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DISSERTATION RESEARCH PROJECT

EVALUATION OF FACTORS THAT AFFECT SUPPLY CHAIN VELOCITY DURING COVID 19: CASE OF CHICKEN INN, HARARE

BY

MABURUTSE PORTIA

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TITLE PAGE

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AUTHOR: MABURUTSE PORTIA

A DISSERTATION IS BEING SUBMITTED IN PARTIAL FULFILMENT OF THE REQIREMENTS FOR BACHELOR OF COMMERCE DEGREE IN PURCHASING AND SUPPLY MANAGEMENT AT BINDURA UNIVESITY OF SCIENCE EDUCATION.FACULTY OF COMMERCE.

APROVAL FORM

The undersigned certify that they have supervised, read and recommend to the Bindura University of Science Education for acceptance a research project entitled: Evaluation of the factors affecting supply chain velocity during Covid -19. Case Chicken Inn, Harare submitted by Maburutse Portia in partial fulfilment of the requirements for the Bachelor of Commerce in Purchasing and Supply Degree Program

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(Signature of Student) Date

…… ..../……../……./

(Signature of Supervisor) Date

…… ..../……../……./

(Signature of Chairperson) Date

RELEASE FORM

NAME OF AUTHOR: MABURUTSE PORTIA

TITTLE OF PROJECT: EVALUATION OF THE FACTORS AFFECTING SUPPLY CHAIN VELOCITY DURING COVID-19. CASE OF CHICKEN INN, HARARE

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SIGNED.....

PERMANENT ADDRESS: 915 Artherstone Road , Chipindura Stands, Bindura

PHONE NUMBER: 0718207487

DEDICATION

I would like to dedicate this research project to Obey Ngorima, family and friends for the unwavering material and emotional support they gave me during the project. May the Almighty God richly bless you?

Thank you all

ABSTRACT

Firms faces the fundamental issue of having to wait longer for a finished product than the client is willing to wait for it to be procured, made, and delivered. Zimbabwean Chicken Inn fast food restaurant has considered supply chain velocity deployment. The study sought to identify and evaluate factors influencing supply chain velocity for Chicken Inn, Harare during Covid -19. In trying to come up with sound conclusions the researcher used technology, organizational and environmental framework to evaluate organisational resources and capabilities of an organisation to stand up from a disaster. The study specifically sought to determine how supply chain visibility, information and communication technology, supplier flexibility, and internal flexibility influence supply chain velocity during Covid-19 in a fast-food establishment. The researcher used a questionnaire to obtain its results. During Covid-19, the study examined how supply chain visibility, information and communication technologies, supplier flexibility, and internal flexibility affect supply chain velocity. From the research it is viewed that the importance supply chain velocity is boost profitability and cost savings, increase brand loyalty and repeat purchases and create better inventory tracking system among others. Finally, the report recommends that the company assess all of the elements affecting supply chain velocity before focusing solely on one component that the majority has evaluated, and that it considers enhanced communication and collaboration among supply chain stakeholders. In addition to the findings the report recommend that Chicken Inn should implement supply chain velocity to gain comparative advantage from competitors when a disaster arise through boosting profitability and cost savings.

Key words: Evaluate; supply chain velocity; procurement; performance

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I sincerely say, Thank you! May the good Lord continue to bless you!

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ABBREVATION

S.C	supply chain
S.C.M	supply chain management
S.C.V	supply chain velocity
T.O.E	technology, organisational and environmental framework
R.B.V	Resource Based View
I.C.T	Information and Communication Technology

CHAPTER 1

INTRODUCTION OF THE STUDY

1.1 Introduction

This chapter emphasizes the significance of the study while concentrating on the research challenge. The chapter will examine the backdrop of the study, research gap, research aims, study purpose and assumptions, as well as the constraints under which the research was conducted on the elements affecting 'supply chain velocity during Covid-19 in the fast-food outlet industry Chicken Inn, Harare'.

1.2 Background of study

Carvalho and Azevedo (2012) define supply chain velocity as the ability to complete a task as quickly as possible. Purchase from a manufacturer, production lead times, warehouse receiving and inventory management, order processing, picking, packaging, shipping, and last-mile logistics are all part of it. In 1950, Shri Laxminarayan T Palod founded Velocity Supply Chain Management in Jalgaon.

The speed of each supply chain phase and operation is considered, including purchasing from a manufacturer, production lead times, warehouse receiving, inventory management, order processing, picking, packing, shipping, and last-mile logistics. High supply chain velocity shortens order cycle times, shortens lead times, and streamlines supply chain operations. Since the advent of modern production and distribution management, businesses have struggled with the problem of maximizing the distribution of goods and services to the marketplace. When suppliers and producers are close to each other, demand signals can be received rapidly. Companies must, however, adapt as the time and distance between production and the place of consumption expand.

As the supply channel expands, so is the importance of managing the velocity of the commodities and services that flow through it. The most common analogy for supply chain velocity is that of a pipeline through which product flows. As pipeline flows become longer and longer, several major issues can occur. If supply chains are

to become more flexible to such occurrences, one of the key criteria must be the ability to improve the end-to-end flow of their products and services.

Businesses are constantly looking for ways to gain a competitive edge by understanding and managing the velocity of their supply pipelines. The vast majority of businesses are inwardly focused and have extremely limited visibility into what is happening in their supply chains. As companies increase their reliance on outsourcing, product lifecycles continue to shrink, and customer loyalties decline, this lack of visibility has become an even more difficult challenge.

The worldwide supply chain was first significantly impacted by the COVID-19 pandemic. The World Health Organization announced the first report of COVID-19 on 31 December 2019, which was discovered in Wuhan City a province in China. WHO declared the disease a global pandemic outbreak and health emergency on January 30, 2020. The COVID-19 Pandemic has quickly spread around the planet. All communities' lives and livelihoods have been disrupted, causing major issues for the most vulnerable. Furthermore, it has a major and negative impact on the welfare of the population as well as the economy. An epidemic's onset is a singular instance of supply chain risk, with low frequency, a high degree of unpredictability, and a protracted period of impact. Ivanov (2020a). The global and local Covid-19 epidemic created a supply and demand imbalance. Krishna et al (2021). The pandemic outbreak has limited the company's supply chain resilience because to a scarcity of supply, manufacturing halts, and an uneven supply-demand condition (Dolgui, 2020). As a result, there is a delay or inefficiency in the pace of manufacturing of the items to reach their clients on time, prompting the researcher to conduct research on the elements influencing supply chain velocity during Covid-19.

Covid-19 had severe impact on a variety of social dimensions as well as the political and economic landscapes of many countries throughout the world. Many communities accepted social isolation as the norm, while many countries imposed fourteen-day quarantine periods on foreign visitors. Along with this, a staggering number of businesses have shuttered or declared bankruptcy as a result of curfews, quarantines, and social isolation. These protections forced various sectors to have major negative consequences on their everyday operations as a result of the limited client flow that would normally sustain their firms.

Fast food restaurant Chicken Inn is owned by Innscor Zimbabwe Ltd. Famous for its delicious fried chicken, Chicken Inn also serves other quickly popular foods like soft drinks. Menu items include hand-cut chips prepared fresh every day, burgers, roasted chicken, and piece meals. Chicken Inn intends to expand its network of stores throughout Zimbabwe in order to serve a sizable number of locals there. The first Chicken Inn location opened in Harare in 1987, and the company's vision is to build "world-class and dominant intellectual" restaurants. Nando's, KFC, Wimpy, and Chicken Slice are some of Chicken Inn's rivals.

1.3 Statement of the problem

Supply chain velocity is a global chain issue in that with unexpected global supply chain crises and a growing focus on supply chain sustainability, achieving velocity is easier said than done. It leads to inventory shortages whereby shortages cause bottlenecks, making it difficult to maintain supply chain velocity when a particular resource runs out and supply chain disruptions. Mitigating the risk of supply chain disruption while simultaneously increasing product velocities requires the creation of supply chains that are agile and nimble enough to thrive in today's global marketplace through increased supply chain visibility, increased supplier flexibility, increased internal flexibility and enable information and communication technology being advance. As a result of this issue, the researcher decided to do research on the elements influencing supply chain velocity during Covid-19. Because of the intensity and speed of the global downturn caused by Covid-19, both local and foreign manufacturers' supply chains have been severely disrupted. The supply chain shockwaves caused by Covid-19 demonstrate how dependent countries were on timely and effective delivery of products. All economic sectors waited a few weeks to assess how serious the effect would be. Experts in supply chain management jumped at the possibility to develop novel solutions to the possible bottlenecks that the disaster appeared to portend for air, rail, and ground transportation in the country's centre.

1.4. Objectives

The major objective of the study was to evaluate factors affecting supply chain velocity during Covid -19.

The researcher is also guided by sub-objectives:

- To determine how information and communication technology can enhance supply chain velocity during Covid-19.
- To determine how supply chain visibility can affect supply chain velocity during a disaster.
- To evaluate how supply chain velocity is impacted by supplier flexibility during the Covid-19
- To assess how internal flexibility can boost supply chain velocity during Covid -19.

1.5. Question of the study

- How does information and communication technology enhance supply chain velocity during the pandemic?
- How does supply chain visibility affect supply chain velocity during Covid-19?
- What is the impact of supplier flexibility to supply chain velocity?
- How does internal flexibility boost supply chain velocity of an organization during Covid- 19?

1.6 Study Hypothesis

- $H0_1$: There is no impact of Supply Chain Visibility on Supply Chain Velocity
- $H0_2$: There is no impact of Supply Flexibility on Supply Chain Velocity
- $H0_3$: There is no impact of Internal Flexibility on Supply Chain Velocity
- $H0_4$: There is no impact of Information and Communication Technology on Supply Chain Velocity

1.7 Significance of the study

This research has helped a few people, not only Chicken Inn, but also other stakeholders (the institution, the government, customers, and the community) by increasing customer satisfaction, brand loyalty, and repeat purchases. This study

yielded useful ideas for maintaining supply chain velocity amid a disruption.

The Government

This research will be beneficial to the government in that they will be provided with a glimpse on how to prepare economically, socially, and politically to any disaster that will occur in terms of being able to complete activity or provide basic products whenever need rise regardless of the environmental situation.

Bandura University

The university will benefit from this study in a way that it will be in the library where it will be easily accessed by all students for future references. This research will work also as a way to boost the knowledge of Bindura University of Science Education in preventing any supply chain gap when disasters arise, they will be at a position to provide its services.

