

A New Challenge of Supply Chain in Emergency Response Management During Pandemic – A Study

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Abstract

This study is based on the different factors that are able to make impact on the supply chain management during covid-19. Therefore, all the management in different businesses must be aware of an insufficient stockpile of goods, affecting 32.3 % of the companies negatively affected by disrupting their supply chain in terms of managing businesses. Resiliency and agility of the supply chain are able to affect the level of capabilities in the supply chain to stay maintained during the pandemic and certain situations. Agility and resilience in the supplies help organisations to maintain that deals with strong regulations and rules in terms of maintaining humanitarian aspects of their business organisation in terms of regulating their business.

Keywords: *Supply chain management, Covid-19, Emergency and Agile*

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1. Introduction

Emergency response management is the management of an organisation regarding the responsibilities and resources to deal with different humanitarian aspects of emergencies, including preparedness prevention responses mitigation and recovery. The emergency response management is able to reduce and prevent the harmful effects of hazards such as the Covid-19 pandemic created for the different supply chain management.

The objective of the study is –

1. To identify the implication of supply chain to emergency response management
2. To identify the importance of supply chain management during pandemic
3. To analyse the factors affecting supply chain in emergency response management in pandemic

2. Background

Supplies and activities are the results of faster production, and it allows the business to create value for their customer, which helps to manage the company around with revenue generation accurately. As commented by Lin et al. (2019), containing the supply chain with the aid of evaluating different new information is known as emergency response management. This management is crucial for developing the other businesses during the covid-19 situation.

