**BINDURA UNIVERSITY OF SCIENCE EDUCATION**

****

**RESEARCH PROJECT**

**DOES SUPPLY CHAIN RISK MANAGEMENT MATTER IN IMPROVING SERVICE DELIVERY OF BINDURA**

**MUNICIPALITY AUTHORITY?**

**BY**

**BEATRICE SHARON GAMBE**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE BACHELOR OF COMMERCE HONORS DEGREE IN PURCHASING AND SUPPLY OF BINDURA UNIVERSITY OF SCIENCE EDUCATION.**

**JUNE 2023**

# APPROVAL FORM

# The undersigned certify that they have read and recommended to Bindura University of Science Education for acceptance of a dissertation entitled, “Does supply chain risk management matters in improving service delivery a case of Bindura Municipality”. Submitted by Beatrice S Gambe, registration number, B192023B in partial fulfillment of the requirements for the award of Bachelor of Commerce (Honor’s) Degree in Purchasing and Supply Management.

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# DEDICATION

This research work is dedicated to God Almighty and my ancestors for their mercies given upon me throughout the period of conducting this research work. I would also like to dedicate this research study to my family and friends who have always been a helping hand and who have shown love and support to me to reach this level of education, which have been my pillar during this journey and encouraged me not to give up even when it seemed very challenging.

# 

# 

# DECLARATION OF OWN WORK

**Disclaimer**

I hereby declare that the dissertation is my original work and has not been submitted before to any institution for assessment purposes.

Further I have acknowledged all sources used and have cited these in the reference section.

Beatrice S Gambe 12/06/23

# ABSTRACT

The study investigated the effects of supply chain risk management in service delivery of Bindura Municipality. Data was collected using descriptive and analytical research designs which involved qualitative research, a sample size of 85 respondents was considered, of which 13 respondents were drawn from the staff, 72 respondents were residents of Bindura town. Data was analyzed through Microsoft Excel. The study found that there are several indicators of service delivery, including water supply, state of roads, health services and it reveals that, the municipality provides poor services (including lack of water supply, potholes on roads, shortage of medicine in the health care service) to its residents. Poor infrastructure and mismanagement of resources are the biggest challenges to getting quality services. There is a positive relationship between supply chain risk management and service delivery, emphasizing the importance of effective SCRM strategies in improving service delivery in Bindura town. The study therefore recommends Bindura Municipality to concentrate on improving the quality of services provided to the residents and adopt effective supply chain risk management measures such as multiple sourcing, risk sharing and the PPRR risk management model, improve communication with residents, invest in staff training and develop a proactive risk management culture.

# ACKNOWLEDGEMENT

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Beatrice S Gambe

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# ABBREVIATIONS

**PPRR** - Prevention, Preparedness, Response and Recovery

**SCRM** -Supply Chain Risk Management

**RBV** - Resource Based View

**IMF** -International Monetary Fund

**NSDS** -National Service Delivery Survey

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# CHAPTER I

# Introduction

This study seeks to assess the effects of supply chain risk management on improving service delivery in Bindura Municipality Authority. Chapter 1 focuses on the introduction of the study. It therefore introduces the study as well as Chapter 1 components. This necessitates discussion of the background of the study, the problem statement, and objectives of the study, research questions, and significance of the study, assumptions, limitations and the conclusion. The background of the study will focus on the evolution of supply chain risk management in Municipality Authorities in Zimbabwe as well as in Bindura Municipality Authority and service delivery developments in Bindura Municipality Authority.

# Background of the study

Since 1980, a variety of local government reforms have been implemented, and as of today, 32 Urban Councils have been established around the nation in accordance with the Urban Councils Act [Chapter 29:15] (Chatiza, 2010). Urban councils in Zimbabwe have a separate standing even though they were founded under a different law. Urban councils in Zimbabwe are organized hierarchically based primarily on their size and functions (Chakaipa, 2010). Local boards established in small communities with the potential to become major urban centers are at the bottom of the hierarchy of urban local authorities.

Town councils, which are centers that have evolved from service hubs in rural areas to a size that allows them to stand alone, are listed second in the hierarchy. Local boards and town councils do not have land ownership rights inside their jurisdictions; municipalities do. The councils that own the land can sell it to potential developers and make money doing so. Municipalities, cities, town councils, and local boards all have diverse administration and policy-making structures. Municipalities and cities have mayors and town clerks as the heads of the decision-making body and management, respectively, while town councils and local boards have chairs and secretaries. The Town Secretaries and Town Clerks are the heads of administration deputized by various heads of local government in accordance with the Urban Councils Act [Chapter 29:15].The executive management is in charge of carrying out council decisions and managing the daily operations. There are several cities, municipalities, town councils and local boards.

# Organizations of urban councils in Zimbabwe

**Table 1.1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cities | Municipalities | Town councils | Local boards | Totals |
| Harare | Redcliff | Chiredzi | Ruwa |  |
| Bulawayo | Beitbridge | Chipinge | Chirundu |  |
| Gweru | Chegutu | Lupane | Epworth |  |
| Masvingo | Chitungwiza | Plumtree | Hwange |  |
| Kwekwe | Victoria Falls | Norton |  |  |
| Mutare | Chinhoyi | Shurugwi |  |  |
| Kadoma | Gwanda | Zvishavane |  |  |
|  | Marondera | Gokwe |  |  |
|  | Bindura | Rusape |  |  |
|  |  | Karoi |  |  |
|  |  | Chipinge |  |  |
|  |  | Mvurwi |  |  |
| 7 | 9 | 12 | 4 | 32 |

As a result, most urban councils in Zimbabwe were forced to operate with leaner budgets putting a major handicap on their ability to provide quality service to their clients. Urban councils also suffered from shortages of skilled manpower due to massive brain drain. The situation was compounded by shortages of foreign currency, a valueless Zimbabwe dollar and a harsh political climate. This made it very difficult for local authorities to procure the essential inputs like chemicals for water treatment, new trucks for refuse collection and also drugs for the Bindura Municipality. The result was that most urban councils such as Bindura Municipality found it difficult to meet the expectations of their clients as they lacked the power and resources to provide quality services.

Oboth (2000) argues that risk emerges when there is uncertainty and imperfect knowledge exists when the probabilities of potential outcomes are known. Risks in the public sector include loss of independence, the potential for mission drift, financial risks, contractual risks, and reputational risks. All of these risks can be managed, but in cases where the funding agreement takes the form of a legally binding contract, it is important to fully understand the risks involved and determine how to best mitigate them before signing the contract.

In order to accomplish an organization's goals, supply chain risk management aims to reach out into the future's uncertainty and bring it under control, according to Oboth (2000). A procedure of risk identification, assessment, evaluation, and treatment can help achieve this. Identifying and analyzing the risks, positive and negative effects that an organization may experience, evaluating possible effects on the firm, and determining which steps that can be used to decrease or eliminate downside risk, as well as to increase or exploit upside risk that are all included in risk management (Oboth, 2000).

Strong internal controls are necessary to compare program quality and costs to industry standards since active monitoring improves the quality of services provided when reviewing performance as a risk management measure and looking into variations in service delivery. (The Office of the City Auditor, 2001). Internal controls are weakened when an integrated approach to risk management is not used, which has an essential effect on the standard-of-service delivery strategy. As a result, risk management and the caliber of service delivery are closely related (SISWANA, 2007). Municipalities around the country have come under fire for their poor performance and service delivery as a result of flaws in their risk management systems, which have a negative impact on some Municipalities in Zimbabwe.

National Service Delivery Survey (2008) stated that the government has a duty to deliver the needs of its people additionally, to encourage economic growth through public services. The primary mechanism for carrying out initiatives for national developments, in particular the provision of public services is essential. It is crucial to the public service to keep an eye on and assess how public services are being provided, as well as to get input from those who use them regarding their efficacy and efficiency. Government has established the National Service Delivery Survey (NSDS) as a crucial tool for achieving this goal. Surveys are carried out as part of the Public Service Reform Programme, among other things, in the governance, water and sanitation, road infrastructure, health, and education sectors.

Taxpayers must be treated as consumers by the service delivery system, which necessitates giving individualized, efficient customer, service a high priority (Mourney, 1991). He added that managers' and staff' attitudes should be directed on fostering positive working relationships and ensuring that clients (taxpayers/citizens) are treated well when receiving services. Poor management of contractor performance resulted in projects being delayed, low-quality goods and services being provided and minimal oversight, all of which affected service and led to poor delivering of services by the municipalities.

Delivering great service is viewed as a crucial strategy for success and survival in today’s climate because the service industry contributes significantly to the nation's economy (Parasuraman et al., 1985). The main objective of improving service delivery is to increase the efficacy and efficiency of the way services are provided. The implementation of new intelligent service delivery systems is required to address the myriad pressing difficulties that today's cities are currently confronting, according to 2009 World Bank research. The use of public principles, institutions, and the service market, according to Jooste (2008), can significantly improve service delivery. They contend that the values that should be optimized in service delivery are determined by democratic processes and stakeholder choices.

The national and municipal governments offer individuals within their sphere of influence public services that include garbage collection, water, housing, construction of roads, as well with other services**.** Bachmann and MacCleery (2006) stated that the ideal scenario shows governments to ensure that the services are delivered in a sufficient manner. But it turns out that many national and local governments fall short when it comes to offering essential services. Poor public services, according to Bachmann and MacCleery (2006), lower the standards of living in these communities, impede economic development, and diminish citizen faith in local government. On the other side, top-notch services promote regional economic expansion.

The mandated obligations of local authorities in Zimbabwe consist of garbage collection, water supply, road constructions, heath care services and others. In Zimbabwe, providing local government services necessitates strive to act during a crisis. Naturally, local officials in a number of service districts are fully aware of the situation they are in**.** Primary healthcare, refuse collection, road maintenance, water supply and sanitation are the local governments' most important services. Insufficiency of funds for a better change, a lack of useful gear and tools**,** and a need of material supplies, such as tanks, pipelines, illumination, and other components, are the key challenges.

The study sought to highlight the state of quality-of-service delivery at Bindura Municipality in Mashonaland Central Province, Zimbabwe. Bindura Municipality first received its town status in 1990, and then in 1999 it received municipality status. The effective delivery and management of infrastructure services is a pre­requisite for productive investment and economic growth in urban areas (World Bank 2000). Effective services delivery can be achieved when service provision responds to effective demand of all residents having access to services provided. Efficient service quality delivery and management ensures that the level and mix of services provided match the effective demand of all consumers, (Dellinger 1993).

Access to and the quality of urban services in most cities and towns in Zimbabwe has been deteriorating, constraining productivity and the government’s efforts to improve living conditions. This has been exacerbated by the poor management of municipal services and the structure of central local fiscal relations which affects the adequacy of resources or incentives for improving infrastructure and services (World Bank, 2000). From the year 2000 to around 2008 Bindura municipality, like all other urban councils, suffered from a setback of the hostile economic environment that prevailed in the country. During this period the country experienced social, economic and political crises. For example, the unemployment rate was in excess of 80 percent while hyperinflation reached a staggering 300 million percent and growth rate was a negative 12.5% in 2007. On the international arena the country was also under sanctions and this was worsened by suspension from the International Monetary Fund (IMF) that effectively closed the lines of credit to the country (RBZ Monetary Policy 2008).When service delivery began to decline, Bindura Municipality tried a number of different strategies to fix it. The supply chain risk management tactics used by Bindura Municipality include leveraging PPRR risk management, which consists of prevention, preparedness, response, and recovery.

On the same occasion, Bindura municipalities have been charged with corruption, subpar workmanship, unfinished projects, and initiatives that are not financially or environmentally sustainable. For instance, a case of Madamombe who was suspended because he abused the office, the allegations of authorizing the withdrawal of an undisclosed amount of cash from the council account without the council authority and as well as using the funds for his personal gains such as paying his relative medical bills. Due to its inability to efficiently raise money**,** Bindura Authority**,** such as any other local governments in Zimbabwe, is unable to provide its citizens with high-quality services. Residents in Bindura can only receive water for a maximum of six hours each day due to rationing. The majority of the road network in the town suburb is outdated and requires significant renovation, such as resurfacing, and garbage is still not being collected throughout the entire town suburb.