Chicken Inn

Chicken Inn's management will benefit from research into how to deal with supply chain velocity during a crisis, as well as pinpoint where speed is required in the supply chain. It will also assist the business in developing measures to continue the distribution of basic supplies to its users in order to mitigate the shortages caused by the country's absolute lockdown due to Covid-19. This industry will profit from this research.

The researcher

The researcher got an in-depth appreciation of factors affecting supply chain velocity during a disaster and ways of overcoming them as well as ways to increase supply chain velocity which she is going to apply in professional field of procurement.

1.8 Assumptions

The following assumptions underpin the research study:

- Respondents are well-versed in the subject topic and will provide correct and accurate information.
- The sample picked will be a true representation of the research study, and the

researcher will not be influenced by financial or school obligations.

• Respondents' privacy and confidentiality will be safeguarded at all costs.

• The budgeted financial resources were sufficient to cover all of the costs involved.

1.9. Delimitations of the study

This research will mainly focus on the factors affecting supply chain velocity during Covid-19. This study concentrates on Chicken Inn, Harare where the production and distribution of fast foods is centered. The sampling technique used would select participants from different departments with little or no understanding in the knowledge of supply chain.

1.10 Limitations of the study

Uncertainty

Some employees were hesitant to share essential information because they were afraid of the unknown. However, the researcher assured them that their participation would be treated confidentially and that their identity would not be divulged. He informed the participants that the study was solely for academic objectives.

Time

Attempting to balance time for school and conducting research proved difficult. To address this issue, the researcher conducted the study on weekends. It was also difficult to protect employees' valuable time. This was due to the employees' constant involvement with their work throughout working hours. This was remedied by establishing off-time hours with the personnel to gather information.

Finance

The researcher struggled to create a realistic budget because he lacked cash for the research. However, the researcher had to seek for cheaper libraries and internet cafés, as well as funding from family members.

1.11 Definition of key terms

Supply Chain- a group of people connected by the exchange of goods, information,

and money with the aim of lowering system costs.

Velocity - the ability to complete an activity as quickly as possible.

Supply chain velocity focuses on the rate of flexible adaptation, which in turn establishes how quickly the supply chain will recover from a risk occurrence.

Flexibility in the supply chain refers to the capacity to adapt to sudden changes in the supply or demand environment.

Evaluation- the making of a judgment about the amount, number or value of something.

Covid -19- is an infectious disease caused by the SARV-CoV-2 virus.

1.12. The study's organization

Chapters 1 through 5 make up most of the study's five chapters. The study's background, the gap that exists, the study's scope, and its goals were all introduced in Chapter 1. In order to address the research objectives and questions that are specific to Chicken Inn, Harare, Chapter 2's review of the literature on impact and factors affecting supply chain velocity attempted to take a more comprehensive approach. The research approach, sampling techniques, research instruments, data analysis, and presentation were all covered in Chapter 3 (the methodology). The research findings and discussion were discussed in Chapter 4 of the book. An analysis of the data was presented in the findings section before conclusions were drawn from the findings.

1.13. Summary

The subject matter was introduced in this chapter, along with a focus on the study's goals and study questions. The problem's definition and history, the study's importance, and the anticipated limits were all explored. Acronym definitions and terminology used in the research were covered in the chapter's final part. The second portion of the study provides a literature review on supply chain velocity.

CHAPTER 2

LITERACTURE REVIEW

2.0. Introduction

To provide insight into the factors influencing supply chain velocity practices during COVID-19, this chapter explores literature that is connected to the study in one way or another. Its main objective is to assist the researcher in gaining a thorough comprehension of pertinent prior research as well as insights into emerging trends. It also includes a gap analysis, a theoretical framework, and an empirical assessment of studies that the factors.

2.1.0. Supply chain

A supply chain (SC) is a network of people who interchange products, information, and cash with the goal of bringing system costs down. Supply chain entails three or more business connected by movements of products, money, and information from a source to a client (Mentzer et.al; 2015). Without discussing supply chain management, we cannot discuss the supply chain. Supply chain management (SCM) is described by Lambert and Cooper (2012) as an integrative philosophy to manage

the entire flow of the distribution network from supplier to final client. Tan (2012) claims that the overall objective of SCM is to seamlessly integrate different supply chain participants to produce high levels of client satisfaction and, as a result, a long -term competitive advantage.

To ensure sustainability and efficacy, supply chain management can be considered to have characteristics that need to be investigated. To ensure that supply chains work as efficiently as possible, these planning processes are crucial. By managing demand through demand planning and source planning, a business is better able to manage its cash flow and its capacity to meet consumer demands. Working with vendors who can adapt to the needs and preferences of the consumer is always preferable when sourcing in any organizational setting. Suppliers must be able to regularly meet demand, both during and outside of seasonal peaks. The distribution channel needs to be reliable and dependable. It must be able to handle abrupt increases in demand and have plans in place for company continuity in case of regular logistics issues like bad weather.

2.1.1. Supply chain velocity

Supply chain velocity is the capacity to accomplish a task as soon as possible (Azevedo, 2012). Supply chain recovery from a risk event is based on supply chain velocity, which emphasizes the rate of flexible adaptation (Tukumuhabwa, Stevenson & Busby., 2015). Supply chain empowerment, supply chain flexibility, Supply chain visibility, and supply chain innovations were highlighted as dimensions of supply chain velocity by Dubey (2014), cited in Tukumuhabwa et al. (2015). Supply chain velocity, according to Rachel Hand (2021), assets is the rate at which supply chain tasks are done as well as the rate at which orders travel through the supply chain from processing to arrival at the customer's doorstep. Purchasing from a manufacturer, lead time, warehousing receipt, inventory control, order processing, selecting, packaging, shipping, and last-mile logistics are all factors that go into supply chain velocity, according to the author. High SCV reduces lead times, speeds up supply chain operations, and reduces order cycle time.

Supply chain is merely one element of velocity, which is essentially a cross-

functional deliverable, according to Janet Suleski (2019). Dependability, responsiveness, and agility are the traits that are most crucial to possess to compete successfully in the current environment. While Mark Hermans (2019) believes that speed is crucial, one should always consider the total cost of service before speeding up a supply chain. Dependability, responsiveness, and agility are the traits that are most crucial to possess to compete successfully in the current environment. It can be challenging for business owners to understand how to boost their supply chain's velocity or where to focus optimization efforts because there are so many moving pieces in a supply chain. The following best practices can be implemented by your company to increase supply chain velocity. Utilizing your data to estimate demand is crucial to planning your supply chain in advance and ensuring that you'll be scheduling restocking to satisfy client expectations. High SCV gives your company a competitive edge and is very necessary for it to last. In addition, Rand (2021) stresses the significance of supply chain velocity as it increases profitability and reduces costs in a way that, on the sales front, can lead to more sales and higher revenues. This means that in the face of uncertainty, high speed supply chains are readily modified to avoid dangers and seize opportunities. Operations are prepared for unforeseen obstacles.

2.2. Theoretical Framework

In discussing and analyzing factors that affect SCV during Covid-19, the paper employs the theory 'Technology, organizational and environmental framework' (T.O.E)

2.2.1. Technology, organizational and environmental framework (T.O.E)

To evaluate organization procurement performance, the researcher used the TOE framework. According to Acton (2019) the TOE theory, the effects of such breakthroughs can be attributed to the technological (T), organizational (O), and environmental (E) settings when businesses develop their assets and know-hows to acquire competitive leverage (Kouhizadeh et al., 2020). The significance and readiness of a technical improvement brought about by such breakthroughs are explained by the technological environment. The firm's decision-making structure and strengths to support such breakthroughs are identified by the organizational context. The relationship between these innovations and competitive environmental concerns is best understood in the context of the environment, which also industries',

and the regulatory environment's readiness to accept them. According to Kouhizadeh et al. (2020) the TOE framework is a study of how the current situation might be improved. However, in line to the study, there are theories that were employed by other researchers to discuss supply chain velocity are as follows:

2.2.2. Resource Based View (RBV)

According to this theory, when planning the supply management process, the company's resources should be taken into account. The resource-based view (RBV) is a strategic management paradigm that focuses on an organization and how it utilizes its resources and talents. According to Barney et al. (2011), resources are defined as a group of items that a firm owns and controls, whereas capabilities are defined as the ability to employ such resources. Businesses must increase their internal and external resources, as well as their integration and reconfiguration capabilities, in order to respond to changing conditions using RBV. The RBV focuses on the firm's current resources, whereas the dynamic capabilities perspective highlights how resources and organizational capabilities change and evolve to achieve goals.

According to Nandi et al. (2020), RBV maintains that a business has a competitive advantage if it provides more customer added value than its competitors. The resource-based view of the firm provides a crucial framework for identifying and anticipating the foundation of a firm's competitive advantage and performance (Barney, 2011). According to a resource-based logic, if a corporation has important resources that few other firms have and other companies find it too costly or difficult to replicate those resources, the firm with those resources is likely to be able to establish supply chain advantage. Hesterly and Barney (2012). In the context of a standard strength, weakness, opportunity, and threat (SWOT) model, resources are important if they enable the organization to capitalize on an external opportunity.

2.2.4. Agile Manufacturing Theory

According to the principle, supply chain management should be focused on enhancing organizational output. Ketchen & Hult (2006). Agile manufacturing emphasizes concurrent excellence on a broader range of competitive metrics, particularly being the first to market with cutting-edge solutions that surpass customers' expectations and nullify competitors' plans, delivered at the expense of

mass production Nandhakumar, Ghobadian, and O'Regan, (2011). In circumstances where change is constant and unpredictable, agile manufacturing aids businesses in remaining competitive and thriving Cao and Dowlatshahi, (2006). According to a recent study by Dubey and Gunasekaran (2015), information sharing technologies that enable firms to increase dynamic sensing and speed are intimately linked to agile manufacturing Elkins et al., (2004). Consequently, the use of technology and the exchange of information are crucial for achievement of agile manufacturing.

2.2.5. Institutional Theory

This concept is supported by the institution's guiding principles. This theory, which uses this idea in a commercial setting, hypothesizes that institutional restrictions lead organizations to pursue goals that boost their legitimacy and make them appear to be in line with the rules, specifications, and conventions of their various business settings. Walker and Touboulic (2015). Participating in supply chain interactions is one way for organizations to do this. For example, by forging relationships with larger, more established companies, a small business can increase its visibility, reputation, image, and prestige. Institutional pressure and legitimacy can have a considerable impact on how a corporate body's formal structure is founded and developed. A structured organization can ensure technological effectiveness, providing it legitimacy in the market.