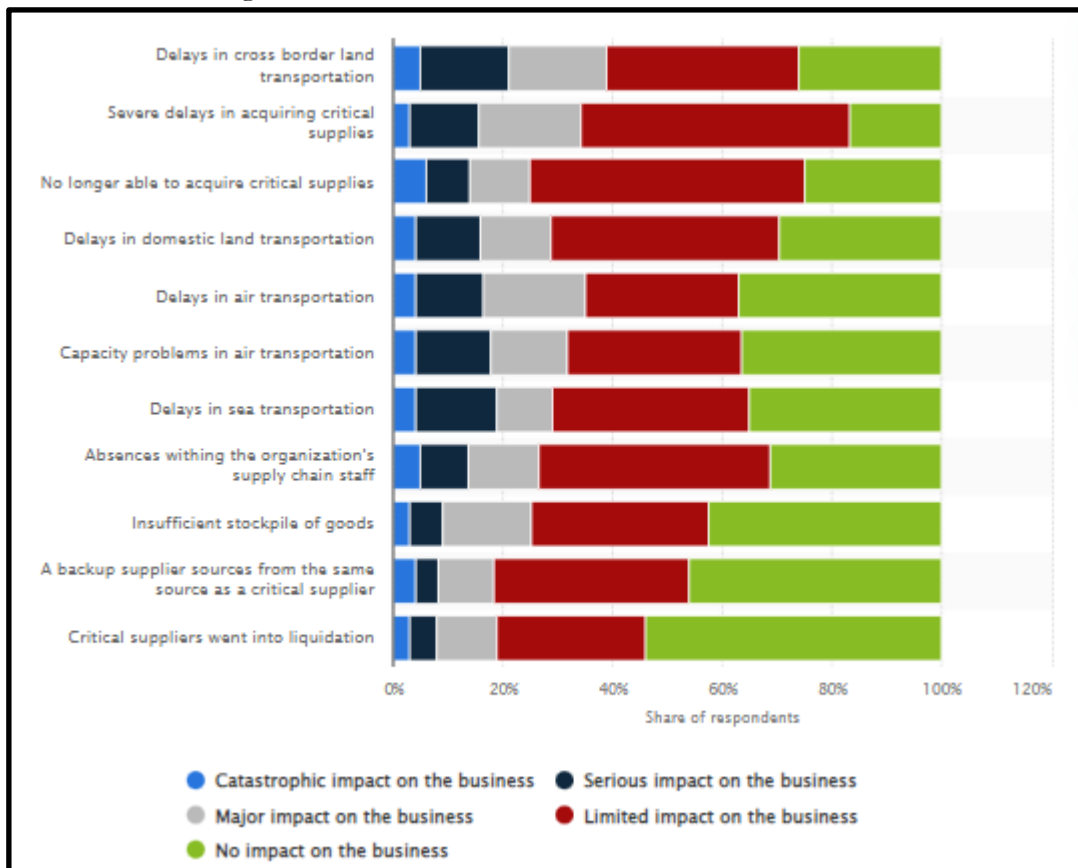


Figure 1: Negative impact of covid-19 on supply chain

(Source: statista.com, 2022)

According to the above provided graphical representation, delay in transportation on cross-border is the main major negative impact of covid-19 the British supply chain is facing in different industries. 18.6% of the other businesses are getting negatively affected due to the delay in cross-border land transportation, while due to delay in domestic land transportation, 41.6 % of British organisations are facing issues after Brexit along with covid-19 (statista.com, 2022). Therefore, all the management in different businesses must be aware of an insufficient stockpile of goods, affecting 32.3 % of the

companies negatively affected by disrupting their supply chain in terms of managing businesses (statista.com, 2022).

Literature review

The disruption in supply chain management gives rise to emergency resource and response management requirements for developing and maintaining the companies. As commented by Fan et al. (2019), organisations with relationship personalities must be managed at the time of emergencies in terms of keeping interactions different for collaboration among the suppliers.



Figure 2: Effects of different suppliers

(Source: mckinsey.com, 2022)

According to the above graph, delay in supply chain management during the covid-19 situation have the topmost impact on pharmaceuticals after semiconductors (mckinsey.com, 2022). After that, the supply chain deal is able to make a huge negative impact on the fashion retail sectors as well as the retail sectors will have the least impact on the automotive industry of the UK (mckinsey.com, 2022). The highest effect of covid-19 on the supply chain delay was identified in January 2021 in the pharmaceutical industry while it has made a strong negative impact during September 2020 on the semiconductors while the retail fashion sector has been negatively affected at the highest on June 2020 (mckinsey.com, 2022). Therefore. The starting point of covid-19 waves and lockdowns are Shaun the Hughes impact on the supply chain management compared to the end of lockdown.

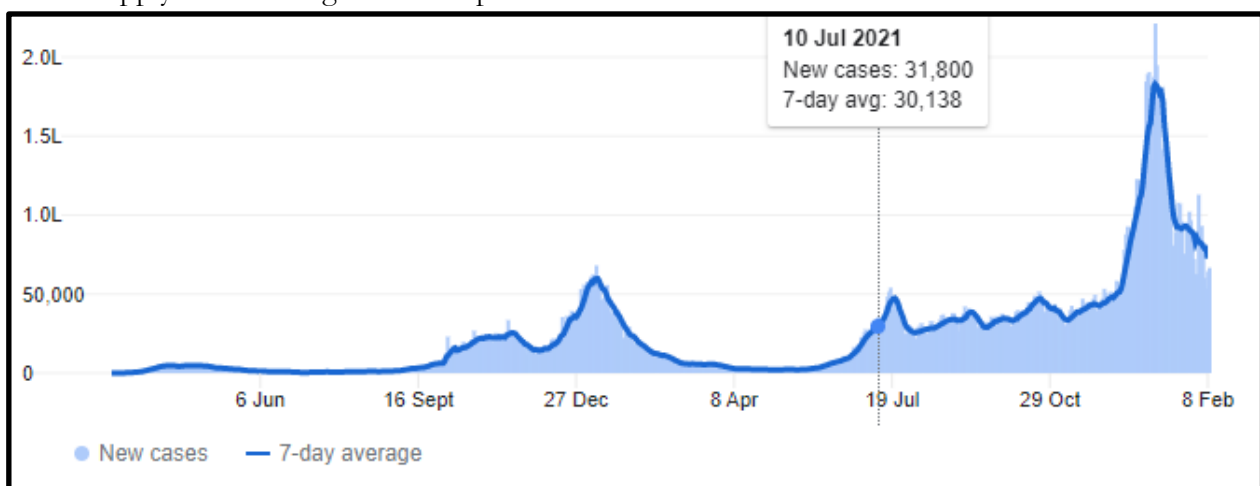


Figure 3: Latest cases of covid-19 in the UK

(Source: coronavirus.data.gov.uk, 2022)