Hence, local governments should ensure that residents in their communities have access to at least the fundamental services they require, some of which were mentioned above. The lives of the residents of that community are immediately and directly impacted by these programs. Poor water quality or irregular garbage collection, for instance, can contribute to the development of hazardous and unhygienic living conditions. Inadequate services can limit residents' employment options and make it difficult to draw business or industry to a location.

# Statement of the problem

The way in which municipal authorities deliver the services has a direct impact on the lives of their constituents. From the year 2000, there have been several concerns about the way that municipal and local government services are provided in Zimbabwe. A number of stakeholders, including municipal citizens' associations and private voluntary organizations, also attested to the general reduction in municipal service delivery and capital growth in places under the control of local authorities.

Most municipalities that are in Zimbabwe, service delivery had been deteriorating for the past 2 decades. Despite the control measures being in place, risks such as fraud, corruption, bribery and conflict of interests in award of contracts have manifested in service delivery in Bindura Town Council leading to poor services. More often public works are poorly executed manifesting in form of potholes in constructed roads, shoddy sanitation, and a lot of garbage on the streets and poor drainage which floods roads during rainy season.

Therefore, this study aims to examine how supply chain risk management matters in improving the service delive**ry** of Bindura Municipality Authority**.**

# Objectives of the study

General objective of the study is to examine effects of the supply chain risk management on service delivery of Bindura Municipality Specifically, the study seeks to:

* + 1. To analyze the role of supply chain risk management on improving service delivery of Bindura Municipality.
    2. To determine the relationship between risk management and service delivery in Bindura town.

# Research Questions

**The research questions of this study are:**

* + 1. What is the impact of supply chain risk management on service delivery?
    2. Is there a relationship between risk management and service delivery in Bindura town?

# Significance of the study

# 1.5.1 To the Bindura Municipality Authority.

The results of this study are expected to help the Bindura Municipality Authority to have knowledge on how supply chain risks management improves the service delivery. The research will help the organization to implement the best and most efficient supply chain risk management techniques and strategies to curb the poor service delivery. It will also help the municipality to adopt the effective strategies that improve their organization service delivery performance.

# 1.5.2 To the researcher

To understand how supply chain risk management improves service delivery, it is a requirement that the researcher had to complete a study as part of the degree program since the researcher's educational institution required that students undertake research. It also allowed the researcher to acquire and attain information and several research techniques while conducting the investigation.

# 1.5.3 To the future researchers

Findings from this study will be useful to other future researchers who would utilize it as a starting point for other studies and a source of knowledge. Also, it will add to the corpus of information and recommendation on supply chain risk management and the improvement of service delivery in municipalities. Most importantly, it will be helpful since it will give background knowledge to other academics that are eager to conduct additional research on how supply chain risk management improves service delivery

# 1.5.4 To the Bindura University

These research findings can be used by other students that might conduct research on supply chain risk management and the improvement of service delivery of municipalities.

# 1.5.5 To the community

The communities in Zimbabwe will gain from the research through the implementation of the findings ought to improve service delivery to their advantage.

# Assumptions

The research will be based on the following assumptions:

* Respondents will willingly co-operate by facilitating access to data and information that may be considered sensitive and confidential.
* The research environment will remain constant throughout the study period.
* The essential participants will collaborate with the researcher throughout the investigation.
* Th**e** administration of the Bindura Municipality is open to suggestion for ways to enhance their provision of services.

# Delimitations

Bindura Municipality will be used as a case study. The research will take into account the service offered by the municipality and strategies to improve the service delivery through the impact of supply chain risk managemen**t**. The study was limited to Bindura and was undertaken especially for the service delivery within Bindura Municipality Authority.

# Limitations

The stud**y** experienced the following limitations during its development process.

# 1.8.1 Time factor

Because the researcher had to attend lectures and conduct the study at the same time, the research's time frame was constrained. The researcher had to avoid procrastination in order to complete everything on time and designed a working schedule within the time allotted to address the time constraint. The researcher utilized weekends and semester breaks to collect data for the study.

# 1.8.2 Confidentiality

The local authority was reluctance to reveal sensitive information. This constraint was overcome by using triangulation**.**

# 1.8.3 Limited resources

The researcher faced financial constraints. However, the researcher used personal funds

# 1.9 Definition of terms

**Risk**

Risk, according to Jutter (2006), is the possibility of suffering a loss or failing to achieve a business goal.

**Supply Chain**

According to Ravi and Verma (2019), a supply chain is made up of individuals, groups, organization, information, resources and activities that are logically ordered to facilitate the efficient transfer of goods and services from production sites to consumers.

**Risk Management**

Sheffi (2005) defines it as the discovery, evaluation, control and monitoring of any business uncertainties that could lead to failure or loss.

**Supply Chain Risk**

Kersten et al. (2006) defined supply chain risk as the harm determined by the likelihood of its occurrence and brought on an incident in a firm, or within its environment that negatively impacts the firms’ operations of multiple organizations in the supply chain.

**Supply Chain Risk Management**

According to Revilla and Saenz (2017), supply chain risk management is a process that tries to detect, evaluate and mitigate an organization supply chain risks in order to prevent disruptions in the production and delivery of goods and services to the users.

**Service Delivery**

According to Helmsing (1995), serving the receivers or providing goods and services to them is a purposeful obligation made by elected or appointed officials. Service delivery is the provision for the needs of the general population on a regularly basis through a system or structure. Both elected leaders and civil servants provide citizens with commodities and services.

# 1.10 Conclusion

This chapter introduced both the study and the chapter. It focused on the background of the study, statement of problem, objectives of the study, research questions**,** and significance of the study, assumptions, delimitations, limitations and the definition of terms. The background of the study summarized the evolution of supply chain risk management in Municipality Authorities in Zimbabwe in general and Bindura Municipality in particular and service delivery developments in Bindura Municipality Authority. The next Chapter, Chapter 2, is going to focus on literature review. Both theoretical and empirical literature would be reviewed in this Chapter.

# CHAPTER II

# LITERATURE REVIEW

# Introduction

The previous chapter provided a basic overview of the study examining its background, problem statement, aims, research questions, assumptions, delimitations and limitations. It also covered its significance, scope, assumptions, and context. This chapter gives background for the study by looking at the existing literature review which consists of the theoretical and empirical evidence on supply chain risk management and service delivery. The information presented in this chapter is based on an analysis of how supply chain risk management improves the service delivery.

# 2.1 Theoretical framework

This section of the literature review focused on enunciating theories that were part of the adoptive decision made by the researcher and this was in relation to the topic being researched. The theories that explain the nexus between SCRM and service delivery includes stakeholder theory, institutional theory and the resource-based view theory.

# Stakeholder Theory

The phrase "stakeholder" first appeared in a ground-breaking 1963 Stanford Research Institute paper that stated managers "need to understand the concerns of shareholders, employees, lenders, and suppliers in order to develop objectives that stakeholders could support." Sinclair (2010), page 1. Any group inside or outside of an organization that has an interest in the organization, its performance and that influences how strategically important decisions are made within an organization, is referred to as a stakeholder (Daft, Murphy, & Willmott, 2007, p.692).

The supply chain creation rationale for stakeholder management places companies at the center of an association of stakeholders. According to Freeman (1994), a company's stakeholders are any group of people who can influence or have a negative impact on the company. This includes its investors, suppliers, employees, customers, competitors, neighborhood organizations where the company works, regulatory agencies, and others (Touboulic and Walker, 2015) therefore it applies in this study by Bindura municipalities engaging with the community on reviewing the quality of services it delivers. In this perspective, a firm is referred to by Jensen and Meckling (1976) as a "nexus of contracts" between itself and its stakeholders. These agreements are both formal, written documents and informal, expectancy-based agreements (Jones, 1995).

Due to their direct or indirect agreements with stakeholders and their respective positions in relation to the management of organizational resources, top managers serve as the company's key contracting marketers. Stakeholders are valued because they aid a company in achieving its goals (Freeman, 1984). However, stakeholder relationships are constantly under jeopardy, either consciously or unintentionally. According to Donaldson and Preston (1995), the stakeholder control attitude calls for firms to take into account the legitimate interests of all pertinent stakeholders when making key operational and strategic decisions. But a widespread misconception about the "stakeholder principle" is that all stakeholders are treated equally.

Finding out which stakeholders will stick in your mind the most is one of the first steps in good stakeholder management, according to John (1996) factor out. As a result, the stakeholder literature offers some advice for resolving "moral dilemmas," which are situations in which the interests of a few, conflicting stakeholders are at odds with one another (Freeman and Gilbert, 1988). Bindura municipality engaging its community will aid in improving in its service provision as they take into account where they are lacking and make developments or improvements on that.

The idea that firms start initiatives to coordinate stakeholder interests is a prevalent one seen in stakeholder literature (Busse et al., 2017). This perspective is entirely predicated on the idea that social organizations are naturally cooperative systems (Camilleri, 2017). Organizations are prone to forming coalitions with stakeholders to accomplish shared goals because of their cooperative nature (Axelrod et al., 1995). According to Jones et al. (1997), these alliances are also known as constellations, networks, and strategic networks. These collaborative partnerships may be a potent tool for coordinating stakeholder objectives and helping a business lessen environmental uncertainty (Kraatz, 1998).

Service delivery requires all stakeholder involvement of Bindura Municipality to ensure that all matters arising from the quality of services being given to the residents are identified and corrective measures which include effective implementation of supply chain risk management are put in place. Stakeholder comments can be utilized to review the quality of services offered by the municipality such as water supply and refuse collection.

# Institutional Theory (IT)

According to institutional theory, institutional contexts provide pressure on firms to appear legitimate and adhere to established societal standards. Using this concept in a business context, institutional pressures may encourage organizations to pursue objectives that will increase their legitimacy and make them appear to be in compliance with the rules, regulations, and norms of their respective industries (Oliver, 1990; Touboulic and Walker, 2015). Participating in supply chain interactions is one approach for businesses to do this.

Bindura Municipality, for instance, can boost its prominence, standing, appeal, and prestige by forming alliances with Masimba construction for road maintenance. The benefits of this kind of method could be substantial in real life. For instance, a small business that can claim to have an active strategic supply chain with "Intel, Hewlett-Packard, and Motorola" earns good sized legitimacy and stature among its industry settings. This situation is regular with the consequences of a case observe via Wiewel and Hunter (1985), who observed that new organizations are capable of boom their legitimacy as a characteristic in their capacity to set up affiliations with familiar organizations. Improved legitimacy may be very important. Legitimacy (which can be acquired in component via supply chain relationships) may be the important thing that opens the doorways to other relationships that help a company benefit get admission to essential resources and expertise. Institutional pressures encourage companies to take part in supply chain relationships for other motives.

A corporation may find that the key to other partnerships that allow it to access crucial resources and knowledge is legitimacy, which can be gained through relationships with the supply chain. Companies are encouraged to participate in supply chain connections by institutional pressures for other reasons. For instance, belonging to a group that supports socially relevant objectives may enhance a company's recognition (Huang et al., 2016). This type of legitimacy strategy typically benefits well-known nonprofit groups. A busy CEO can agree to lead a unified way committee or take the helm of a no longer-for-profit industry exchange group in part to enhance the visibility and repute of his or her business.

In one of the few empirical studies that connect supply chain interactions with institutional notion, the significance of image was confirmed. According to Schermerhorn and Shirland (1981), the degree of supply chain control cooperation across hospitals became related to the scenario for image. Similar to how firms join other institutions and consortia for a variety of reasons, image plays a part in those specific supply chain partnerships as well.

Institutional idea is likely valuable in explaining why businesses operate the way they do in the context of supply chain relationship development. Companies are also encouraged to conform as a method of attractiveness and survival, in addition to seeking legitimacy as a means of enhancing a firm's recognition or establishing social worth (Oliver, 1991). One strategy for appeal and survival is to essentially fit in with the environment. This strategy typically entails replicating or imitating corporate conventions. This idea is consistent with the theory of mimetic isomorphism (Kauppi, 2013), which claims that managers of businesses unintentionally or actively imitate the methods of successful businesses.