As businesses attempt to implement acceptable procedures or legitimize their operations in the eyes of other stakeholders, company strategy and organizational decision-making are influenced by external political, social, and economic influences, claims Glover (2014). Through legitimacy, the organizations will try to put into reality sustainable practices that stakeholders will regard as just and suitable. According to Scott (2007), the traditional focus of institutional theory was on how companies maintained their positions in the market and their legitimacy by abiding by rules, laws, professional standards, and other social customs that put pressure on them to adhere to the institution's internal norms and rules.

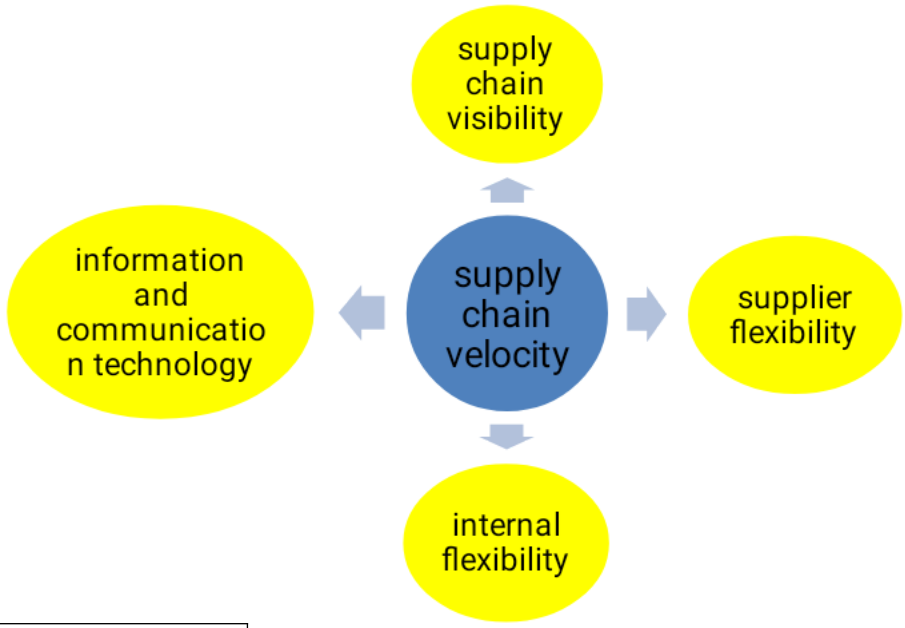
The dynamics of social norms, technical advancement, and regulatory frameworks can be better understood using institutional theory because these factors will eventually influence choices about sustainable activities Ball, (2010). The ability of institutions to define what is suitable or legitimate allows them to rule out alternative

behaviours as inappropriate or even unworthy of consideration, which in turn affects their decision-making. This provides information about the roles played by various participants in the creation of sustainable supply chains and their roles in achieving compliance. The institutional perspective makes it possible for organizational actions to adhere to various laws and social pressures.

2.3. Study conceptual framework

Figure 2.3.1 the conceptual framework of supply chain velocity and the factors affecting supply chain velocity

Key for figure 2.31



	independent variable
	dependant variable

Source : primary data.

2.3.2. Figure 2.31 illustrate the factors affecting supply chain velocity

2.3.3. Supply chain visibility

Supply chain visibility is the degree to which participants in a supply chain have access to vital information. Data must be accessible, fast, accurate, and in a manner that provides important information for supply chain visibility to be effective (Carvalho,2012). The tremendous volume of data being produced in today's businesses makes electronic distribution, filtering, and monitoring exceedingly quick and economical. The aspects of supply chain visibility, according to Pettit (2012), include information technology, information interchange, business intelligence collecting, and asset status awareness. In the right situation, a phone call or memo will do.

2.3.4. Supplier flexibility

Gligor (2013) defines flexibility as the capacity to modify the range of tactics and

activities as necessary. Supply chain flexibility, according to Damien et al. (2012), is the capacity to adapt to transient shifts in supply or demand conditions as well as strategic and organizational changes within the environment. Improving supplier relations is a significant driver of increased supply chain velocity. Supplier flexibility is viewed as a tool in the supply chain for dealing with environmental concerns. Supplier flexibility is essential for responding to supply chain disruptions, changes in demand, and external market fluctuations.

Companies' dependence on exporting increases as they centralize and invest their scarce resources in core competencies (Germain et al, 2019). According to Ojha et al. (2021), a key component of businesses' efforts to control supply chain risk and shifting customer demand is cultivating flexibility skills in their upstream value chains. Chiang (2012) states that supplier flexibility is also known as sourcing flexibility referring to a company's purchasing function's capacity to reduce environmental uncertainty through the administration and coordination of the supplier network. Naim et al,. (2014), posits that the upstream-facing element of a flexible distribution chain is supplier flexibility. The proactive use of supplier flexibility to support manufacturing and improve product availability has been researched. The ability to quickly and efficiently develop new products to meet market demands, minimize stock outs, shorten lead times, and support product customization is made possible by the supplier's flexibility (Wagner et al, 2018). According to Rao (2012), supplier flexibility aids in the growth of flexibility competencies across the SC, which results in improved company performance.

2.3.5. Internal flexibility

Internal flexibility takes into account evolving ideas for project efficiency as well as unexpected disasters. Internal flexibility, in general, refers to the firm's attempts to incorporate and develop workers' competence and skills so that a person can be assigned to other occupations or departments within the firm. Increasing pace necessitates lean and agile operations functions. Internal flexibility is to eliminate non-value-added operations that just lengthen lead times and increase supply chain unpredictability.

Internal flexibility is a well-established notion in the manufacturing industry, (Lopez Fernandez, 2016). They further contend that internal adaptability refers to the

inherent flexibility in production resources and management. Internal flexibility allows manufacturing systems to carry out various operations cost-effectively and successfully Kocabasoglu-Hillmer et al,.(2013). This is crucial for adapting to customers' quickly changing perceptions Delic (2020), which in turn boosts customer satisfaction Saenz et al (2018). A workforce that can complete a variety of activities with little training and delay is a distinguishing quality of flexible manufacturing (Lopez Fernandez, 2016).

2.3.6. Information and communication technology

Information technology is the use of computerized technologies to streamline internal processes, connect supply chain activities, and give visibility. Today's businesses generate enormous amounts of data, making electronic distribution, filtering, and monitoring highly quick and economical. Visibility may now successfully originate from a variety of media in the era of electronic data exchange, radio frequency identification, and web presence. The goal is to employ technology to enhance every aspect of the delivery process, from self-service order entry and on-time delivery through delivery synchronization and status visibility. Technology solutions are essential for gaining insight into orders, inventory, and exports along the extended supply chain. The firm can employ electronic data interchange, the Web, and radio frequency identification to enhance operational effectiveness and channel visibility.

2.4. Empirical evidence

An analysis of correlation between supply chain visibility, supply chain velocity, supply chain alignment, and supply chain relief agility was done by Ahimbisibwe A. et al. (2016) using a case study of the response of humanitarian organizations to the Bududa Land Slide disasters in Eastern Uganda. The 2010 Bududa landslides prompted several relief organizations to bring supplies to people in need, however despite their efforts, their humanitarian supply systems were unable to react quickly and effectively to the disaster's unexpected start. The Bududa district in Eastern Uganda was the site of a cross-sectional data collection from a sample of sixteen humanitarian NGOS that were active in responding to landslide catastrophes. A total of 135 valid questionnaires were gathered, and they were utilized to analyse the data. The findings show a very favourable correlation between supply chain relief agility,

supply chain velocity, alignment, and visibility. Findings also showed that supply chain visibility and alignment are important indicators of the responsiveness of the humanitarian supply chain.

The moderating impact of innovation orientation on the relationship between supply chain flexibility and customer responsiveness was studied by Hamid Jafari, et al. in 2022. The study investigates the relationship between supply networks' responsiveness and flexibility (SC). By analyzing how SC flexibility, as a multidimensional entity, influences consumer reaction and if this connection is impacted by a firm's innovation attitude, our study adds to the corpus of knowledge. We evaluate our proposed empirical model using data from 225 Swedish enterprises, and we discover empirical support for the beneficial impacts of the supply chain flexibility components on consumer response. Additionally, we discovered evidence that the relationship between internal flexibility and the innovative mind-set is strengthened.

2.5. Gap analysis

This study fills a gap in the literature by conducting the first thorough review of the variables influencing supply chain velocity in Zimbabwe. George J. and Pillai M. V. and other studies have focused primarily on the variables influencing the performance of the supply chain (2019). The Bududa Land Slide catastrophes in Eastern Uganda were utilized as a case study in the study by Ahimbisibwe W. et al. (2016) to look at the relationships between supply chain visibility, supply chain coherence, and supply chain relief velocity. While Hand R. (2021) spends a lot of time on the supply chain velocity in today's world, including its definition, significance, obstacles to obtaining velocity, strategies for overcoming these obstacles, and issues

2.6 Summary

This chapter reviewed the literature and examined theoretical, conceptual, and empirical evidence of the obstacles to the successful adoption of sustainable procurement strategies. It also discussed gap analysis to see how other studies differed from this one. Following an analysis of the literature, the following chapter will cover the research technics.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. Introduction

This chapter covers the research design, the study's population, the sample size, sampling strategies, data collection procedures, a strategy for data processing, data presentation, and findings interpretation. Additionally, it outlines the type of the study design, the sampling strategy, and the methods used to gather and analyse the data. The strategy acts as a guide for the researcher while they carry out the design.

3.2 Research design

In general, the methods employed in research initiatives for data collection, analysis, interpretation, and reporting are referred to as research designs. Grey (2014) asserts that the study design outlines the methods for data collection, analysis, and application to the research topic. There are three different sorts of research designs that may be used: exploratory, descriptive, and explanatory. Since each design has a unique final result, these forms are categorized according to the study topic. In this study, the researcher utilized descriptive research to provide readers a clear image of a situation, a person, or an incident or to show how different parts relate to one another and occur in a natural way. On the other hand, since they can only explain what happened, descriptive studies are far more suitable for a newly found or understudied subject of inquiry.