According to the graph, the British government is facing the highest level of coronavirus affected people in the face of the year 2022. As there are daily, 66,183 people tested positively on 8 February

2022 while in the last 7 days (coronavirus.data.gov.uk, 2022). Five hundred nine thousand four hundred fifty-four people have been tested positive. 20.8% reduction has been identified to this effect of covid-19 and the rate of positive impacts of this virus (coronavirus.data.gov.uk, 2022). However, now daily, 314 people are dying due to the covid-19 why 1802 people died due to covid-19 until 8 February 2022 (coronavirus.data.gov.uk, 2022). The death rate due to covid-19 among the British has to get reduced by 11.4% (coronavirus.data.gov.uk, 2022).



Figure 4: Suppliers bargaining power

(Source: ons.gov.uk, 2022)

The trading set status of different presentations on purpose is getting higher as the suppliers are charging more costs from the organisations. According to the graph, the price of buying from the web 40 to 42 has been raised by 6.7 PP while the price of sold from the wave 40 to 42 has been raised by 4% only (ons.gov.uk, 2022). Hiking suppliers bargaining power is able to reduce the operational cost and profit margin of the businesses. Along with that, it also significantly reveals the distraction among the suppliers. As commented by Yang et al. (2020), an unusual phenomenon that causes negative reaction and disruption in the supply chain management is required to be led by different responses which are able to create quick and accurate awareness. Emergency response management in the supply from the side of businesses is essential to be managed to reduce the distraction of business and the direction presented in the supply chain. Pharmaceutical businesses are required to be more aware of the distractions in their supply chain management.

3. Methods

A secondary research method has been followed in this research in terms of maintaining quality along with the reliability of the study. The secondary research is based on a systematic review based on different resources containing a wider context of emergency response management in the supply chain. As highlighted by Mohajan (2018), the systematic review helps to create a proper research guideline. Furthermore, different component analysis in terms of thematic analysis has been conducted, which is able to support the knowledge development regarding emergency supply chain management. In terms of maintaining flexibility and efficiency at a higher level regarding the secondary qualitative data, all the articles have been gathered from Google scholar and ProQuest. The database provides universal blood from flexible, reliable and free in terms of use. A descriptive Research Design has helped the study to become more specific along with following different key factors.

As narrated by Kumar (2018), qualitative data analysis has been performed in terms of analysing critically all the phenomena that are related to emergency response management in the supply chain. Positivism in research philosophy and the deductive research approach has been implemented in this research. This helps the researcher to maintain different comparative measurement strategies that are able to help the researcher to design a qualitative analysis.

4. Result

Author	Year	Design of this study	Number of resources or samples
Ketchen Jr et al.	2020	Descriptive research design	77 resources
Fasan et al.	2021	Archival approach	All public listed US companies holding assets more than 100 dollars
McMaster et al.	2020	Inventory design	2 theories
Flynn et al.	2021	Descriptive design	7 resources
Altay et al.	2018	Dillman's tailored design method	355 organisations from NDMA
Dubey et al.	2021	Hypo-deductive research design	613 individuals working in 193 NGOs

Table 1: Data extraction table

(Source: learner)