Due to the fact that many profitable companies in their industry are engaging in honest supply chain interactions, many enterprises are able to do the same. In some businesses, the prevalence of supply chain links may be over the top. Companies without partnerships are becoming increasingly unusual, and the average firm has more than one partnership, according to Powell et al. (1996) in their analysis of the biotech industry. This research suggests that the development of supply chain linkages can be explained by population ecology.

Private and public institutions contribute to the quality-of-service delivery offered by the municipalities for example engaging construction companies such as Masimba Construction can improve services such as road maintenance. Engagement of such institutions forms part of supply chain risk management as critical jobs are offered to experts in the respective fields hence attaining best service delivery for town residents.

# Resource based view theory

Resource-based view of firms is the primary theoretical basis employed to construct the suggested design after a thorough assessment of many theoretical perspective framework literatures. According to resource-based view of the company’s theory, distinctive collection of resources that each firm possesses should be able to account for the diversity in corporate performances, including the organization abilities. The principles of supply chain risk management are among these tools (Blome et al., 2014).Supply-chain risk management, is crucial to the success of any company. Globalization also increases the critical interdependencies and complexity between suppliers, logistics providers, and a successful business. There is a chance that the supply network connecting these businesses could break down at any point, with terrible results. The other key should be incorporated into any other significant business policies and procedures you use for service delivery management and general risk management. Firms that are proactively, even though no risk management program can completely foresee, mitigate, or prevent all risks or consequences, a supply-chain risk-management program will be more resilient and prepared for the day when a risk surfaces.

A business needs to have a competitive advantage in order to be able to handle sourcing decisions well. This suggests that selectingcontractors based on their capacity to support value creation initiatives, controlling risks, and putting policies into practice is necessary. Suppliers' capacity of not satisfying customer expectations in terms of both performance and product, but also to align the parties' aims, lies at the heart of this. The distinction between capabilities and resources, notably an organizationally embedded non-transferable firm-specific resource whose objective is to boost the productivity of the other resources possessed by the firm, is highlighted by Gillis, Combs, and Ketchen's (2014) definition of capabilities. Resources are inventories readily accessible factors that an organization owns or controls, while capabilities are the ability of an organization to use resources. In essence, combining resources is what creates capabilities. According to the resource-based perspective hypothesis, organization resources are the primary elements of its performance, and this has a substantial impact on service delivery.

Supply chain capability integrate the research established specified in the suggested framework is how this study conceptualizes SCRM. Additionally, so as to successfully and effectively use the resources available to the company, these abilities link not just in internal operations of the organization but also those of the firm with its contractors and customers (Blome et al., 2014). As a result, firms starting a supply chain should concentrate on how well organizational procedures and capabilities can be used to implement those components of SCRM. Hence, firms who deploy SCRM may see an improvement in performance and service delivery of Bindura Municipality. Current research utilizing RBV in relation to SCRC includes (Gligor and Holcomb, 2014). These studies offer fascinating descriptions of the application of RBV to supply chain operations and performance. Therefore, the RBV is considered to be the main lens in this research, which largely concentrates on SCRM as the important competencies of organizations

In-order to achieve best results in service delivery, resource utilization is one of the key factors to service delivery success. Bindura municipality has resources such as water treatment plant which is a crucial resource in water supply for Bindura residents. Utilizing such resources results in residents’ satisfaction as water supply can be attained timeously.

# 2.2.1Risks faced by organizations

Poor service delivery and governance are major problems in the country, and municipalities are reportedly affected by a number of factors which include:

# 2.2.2 Poor Infrastructure

The need for better infrastructure has not been provided in Zimbabwe for many years. Zimbabwe still needs better infrastructure since there are bad roads and a lack of electricity hence; Zimbabwe municipalities are in need of improved infrastructures.

# 2.2.3 Corruption

At the level of municipal government, public procurement is considered to be the main venues for fraud in Zimbabwe. The ability of any government department to operate effectively suffers greatly from bribery. Corruption has emerged as a problem in many developed countries; it is an unsolvable issue, mostly when it has spread to the point where **s**everal members of the management are directly affected. It changes the authority and responsibility for service delivery from those who want it to those who can procure it (Langseth et al., 1997).

Lawal (2000) goes on to claim that top civil servants, who receives government funds intended for development motive are entrusted, are rife with corruption. Generally speaking, widespread misappropriation by grassroots authorities has facilitated the growth of grassroots a pipe vision also financially prevented them **f**rom carrying out their statutorily assigned duties, which has compromised service delivery.

# 2.2.4 Risk of Integrity

Integrity risks exist throughout the entire process of public procurement. Common risks during the pre-bid period, beginning with the needs assessment, include inadequate needs assessments, public procurement planning and budgeting, requirements that are not sufficiently or objectively defined, an inadequate or irregular choice of the procedure, and an inadequate or inconsistently applied timeframe for bid preparation across bidders (OECD, 2007). These all relate to the role that procurement planning plays. Accountability and eventual service delivery are significantly jeopardized if local government's procurement mechanism is unable to control these threats.

# 2.2.5 Lack of enough Finance

Despite an increase in the total amount of cash available to it, Zimbabwe's local government still has a poor economic and financial profile compared to the development program it is designed to accomplish. The problem is not unrelated to the local government's mismanagement and theft of the funds (Bailey, 1998).

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# 2.2.6 Challenge of getting the right service provider

When it comes to the provision of public services, it is challenging to get the actual service providers to be accountable for quality and efficiency as well as to have the resources and management authority to carry out the work efficiently. Political leadership is perceived as being ineffective, corruptible, and excessively disinterested in the communities in the areas of greatest need, which jeopardizes the delivery of local government services.

# 2.2.7 Poor communication with Communities

The local ward committees' limited operation, which results in inadequate communication with communities, is the other significant cause. In an effort to ensure that these structures have the capacity and resources necessary for them to fulfill their intended roles as the voices of communities, ward committees have received significant attention from both the government and civil society (Langseth, 1997). The effectiveness of these institutions, their value as channels for community involvement in local governance, and their inherent suitability for fulfilling the crucial role anticipated of them in the provision of services are all questions that are frequently raised.

# 2.2.8 Financial mismanagement and non-compliance with the financial legislation

The local government Act mandates that all local governments "take reasonable steps to ensure that their resources are used effectively, efficiently, and economically." Excellent financial management is the key to local delivery. It is very alarming that the majority of local governments are frequently associated with the worst kind of financial management. Financial law infractions, financial mismanagement, and corruption are commonplace. Performance suffers as a result, endangering the delivery of social services.

# 2.2.9 General Indiscipline

Employees of local governments commonly notice and demonstrate indiscipline (Hernon & Whitman, 2001). Furthermore, they asserted that top officers take Friday off to spend time with their families outside of work frequently stay until Tuesday or return very late, and that subordinate employees who directly or indirectly see this conduct frequently skip work. Nowadays, a lack of commitment to responsibility is more frequent than unusual.

# 2.2.10 Misplaced priority

The limited and labor-intensive resources that are raised and collected for local administration are inevitably mismanaged. Priorities are defined at the local government level of administration that are unhappily in line with the political leadership's own aspirations for self-aggrandizement in collaboration with top bureaucrats (Johan, 2006).

# 2.2.11 The availability and shortage of the required skills

According to Parasuraman et al. (1996), local administrations continue to face a significant skills gap. Many local governments lack the institutional, budgetary, managerial, and administrative capabilities to handle the local population's expanding needs. The loss of municipal professionals and the weak ties between local government and the tertiary education sector have made the problem worse. As a result, these local governments are unable to function to the needed standards, which have a negative effect on the provision of services.

# 2.3 Indicators of quality service delivery

The following indicators have an impact on service delivery and these indicators include water supply, housing, refuse collection, housing, healthcare, education, road construction and sewage maintaining.

# 2.3.1 Water supply

The provision of safe and clean water to the public is known as water supply service. This service is offered by municipalities and is responsible for sourcing, purifying, and distributing water to the community. It is the legal responsibility of the municipality to provide this service to its residents, who pay for it through fees and taxes. Consistent access to water is critical, and residents should expect to receive it daily.

# 2.3.2 Refuse collection

Refuse collection service refers to the process of gathering and transporting solid waste for proper disposal, typically done by a government or municipality-run organization. This includes the regular collection and disposal of garbage, recyclables, and compostables using provided waste containers. It is the responsibility of municipalities to offer this service to their residents as part of their duty to the community.

# 2.3.3Roads maintenance

Infrastructure for roads encompasses both physical elements like the actual roads themselves and all of the connecting components, such as bus stops, truck terminals, signs, drainage systems, and structures like bridges or tunnels. Zimbabwe’s road network has deteriorated due to insufficient maintenance and repair efforts. The allocated funds have persistently fallen short of what is deemed necessary to sustain the road network and undertake basic construction projects. Constructing and maintaining roads is essential, and it is the responsibility of municipalities to maintain roads.

# 2.3.4Health care service

Good health is not just the absence of illness or disability but also encompasses complete physical, mental, and social well-being. It is the basic right of every individual, irrespective of their ethnicity, religion, political beliefs, economic situation, or social status, to have access to the highest attainable standard of health. Health services are one of the fundamental pillars of society and the economy. Providing social health protection and ensuring equal access to high-quality healthcare can significantly improve individual, societal health and contribute to economic growth and development. As a part of providing essential services, municipalities have the responsibility to establish and maintain council clinics to enable residents to access healthcare services.

# 2.3.5Housing service

According to Madzidzela (2008:21), municipalities are required to comply with local, state, and federal laws when providing public housing. Section 154 of the Constitution mandates that municipalities receive assistance from the federal and provincial governments in managing their affairs. However, some provincial authorities have taken over the delivery of homes and seized control over the process, limiting the municipality's power. Section 156 of the Constitution further reinforces the municipality's subordinate role in the housing delivery system by requiring them to carry out duties imposed on them by federal, state, or local legislation. As a result, the municipality's ability to ensure that its residents have access to quality housing is hampered by the emphasis placed on provincial authority as the entity ultimately responsible for housing delivery (Tomlinson, 2011).

# 2.3.6 Education service

Municipality-level school boards, also known as Local Education Authorities (LEAs), hold the most authority in developing, implementing, and enforcing educational policies. While the federal and state governments can provide funding and offer some required courses, the LEAs establish priorities for student learning and achievement, set goals and action plans for school performance, and ensure that staff and resource allocations align with district objectives. These duties include ensuring that everyone has equal access to education and training opportunities, as well as promoting broader societal goals such as reducing socioeconomic inequality. It is essential for municipalities to provide quality education to their citizens to enhance their well-being

# 2.3.7 Sewage collection and disposal

The municipal sewer system is a network established by a municipality to provide sewer services to its residents by collecting both internal and external sewage produced within its jurisdiction as defined by its governing body. In municipal sewage treatment plants, the sludge produced during the aerobic treatment process is transferred into tanks for anaerobic treatment. Municipal sewage is considered a renewable resource that can be used to recover water, materials, and energy. Urban wastewaters that are intended to be removed from communities make up the majority of municipal sewage. Sanitary sewers, storm sewers, and mixed sewers are the three types of sewers that transport and manage the waste produced by individuals. Sewage is a general term that refers to raw sewage, sewage sludge, and septic tank waste, which are primarily composed of water that contains human waste, industrial waste, and debris such as condoms, sanitary towels, and plastics. The primary source of pathogenic microorganisms, such as parasites, viruses, and bacteria, is human excrement.

# 2.4Supply chain risk management mitigation strategies

Chopra and Sodhi (2014) state that there are numerous ways to manage risks in supply networks. A primary strategy would be to strive to achieve excellent results in the core supply chain performance metrics of consistent order fulfillment, dependable delivery, and customer happiness. It goes without saying that many successful firms have fallen victim to shifting markets or the catastrophic risks mentioned in the previous section as external threats. The proposed supply chain strategies are examined.