3.2.1 Descriptive research design

Agora (2012) asserts that the goal of descriptive research is to precisely describe the situation as it is at the time of the study. The participant was able to supply the necessary data because the researcher utilized a descriptive survey design, which

offers a clear presentation of the variables under inquiry and is straightforward and truthful. The findings on data presentation were presented in the study using a combination of tables, pie charts, and bar graphs. Through the use of questionnaires, in-person interviews, and secondary data, the data gathered was inferred into the meanings of qualitative data. The method's main benefit is that subjects are observed in a totally unaltered and natural context.

3.2.2. Epistemology research design

What we see as genuine and reliable knowledge is at the heart of epistemology, the study of knowledge. The question of what constitutes or should be recognized as acceptable knowledge in a field of study is an epistemological one. Two essentially opposed but competing schools of thought are positivism or realism a branch of epistemology that uses statistical analysis to identify exact causal linkages, look for generalizations that resemble laws, and address pressing practical issues. Basing on positivism, the social work has an external reality and should be assessed using impartial criteria, with the observer staying unbiased toward the subject of their inspection. But in order to embrace positivism, a researcher must focus on the facts, see patterns among variables, formulate and test hypotheses (using a deductive method), and operationalize concepts to allow for measurement and the use of quantitative methods.

3.3. Population of the study

The population is the sum of all measurements. It consists of all the members of the group in which the researcher is interested. For this study, the target group included Chicken Inn suppliers, staff members involved in supply-related operations such as service delivery, and customers who are the final consumers of the organization's products. The study population is the group that is actually surveyed.

3.4. Sample size

A sample is a subset of the population under consideration. Because accessing all individuals of the population would be time and money consuming, a sample was chosen. This study had a sample size of 90 people. The study employed a sample of all supply chain stakeholders, which included 30 suppliers, 30 supply chain staff members, and 30 customers who received their items.

3.5 Sampling techniques

A sample from the target demographic was chosen via purposeful sampling. This enabled the researcher to purposely include persons who could supply information needed for the investigation. The supply chain stakeholders (suppliers, employees, and customers) were purposefully chosen by the researcher since they are the ones who are directly affected by supply chain velocity.

3.6. Research Instruments

A research instrument is a suitable tool for soliciting information relevant to a research project. Questionnaires, interviews, and record inspections were utilized to acquire information about supply chain management at the Chicken Inn for this study. These tools are covered in greater depth below:

3.6.1 Questionnaires

A questionnaire, in general, is a list of questions with multiple choice options that are printed or typed and used in surveys or statistical studies. Surveys with both closed and open-ended questions were utilized to gather data. The questionnaires allow the researcher to collect more information in a shorter period of time because they were the only possible means to contact a sufficient number of respondents to allow statistical data on the overall notion of supply chain velocity. The researcher distributed 90 questionnaires to stakeholders, fifty of which were returned. However, because respondents took their time responding to questionnaires, the researcher had to follow up and send reminders to the respondents.

Questionnaires were utilized because they allowed the researcher to obtain the diverse and broad perspectives of participants on the factors influencing supply chain velocity. The questionnaire provided a uniform method of acquiring information among subjects, making analysis and presenting easier. The fact that the questionnaires were self-administered meant that there was no pressure on the respondents because they could complete them at their leisure within the one-week time frame. The problem of this technique of data collection is that there may be contamination of respondents' answers, which reduces data reliability because respondents prefer to discuss the questionnaire before answering, therefore they will provide the same answers. The questionnaires were first reviewed by an expert

researcher, whose feedback was used to improve the first draft of the questions.

3.6.2. Record Inspections

A number of records from the Chicken Inn restaurant's supply chain operations and transactions were scrutinized and analysed. This activity's major goal was to get a better understanding of the institution's operational setups in terms of supplier connections, store operations, supplier payments, service delivery, and so on. This was crucial for the research since it allowed some of the research questions to be answered while also providing context for the material acquired through questionnaires and interviews.

3.7 Data Collection Procedure

To collect data for this study, questionnaires were delivered to all of the desired sample elements, along with explicit instructions on how to complete them. Appointments for interviews were established ahead of time, and convenient times and locations for the subject were chosen. Historical records, transaction documents, and other pertinent documentation pertaining to the organization's supply management systems were investigated. All of this material was recorded as it happened for the sake of the research.

3.8 Reliability and validity of data

Reliability

When outcomes can be repeated, reliability which is defined as the consistency and accuracy of the produced results has been achieved (Collis&Hussey, 2003). Reliability is synonymous with dependability or consistency. The same might be done in the same or comparable conditions, according to Neuman (2006). Three forms of consistency are evaluated by psychologists: similarity within researchers, internal consistency (consistency between items), and test-retest reliability (consistency over time) (inter-rater reliability). Test-retest reliability was employed in this study, which states that when researchers evaluate a construct they anticipate being constant over time, the ratings they acquire should also remain consistent over time. To evaluate test-retest reliability, the measure must be administered to a group of individuals once, and then to the same group of individuals once again afterwards.

Validity

The validity of data refers to how well it describes the object or event under study (Bryman, 2001). According to Thieart (2001), the main issues with validity are whether the measured data is accurate and meaningful, as well as how much we may extrapolate from the results. As a result, the pilot study on questionnaires acted as a pre-test for its effectiveness in producing reliable data in terms of research reliability and validity. The instrument was refined in response to feedback from pilot subjects and conversations with an expert researcher in order to ensure content validity. The utilization of several information gathering methodologies also allowed for triangulation of information gathered in order to assure the information's validity and dependability. Any issues discovered during the information collection procedure were quickly addressed. When respondents did not understand the questionnaire, for example, attention was made to explain the criteria and guarantee that completed questionnaires were sent. In order to reduce non-response, respondents were contacted.

3.9 Data presentation and analysis

The researcher used tables, pie charts, and graphs to display the data and present visual facts of findings. These methods of data presentation have the advantages of being easy to understand, and individuals who use the study find the diagrams appealing and curious as to what they mean. To make the comprehension of the research easier, the data was presented as frequency tables, pie charts, and graphs. Additionally, the data was coded in several graph types employed in this study. Data was also analysed using frequency tables. Data displayed in frequency tables is simple to understand, aesthetically clear, and quick to interpret. This also aids in calculating the proportion of total data obtained, which will be displayed in the table. It also displays all of the obtained data statistics and summarizes the entire study in a table. Pie charts are also useful for showing data. The information gathered is translated into 360-degree of a complete revolution. The variation that occurs among all supply chain stakeholders is easily interpreted. The thematic method was employed for data analysis, with the objectives providing the framework within which the study was carried out. The guidelines were used to extract themes, and the data was then analysed in relation to these themes and how they linked to the study

questions and statement of the problem.

3.10 Summary

The study methodology, sample strategies, and tools were covered in the chapter. Along with the data collecting and analysis techniques, this chapter also covered the data collection, analysis, and presentation processes. To make sure that the gathered data best satisfies the study's objectives, the next chapter focuses on data presentation, analysis, and interpretation.

CHAPTER 4

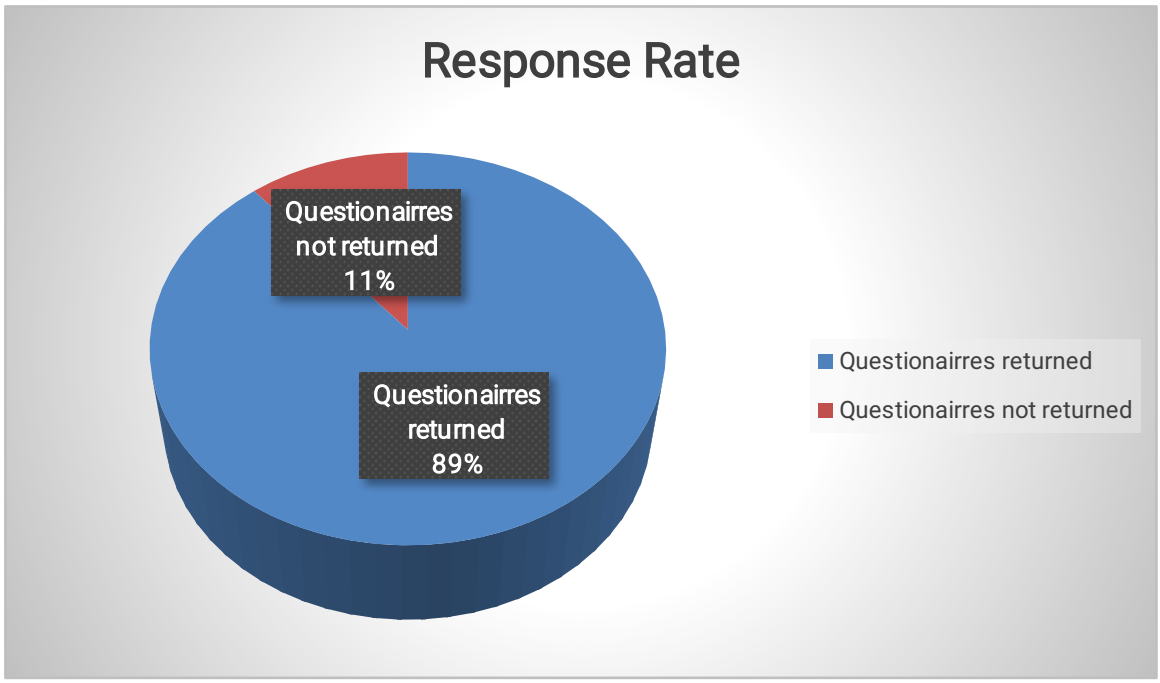
DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction to the study

This chapter focuses on the presentation, analysis, and discussion of findings from primary sources, as well as citations from published works that support the findings' accuracy. Presentations and discussions on the factors affecting supply chain velocity during Covid-19 in the Zimbabwean fast-food business may be found in this chapter. A descriptive analysis and a researcher discussion of the results for each of the study objectives and questions based on the questionnaire data came first in the chapter.

Response rate

Figure 4.1: Questionnaire response rate



Source: Researchers own survey (2022)

The researcher distributed 90 questionnaires, and 80 of them were returned totally completed and ready for analysis, yielding an 89% response rate. Because the majority of Chicken Inn employees completed the survey requirements, the study's 89% response rate was satisfactory for making conclusions. The researcher's goal was to gather diverse information from all stakeholders who have different viewpoints and ideas on supply chain velocity, since this knowledge will significantly diminish the element of bias. A study analysis with a response rate of 50% or greater is regarded as excellent for addressing a phenomenon (Antoniadou, 2017). The researcher found that the study's response rate was enough for drawing conclusions.