Authors	Study design	Measured outcomes	Results	Quality review
Ketchen Jr et al. (2020)	Descriptive research design	Spanning entrepreneurship has been negatively affected due to disruption of the supply chain during the covid-19 situation.	Alignment of strategic management, supply chain management and entrepreneurship is able to make improvements among the businesses in terms of maintaining the supply chain and business collaboration.	This research work explains the effectiveness of the supply chain and the role of entrepreneurs to manage the supply chain.
Fasan et al. (2021)	Archival approach	Supply chain management is able to play a	Significant damages are able to occur in	This is able to enlighten the role of suppliers and

		central role during the covid-19 crisis to manage the global supply chain.	business to receive the benefits of the supply chain during supply chain management.	supply chain to manage the business.
McMaster et al. (2020)	Inventory design	The importance of implementing agile and networked supply chain models is the different demands of the suppliers during emergencies is necessary	"The impacts of a potential second-wave of infections on consumption patterns and SCM ”	The influences of following effective structure in the supply chain are managing highlighted due to this research work.
Flynn et al. (2021)	Descriptive design	Incorporating different disciplines in the corporate supply chain management is able to handle emergencies during the pandemic situation.	Considering the benefit of both the management and suppliers, different rules are required to be formulated in terms of maintaining the business performance.	This is enlightening o the importance of the different rules and regulations to manage the supply chain.
Altay et al. (2018)	Dillman’s tailored design method	Resiliency and agility of the supply chain are able to affect the level of capabilities in the supply chain to stay maintained during the pandemic and certain situations.	Little religious and humanitarian approaches must be maintained in the supply chain to get managed during the crisis and emergency.	This article is shading light on the different factors that are able to manage the supply chain during a pandemic.
Dubey et al. (2021)	Hypo-deductive research design	There is a stable relationship	Intergroup leadership among	This research is shedding light on

		between "information alignment (IA) and collaboration (CO) and supply chain agility (SCAG)."	the supply chain is able to explain the different situations of the supply chain while facing uncertainties.	the different approaches that are able to highlight the importance of leadership and technology management to stay strong in emergencies.
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Table 2: Data synthesis table

(Source: Learner)