Chopra (2014) created a matrix to assess the relative benefits or drawbacks of each option in light of the various hazards. Of course, increasing capacity is intended to lower the risk of needing more capacity and lower the risk of inventory and procurement issues, but it also raises the risk of delay. The risk of delays, disruption, procurement, and capacity are all significantly reduced when inventory is added, but the risk of inventory-related hazards, such as out-of-datedness, spoilage, carrying expenses, etc., is substantially higher. It is anticipated that having redundant suppliers will make it much easier to deal with disruptions. It can also help to lower inventory and procurement risk, but it can also raise the risk of surplus capacity. Other options (raising responsiveness, flexibility, aggregating demand, capability, or customer accounts) have no negative projected risk consequences but could have a negative cost impact.

Miller (1992) identified five general tactics businesses use to reduce risk from the perspective of a single corporation, four of which may be applied to supply chain contexts: Avoidance, control, PPRR risk management model, multiple sourcing, acceptance, risk sharing and reduction are listed in that order.

# 2.4.1Risk avoidance

When the risks of doing business in a certain product market or region are deemed to be unacceptable, avoidance takes place. According to Miller (1992), from the standpoint of the supply chain, avoidance may be connected to specific products, geographical markets, or supplier and customer organizations. If a corporation perceives the supply to be unreliable, it may stop working with certain goods, suppliers, or geographic regions.

# 2.4.2Risk control

Instead of passively accepting uncertainties as limitations they must work within, businesses may try to control the many risk sources (1992) Miller. Avoiding the risk may not be an option in some circumstances, control is a proactive strategy to manage risk by using tactics to control contingencies. A correct inventory may be developed, for instance, if a supplier's delivery times vary, to reduce the danger of running out of stock. Other control solutions for this issue can involve vertical integration with the supplier or binding contracts with suppliers.

# 2.4.3 Risk sharing

Risk sharing is one of the alternative supply chain risk management strategies, according to Michalski et al. (2017), whereby a supply chain entity makes arrangements to share the effects of both losses and gains resulting from a risk as well as the steps that are supposed to decrease risk. According to Konig & Spinler (2016), contemporary supply chain entities have cooperative sourcing agreements in place to split the risks related to procurement (Qazi et al., 2018). Scheibe & Blackhurst (2018) also make the implication that some supply chain entities have adopted the diversification strategy as a supply chain risk management strategy to share demand risk, ensuring that other products will still be in demand if one product fails due to declining demand, ensuring the survival of business entities. The local authorities can share their risk with their contractors and business partnerships.

# 2.4.4 Risk reduction

According to Dias et al. (2020), risk reduction can take place in two ways: through loss prevention and control. According to Kauppi et al. (2016), there are numerous instances of risk avoidance tactics, including the establishment of extra water treatment for continuous supply of water, adequate resources for road construction, refuse collection and sufficient medicine for health care services. All of the aforementioned characteristics, according to Govindan et al. (2020), are primarily intended to prevent risk occurrence. While some of these factors work to limit risk, others work to reduce risk as a whole (Meyer et al., 2019). However, Mohamed et al. (2019) contend that risk can never be completely eliminated, despite having or employing all risk avoidance methods. Scheibe & Blackhurst (2018) contend that implementing loss prevention techniques is less expensive than losses that result from risk in a different way.

# 2.4.5 Multiple sourcing

Multiple sourcing, described by Chaudhuri et al. (2020) as an effective supply chain risk management method, entails the municipalities valuing alliances with a number of suppliers in order to ensure supply continuity because the failure of one supplier is covered by the success of the other. Chen (2018) claimed that risk-oriented entities have already encouraged a paradigm change from single to multiple sourcing (Friday et al., 2018). However, Huong et al. (2016)'s views, which believe that it is challenging to maintain healthy supply chain relationships with numerous suppliers, are in opposition to the multiple sourcing notion as a method of supply chain risk management. In contrast to Huong et al. (2016), Sawik (2016) contends that a risk-averse entity should develop numerous sources of supply. To make the multiple sourcing strategies effective, the organization simply needs to carry out a pre-assessment of potential suppliers' corporate culture, image, financial stability, and reliability through trade references (Mohamed et al., 2019). Soonhong et al. (2019) backed up this claim by stating that there are a variety of hazards that are most frequently associated with suppliers. These risks typically take the shape of unexpectedly long lead times, poor or subpar quality, insolvency, and failure to provide (Meyer et al., 2019). In order to ensure a company's continuous supply, efficient production, and ultimately customer happiness, it is necessary to start working with numerous suppliers (Kamalahmadi&Mellat-Parast, 2016).

# 2.4.6 Risk acceptance

To decide how much risk a company should accept, there are no set standards. The acceptable level depends on the environment and may be related to factors like risk propensity, such as a person's or organization's readiness to engage in hazardous behaviours and accept uncertain results when making decisions (Park et al., 2016). However, being prepared to take a risk does not mandate that danger be disregarded. To guarantee that the acceptable implications do not worsen, it should be monitored going forward (Aqlan and Lam, 2015). Organizations must decide how to eliminate, transfer, share, or minimize the risk if the consequences are greater than a predetermined threshold.

# 2.4.7 The PPRR risk management model

According to Ellsworth et al. (2019), the PPRR risk management model is one of the most effective risk management strategies available to both profit- and non-profit-making entities to ensure their continued existence and relevance to their respective stakeholders. Brusset& Teller (2017), who emphasized that the acronym PPRR stands for Prevention, Preparedness, Response, and Recovery (PPRR), concur with Ellsworth et al. (2019). The Prevention part of the PPRR model, as further stated by Ellsworth et al. (2019), reiterates the necessity for enterprises to create preventative initiatives intended to reduce supply chain risks (De & Renato, 2016).The implementation of a broad or strategic strategy for risk management in the event that an emergency has developed has been described as the Preparedness component (Ellsworth et al., 2019). According to Kamalahmadi & Mellat (2016), adequate supply chain information is a crucial component of the risk management strategy, thus management must be well-informed before the risk management planning process (Ortegoli & Ghadim, 2016).

The real or practical execution of the risk management strategy, or in other words putting the management plan into action such that risk impact is mitigated in the event of occurrence, has been described as the response component by Ellsworth et al. (2019).Schmitt, Kumar, Stecke, Glover, and Ehlen (2017) overemphasized the need for management to provide appropriate resources in order to fulfill the desired risk management goals (Ali et al., 2017) in order to be risk responsive. According to Ellsworth et al. (2019), the recovery stage is all about the organization resuming its regular operations. This is because the risk management strategy should have been fully implemented by this point, making it necessary for the entity to carry out its mandate given that the risk has already been addressed.

# 2.5 Benefits of supply chain risk management

# 2.5.1 Cost reduction

In their 2016 article, Kauppi, Longoni, Caniato, and Kuula listed a number of advantages that are likely to occur whenever a company values supply chain risk management and emphasizes cost-cutting. According to Kauppi et al. (2016), efficient supply chain operations that are focused on stock minimization, lead time reduction, eliminating supply chain activities or operations that don't add value, as well as elimination of waste across all supply chain procedures, are designed by supply chain managers to achieve lower logistical costs (Xu et al., 2019).Dubey et al. (2017), defines supply chain expenses as a crucial factor that might impede efficient operation and ultimately the business entity's profitability.Dubey et al. (2017) identified supply chain costs as a crucial factor that might impede efficient operations and ultimately the profitability of the business entity; Chen (2018) accordingly suggested that supply chain costs should be efficiently maintained at an optimal level through risk management.

This is further corroborated by Bandaly et al. (2016), who hypothesized that an entity will minimize expenses connected with the operation of supply chain to a greater extent the higher the priority it put on supply chain risk management. Busse, Schleper, Weilenmann, and Wagner (2017) specifically argue that a well-managed supply chain forces an entity to be collaborative with its customers in order to remain updated on their needs, thereby effectively managing demand risk, and they also concur that cost reduction is a definite result of effective supply chain risk management.Busse et al. (2017), state that if the demand risk is managed, a company is assured of producing exactly what the market requires, eliminating expenditures that might otherwise be incurred.

# 2.5. 2 Flexibility

According to Mizgier (2017), one of the largest potential advantages of supply chain risk management is flexibility since once an organization starts using it, it exposes itself to the opportunity to be flexible. According to Rostamzadeh, Ghorabaee, Govindan, Esmaeili &Nobar (2018), supply chain risk management forces and entityto excel highly competitive in its industry by being adaptable enough to adjust to any changes that come from the business environment. Their assertions bolstered similar opinions. By implying that a company that values supply chain risk management may readily cope with unavoidable changes that have characterized the macro-business operational environment, Woojung, Alexander, Kim, and George (2016) likewise echoed almost similar comments (Burki et al., 2018).furthermore, it is stated by Ortegoli & Ghadim (2016) that a company can only survive in the external environment of the business organization through good supply chain risk management.

The subject of flexibility is also important for supply chain risk management brought up by Liu & Lee (2018), who explain that because there is only one global market, consumer tastes and preferences are always changing. Hence, the two contend that supply chain risk management enables a business to quickly adapt to fluctuating client expectations (Gupta, Starr, Farahani, &Matinrad) (2016). Ghadge, Dani, Ojha, and Caldwell (2017) bolster a similar belief by arguing that corporate organizations must be adaptable enough to change in response to market demands given how quickly client tastes and preferences have changed. Chilamkurti (2019), supply chain risk management fosters a culture of flexibility that allows businesses to adapt to a variety of demands, including those related to manufacturing, new delivery methods, packing requirements, and customer service.

# 2.5.3 Early supplier chain risk detection

According to Qazi, Dickson, Quigley, and Gaudenzi (2018), the inescapability of supply chain risk necessitates a strategically active supply chain risk management role that is in charge of early supply chain risk identification. Soonhong, Zacharia, and Smith (2019) make a similar case, arguing that some supply chains eventually lose their competitive edge as a result of failing to identify supply chain risk at an earlier stage, well before it has an adverse impact on the organization's supply chain operations. Most likely because of this, Konig & Spinler (2016) contend that supply chain risk can be easily controlled provided it is identified early on, before it has a significant influence on the key logistical processes that move goods to consumers.

According to Dabhilkar, Birkie, and Kaulio (2016), organizations with stand-alone risk management operations have the capacity and capability to quickly identify supply chain risks and come up with effective countermeasures that will increase the survivability of business units (Chisango, 2016). In contrast, Bandaly et al. (2016) contend that while an entity may have a strategic supply chain risk management function, supply chain risk can never be discovered early if its employees are not well-trained and has the risk management skills and experience.

# 2.5.4 Informed logistical decisions

According to Ali, Mahfouz, and Arisha (2017), supply chain risk management helps businesses to continuously seek out and acquire real-time supply chain management information, which in turn influences wise logistical decisions and business competitiveness. In a related dimension, Qazi et al. (2018) noted that information is a crucial component of sound supply chain decision making. Mangan & Chandra (2016) also noted this, stating that supply chain risk management exposes supply chain managers to crucial information that is crucial for planning supply chain operations such as production, warehousing, shipping, packaging, customer service, and many others.

Dolgui, Ivanov, and Sokolov (2018) further clarified that supply chain risk management necessitates the effective adoption of cutting-edge technologies so that the organization can access real-time supply chain management information, allowing supply chain managers to be highly responsive to environmental changes (Govindan et al., 2020). The availability of information enables firms to make decisions that are right and accurate in light of current supply chain and market demands, helping them to survive in a fiercely competitive industry, according to Liu & Lee (2018).

# 2.5.5 Improved communication

Better communication is another benefit of supply chain risk management which Rostamzadeh et al., (2018) identified as one of the features that are attained as long as a business becomes risk oriented. The argument by Rostamzadeh et al. (2018) in this example is that implementation of the supply chain risk management strategy by corporate organizations compels them to successfully design and adopt more effective communication methods. This is also supported by Xu et al. (2019), who hinted that risk management in a supply chain is crucial for allowing firms to stay in touch with their supply chain partners and stay informed of any changes to the business environment (Michalski, Montes-Botella, and Piedra) (2017).In a similar vein, Kauppi et al. (2016) overemphasize the need for business organizations to maintain open communication channels with other supply chain participants in order to update accurate data on all the dynamics that would have been developing along the supply chain's operational environment.