Gender of respondents

Table 4.1: Gender of respondents

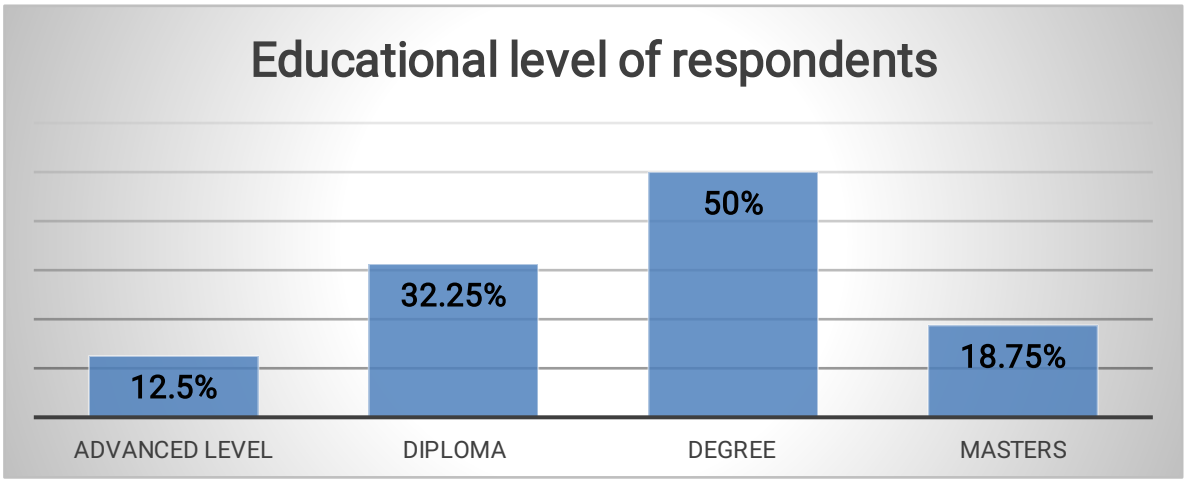
Gender	Frequency	Percent
Male	45	56
Female	35	44
Total	**80**	**100**

Source: Researchers own survey (2022)

Table 4.1 above shows the gender which participated and conclude that both genders participated though the majority of them were female (56%) and while (44%) were male. This gender profile illustrated gender equality hence the researcher sought information from a gender balanced state and no gender biased can be ratified. From a number of research findings, it shows that a greater percentage of employee in fast food restraints are female thus confirms the study findings that 56% of Chicken Inn respondents were female.

Education qualification of respondents

Figure 4.2: level of qualification



Source: Primary data (2022)

The Table 4.2 above illustrates that among the stakeholders who participated 12.5%

of the respondents had an advanced level, 32.25% had diplomas, 50% being degree holders and 18.75% of the respondents managed to further develop themselves by attaining masters in their qualification. Considering this statistical view, the researcher was confident enough to collect data from respondents who were qualified, experienced, and had knowledge on supply chain velocity as a phenomenon in Chicken Inn.

Years of experience

Table 4.2: Years of experience

Number of years	Frequency	Percent
1- 5yrs	20	25
6- 10yrs	30	37.5
11- 15yrs	17	21.25
16- 20yrs	10	12.5
21yrs and more	3	3.75
Total	**80**	**100**

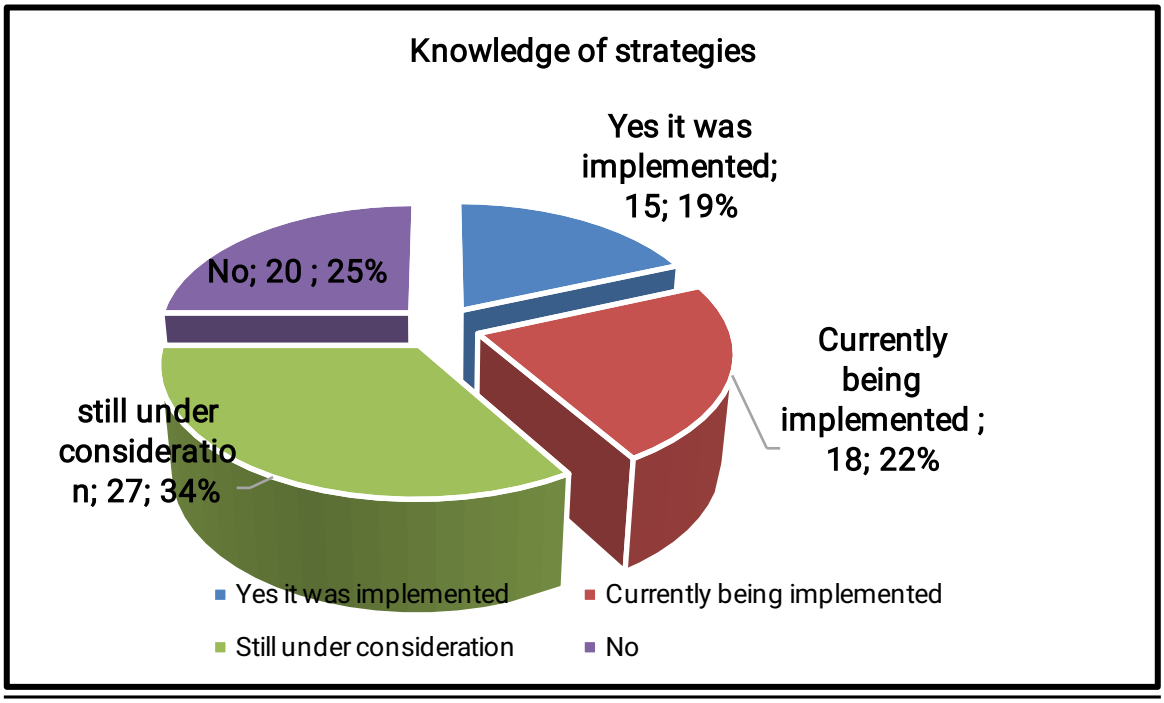
Source: Researchers own survey (2022)

From the findings illustrated on Table 4.2, 25% of the respondents had been working at Chicken Inn for 1-5yrs, most of them 37.5% had worked for 6-10yrs, 21.25% had worked for around 11-15yrs, 12.5% for 16-20yrs and only 3.75% had worked for more than 21yrs at the organization. The respondents' years of experience helps ensure that they answered the questionnaires at the best knowledge and experience on other disruption that could have occurred before and after Covid-19. Antoniadou (2017) on his findings state that the length of time the respondent has been a stakeholder guarantees that they answered the questionnaire as truthfully as possible. An individual is more likely to develop enduring friendships and have a deeper sense of knowledge; the longer the stakeholders have been involved.

Part 2

Confirmation to supply chain velocity implementation.

Figure 4.3: Confirmation to application of Supply Chain Velocity at Chicken Inn



Source: Researchers own survey (2022)

As illustrated by the figure above majority of stakeholders at Chicken Inn according to the responses provided 34% confirm that supply chain velocity was still under consideration, 25% of the respondents mentioned there was supply chain velocity implemented, 19% of the stakeholders confirmed that SCV was implemented and 22% are currently implementing SCV. Thus from the finding we have come to realize that not all organizations are into supply chain velocity.

Research question: *To what extent do you agree that the following factors affected supply chain velocity during Covid 19?*

Table 4.3: Factors affecting SCV

Statements /Factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Mean	Std dev
Supply chain visibility	19	27	15	8	11	80	3.4	3.2
%	23.75	33.8	18.8	10	13.75	100		
Information, communication technology	29	21	7	11	12	80	3.6	3.3
%	36.25	26.3	8.75	13.75	15	100		
Supplier flexibility	26	18	11	12	13	80	3.4	3.2
%	32.5	22.5	13.8	15	16.25	100		
Internal flexibility	30	8	13	10	19	80	3.3	3.2
%	37.5	10	16.3	12.5	23.75	100		

Source: Researchers own survey (2022)

With reference to the following graphic, the study found that all of the factors are thought to have affected supply chain velocity during Covid-19. The mean of the replies ranged between 3.3 and 3.6, indicating that the respondents agreed that these factors affected supply chain velocity. An overwhelming 57.55% (mean=3.4) of respondents agreed that supply chain velocity is a factor influencing supply chain velocity, 18.8% were undecided (neutral), and 23.75% did not agree with the reference.

Supported by the table 4.3 above the majority of the respondents of 63.55% (mean=3.6) agreed that information and communication technology is a factor that affected SCV of Chicken Inn during the global pandemic, 8.75% were neutral and

28.75% of the respondents disagreed with the factor. In addition, the above results illustrated that 55% (mean=3.4) of the respondents agreed to the factor of supplier flexibility being a factor which affected supply chain velocity of Chicken Inn during Covid-19, with 13.8 who were indecisive of the factor and 31.25 disagreed with the view of supplier flexibility being a factor which affected supply chain velocity during Covid-19. While on internal flexibility as a factor only 47.5% (mean=3.3) of the respondents agreed, 16.5 % were neutral of the factor and 36.25% of the respondents disagreed to internal flexibility being a factor affecting supply chain velocity during Covid-19.

In their 2019 study on the variables impacting SCV, Joby George and V. Madhusudanan Pillai found that businesses may benefit from using information systems to swiftly supply a variety of customized goods to consumers and understand how those customers' likes and preferences are changing. Managers may make better judgments and improve performance by promptly and effectively disseminating new information to key individuals. However, basing the study findings illustrated in the above table, the researcher concluded that the majority of its respondents' views information and communication technology as a factor affecting supply chain velocity during Covid-19.

