Sicken thy neighbour: The initial trade policy response to COVID-19. World Econ. 2020, 43, 828–839. [CrossRef]

92. Ivanov, D.; Dolgui, A. Viability of intertwined supply networks: Extending the supply chain resilience angles towards survivability. A position paper motivated by COVID-19 outbreak. Int. J. Prod. Res. 2020, 58, 2904–2915. [CrossRef]

93. Haak-Saheem, W. Talent management in Covid-19 crisis: How Dubai manages and sustains its global talent pool. Asian Bus. Manag. 2020, 19, 298–301. [CrossRef]

94. Li, J.; Ghosh, R.; Nachmias, S. In a time of COVID-19 pandemic, stay healthy, connected, productive, and learning: Words from the editorial team of HRDI. Hum. Resour. Dev. Int. 2020, 23, 199–207. [CrossRef]

95. Verma, S.; Gustafsson, A. Investigating the emerging COVID-19 research trends in the field of business and management: A bibliometric analysis approach. J. Bus. Res. 2020, 118, 253–261. [CrossRef]
96. Zeng, Z.; Chen, P.-J.; Lew, A.A. From high-touch to high-tech: COVID-19 drives robotics adoption. *Tour. Geogr.* 2020, 22, 724–734. [CrossRef]

97. Everingham, P.; Chassagne, N. Post COVID-19 ecological and social reset: Moving away from capitalist growth models towards tourism as Buen Vivir. *Tour. Geogr.* 2020, 22, 555–566. [CrossRef]

98. Ioannides, D.; Gyimóthy, S. The COVID-19 crisis as an opportunity for escaping the unsustainable global tourism path. *Tour. Geogr.* 2020, 22, 624–632. [CrossRef]

99. Wen, J.; Kozak, M.; Yang, S.; Liu, F. COVID-19: Potential effects on Chinese citizens’ lifestyle and travel. *Tour. Rev.* 2021, 76, 74–87. [CrossRef]

100. Clement, A.P.; Fang, J.; Bakabey, K.N.; Li, L. COVID-19: Fear Appeal Favoring Purchase Behavior towards Personal Protective Equipment. 2020. Available online: https://www.tandfonline.com/d/10.1080/02642069.2020.1751823 (accessed on 11 March 2020).

101. Prasad, K.D.V.; Mangipudi, M.R.; Vaidya, R.W.; Muralidhar, B. Organizational climate, opportunities, challenges and psychological wellbeing of the remote working employees during covid-19 pandemic: A general linear model approach with reference to information technology industry in Hyderabad. *Int. J. Adv. Res. Eng. Technol.* 2020, 11, 372–389.

102. Karnon, J. The Case for a Temporary COVID-19 Income Tax Levy Now, During the Crisis. *Appl. Health Econ. Health Policy* 2020, 18, 335–337. [CrossRef]

103. Helm, D. The Environmental Impacts of the Coronavirus. *Environ. Resour. Econ.* 2020, 76, 21–38. [CrossRef]

104. Ting, H.; Ling, J.; Cheah, J.H. It will go away!? Pandemic crisis and business in asia. *Asian J. Bus. Res.* 2020, 10. [CrossRef]

105. Strielkowski, W.; Wang, J. An Introduction: COVID-19 Pandemic and Academic Leadership. In *ICSEAL-6-2019*; Atlantis Press: Paris, France, 2020; pp. 1–4.

106. Mullins, J. Are your cash-flow tools recession ready? *Bus. Horiz.* 2020, 63, 693–704. [CrossRef] [PubMed]

107. Cortez, R.M.; Johnston, W.J. The Coronavirus crisis in B2B settings: Crisis uniqueness and managerial implications based on social exchange theory. *Ind. Mark. Manag.* 2020, 88, 125–135. [CrossRef]

108. Cankurtaran, P.; Beverland, M.B. Using design thinking to respond to crises: B2B lessons from the 2020 COVID-19 pandemic. *Int. Entrep. Manag. J.*

109. De Vito, A.; Gómez, J.-P. Estimating the COVID-19 cash crunch: Global evidence and policy. *J. Account. Public Policy* 2020, 39, 106741. [CrossRef]

110. Liu, Y.; Lee, J.M.; Lee, C. The challenges and opportunities of a global health crisis: The management and business implications of COVID-19 from an Asian perspective. *Asian Bus. Manag.* 2020, 19, 277–297. [CrossRef]