# 2.6 Challenges of effective supply chain risk management

# 2.6.1 Unforeseen delays

It is a problem to manage supply chain-related risk, according to Li et al. (2017), who asserted with confidence that the supply chain is characterized by unexpectedly extended lead times that translate into delivery delays, which are most common when the supply chain is very extensive. Distribution of purchased services and products is not as simple as the procurement process, according to Qazi et al. (2018), who based their claim on time zones and huge distances when global supply chains are involved (Mohamed et al., 2019). Revilla & Saenz's (2017) argument that it is challenging to identify potential dangers as a result of delivery delays that are unavoidable when purchasing items from international sources harmonizes this. Another source supporting this claim is Gupta et al. (2016), who noted that given the movement of goods from one border or port to another in order to reach the final destination, the longer it takes for goods to be delivered while in transit, the more vulnerable they become to a number of supply chain risks (Kauppi et al., 2016).

# 2.6.2 Environmental turbulence

According to Xu et al. (2019), environmental turbulence is the state in which the company operational environment is characterized by the maximum level of instability and disorder (Mochamad et al., 2017).Huong et al. (2016) claim that the degree of turbulence in business environment makes it difficult for organizations to manage supply chain risks because the turbulence causes a number of changes that are out of the supply chain managers' control, which makes it difficult to manage supply chain risk (Friday et al., 2018).Further explanation is provided by Golan et al. (2020), who state that sudden changes in government regulations or policies, which all affect how supply chain activities should be carried out, demand changes, new technology, and a host of other factors make it difficult for supply chain managers to fully rely on a particular risk management strategy, are all examples of the macro-business environment's inevitability of a high degree of instability (Dias et al., 2020). According to Ghadge et al. (2017), environmental turbulence distorts the idea or possibility of a supply chain risk management plan, making it difficult for supply chain managers to periodically review their risk management plans.

# 2.6.3 Poor supply chain relations

Poor supply chain relationships, according to Gurtu, Amulya, and Johny (2019), are one of the biggest problems facing businesses today, making it difficult for supply chain managers to properly manage supply chain risks (Kauppi et al., 2016). Mizgier (2017) adduces that poor relationships between partners or members of a particular supply chain translate into poor information transformation along the supply chain, posing a challenge to managing a supply chain without adequate information for risk management. This argument is further supported and clarified by Mizgier (2017). (Ivanov &Dolgui, 2020).Information asymmetry in a supply chain, according to Ravi & Verma (2018), is typically caused by a disintegrating supply network where members do not expose one another to real-time information, this is essential for managing supply chain risk (Li et al., 2017). The largest degree of crucial supply network information is absent due to weak supply chain interactions among supply chain actors, which logistics managers need for effective risk management planning and decision-making (Ghadge et al., 2017).

# 2.7 Relationship between supply chain risk management and service delivery

Johan (2006) created additional catchphrases for enhancing service performance. He asserted that failure to plan for service delivery will result in the failure to provide services to the general public. If it cannot be measured, it cannot be improved. If the only thing on our agenda is to follow the rules, then we are not managers; we are just machines. We must execute our strategies. We need to monitor our actions. We should not be reluctant to ask the public for their input. They are the ones that actually understand their needs and desires. Not everything that occurs is the same. Supply chain risk management is one of the fundamental responsibilities of providing services, and it has the potential to improve local government operations and service delivery, according to Basheka (2004).

Mullins (2003) claims that neither developed nor developing countries frequently dispute the part that supply chain risk management plays in fostering effective and efficient service delivery in municipalities. Its participation can be advantageous to the management of the municipality at both the federal and local levels. It is discovered that local government procurement systems, supply chain risk management and service delivery are closely related. Optimizing the quality-of-service delivery that is feasible within the area supporting people, according to Mawhood (1983), is a vital step in ensuring that the public obtains the correct service.

# 2.8 Conceptual Framework

This study sought to investigate on how supply chain risk management matters in improving the service delivery, a case of Bindura municipality The supply chain risk management mitigation strategies, such as multiple sourcing, risk reduction, risk acceptance, risk sharing, and the PPRR risk management model, are the independent variables. The dependent variables are measures of the effectiveness of service delivery, such as sewage, water supply, garbage collection, education, roads, housing, and health care.

# Figure 2.8.1

**Supply chain risk management strategies Indicators of quality service**

**delivery**

Acceptance

Control

Risk sharing

Multiple sourcing

Acceptance

Reduction

PPRR risk management model

Roads

Housing

Water supply

Refuse collection

Sewage

Health

Education

# 

# Independent Variable Dependent Variables

# Figure 2.8.1: Conceptual framework.

# *Source: Field data*

# 2.9Empirical literature review

**Tshmaano Vusani Livhuwani (2012) South Africa**

Tshmaano Vusani Luvhuwani (2012) South Africa conducted research on the effects of supply chain management on the provision of services. Semi-structured interviews and questionnaires were used in the qualitative research technique. According to the report, supply chain management was established in South Africa to enhance the lives of groups including women, the disabled, and people from historically underserved communities. Supply chain also has a significant impact on how services are delivered. The study's conclusions were that supply chain management is not operating effectively because the public officials appointed lack knowledge and experience in the field, misuse resources, and there is a lack of risk identification in the study, which leads to poor service delivery. In order for public officials to be responsible and obey regulations, it is suggested that they receive education and training in supply chain management. It is also suggested that service providers need to identify risks and take steps to mitigate them. The study, however, only employed a qualitative methodology, it only examined management and it did not consider how the communities felt about the services that the local government offered to them.

**Priscilla Deka (2016) South Africa**

Priscilla Deka (2016) South Africa carried out research on the effectiveness of supply chain management of service delivery local municipality The study's research strategy was qualitative. With the aid of closed-ended questionnaires, data was gathered. The study's conclusions showed that although the supply chain management practices in place are compliant with the law, the employees do not adhere to them due of political pressure. The significant quantities of unlawful, wasteful, and irregular spending are more evidence of this. The sad problem that arises from this situation is that there is frequently a lack of responsibility. As a result, the supply chain management policies are not successfully executed, which has a detrimental impact on the municipality's service delivery. It is advised that, if the local municipality is unable to correctly implement the supply chain management principles, they should enlist the help of experts to guide them through the process and guarantee that efficiency and effectiveness are realized. However, the study was limited to examining how well supply chain management practices affected the provision of services. Consequently, this study will consider the impact of supply chain risk management on enhancing the provision of services.

**Yvonne Kasine (2014) Uganda**

Yvonne Kasine (2014) Uganda carried out research on supply chain management systems and service delivery. To determine the degree and direction of the association between supply chain management systems and service delivery in Rwandan hospitals, the study employed a quantitative descriptive correlation design utilizing a correlation analysis. Data gathering involved the use of a questionnaire. The researcher discovered that both the overall level of service delivery and the overall level of supply chain management were high. The findings reveal an advantageous connection between supply chain management and service provision in Rwandan hospitals. The report advised that hospitals' service provider units be improved because the local community needs their services. The study, however, solely focused on the delivery of health care services, while this study will consider all services offered by the municipality to the community.

**Daniel MuthwiiSunza (2018) Kenya**

Daniel MuthwiiSunza (2018) Kenya carried out a study on supply chain and service delivery. Data were gathered for the study using structured questionnaires and a descriptive research approach. The study came to the conclusion that information technology had been specifically implemented by the country government and had resulted in effective production and delivery of services. It found that information technology, value added processes, and management support had a positive influence on speed of service delivery. The report makes two recommendations: the company should understand how various supply chain factors affect how citizens receive services, and the government should allocate more money for information technology deployment in order to improve service delivery and boost efficiency. However, the study concentrated on the information technology component of the supply chain to boost service delivery and efficiency, thus this study will concentrate on supply chain risk management to boost service delivery in the municipality.

**SefakoSamualRampoma (2020) South Africa**

SefakoSamualRampoma (2020) South Africa conducted a study on supply chain management for service delivery in the municipal district. Data collecting methods included semi-structured interviews and open-ended surveys. According to the research's conclusions, supply chain management practices that are implemented effectively have a bigger impact on the provision of services than those that are implemented ineffectively or corruptly. The study suggested stringent anti-corruption laws and staff development programs for better supply chain management and service delivery. This study concentrated on risk and risk mitigation of supply chain risk management on improving the service delivery because the study did not take into account all components of supply chain management in proving the service delivery.

**N Bizana et at (2015) South Africa**

N Bizana et at (2015) South Africa carried research on supply chain management as a contributing factor to local government service delivery Interviews that were semi-structured were used to gather data. The findings outlined the issues that have a negative influence on the provision of services as well as the effects of good supply chain performance management. It advises municipalities to think about investing in risk management tools that may be used to assess potential suppliers before issuing tenders and cross-functional sourcing teams to be established to begin demand management efforts. However, whereas the study solely used interviews to gather data, this study also includes questionnaires.

**Caroline Wanjiru Munyuko (2015) Kenya**

Caroline Wanjiru Munyuko (2015) Kenya carried out research on determining the effects of supply chain risk management on organization performance. Both primary and secondary data were employed in the research technique, and questionnaires and interviews were both used to gather information. The outcomes demonstrated that supply chain risk management and organizational performance were inextricably linked. As a result, organizations must identify risk exposure, analyze that exposure, and put in place mitigation plans for the risks found within their supply chains. Supply chain risks impair organization performance if they materialize. Although service delivery is one of the components of organizational performance, this study will focus on supply chain risk management in it because it is concerned with the entire performance of the company.

**Intaher Marcus Ambe and Thabiso Maleka (2016) South Africa**

Intaher A and Thabiso M (2016) South Africa carried out research on exploring supply chain management methods used by West Rand District municipalities. Data was gathered by the researcher using a technique called purposive sampling. The results showed that supply chain management practices have been accepted and used by the towns. Government policies and supply chain management goals do not always coincide, and towns must deal with issues including poor leadership, inadequate accountability, and sound governance. Inadequate supply chain management implementation in municipalities is the main cause of problems with service delivery in South Africa. They suggested equipping municipal supply chain authorities with supply chain expertise for effective supply chain management implementation. However, there are differences between South Africa's and Zimbabwe's supply chain management rules, thus this study will consider both the function of supply chain risk management and its impact on service delivery.

**Webster Denhere et al (2011) Zimbabwe**

Webster Denhere et al (2011) did research on the quality-of-service delivery in Zimbabweans urban councils. A descriptive research design was utilized by the researcher, who used interview guides and questionnaires to collect data. According to the study's findings, poor service delivery quality was a widespread problem that was mostly caused by ineffective and disjointed service delivery and management practices. Concerns included human resources, weak governance, and political influence. The municipality's delivery of services fell well short of residents' expectations in terms of quality. The study advised municipalities to implement complete quality management and blue printing, among other measures, for effective service delivery. However, this study did not consider supply chain risk management as a means of enhancing local authorities' ability to deliver high-quality services; it exclusively focused on municipalities.

**Sifile Obert et al (2020) Zimbabwe**

Sifile Obert et al (2020) Zimbabwe carried out research towards improving the service delivery in local authorities and the research methodology used by the researcher was a hybrid approach. Data collection for the study used both quantitative and qualitative methods. According to the study, stakeholders had a poor opinion of how municipalities delivered their services. It was discovered that main factors contributing to sub-optimal service delivery in municipalities included a lack of funding, the council's failure to collect the maximum amount of income, the unpredictable macroeconomic climate, political meddling, and citizens who refused to pay rates. According to the study, residents should pay for services, participate in decision-making, and engage with the council before adopting any policies that will benefit them. The council should also encourage ethical decision-making and good governance. However, this study does not take into account the function of supply chain risk management in improving the service delivery of municipalities; instead, it solely focuses on improving the service delivery with including the local authority and good governance.