Ranking of Supply Chain Velocity importance's during a disaster/ pandemic

Table 4.4: SCV importance's ranked

Importance's of SCV	Total respondents	Frequency	Percentage	Rank
Improve customer satisfaction	80	48	60	4
Speeding up supply chain procedure reduce delivery cost and time	80	20	25	6
Create better inventory tracking system	80	50	62.5	3
Help in making operations leaner and more cost effective	80	45	56.25	5
Increase brand loyalty and repeat purchases	80	60	75	2

Boost profitability and cost savings	80	70	87.5	1
Prepares operations for unexpected challenges	80	13	16.25	8
Shortens order cycle time	80	16	20	7

Source: Researchers own survey (2022)

According to the table 4.4 above the respondents reached a consensus that supply chain velocity is mostly important in boosting profitability and cost savings with a rank of 87.5%, 75% of respondents stipulate an increase brand loyalty and repeat purchase, 62.5% supports create better inventory tracking system , while 60% favor improve customer satisfaction, on the 5th position with 56.25% stands help in making operations leaner and more cost effective, on the 6th position with 25% is speeding up supply chain procedures reduce delivery cost and time , on the 7th position with 20% is shortens order cycle time and lastly with 16.25% is prepares operations for unexpected challenges.

Hand R. (2021) study findings acknowledged that increases customer satisfaction, brand loyalty, and repeat purchases is relatively the most important citation on his findings with 85% of the respondent's support. However, from the researcher's findings boost profitability and cost savings ranked the most important influence on the importance of supply chain velocity during a disaster as (87.5%) of respondents acknowledged that.

Research question: *To what extent do you think the following statements are challenges faced when implementing supply chain velocity?*

Table 4.5: Challenges faced when implementing SCV

Challenges	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Total**	**Mean**	**Std dev**
Supply chain disruptions	26	21	11	9	13	**80**	**3.5**	**3.3**
%	**32.5**	**26.25**	**13.75**	**11.25**	**16.25**	**100**		
Infrastructure development or shortage	12	32	10	15	11	**80**	**3.2**	**3.0**

%	15	40	12.5	18.75	13.75	100		
Inventory shortages	27	13	14	11	15	80	3.3	3.2
%	33.75	16.25	17.5	13.75	18.75	100		
Growing demand	21	10	14	13	22	80	2.9	2.9
%	26.25	12.5	17.5	16.25	27.5	100		
Holidays and busy season	11	13	15	12	29	80	2.6	2.5
%	13.75	16.25	18.75	15	36.25	100		
Lack of knowledge and capacity	37	11	13	10	9	80	3.7	3.5
%	46.25	13.75	16.25	12.5	11.25	100		
Ever changing technology	25	19	12	13	11	80	3.4	3.2
%	31.25	23.75	15	16.25	13.75	100		

Source: Researchers own survey (2022)

The responses mean ranges from 2.9- 3.7 the level that depict level of disagreement. A total of 58.75% (mean=3.5) of the respondents views supply chain disruption as a challenge to supply chain velocity, 13.75% of the respondents are indecisive on the challenge and 27.5% disagreed with the fact that supply chain disruption is a challenge to supply chain velocity. 55% (mean=3.2) agreed to the fact that infrastructure development or shortage are challenges, while 12.5% and 32.5% were neutral and disagreed respectively to the fact of infrastructure development or shortage as a challenge. With reference to the above results 50% (mean=3.3) affirmed that inventory shortage is a challenge of supply chain velocity, 17.5% were impartial while 32.5% oppose the citation that inventory shortage is a challenge to supply chain velocity.

According to the above results, 38.75% (mean=2.9) respondents acknowledged that growing demand is a challenge to supply chain velocity, while 17.5% of the respondents were fair and balanced on the fact and surprisingly 43.75% disagreed with the fact. 30% (mean=2.6), 18.75% and 51.25% of the respondent agreed, neutral and disagreed respectively. Lack of knowledge and capacity as a challenge was viewed by the respondents in a way that 60% (mean=3.7) voted for the citation, 16.25% were neutral and 23.75% insist n that it is a challenge. Majority of the respondents agreed that ever changing technology is a challenge in supply chain velocity with the statics of 55% (mean=3.4), 15% were held to be neutral and 30% of the respondents disagreed on ever changing technology being a challenge in supply chain velocity.

Supply chain disruptions can happen at any time, and the most recent worldwide pandemic (covid-19) showed how severely and acutely they can affect the supply

chain. Whether it's a single incident or a protracted global supply chain catastrophe, disruptions make it difficult to maintain supply chain velocity. Unexpected catastrophes can prevent items or orders from moving through your pipeline, with delays at one step impacting the entire supply chain, Tukumuhabwa et al. (2015). However, from the current study respondent's point of view provided from the results, provided lack of knowledge and capacity (60%) as the greatest challenged faced in implementing supply chain velocity.

Research question: *To what extent do you think the following statements are the roles of information and communication technology to supply chain velocity during Covid-19*

Table 4.6: Roles of ICT to SCV during pandemic

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Mean	Std dev
Increased control over production during a crisis	23	21	11	10	15	80	3.3	3.2
%	28.75	26.25	13.75	12.5	18.75	100		
Improved inventory management which will enhance supply chain velocity during Covid-19	13	11	10	22	24	80	2.6	2.5
%	16.25	13.75	12.5	27.5	30	100		
Increased communication and collaboration between supply chain stakeholders	27	15	9	12	17	80	3.3	3.2
%	33.75	18.75	11.25	15	21.25	100		

Increased transparency this reduce the lead time and need for excessive inventory	19	22	13	8	18	**80**	**3.2**	**3.0**
%	**23.75**	**27.5**	**16.25**	**10**	**22.5**	**100**		
Helps in decision making during a disruption on how best to obtain supply chain velocity	22	16	14	17	11	**80**	**3.3**	**3.1**
%	**27.5**	**20**	**17.5**	**21.25**	**13.75**	**100**		

Source: Researchers own survey (2022)

The response mean ranges from 2.6-3.3 while standard deviation ranges from 2.5-3.2. from the illustration of the table above 55% (mean=3.3) are the respondents that agreed to the statement that increased control over production during Coovid-19 is a role of I.C.T , 13.7% were neutral on their response and the respondents who disagreed constitutes 31.25%. 30 % (mean=2.6) acknowledged that improved inventory management is a role of I.C.T, while 12.5% were indecisive on their responses and 57.5% disagreed to this citation. As shown by the results above 52.5% (mean=3.3) claimed that the role of I.C.T is that there is increased communication and collaboration between supply chain stakeholder, whilst 11.25% were neutral and those respondents who disagreed (36.25%). from the results obtained above 51.25% (mean=3.2) consented that the role of I.C.T is that it increased transparency this reduce the lead time and need for excessive inventory, on the other hand 16.25% and 32.5% were the respondents who were neutral and those who disagreed respectively to the citation of the role. Table 4.6 above shows that 47.5% (mean=3.3) agreed on the citation that ICT helps in decision making during a disruption on how best to obtain supply chain velocity, the neutral respondents constituted 17.5% while 35% of the respondents disagreed to that fact.

According to Pettit et al(2013) .'s study, information technology and digital technologies have made it possible for individuals to communicate information rapidly and readily during a pandemic. Through the dissemination of information about the COVID-19 virus to millions of individuals, healthcare groups and governments are utilizing information technology to promote public health. Any discoveries, precautions, or medical guidance that has the potential to save lives is instantly disseminated through networks and devices. Increased production control (55%) during COVID-19 is the primary responsibility of I.C.T., which is consistent with

the conclusions made by the respondents.

Ranking of supply chain visibility impact on supply chain velocity during a disaster

Table 4.7: Supply chain visibility impact on supply chain velocity

Statements	Total respondents	Frequency	Percentage	Rank
Improved supply chain visibility led to improved workflow and increased profits	80	48	60	3
Reduced costs for customers and reduce risk	80	29	36.25	6
Mitigate disruptions where the potential disruptions might surface ahead of time, the chances of them causing problems are reduced	80	56	70	1
Enable agility	80	40	50	4
Increase speed	80	34	42.5	5
Meet customer demands	80	50	62.5	2

Source: Researchers own survey (2022)

As illustrated by the table 4.7 above mitigate disruptions where the potential disruptions might surface ahead of time, the chances of them causing problems are reduced is viewed as 1st impact to supply chain visibility with 70%, on the 2nd position of the rank stands meet customer demands constituting 62.5%, 3rd position the above results shows improved supply chain visibility led to improved workflow and increased profits with the results of 60%, on the 4th position enable agility with 50%, at 42.5% there is increased speed standing on the 5th position and 6th position there is reduced cost for customers and reduced risks with 36.25%.

According to Ehrenhuber et al. (2015), supply chain visibility refers to the necessity of process and structural transparency in order to detect disruptions immediately

and implement changes successfully. His research on the relationship between supply chain velocity and supply chain visibility suggested that SCV offers visuals about upstream and downstream inventory, information on various activities and processes, demand and supply, logistics, and transportation through collaboration and information sharing across the supply chain, which will lower costs and mitigate risks. The largest impact on supply chain visibility, according to the respondents to the present study, is mitigation of disruptions, where the possible disruptions could emerge in advance and the likelihood of them generating issues is minimized.

Research question: To what extent do you think the following statements are the positive impact of supplier flexibility to supply chain velocity during Covid-19

Table 4.8: Impact of flexibility on SCV

Positive impact of supplier	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Mean	Std dev
Boost company value by easily adjusting production levels, raw material purchase and transport capacity to maximize profit	26	14	11	12	17	80	3.3	3.1
%	32.5	17.5	13.75	15	21.25	100		
Ease of scaling to meet the needs of its customers	15	17	9	15	24	80	2.8	2.7
%	18.75	21.25	11.25	18.75	30	100		
Cost effectiveness by avoiding resources from being wasted due to inability to make an immediate change	22	5	18	16	19	80	2.9	2.8
%	27.5	6.25	22.5	20	23.75	100		
Reduced liability through product loss and damages is minimized by being supplier flexible	11	15	13	14	27	80	2.6	2.5
%	13.75	18.75	16.25	17.5	33.75	100		
Readiness for change	29	16	10	13	12	80	3.5	3.3
%	36.25	20	12.5	16.25	15	100		

Source: Researchers own survey (2022)

According to the preceding graph, the mean runs from 2.6 to 3.5, while the standard deviation ranges from 2.5 to 3.3. During Covid-19, respondents were asked to express their level of agreement or disagreement with the favorable impact of supplier flexibility on supply chain velocity at Chicken Inn. When combined (SA and A), 50% of respondents agreed with the statement that supplier flexibility boosts company value by easily adjusting production levels, raw material purchases, and transport capacity to maximize profit (mean=3.3); however, when combined (SD and D), 36.25% disagreed with the statement, and 13.75% are indecisive respondents. Furthermore, 40.10% of respondents agreed with the assertion that supplier flexibility has a beneficial impact on supply chain velocity during Covid-19 are ease of scaling to meet the needs of its customers, while 11.25% were neutral to the statement and a combination of (SD and D) respondents disagreed (48.75%).