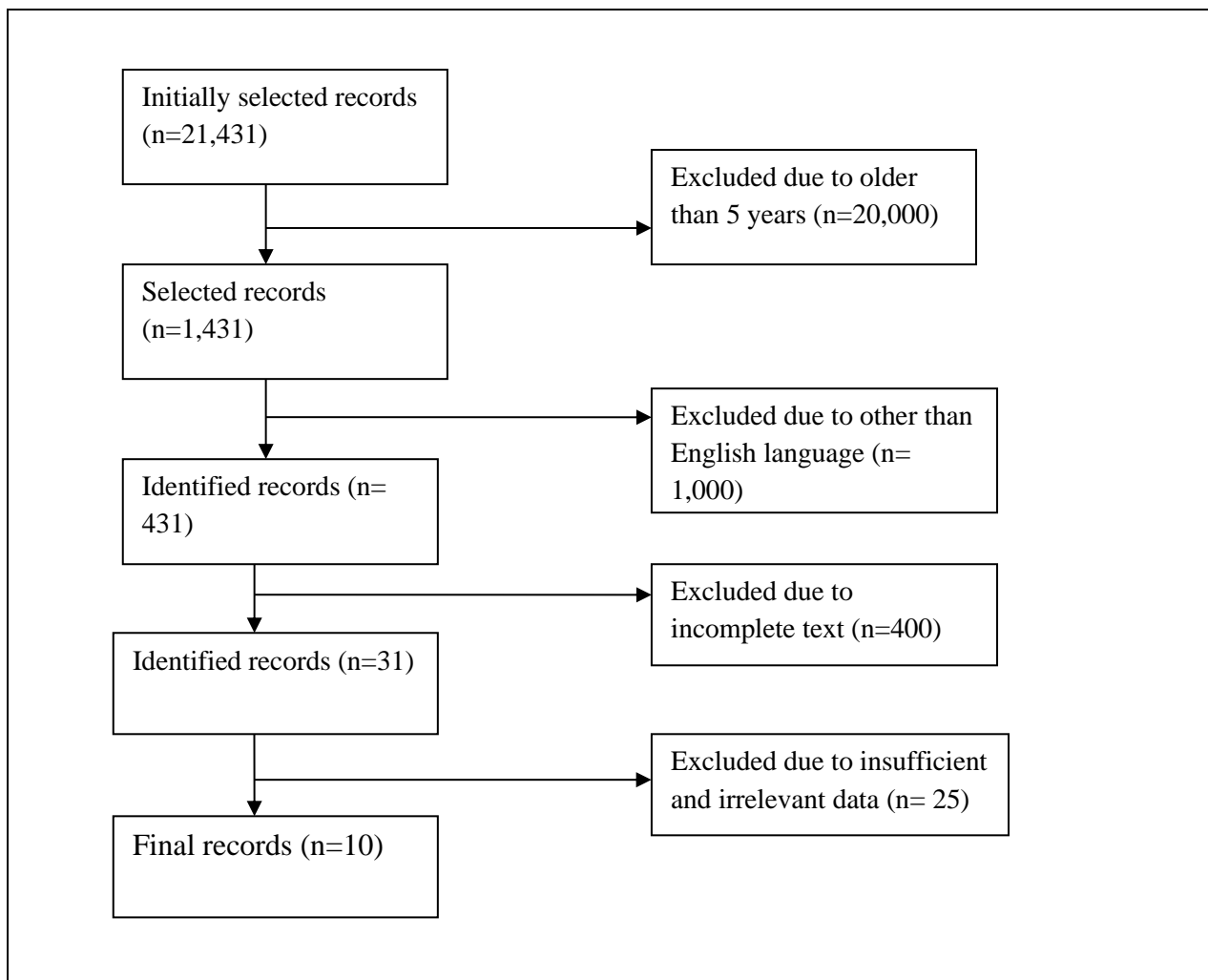


Figure 5: Prisma diagram

(Source: Learner)

Author	Theme	Sub-theme
Ketchen Jr et al. (2020), Fasan	Entrepreneurship is aligned	Following agile and network

et al. (2021) and McMaster et al. (2020)	with the supply chain, and they are required to adopt agility and networked diagram to maintain stability.	diagrams help entrepreneurs to manage the supply chain stability
Flynn et al. (2021), Altay et al. (2018) and Dubey et al. (2021)	Implementation of proper innovation and leaderships are able to help the businesses to maintain an appropriate supply chain and connection during emergencies	Innovation and leadership management help to keep emergency situations in the supply chain

Table 3: Axial coding table

(Source: Learner)

5. Analysis

5.1 Following agile and network diagrams helps entrepreneurs to manage the supply chain stability

In terms of bringing stability in the supply chain, following proper structures and Omnichannel marketing is equal to the supply chain management to stay stable during emergencies. The entrepreneurs are able to maintain their relationship with the suppliers when they are implementing along with following proper structures like agile supply chain management or network diagram to keep their connection with their suppliers during an emergency. Implementation of the supply chain management is able to help the entrepreneurs to maintain the deal with their suppliers. Whatever is the situation, it is at a fixed price which allows to reduce suppliers bargaining power. As highlighted by Ketchen Jr et al. (2020), alignment of strategic management, supply chain management and entrepreneurship are able to make improvements among the businesses in terms of maintaining the supply chain and business collaboration.

As a result of this, it is able to suggest that adopting an omnichannel approach is able to manage the resources in the organisation with a more complex strategy and create a new venue to add more value to the resources, as a result of this implementation of Omnichannel along with if the structure of supply chain management organisations is able to get success over their suppliers during emergencies. On the other hand, Fasan et al. (2021) have narrated that supply chain management is able to play a central role during the covid-19 crisis to manage the global supply chain. Dealing with the observations regarding the returns from the supply chain and implementing a model which is based on post covid situations are able to make it a more effective variable for business management.

Business management is able to have an effective result and effect on the supply chain management by the side of the organisation. In contrast to this, McMaster et al. (2020) have commented that the importance of implementing agile and networked supply chain models are the different demands of the suppliers during emergencies is necessary. Implementing Agile risk management in the supply chain helps businesses to take inherent uncertainty under consideration. As a result, the implementation of agile management is able to help organisations to deal with emergency resource management.