**Charles Makanyezaet al (2013) Namibia**

Charles Makanyezaet al (2013) Namibia conducted research on the strategies to improve service delivery in local authorities a case of Kajiado local authority. A mixed approach methodology was employed to collect the data. According to the research, poor service delivery is primarily caused by councilor meddling, political cunning, corruption, lack of effective citizen participation, lack of employee capacity, and poor planning. The recommendations to improve service delivery include increasing citizen involvement, strategic public service planning, fighting corruption, enhancing accountability, and separating councilors' and local authorities' administration's tasks. Because the prior study solely focused on techniques for enhancing local authorities' service delivery, this study will concentrate on evaluating supply chain risk management to improve local authorities' service delivery.

**Abugu et al (2022) Nigeria**

Abugu et al (2022) Nigeria conducted research on the supply chain drivers: effect on service delivery. Data were extracted from the research using questionnaires. It was determined that each of the supply chain performance factors that were chosen inventory, transportation, and information had a considerable beneficial impact on the provision of services. The use of effective and efficient transportation methods, inventory management, and appropriate information that directs the appropriate drivers of supply chain performance, respectively, were therefore concluded to have a substantial association with service delivery. Therefore, it was advised that the firm adopt suitable supply chain management practices to guarantee efficient service delivery. However, this study solely used questionnaires to get data, and since the focus of the research was supply chain risk management on service delivery, both questionnaires and interviews were used to gather data for this study.

**Samuel Pule (2014) Uganda**

Samuel Pule (2014) Uganda conducts research on supply chain information management and service delivery in public health sector organization. Descriptive, case study, and correlation designs were used by the researcher in a positivist manner. According to study results, there is a strong correlation between the extent of supply chain information processing and the quality of service provided. The study's findings also serve as a pillar for managers' understanding of the significance of information management within the supply chain process and, in particular, their appreciation of the value of data collection, information storage, and sharing within supply chain networks, which is essential if service delivery decisions are to be optimized. The researcher advised the hospital to establish a setting that encourages medical facilities to quickly submit requests whenever a need arises within the health unit. While this study will concentrate on supply chain risk management and all service deliveries made by municipalities, the previous study concentrated on supply chain information on service delivery on health care units.

**Zimcord (2018-2019) Zimbabwe**

The release of the Auditor General's report on the state of local councils for 2018–19 uncovered numerous problems with Zimbabwean governance. Results for Harare City Council made public in Zimbabwe which painted a negative picture of how the supply chain division functions in general. The study provides information on the supply chain unit's adherence to ethical standards and financial responsibility. This article is based on information collected through semi-structured interviews, and is supported by material obtained between 2013 and 2018 from the Harare City Council. According to the article's results, which were informed by the network governance theory, council authorities failed to follow supply chain management standards because of problems with fraud and corruption. The findings also show a lack of a structure to track down and expose irregular public spending, and a lack of oversight of service providers' and contractors' performance. Due to the prevalence of claims fraud, corruption, and illicit financial transactions activity throughout the supply chain as well as insufficient internal controls, service delivery is compromised. To enhance the provision of services in urban areas, the article suggests that the Harare City Council work toward adequate financial responsibility and moral behavior in the Supply Chain Management Unit.

# 2.10 Research Gap

From the above-reviewed literature, it can be concluded that SCRM provides a number of tactic and strategic benefits but has some challenges as well. Because the study is slightly different from the previous studies that were conducted similar to this research within Bindura Municipality, the researcher believes that exploring potential benefits and pitfalls of using supply chain risk management as a strategic tool within Bindura Municipality will result in valuable insights related to service delivery improvement.

# 2.11 Summary

This Chapter assessed both theoretical and empirical literature underpinning SCRM and service delivery. Several theories including the Stakeholders theory, Institutional theory and the Resource Based theory were reviewed. Previous studies conducted on SCRM and service delivery were also reviewed. Thus, the Chapter examines different findings and conclusions made on the impact of supply chain risk management on the provision of services in the public sector. The following chapter is going to discuss the research methodology.

# 

# CHAPTER III

# RESEARCH METHODOLOGY

# Introduction

The preceding chapter outlined the theoretical and empirical literature review on supply chain risk management and improvement of **t**he service delivery in municipalities. The methodology of this study serves to outline the research techniques that the researcher employed. It further outlines the targeted population, sample size, data sources, and data collection instrument to be used.

# ****3.1 Research Design****

In accordance with Pilot and Hungler (2007), states that a research plan is a comprehensive design for acquiring the answers to the issues under investigation, including guidelines for data collection, analysis, and improvement of the study's internal and external validity. According to Royce (1991), a study design specifies the method for gathering data. In accordance to Cooper and Schindler (2008) research design is the guideline for attaining objectives and bringing solutions. They continue saying selecting a research design is a challenging decision due to many available techniques, tactics and methods.

The descriptive research design was utilized by the researcher to expand on previously known information. To enhance the thorough analysis using a case study, the researcher employed qualitative and quantitative research methods to carry out the research on the impact of supply chain risk management in improving the delivery of services. A qualitative research design is one that involves gathering data in the form of statements, views and descriptions. The quantitative research approach gathered statistics, figures and any other data in numerical form**.** Information from the respondents was gathered through interviews and questionnaires.

# 3.2 Population

Polit and Hungler (2007) defined a population as the total group of distinct objects sharing a characteristic and to whom the research investigation is applicable**.** The complete set of cases from which the sample is drawn is mentioned as a population in accordance to Saunders et al. (2009).

# ****3.3 Targeted Population****

According to Harrison, Birks, Franklin, and Mills (2017), a target group consists mostly of individuals who the researcher believes possess the characteristics necessary to engage in a specific study. In accordance with Leedy (1997) target population is the group of individuals or objects from which we seek information. In this study, the term "target population" referred to people who shared one or more traits with the researcher's interest. The target population is the universe or hypothesis group of people, events, or things to whom we intend to generalize the findings of a research, (Borg and Gall 1989).

The population study included the Bindura Municipality staff and residents of Bindura town who benefits from the services being provided.

# ****3.4 Population Sample****

A sample of 85respondentswas selected of which 15 was from the Bindura Municipality staff and 70 from the residents of Bindura town.

**Table 3.4.1**

|  |  |
| --- | --- |
| Category of respondents | No of respondents |
| Bindura Municipality Staff | 15 |
| Residents | 70 |
| Total | 85 |

# ***Source: Survey data***

# ****3.5 Sampling technique****

The researcher used the selective sampling technique to choose the study's staff because the researcher discovered that the staff from Bindura Municipality was directly relevant to the topic at hand; they could provide information regarding risks and service delivery-related issues. Residents of Bindura were chosen using simple random selection. This was due to the study's goal of assuring equal opportunities for obtaining responses from respondents in order to draw conclusions about generalizations from the findings.

# 3.6 Data collection methods

Primary and secondary data sources are essential to the research. Hart (2005) suggests systematic data collecting in sufficient quality and quantity to enable data analysis after identifying the sources of the data. Researchers will not be allowed to provide reliable and comprehensive conclusions if they did not collect the right data and satisfy their study objectives.Data can be collected from two sources namely primary source and secondary source. The information gathered depends on the goals and questions of the study, which have given the researchers observations special attention (Terre Balance (2006). The researcher employed primary and secondary data gathering techniques in this research to meet the objectives and respond to the research questions

# 3.6.1 Primary data

Field interviews and questionnaires were utilized to collect raw data**.** The field study was conducted with the staff members, management of Bindura Municipality and the residents of Bindura will provide the primary data**.** Primary data was gathered using variety of techniques, such as experimentation, verbal and written communication, observations, and other techniques. Personal, telephone, and focus group interviews, as well as discussion in focus groups, are some of the ways Gilbert et al. (2012) have mentioned. The type of the research has an impact on the methods chosen. For the aim of this study, primary data refers to unprocessed information that was gathered through surveys given to employees and management of the Bindura Municipality together with the residents of Bindura.

# 3.6.2 Secondary data

Secondary type of information consists of material acquired from secondary sources that was extremely significant and crucial for the study's conduct in areas like the literature review and instrument design. Data that is used for a purpose other than the one it was initially acquired is also known as secondary data. Saunders et al. (2007:59) state that it could be either descriptive, raw, or complied. To gather information, the researcher employed secondary sources of material, which may include books, newspapers, journals, websites on the internet, and the Bindura Municipality annual reports. Secondary sources will be used to support the research findings**,** the creation of the research tools, the literature evaluation, and the justification of research-related decisions.

# ****3.7 Data collection Instruments****

According to Abdullah (2019), research instruments are planned, organized procedures and methods that enable researchers to get data from pre-selected study participants. The use of research instruments to gather data enables the collection of essential and adequate data regarding the researched issue, from which conclusions and results are drawn at the project's conclusion, according to Bloomberg & Volpe (2018), who echoed this assertion.

According to Saunders et al. (2009), the researcher had utilized a variety of data collection techniques which included interviews, questionnaires, and experiments, to conduct the research. The study used the case study approach since it allowed for the extensive empirical investigations of phenomena in their natural or practical settings. If the researcher wanted to develop a thorough understanding of the context of the research and the process being used, case study research was particularly interesting.

This was significant in this circumstance because the researcher wanted to fully comprehend how supply chain risk management (SCRM) impacted service delivery. Triangulation, according to Terre Blanche (2006), is the process of utilizing many techniques for data collecting or sources. In order to strengthen the findings' validity and reliability along with their correctness, data was triangulated. Questionnaires and interviews were the two tools utilized in this study.

# ****3.7.1 Questionnaire Method****

According to Braun and Clarke (2019), a questionnaire is a tool for data collecting that is structured to include an attitude scale, checklist, rating scale, and projection approach. According to Creswell (2019), one of the most popular research instruments for gathering information from research participants is a questionnaire.

The researcher employed closed ended questionnaires that were distributed to 85 respondents in order to get the necessary data. Technical employees completed the questionnaires regarding the role and relationship of supply chain risk management with the service delivery, and the researcher later gathered their responses. This gave a good deal of information in a short amount of time. Bindura community received pertinent surveys with questions requesting their experience with service delivery of Bindura municipality and their views on the quality of service the participants received the questionnaire by hand delivery for the highest response possible. In order to reduce annoyance and unfinished surveys, questions were kept to a minimum. To assess the respondent's impressions of the numerous study variables, respondents were required to tick on their answers. To measure the respondent's impressions of the variables, different respondents were able to keep their anonymity by using the questionnaire to collect data from chosen study participants.

As a result, they were able to communicate openly and freely with the researcher without worrying about being victimized. Because respondents were required to choose the responses that applied and related most to their own conditions**,** utilizing closed-ended questions allowed for the quick collection of data from the respondents. This made the questionnaire more user-friendly. Closed questions helped to understand the significance of the questions since there are responses available and the responders can easily complete. It obtains the viewpoint of the respondents as opposed to assumptions based on observations. Since the researcher standardized the questionnaire, it was impossible to take into consideration any mistakes that participants may have made when reading the questions.

# 3.7.2 Interview Guide

The use of interviews helped the researcher to acquire a better understanding about the research questions because it allowed for the probing and alteration of the questions while capturing the respondents' feelings. According to Gentles & Vilches (2017), an interview guide consists of a series of inquiries that the researcher addresses directly to the respondents. Using an interview guide, data from the research participants was quickly gathered. Additionally, by using the interview method to gather data, respondents were able to provide additional explanations on matters that the researcher was unable to fully comprehend.

Additionally, the interviews gave the researcher a chance to go deeper into the respondents' comments to make them more thorough and understandable. The researcher also had the chance to fully explain the research's justification and why it was necessary to Bindura residents, which piqued their interest in taking part in the study. However, because most of the respondents were spread apart, it ended up taking longer to conduct the interviews. The researcher also incurred significant expenses for travelling to conduct the interviews.

# 3.8 Data collection procedures

The Bindura University of Science Education's faculty of commerce under the department of Economics provided the researcher with an introduction letter. This was presented to the Bindura Municipality officials in order to get their approval to carry out the research there. The respondents were informed both verbally and in writing about the study objectives. The researcher requested personal consent from participants, to whom the researcher thoroughly explained the research's purpose so they would understand its primary motivation. The researcher personally conducted the interviews and administered the questionnaires, which means that no research assistants were involved in the research's execution.