Following that 33.75% of the respondents agreed on the statement stated that cost

effectiveness by avoiding resources from being wasted due to inability to make an immediate change as an impact of supplier flexibility, on the neutral side the above results shows 22.5% respondents and 43.75% of the respondents objected on the statement. Respondents agreed on the statement that stated that reduced liability through product loss and damages is minimized by being supplier flexible (32.5%), while 16.25% is the result for neutral respondents and the majority of the respondents disagreed with the statement at 51.25%. Lastly, combining strongly agreed and agree the respondents agreed to the citation that states that readiness of change positively impact supplier flexibility (56.25%) with the mean of 3.5 and standard deviation of 3.3, whilst on the neutral side 12.5% of the respondents and 31.25% of the respondents disagreed with the statement on supplier flexibility.

According to Adobor and McMullen (2018) survey, supplier flexibility ensures a supply chain's resilience during a disruption so that negative consequences can be minimized by choosing an alternative course of action. According to research by Razmi et al. (2017), flexibility is used through flexibility in sourcing, which enables the capacity to quickly change inputs, and flexibility in order fulfilment, which enables the ability to quickly alter outputs. However from the finding above which were produced by the respondents from Chicken Inn, they were in support of the positive impact of the supplier flexibility were they identified readiness for change as equally important (56.25%).

Ranking on ways internal flexibility can be used to increase supply chain velocity

Table 4.9: Uses of internal flexibility on SCV

Statements	Total respondents	Frequency	Percentage	Rank
Use your data to forecast demand	80	48	60	3
Audit your suppliers and distribution partner	80	20	40	6
Upgrade your tech stacks	80	50	62.5	2
Have back up plans for possible disruptions	80	60	75	1
Look for supplier, distributors and labourers who provide immediate relief when need	80	48	60	3
Create omni-channel contingency plans	80	38	47.5	5
Respond immediately to increase in demand	80	13	16.25	8
Continuously improve your system	80	16	20	7

Source: Researchers own survey (2022)

Based on the findings above the respondent identified the citation that states that have back up plans for possible disruptions as a ways internal flexibility can be used to increase supply chain velocity on the 1st position with 75%, on the 2nd position stands upgrade your tech stacks with 62.5%. According to the results above 3rd position with 60% is look for supplier, distributors and labourers who provide immediate relief when need arise, similarly, 60% of the respondents viewed that the use your data to forecast demand is a way internal flexibility can be used to increase supply chain velocity. In addition, table 4.9 above illustrate that on the 5th position we have create Omni-channel contingency plans with47.5%, on the 6th position respondents the statement that states that audit your suppliers and distribution partner is a way to increase supply chain velocity (40%). Finally on the 7th position respondents' views continuously improve your system with the percentage of 20 %

and on the 8th position at 16.25% there was response immediately to increase in demand.

Ivanov (2018) study on importance's of SCV found that institutionalizing partnerships with suppliers and subcontractors to "straighten the chain" while dealing with fluctuations and changes in demand as their best way internal flexibility can use to increase supply chain velocity. The current study confirmed by 75% response that having a back up plans for possible disruptions is the best way to increase supply chain velocity.

4.2 Reliability of the questionnaire questions

The researcher carried pilot study using the Cronbach's Alpha to test the reliability of the questionnaire. A total of 20 questionnaires were issued, 18 of which were answered, and 2 were incompletes. (80%) of these were considered valid and useable for the purpose of analysis. Cronbach's alpha use a scale with coefficient alpha between 0.8 and 0.95 had very good quality, 0.7 and 0.8 are considered as good reliability, and those with alpha below 0.6 are considered to be fair reliability

Tables 4.10 Reliability of supply chain velocity

Cronbach's Alpha	Items tested
0,814	**57**

Source findings: Researchers own survey (2022)

The table above suggested that the research questions could be relied on in terms of accuracy in obtaining data from Chicken Inn employees. The coefficient of 0.814 illustrates that high quality data was supplied by Chicken Inn staff.

4.4.1 Regression Analysis

The researcher employed multi regression model to evaluate factors that has impact/ affects Supply Chain Velocity of Chicken Inn outlets in Harare. The study findings were presented in form of tables below. The results for the model are illustrated on the table below. The study regression (R2) attributed 60.3% of the Supplier Chain Velocity efficiency (SCV) is impacted by independent variables (Supply Chain Visibility; Supply Flexibility; Internal Flexibility and ICT) while 39.7%

was attributed to other factors. The regression results illustrate R as 0.760 showing that the correlation between joint independent variables and dependent variable (SCV) was positive.

Table 4.10: Model summary

Regression Analysis Model

Model	R	R Square	Adjusted R Square	Std. Error
1	.760[a]	.603	.549	.250

Source: Researcher own survey (2022)

a. **Independent variables: (constant)** Supply Chain Visibility; Supply Flexibility; Internal Flexibility and ICT.

b. **Dependent Variable:** Supply Chain Velocity (SCV)

4.4.2 Hypothesis test

Table 4.11: Independent variables and Supply Chain Velocity

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
1 (Constant)	1.359	.505	2.690	.000
Supplier chain visibility	1.100	.349	3.151	.001
Supply flexibility	.520	.206	2.525	.002
Internal flexibility	1.164	.328	3.547	.000
ICT	.589	.259	2.274	.004

a. **Independent variables: (constant)** Supply Chain Visibility; Supply Flexibility; Internal Flexibility and ICT.

b. **Dependent Variable:** Supply Chain Velocity (SCV)

$H0_1$: There is no impact of Supply Chain Visibility on Supply Chain Velocity

The study regression results reviewed had Beta = 1.100 showing that Supply Chain Visibility has positive impact on Chicken Inn (Supply Chain Velocity) as illustrated by the p-value p= 0.000 < 0.05 which indicate that the effect is statistically significant. Thus, the researcher rejected the null hypothesis and accept alternative hypothesis.

$H0_2$: *There is no impact of Supply Flexibility on Supply Chain Velocity*

In addition, the findings shown in the above table show that Supply Flexibility has a positive impact on Chicken Inn (SCV) indicated by β2= 0.520 and p-value (p= 0.000 < 0.05): thus, proving that the effect is statistically significant. Thus, the researcher rejected the null hypothesis and accept the alternative hypothesis.

$H0_3$: There is no impact of Internal Flexibility on Supply Chain Velocity

Regression results above illustrate that Internal Flexibility has strong positively significant impact on Chicken Inn (SCV) as illustrated by β3= 1.164. Using the p-value (p= 0.000 < 0.05); the regression is statistically significant. Thus, the researcher rejected the null hypothesis and accept the alternative hypothesis.

$H0_4$: There is no impact of Information and Communication Technology on Supply Chain Velocity

Regression results above illustrate that ICT has moderate positive impact on Chicken Inn (SCV) as illustrated by β3= 0.589 Using the p-value (p= 0.000 < 0.05); the regression is statistically significant. Thus, the researcher rejected the null hypothesis and accept the alternative hypothesis.

4.4.3 ANOVA Analysis

Table 4.12: Anova

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.518	4	2.379	10.649	.000[b]
	Residual	5.5	75	.073		
	Total	15.018	79			

Source: Researchers own survey (2022)

a. **Independent variables: (constant)** Supply Chain Visibility; Supply Flexibility; Internal Flexibility and ICT.

b. **Dependent Variable:** Supply Chain Velocity (SCV)

The p-value (p= 0.000 < 0.05) implies that the independent variables indicated above on (a) are statistically significant.

4.4.4 Test of coefficients

Table 4.13: Coefficients

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
1 (Constant)	1.359	.505	2.690	.000
Supplier chain visibility	1.100	.349	3.151	.001
Supply flexibility	.520	.206	2.525	.002
Internal flexibility	1.164	.328	3.547	.000
ICT	.589	.259	2.274	.004

a. **independent variables: (constant)** Supply Chain Visibility; Supply Flexibility; Internal Flexibility and ICT.

b. **Dependent Variable:** Supply Chain Velocity (SCV)

$Z = 1.359 + -1.100\ X_1 + 0.520X_2 + 1.164X_3 + 0.589_4 + e$

Z = supply chain velocity

β0 = regression constant

X_1 = supply chain visibility

X_2 = supply flexibility

X_3 = internal flexibility

X_4 = ICT

ε = regression error term

The constant 1.359 shown in the table above represented the constant which the predicted value of Supply Chain Velocity at Chicken Inn when all factors remain constant at 0. This implied that Supply Chain Velocity at Chicken Inn would be at 1.359 holding the independent variables at 0.

4.4.5 Correlation analysis

Table 4.14: Correlation analysis

Correlations

		Supply Chain Visibility	Supply Flexibility	Internal Flexibility	ICT	Supply Chain Velocity
Supply Chain Velocity	Pearson Correlation	.611**	.438**	.396**	.318**	1
	Sig. (2-tailed)	.001	.002	.000	.004	
	N	80	80	80	80	80

****. Correlation is significant at the 0.01 level (2-tailed).**

The table above illustrates the correlations of the independent variables (Supply Chain Visibility; Supply Flexibility; Internal Flexibility and ICT) and Supply Chain Velocity. The results illustrate a strong correlation (r= 0.611; p= 0.001) significant at 0.05 level of significance between supply chain visibility and SCV, a significant strong correlation (r= 0.438; p= 0.002) at 99% confidence level between supply flexibility and SCV; and a strong correlation between supplier internal flexibility and SCV (r=0.396; p =0.000); The results illustrate a strong correlation (r= 0.611; p= 0.004) significant at 0.05 level of significance between ICT and SCV. This entails that the association between independent variables and SCV is highly significant and positive. The researcher concluded that Supply Chain Visibility, Supply Flexibility, Internal Flexibility and ICT have an impact on Chickem Inn (SCV).

4.3 Chapter summary

Cronbach's Alpha coefficients for the research questions ranged from 0.8 to 0.95, indicating that they were dependable in data collection. This chapter aimed to give a quantitative analysis of the data acquired via surveys in order to uncover any new factors and opinions linked to the factors affecting supply chain velocity during Covid-19. Case of Chicken Inn , Harare. According to the findings, all the criteria were thought to be true. A variety of charts were used to convey data, which was supplemented by supporting literature and discussions

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction to the chapter

This chapter summarizes the complete research endeavour. It presents the research's findings and recommendations. The study's major findings are described, and a conclusion is formed. The study looked at the elements that influence supply chain velocity in the fast food sector during Covid-19.