5.2 Innovation and leadership management help to maintain emergency situations in the supply chain

Proper management and utilisation of humanitarian logistics are required to be maintained, especially in the pharmaceutical industry. The resiliency of the supply chain of the Pharma industry is required to be associated with emergency management in terms of managing the funds along with the different

relationships between different humanitarian phenomena, which consist of the suppliers. As commented by Flynn et al. (2021), incorporating different disciplines in the corporate supply chain management is able to handle emergencies during the pandemic situation. Discipline helps people to manage relationships in different situations. While the business management have different laws and regulations in their supply chain and they are able to maintain the relationships with their suppliers as they were when maintaining during the normal days as in the covid-19 situation, which is an emergency and creating the crisis. The management of specifically the pharmaceutical industry is required to implement different humanitarian rules and regulations to maintain the supplies efficiently.

On the other hand, Altay et al. (2018) have highlighted that resiliency and agility of the supply chain are able to affect the level of capabilities in the supply chain to stay maintained during the pandemic and certain situations. Agility and resilience in the supplies help organisations to maintain that deals with strong regulations and rules in terms of maintaining humanitarian aspects of their business organisation in terms of regulating their business. In contrast to this, Dubey et al. (2021) have commented that intergroup leadership among the supply chain is able to explain the different situations of the supply chain while facing uncertainties. Proper leadership within the supply chain is able to help the organisations to maintain different emergency situations with their suppliers.

6. Discussion

From the data analysis of the secondary resources, it is able to state that the suppliers are required to have a proper framework with the organisation in terms of maintaining their terms and conditions during emergency situations. Relationship patterns of the suppliers with the management is required to be properly established in terms of maintaining the proper aspects of both suppliers and management in terms of proper implementation of emergency response management in the supply chain during the covid-19. A lag in supply chain management has been identified. As for license management in the country becomes more time taking due to the Brexit issue along with the covid-19 situation.

7. Conclusion

From the entire discussion, it can be concluded that the suppliers are required to have a proper day with their management in terms of maintaining all the perspectives in the business. In terms of managing emergencies, proper discipline and contracts are required to be used with the suppliers. The proper rules and regulations are able to help the management studio with the suppliers in terms of regulating the business during emergency situations without rising prices or any other issues.

8. Research Limitation

This research is based only on the secondary qualitative data set, and this is creating a limitation for this research work as another alignment with any specific industry has not been done in this research study.

9. Recommendation

Developing a specific rule and regulation with the suppliers is required to be maintained during the development of a business deal. All the different certain and uncertain situations and conditions during the situations are required to be mentioned in the contract. Therefore, it is helpful for maintaining both the perspectives of suppliers and the business managers.

10. Future Scope

The new study is able to provide a father chance to develop primary quantitative research in this research topic. This research work discusses different phenomena regarding emergency response management in the supply chain during Covid-19.