Concurrently while distributing the questionnaire, interviews were done, saving the researcher the time needed for data collection. Each responder was given a detailed explanation of the questionnaire's contents in order to address any questions that were difficult for them to answer. Questionnaires were given to the respondents by the researcher for them to complete. The retrieval was completed in the predetermined amount of time, which did not burden the respondents or compromise the study's overall goal. Interviews were conducted in a way that allowed the researcher to collect all study-related materials afterward and use them for data analysis and presentation.

# ****3.9 Data Processing, Analysis and Presentation****

Data gathered by the researcher, would be analyzed and presented using frequency distribution tables, pie charts and descriptive statements. Tables, pie charts and bar graph were employed to illustrate the data as they are simple to read, understand, and compare inferences. Descriptive statistics are easy to use and provide a representative depiction of the data collected because they use frequencies, averages and ranges. The researcher made use of Microsoft Excel to establish tables, charts and statistical analysis to determine the data significance, which allowed for the illustration of conclusions and suggestions for this study.

# Reliability

Reliability is the scope of the data collection process or approaches that produce same results similar to conclusions reached by other researchers according to Saunders et al (2009).Testing for repeatability and precision in a measuring technique is known as reliability. Kumar (2005). In order for essentially the same results to be achieved under various situations, a measurement must be consistent (Bollen, 1989), or stable. In order to guarantee that the questionnaires and interview guide were of high quality in responding to the research topics, the researcher conducted reliability tests.

Three questions can be used to gauge reliability:

1. Will the method produce the same outcomes on other occasions?
2. Will other observers make similar observation?
3. Is there clear judgment from uncleaned data?

**S**upervisors were consulted, along with other significant individuals who had knowledge of supply chain risk management and service delivery, to assure reliability. The researcher developed questions that addressed the context of each objective in order to assure the accuracy and reliability of the research instruments. To find any ambiguities, contradictions or questions that are not relevant to the study objective, the questionnaires and interviews were tested.

# Validity

Validity is the degree to which data gathering methods actually measure the things they were intended to assess, (Saunders etal,2009).Kumar (2005), stated that validity denotes the use of the proper process to discover the answers to a query. The degree to which an instrument analyses what it says it will measure is defined as validity (Bryman, 2012).

Validity of the tools was ensured by taking great care in the choice of words, order of questions, and structure of questions, seeking expert opinions and also discussing the tools with the supervisor. The supervisor advised on what was to be removed, adjusted and modified in the items that were designed in the research instrument tools for study before using them. Before constructing the instruments and matching the questions to the objectives, the researcher conducted a thorough examination of the literature to ensure the validity of the instruments. This aided in the gathering of pertinent dataValidity is therefore concerned with whether the findings actually relate to what they claim to. Data was gathered from dependable sources, including respondents who are aware of the challenges the municipality and the residents are facing. In order to add validity into this study, the questionnaires and interviews utilized were evaluated to make sure that the information sought was connected to the problem.

# Summary

The chapter analyzed the research methodology utilized in this research. The study adopted the descriptive research methodology as the best strategy for this study because it generated reliable outcomes and information while also surpassing ideas. The study also used questionnaire and interview methods to collect data from the responds as they were deemed appropriate to acquire information of the respondents' point of view on the topics well interviews helped to explain, give a better understanding and to explore the research subjects and in-depth information was collected. The following chapter mostly focuses on data presentation, analysis and interpretation of the research.

# 

# CHAPTER IV

# 

# DATA PRESENTATION AND ANALYSIS

# Introduction

The previous chapter broadly looked at methodology and then focused on what constitute the methodology the analysis, presentation, and interpretation of data gleaned from both surveys and interviews are the main topics of this chapter. The data was provided in a way that allowed the researcher to address the full issue in addition to the research questions from chapter one. In addition to narrating the interviews, tables, bar graphs, and pie charts were also utilized. Data was interpreted for each of the important areas of relevance to this research, which correspond to the main problem and sub problems, using a summary of responses to both research instruments.

# 4.1 Response Rate

A total of 85 Questionnaires were sent out and only 69 were returned. Figure 1.0 represents the response rate of 81 % which is satisfactory for the analysis as recommended by Mugenda and Mugenda (2010). 15 questionnaires were given to the Bindura Municipality Management and 12 questionnaires were returned and 70 questionnaires were sent to the Bindura residents according to the town residential locations which are Chiwaridzo Phase 1, Chiwaridzo Phase 2, Chipadze, Chipindura Park, Shashi, Homelink and Woodbrook. For each residential location, 10 questionnaires were sent for completion and out of 70 questionnaires, only 57 were returned.

# 

# 4.2 Bindura Residents Response Rate

**Figure 4.1**

# *Source: Field data*

# 4.3 Bindura Municipality Management Response Rate

**Figure 4.2**

# *Source: Survey data*

# 4.4 Overall Response Rate (Questionnaires)

**Figure 4.3**

# *Source: Field data*

# 4.5 Demographic Information

This section presents the characteristics of the respondents as follows: gender, age, level of education, Management level and length of continuous service with the company.

# 4.5.1 Respondents Gender

The research findings established that 33% of the respondents were male while 69% were female.

**Table4.1:** Gender of Respondents

|  |  |  |
| --- | --- | --- |
| **Respondents** | **Frequency (F)** | **Percentage (%)** |
| Male | 23 | 33 |
| Female | 46 | 67 |
| **Total** | **69** | **100** |

*Source: Primary data*

# 

# 4.5.2 Age Distribution of Respondents

**Figure 4.4.**

*Source: Field data*

The results above shows that the majority of those who participated in this survey are aged thirty-six-forty-five According to the above findings, 29 respondents in all fell within the age range of 36 to 24 years, which is where the majority of the research participants fell. Given that 69 people made up the overall population of the study, the age distribution of the participants suggests that the respondents were mature enough to know how the study would benefit the organization. This demonstrates that adult respondents were evidently devoted to and eager to participate in the study, resulting in the provision of sufficient and trustworthy data for the correctness of the study's findings. The least category of respondents was from the age group below 25 which constituted 3 people out of 69.

# 4.6 Level of education

Table below presents the study finding regarding the respondents’ educational levels.

**Table 4.2**

|  |  |  |
| --- | --- | --- |
| **Level of Education** | **Frequency (F)** | **Percentage (%)** |
| Primary | 1 | 1 |
| Secondary | 2 | 3 |
| Certificate | 2 | 3 |
| Diploma | 25 | 36 |
| Degree | 32 | 47 |
| Masters | 7 | 10 |
| **Total** | **69** | **100** |

*Source: Survey data*

According to the findings, most of the respondents had the first degree (47%) followed by those who had Diploma (36%) and Masters (10%). Those with Certificate and Secondary qualifications amounted to 3% in each category and the least category was Primary level with 1%. The results also demonstrate that a larger proportion of the research participants had degrees. Most likely, causal workers on manual labor contracts or students on attachments who had not yet finished their university education at the time of data collection made up those with secondary and primary education levels. The majority of educated participants in the study demonstrate that information was gathered from respondents with in-depth understanding on how supply chain risk management improves the service delivery of the Bindura municipality.

# Respondents’ functional department

The table below presents the study finding regarding the respondent’s functional department.

**Table 4.3**

|  |  |  |
| --- | --- | --- |
| **Level of Management** | **Frequency (F)** | **Percentage (%)** |
| Procurement | 4 | 33 |
| Human Resources | 1 | 8 |
| Finance | 2 | 17 |
| Monitoring & Evaluation | 3 | 25 |
| Other | 2 | 17 |
| Total | 12 | 100 |

*Source: Primary data*

The results indicated that most of the respondents were from Procurement, Finance and Monitoring and Evaluation which had (33%), (17%) and (25%) respectively, followed by others section which had (17%). The least was Human resources department with 8%. The findings indicates that Procurement, Finance and Monitoring and Evaluation departments are more active in-terms of supply chain risk management in improving service delivery.

# 4.8 Working Experience

The table below represents the study findings regarding the length of service

**Table 4.4**

|  |  |  |
| --- | --- | --- |
| **Length of Service** | **Frequency (F)** | **Percentage (%)** |
| 0 – 5 years | 1 | 8 |
| 5 – 10 years | 2 | 17 |
| 10 – 15 years | 7 | 58 |
| Above 15 years | 2 | 17 |
| **Total** | **12** | **100** |

*Source: Primary data*

The results indicate that 8% of the respondents have worked at Bindura Municipality for between 0 to 5 years, 17% of the respondents indicated that they have worked for the company for between 5 to 10 years while 58% of the respondents indicate that they have worked in the company for between 10 to 15 years and 17% have worked above 15 years for the company. According to the above findings, 58% of participants had between 10 and 15 years of work experience in the Bindura municipality. This demonstrates unequivocally that information was gathered from the majority of organization members with more expertise because they had a greater understanding of supply chain risk management and service delivery. The 8% of respondents with 0 to 5 years of work experience were probably interning students, whom the researcher considered to be equally important for data collection, especially in light of the fact that they had recent knowledge of supply chain risk management-related issues they had recently learned in school.

# Residents’ rating of Bindura Municipality service delivery system

**Figure 4.5**

*Source: Field data*

From the findings above, majority of the respondents (58%) acknowledged that the service delivery is poor because of lack of water supply, shortage of medicines, potholes on roads and lack of refuse collection, while some respondents (26%) indicated that the service delivery by Bindura Municipality was fair and only a few respondents (12%) expressed that the service delivery is good.

# 4.10Residents’ ranking in order of service dissatisfaction

**Analyzing Likert Questionnaire (Mean & Standard Deviation)**

**Table 4.5**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Service** | **E** | **G** | **F** | **P** | **DK** | **Total** | **Mean** | **Mean 2** | **SD** | **Ranking** |
| Roads | 0 | 3 | 7 | 47 | 0 | 57 | 2.22807 | 5.245614 | 1.737108 | 2nd |
| Housing | 2 | 7 | 43 | 5 | 0 | 57 | 3.105263 | 9.982456 | 2.62244 | 6th |
| Water Supply | 0 | 2 | 5 | 50 | 0 | 57 | 2.157895 | 4.859649 | 1.643701 | 1st |
| Refuse Collection | 5 | 39 | 9 | 4 | 0 | 57 | 3.789474 | 14.84211 | 3.32455 | 7th |
| Sewerage | 0 | 4 | 33 | 7 | 0 | 57 | 2.263158 | 6.824561 | 2.135744 | 4th |
| Health | 0 | 3 | 14 | 29 | 11 | 57 | 2.157895 | 5.280702 | 1.767147 | 3rd |
| Education | 2 | 9 | 29 | 17 | 11 | 57 | 3.122807 | 9.368421 | 2.499123 | 5th |

*Source: Field data*

**E – Excellence G - F – Fair P – Poor**

**DK – Don’t Know**

The findings showed that the quality-of-service delivery to the municipality's customers was a source of worry, with 59% saying that service quality needed urgent attention and only 12% rating the municipality as doing well. Roads, housing, sewers, garbage collection, health, education, and water supplies were the main areas of concern.

Water supply was ranked as the service that residents were least satisfied with, followed by roads, health, and education, in that order. Sewerage and education were ranked fourth and fifth, respectively. On the other hand, housing and garbage collection were ranked sixth and seventh in terms of customer satisfaction, respectively. The community's health was at risk due to the poor condition of the roadways, which were impossible to manage due to their many potholes and raw sewage streaming everywhere due to ruptured sewer pipes. Additionally, there were mountains of trash sitting about that went uncollected for months due to a nearly nonexistent refuse collection system.

With a student-to-teacher ratio of up to 50:1, the educational system was of poor quality. Additionally, there was a severe medicine shortage in the health delivery system, and there were over ten-year backlogs in housing. Water supply was ranked second because inhabitants could obtain it during the day through hand-dug wells, which helped to solve the issue. The council itself could deliver water twice a week in some regions.

According to the interviews, management reported low revenue collections, which they blamed on the majority of the clients' low discretionary incomes. However, management answers claimed that the municipality was not forming strategic alliances with sister municipalities abroad. Additionally, management respondents ascribed political concerns for the inability to attract strategic partners, leaving management with limited authority to make strategic decisions.