111. Santoro, G.; Messeni-Petruzzelli, A.; Del Giudice, M. Searching for resilience: The impact of employee-level and entrepreneur-level resilience on firm performance in small family firms. *Small Bus. Econ.* 2020, 1–17. [CrossRef]

112. Tsilika, T.; Kakouris, A.; Apostolopoulos, N.; Dermatis, Z. Entrepreneurial bricolage in the aftermath of a shock. Insights from Greek SMEs. *J. Small Bus. Entrep.* 2020, 32, 1–18. [CrossRef]

113. Basco, R. Family business and regional development—A theoretical model of regional familiness. *J. Fam. Bus. Strat.* 2015, 6, 259–271. [CrossRef]

114. Brown, R.; Rocha, A.; Cowling, M. Financing entrepreneurship in times of crisis: Exploring the impact of COVID-19 on the market for entrepreneurial finance in the United Kingdom. *Int. Small Bus. J.* 2020, 38, 380–390. [CrossRef]

115. Bell, D.N.; Blanchflower, D.G. US and UK labour markets before and during the Covid-19 crash. *J. Manag. Stud.* 2020, 57, R52–R69. [CrossRef]

116. Bell, D.N.; Blanchflower, D.G. US and UK labour markets before and during the Covid-19 crash. *J. Manag. Stud.* 2020, 57, R52–R69. [CrossRef]

117. Stavins, J. Unprepared for financial shocks: Emergency savings and credit card debt. *Contemp. Econ. Policy* 2021, 39, 59–82. [CrossRef]

118. Addo, P.C.; Jiaming, F.; Kulbo, N.B.; Liangqiang, L. COVID-19: Fear appeal favoring purchase behavior towards personal protective equipment. *Serv. Ind. J.* 2020, 40, 471–490. [CrossRef]

119. Bluhm, D.J.; Harman, W.; Lee, T.W.; Mitchell, T.R. Qualitative research in management: A decade of progress. *J. Manag. Stud.* 2010, 48, 1866–1891. [CrossRef]

120. Kuckertz, A.; Brändle, L.; Gaudig, A.; Hinderer, S.; Reyes, C.A.M.; Prochotta, A.; Steinbrink, K.M.; Berger, E.S. Startups in times of crisis—A rapid response to the COVID-19 pandemic. *J. Bus. Ventur. Insights* 2020, 13, e00169. [CrossRef]

121. Lu, Y.; Wu, J.; Peng, J.; Lu, L. The perceived impact of the Covid-19 epidemic: Evidence from a sample of 4807 SMEs in Sichuan Province, China. *Environ. Hazards* 2020, 19, 323–340. [CrossRef]

122. Fairlie, R.W. The impact of Covid-19 on small business owners: Evidence of early-stage losses from the April 2020 current population survey (No. w2709). *Natl. Bur. Econ. Res.* 2020. [CrossRef]

123. Fabeil, N.F.; Pazim, K.H.; Langgat, J. The impact of Covid-19 pandemic crisis on micro-enterprises: Entrepreneurs’ perspective on business continuity and recovery strategy. *J. Econ. Bus.* 2020, 3. [CrossRef]

124. Amankwah-Amoah, J.; Khan, Z.; Wood, G. COVID-19 and business failures: The paradoxes of experience, scale, and scope for theory and practice. *Eur. Manag. J.* 2021, 39, 179–184. [CrossRef]

125. Donthu, N.; Gustafsson, A. Effects of COVID-19 on business and research. *J. Bus. Res.* 2020, 117, 284–289. [CrossRef]
127. Campra, M.; Esposito, P.; Brescia, V. State of the art of COVID-19 and business, management, and accounting sector. A bibliometrix analysis. *Int. J. Bus. Manag.* 2020, 16, 35. [CrossRef]

128. Derissen, S.; Quaas, M.F.; Baumgartner, S. The relationship between resilience and sustainability of ecological-economic systems. *Ecol. Econ.* 2011, 70, 1121–1128. [CrossRef]

129. Lew, A.A.; Ng, P.T.; Ni, C.; Wu, T. Community sustainability and resilience: Similarities, differences and indicators. *Tour. Geogr.* 2016, 18, 18–27. [CrossRef]