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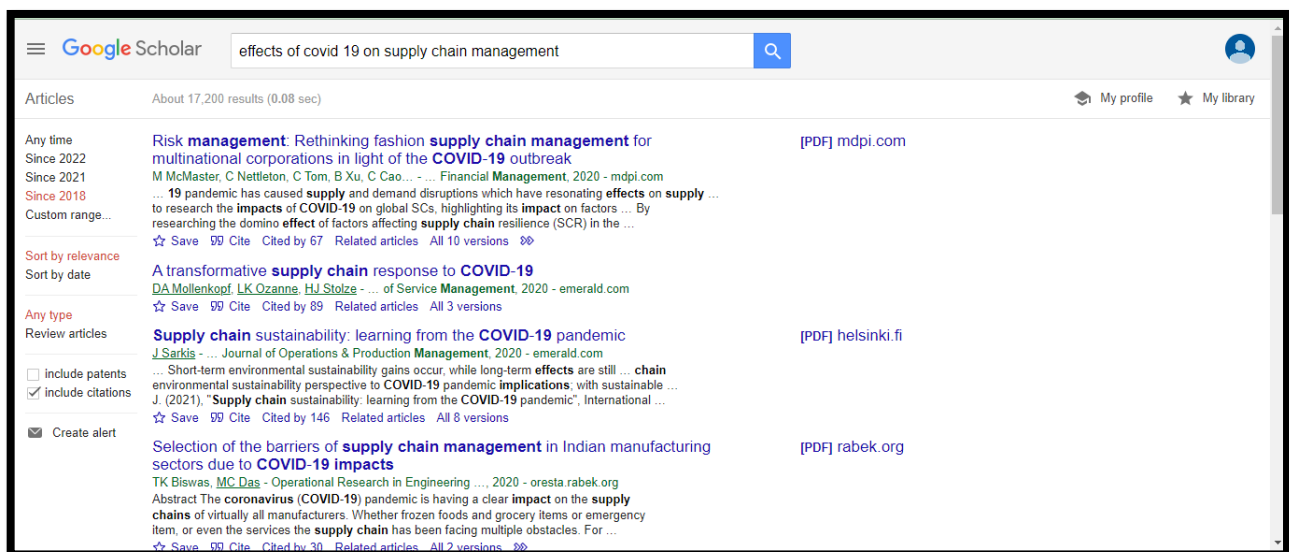
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Appendices

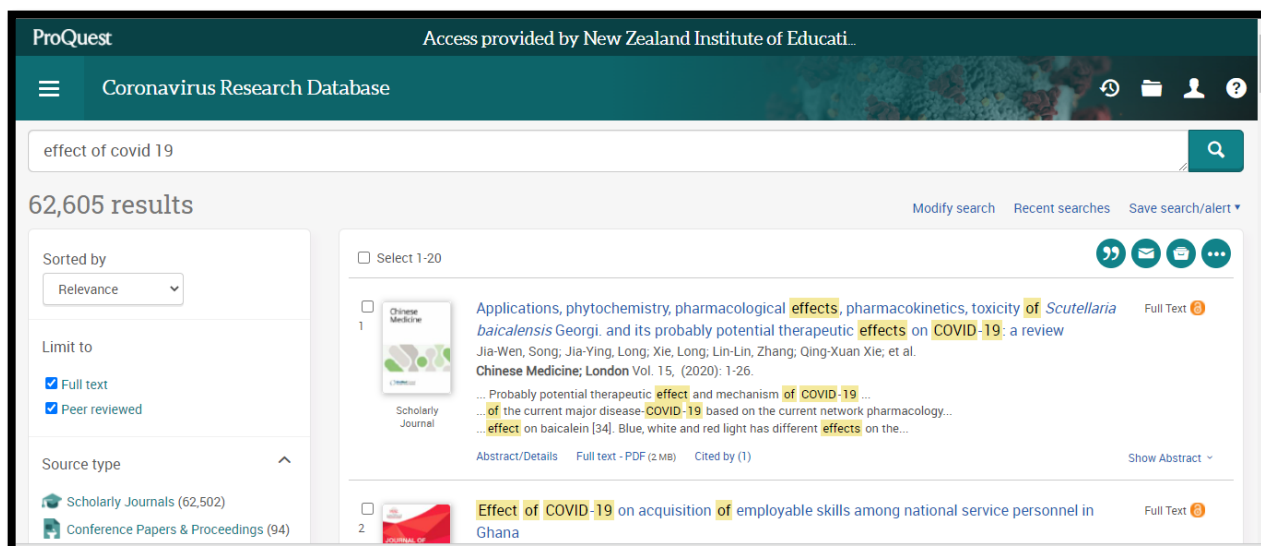
Appendix 1: Boolean table

KEYWORDS	OPERATOR	KEYWORDS
Customers	AND	Pandemic
Supply chain	OR	Management
Agile	AND	Emergency

Appendix 2: Databases



(Source: Google scholar)



(Source: ProQuest)