5.1 Summary of the findings

The study evaluated relevant theoretical and empirical literature to build critical concerns on the elements that restrict supply chain velocity during Covid-19 to fulfil the research objectives. The study employed a case study research design with Chicken Inn, Harar to gain an in-depth insight of how the company operates. Furthermore, the study employed a questionnaire guide to collect information on the variables that restrict supply chain velocity. Data was gathered from stakeholders, and an 89% response rate was attained. In the preceding chapter, the primary findings were presented, analysed, and debated.

The research was meant to evaluate the factors affecting supply chain velocity during Covid-19. The study showed that on evaluating supply chain velocity we have supply chain visibility, information and communication technology, supplier flexibility and internal flexibility as the factors that govern supply chain velocity. Without these factors being enforced supply chain velocity will be disrupted.

Although supply chain velocity is implemented in organisation not all of them has realised the importance of it when a disaster (Covid-19) occurred. The challenges faced when implementing supply chain velocity are lack of knowledge and capacity

as well as ever changing technology. From the study the researcher provided ways to cub supply chain velocity during Covid-19 pandemic as having back up plans for possible disruptions, upgrading tech stacks as well as look and looking for suppliers, distributors and labourers who provide immediate relief when need.

5.2. Conclusions

The study's conclusions were drawn in accordance with the research objectives and findings. The following are the study's conclusions:

According to the study's findings, only 80 of the 90 questionnaires distributed were returned. This final response rate of 89% was adequate to acquire the required results from Chicken Inn. The study also concluded that the majority of the respondents were female, that the majority of the respondents had a degree, and that the majority of the respondents had 6-10 years of experience, implying that the experience will help ensure that they answer the questionnaire with the best knowledge. According to the findings of the study, Chicken Inn on supply chain velocity they are currently considering its implications.

In addition, the study also concluded that Chicken Inn had agreed that from the majority's perspective information and communication technology to a greater extend affect supply chain velocity as a factor. However, some factors were also considered from a reasonable perspective implying that other factors were totally ignored. The study concluded that boosting profitability and cost savings is regarded as the major importance of supply chain velocity while on the challenges the study ruled that supply chain disruption is the major challenge face in implementing supply chain velocity.

The study concluded that from Chicken Inn perspective the majority of the respondents concluded that increased control over production during Coovid-19 is regarded as the major role of information and communication technology while the greater percentage did not agreed to the citation that improved inventory management is a role of ICT during Covid 19. The study also the greatest impact of supply chain visibility is mitigating disruptions where the potential disruptions might surface ahead of time, the chances of them causing problems are reduced thus implying that supply chain visibility helps in mitigating disruption on supply chain

velocity.

Furthermore, the study concluded that Chicken Inn views readiness of change positively impact supplier flexibility in supply chain velocity during Covid -19 meaning that when a disaster occurs readiness to change to a greater extend positively affect the implication of supply chain velocity. The study further concludes that having back up plans for possible disruptions is the most desirable way internal flexibility can be used to increase supply chain velocity during a disruption.

5.3. Recommendations

The following recommendations were made:

- Chicken Inn should evaluate all the factors affecting supply chain velocity before providing its main concentration to only one factor which the majority has considered.
- Chicken Inn should provide training before the implement supply chain velocity to its operations to have stakeholders who are familiar to the terminology that will be used in the supply chain to cub the challenge of lack of knowledge and capacity.
- Chicken Inn should implement supply chain velocity to gain comparative advantage from competitors when a disaster arises through boosting profitability and cost savings
- The fast-food industry (Chicken Inn) should consider increased communication and collaboration between supply chain stakeholders as a role of ICT because it strengthens the relationship as well as acquiring economies of scale.
- Chicken Inn should consider readiness to change as the major way to cub disaster as well as out compete its competitors because they are ready to face any change that comes with disaster in supply chain velocity.

5.4. Suggestions for further research

The study was intended to evaluate the factors that affect supply chain velocity during Covid-19 at Chicken Inn. The author feels that research should be carried out

focusing on the factors affecting supply chain velocity to exhaust all the grey areas not covered by this research to other industries despite fast food outlets since this research was based on Chicken Inn, Harare. The author feels that research should be conducted on advantages and disadvantages of supply chain velocity during and after a disaster like Covid-19.

5.5. Summary

This chapter concentrated on the key findings, the conclusions drawn from the findings, and the recommendations that the researcher suggests to Chicken Inn so that they will understand how the factors affect supply chain velocity during Covid-19 that could give stakeholders sufficient information to use when they have implemented supply chain velocity and on how to use their resources effectively and efficiently to cub the disasters that may occur.

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APENDIX 1

Questionnaire

Bindura University of Science Education

Bachelors of Commerce Honors Degree in Purchasing and Supply

The main purpose of the questionnaire is to evaluate factors that affected supply

chain velocity in Mashonaland Central during the pandemic (covid-19). A case of Chicken Inn. The data collected is strictly for research purpose and all your responses are confidential. Kindly confirm your answers by ticking in the spaces provided in the columns. I appreciate you for sharing your information and giving your time.

For any queries and clarification, kindly contact me on the mobile number below.

Portia Maburutse
+26371 820 7487

Consent agreement

I have read the above statement and understand its contents. I have been given the opportunity to ask questions and discuss any concerns. I agree to participate in the study as it has been explained. However, I understand also that my identity will not be disclosed by the researcher or the University. Tick the appropriate box

Yes

No

Background Information

a) Name of the company …….

Part 1. General Questions

1. Gender: Male [ ] Female [ ]
2. Highest level of qualification: Advanced level [ ] Diploma [ ] Degree [ ] Masters [ ]
3. Total years of experience: 1-5yrs [ ] 6-10yrs [ ] 11-15yrs [ ] 16-20yrs [ ] 21 and more years [ ]

Part 2:

2.1. As an organization do you take supply chain velocity? **Choose one** by tick (✔)

Responses	
Yes it was implemented	
Currently being implemented	
Still under discussion and consideration	
No	

2.2. Please provide your level of agreement or disagreements with each of the statements. Please put only one tick (✔) for each line in the labeled column where (1- Strongly disagree (SD); 2- Disagree (D); 3- Undecided/ Neutral (N); 4- Agree (A); 5- Strongly agree (SA))

To what extent do you agree that the following factors affected supply chain velocity during Covid 19?

No	**Statements**	**SD**	**D**	**N**	**A**	**SA**
	Factors	1	2	3	4	5
1	Supply chain visibility					
2	Information , communication technology					
3	Supplier flexibility					
4	Internal flexibility					

Kindly rank the importance of supply chain velocity during a disaster. (Use ✔ (tick) for most preferred and X for least preferred)

No		**Rank**
1	Improve customer satisfaction	

2	Speeding up supply chain processes can also reduce shipping time and cost	
3	Create better inventory tracking system	
4	Help in making operations leaner and more cost-effective	
5	Increase brand loyalty and repeat purchases	
6	Boost profitability and cost –savings	
7	Prepares operations for unexpected challenges	
8	Shortens order cycle time	

2.3. Please provide your level of agreement or disagreements with each of the statements. Please put only one tick (✔) for each line in the labeled column where (1- Strongly disagree (SD); 2- Disagree (D); 3- Undecided/ Neutral (N); 4- Agree (A); 5- Strongly agree (SA))

To what extent do you think the following statements are challenges faced when implementing supply chain velocity?

No	Statements	SD	D	N	A	SA
	Challenges	1	2	3	4	5
1	Supply chain disruptions					
2	Infrastructure development or shortage					
3	Inventory shortages					
4	Growing demand					
5	Holidays and busy season					
6	Lack of knowledge and capacity					
7	Ever changing technology					

PART 3

3.1. Please provide your level of agreement or disagreements with each of the statements. Please put only one tick (✔) for each line in the labeled column where (1-Strongly disagree (SD); 2- Disagree (D); 3- Undecided/ Neutral (N); 4- Agree (A); 5- Strongly agree (SA))

To what extent do you think the following statements are the roles of information and communication technology to supply chain velocity during Covid-19

No	Statements	SD	D	N	A	SA
	Role	1	2	3	4	5
1	Increased control over production during a crisis					
2	Improved inventory management which will enhance supply chain velocity during Covid-19					
3	Increased communication and collaboration between supply chain stakeholders					
4	Increased transparency this reduce the lead time and need for excessive inventory					
5	Helps in decision marking during a disruption on how best to obtain supply chain velocity					

Kindly rank the ways in which supply chain visibility affect supply chain velocity during a disaster. (Use ✔ (tick) for most preferred and X for least preferred)

No		Rank
1	Improved supply chain visibility lead to improved workflow, and increased profits	
2	Reduced costs for customers and reduce risk.	
3	Mitigate disruptions where the potential disruptions might surface ahead of time, the chances of them causing problems are reduced	
4	Enable agility	
5	Increase speed	
6	Meet customer demands	

3.3., Please provide your level of agreement or disagreements with each of the statements. Please put only one tick (✔) for each line in the labeled column where (1- Strongly disagree (SD); 2- Disagree (D); 3- Undecided/ Neutral (N); 4- Agree (A); 5- Strongly agree (SA))

To what extent do you think the following statements are the positive impact of supplier flexibility to supply chain velocity during Covid-19

No	Statements	SD	D	N	A	SA
	Role	1	2	3	4	5
1	Boost company value by easily adjusting production levels, raw material purchase and transport capacity to maximize profit.					
2	Ease of scaling to meet the needs of its customers					
3	Cost effectiveness by avoiding resources from being wasted due to inability to make an immediate change					
4	Reduced liability through product loss and damages is minimised by being supplier flexible					
5	Readiness for change					

Kindly rank ways internal flexibility can be used to increase supply chain velocity. (Use ✔ (tick) for most preferred and X for least preferred)

No		Rank
1	Use your data to forecast demand	
2	Audit your suppliers and distribution partner	
3	Upgrade your tech stacks	
4	Have back up plans for possible disruptions or changes	
5	Look for suppliers, distributors and labourers who provide immediate relief when needed	
6	Create Omni-channel contingency plans	
7	Respond immediately to increase in demand	

8	Continuously improve your system	

THANK YOU FOR YOUR TIME