Based on the results of the interviews, management identified a lack of financial resources as the main impediment to service quality. Lack of partnerships was also mentioned as a problem, with the argument that Bindura Municipality was not engaging in strategic public-private partnerships (PPP) like other municipalities were. There was also evidence that the municipality was taking its time in finalizing twining agreements with international municipalities, a project from which it stands to gain significantly, much like the Harare municipality is. Political meddling and a lack of human capital resources also prevented management from making crucial decisions.

According to the results of the interviews, the municipality had a large number of unskilled workers due to brain drain, and key employees were leaving the council to work for other organizations for better pay. According to the study, the majority of citizens were dissatisfied with the municipal staff's competency, as seen in the graph below.

Residents claimed that they did not receive assistance on matters they wanted clarified, such as the billing criteria and the reasons why there was a persistent water deficit for residents. Additionally, concerns were made about the council's tardiness in collecting trash from homes while still charging them for the service. In addition, some survey participants claimed that whenever they needed the home Inspectorate Department's officials to approve their home designs, they would always find them out of the office. Due to some survey participants reporting that they had been on the waiting list for more than ten years, the housing agency was also criticized for its inefficiency.

According to, Mukweli, N., & Chikodzi, D. (2015) the aim was to evaluate the standard of service delivery within Zimbabwean urban councils. The study had several objectives, including assessing the level of service quality, identifying obstacles that impeded quality service delivery, examining service quality management strategies, and proposing effective strategies that municipality could implement to enhance service quality delivery. The findings indicated that service delivery quality was generally inadequate, primarily due to insufficient and disjointed service delivery and management strategies.

# 4.11 Risks faced by Bindura town residents

**Table 4.6**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Statement** | **SD** | **D** | **NS** | **A** | **SA** |
| Poor infrastructures affect service delivery |  | 1 | 1 | 8 | 59 |
| Corruption hinders the provision of services since funds meant for these services are embezzled. |  | 1 | 2 | 3 | 63 |
| It is a challenge to get the right service provider with the equipment’s to do the job well. | 1 | 3 | 2 | 7 | 56 |
| Poor communication with the communities has also hindered the delivery of services in the organization. | 1 | 2 | 1 | 11 | 54 |
| Financial mismanagement and non-compliance with financial legislation |  |  | 5 | 15 | 49 |
| The organization faces difficulties due to limited skilled personnel to meet the rising needs of local people. | 9 | 17 | 5 | 18 | 20 |
| General indiscipline of service providers affects service delivery | 2 | 2 | 1 | 17 | 47 |
| Misplacement of priority affects service delivery | 2 | 3 | 5 | 21 | 38 |

*Source: Field data*

According to the aforementioned data, the majority of respondents (86%) believed that subpar infrastructure has an impact on service delivery. Since the majority concurred, it is clear that subpar infrastructure has an impact on the provision of services. A resident who claimed that "inaccessible roads, especially during the rainy season, make it impossible for us to transport our goods to the market" added support to this.

In addition to the aforementioned, a large majority of respondents (92%) agreed that corruption hinders the delivery of services because money intended for these services is embezzled, while just 3% were unsure and a small minority disagreed. One respondent's statement that "the big people in offices eat our money instead of providing better services to us" furthered this conclusion.

More respondents (82%) agreed that it is difficult to find a service provider with the necessary tools to complete the task correctly; 3% did not agree. Those who disagreed claimed that there are many young individuals out there who are qualified but are unable to get employment, while those who agreed claimed that the majority of those hired are novices with no prior experience. One homeowner who claimed that "there is a lot of corruption in the recruitment of workers based on 'technical know' who affects service levels" corroborated this conclusion.

In addition, a large majority of respondents (78%) strongly concurred that inadequate community communication has hindered the organization's ability to deliver services. A smaller number of respondents (17%) disagreed, 3% disagreed, and 1% definitely disagreed.

Only a few respondents (7%) were unsure, while the majority of respondents (71%) strongly agreed that financial mismanagement and non-compliance with financial legislation have an impact on service delivery.

In addition to the foregoing, the majority of respondents (29%) strongly disagreed, many (61%) weakly disagreed, and few (26%) strongly agreed that the organization has a challenge of having insufficient trained workers to satisfy the expanding needs of the local population. This result demonstrates that the claim that there are not enough skilled workers in the area to provide services is unfounded.

Additionally, 68% of respondents strongly agreed that service providers' general indiscipline has an impact on service delivery, whereas 25% of respondents agreed, 1% was unsure, and 3% strongly and weakly disagreed. One respondent's statement that "some officials are just undisciplined to the extent that by serving the people they think it's a favor which makes them perform as they think not as they are mandated to perform]" provided more evidence for this conclusion.

Last but not least, some respondents (55%) strongly agreed that service delivery is affected by priority misplacement, compared to 31% who agreed, 7% who were unsure, 4% who disagreed, and only 3% who severely disagreed. One responder who claimed "you find the town council spending a lot of funds to purchase vehicles for the officials, costly workshops are carried out instead of injecting the money on projects which are essential to the people" corroborated this conclusion.

Ahmed (2005) noted that it is difficult to hold public service providers accountable for quality and efficiency while also providing them with the necessary resources and management authority. Similarly, Langseth (1997) found that the lack of operational local ward committees has resulted in poor communication with communities. Despite substantial investment in these structures by government and civil society, they still lack the necessary capacity and resources to fulfill their roles as community voices. Johan (2006) also observed that limited resources allocated to local government are often mismanaged, with misplaced priorities and projects initiated for the benefit of political leaders and senior bureaucrats rather than the needs of the people.

# Supply chain risk management mitigation measures effectiveness

**Table 4.7**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Risk mitigation measures** | **SD** | **D** | **NS** | **A** | **SA** | **Ranking** |
| Risk Avoidance | 2 | 1 | 4 | 3 | 2 | 7th |
| Risk Control |  | 3 | 1 | 3 | 5 | 4th |
| Risk Sharing |  |  | 1 | 2 | 9 | 2nd |
| Multiple Sourcing |  |  |  | 1 | 11 | 1st |
| Risk Acceptance |  | 1 | 5 | 3 | 3 | 6th |
| Risk Reduction | 1 | 5 | 1 | 2 | 3 | 5th |
| PPRR Risk Management Model |  | 1 | 2 | 2 | 7 | 3rd |

*Source: Survey data*

According to the results above, the respondents largely agreed that multiple sourcing, risk sharing, and the PPRR risk management model are the most practical and efficient ways Bindura municipality may use to improve supply chain risk management. All three tactics received first, second, and third values, indicating that the replies were highly agree and agree. The strategy with the highest level of agreement among respondents, 92%, was multiple sources. This indicates that there was a higher level of widespread support for the plan among respondents. On the table above, Bindura Municipality Management ranked multiple sourcing on number one as the most effective mitigation measure for risk management.

The researcher had a chance to ask further interview to respondents as to why they put much emphasis on the issue of multiple sourcing and the majority indicated that the organization was restricted to narrowed pool of suppliers which therefore exposed the organization to procurement risks.Other authors who have written about risk management in the supply chain and in particular the findings of Guller & Henke (2019) who highlighted how multiple sourcing enables the business entity to eliminate risks related to supply failure, have also supported the findings of this study.

Dubey et al. (2017) in the same dimension alluded that having multiple sources of supply is the most effective strategy on which the organization hedge against deficiency of supply in the form of shortages as the organization can simply switch to another supply in the event of another supplier’s failure.

The risk sharing strategy has also been confirmed through the findings of a study by Chen (2018) by postulating that an organization can simply reduce risk impact on its operations by engaging other entities to work as partners such that risk is eventually shared. The prevention, preparedness, response and recovery (PPRR) model is a cycle used by companies to manage catastrophe risk continuity. It aids in creating the organizations continuity plan, helps with frequency emergency exercises and rehearsals, identifies gaps and potential developments areas and makes sure the organization is as prepared as possible. Bindura municipality uses the PPRR model because it is straightforward, easy to remember and straightforward to put into practice.

# 4.13 The relationship between Supply Chain Risk Management and Service Delivery

The researcher sought to establish the relationship between Supply Chain Risk Management and service delivery and the following information was obtained.

# 4.13.1 Role of SCRM in providing services.

The study established the role of SCRM in providing services and the information obtained is shown in table below. The study on the relationship between SCRM and service delivery was mainly directed to Bindura Municipality management.

# 4.13.2 Responses on the role of SCRM in the process of providing services

**Table 4.8**

|  |  |  |
| --- | --- | --- |
| **Response** | **Frequency** | **Percentage** |
| Yes | 11 | 92 |
| No | 1 | 8 |
| Not sure | 0 | 0 |
| **Total** | **12** | **100** |

*Source: Primary data*

From the findings above, majority of the respondents (92%) said that SCRM plays a significant role in the process of providing services to the people and only 8% of the respondents indicated that risk management does not a play a role in service provision. According to, Kumar, S., Singh, R. K., & Shankar, R. (2016) risk management plays a vital role in effectively operating supply chains in the presence of a variety of uncertainties. Scholars have focused on supply chain risk management by defining, operationalizing, and mitigating risks.

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# 4.14 The relationship between Supply Chain Risk Management and Service Delivery

**Table 4.9**

|  |  |  |  |
| --- | --- | --- | --- |
| **Service** | **Positive relationship** | **Negative relationship** | **No relationship** |
| Roads | 11 | 1 |  |
| Housing | 10 | 2 |  |
| Water Supply | 9 | 3 |  |
| Refuse Collection | 8 | 3 | 1 |
| Sewerage | 9 | 1 | 2 |
| Health | 7 | 4 | 1 |
| Education | 11 | 1 |  |

*Source: Field data*

Majority of the respondents (77%) indicated that there is a positive relationship between supply chain risk management and service delivery while some respondents (15%) indicated that there is a negative relationship between supply chain risk management and service delivery and only (8%) of the respondents indicated that there is no relationship between supply chain risk management and service delivery.

Mawhood (1983) observed that effective supply chain risk management is an important route towards securing the right service to be delivered to the public, and also maximizing the level of service provision which can be achieved within the local supporting people. A procurement plan helps Procuring Entities to achieve maximum value for expenditures on services to be delivered and enables the entities to identify and address all relevant issues pertaining to a particular procurement before they publicize their procurement notices to potential suppliers of goods, works and services.

Basheka (2004) observed that supply chain risk management is one of the primary functions of service delivery with a potential to contribute to the success of local government operations and improved service delivery. It is a function that sets in motion the entire acquisition/procurement process of acquiring services in local governments. In a nutshell, there is positive relationship between supply chain risk management and service delivery.

# 4.15 Conclusion

The majority of the chapter was a presentation of data gathered from research participants regarding an investigation on how the Bindura municipality service delivery is impacted by supply chain risk management. In this case, the researcher presented data in consideration of the explicit research objectives that are stated in the research's first chapter. The research was eventually able to address the research questions that were also raised in the first chapter of the research since the data presentation in this chapter met the research objectives. Tables, charts, and bar graphs were used by the researcher to improve the interpretation of the data presentation. Data presentation and analysis were also made possible by the use of Microsoft Excel and the Statistical Package for Social Scientists (SPSS). The following chapter presents the study's findings, conclusions, and suggestions after making a clear presentation of the information gathered from the research respondents.

# CHAPTER V

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# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

# Introduction

The research findings, data analysis, presentation, interpretation of the results, and conclusions were the main topics of the preceding chapter. The study results presented and discussed in the previous chapters served as the foundation for the conclusion and recommendations.

# Summary of the study

The study aimed to assess the impact of supply chain risk management on the service delivery of Bindura Municipality. Service delivery had been deteriorating in municipalities resulting in residents receiving poor services such as lack of water supply, shortage of medicine and lack of roads maintenance. The researcher used a descriptive research design with a sample of 85 respondents, including 15 Bindura Municipality staff and 70 residents of Bindura town. Qualitative methodology was employed to explore the role of SCRM on improving service delivery and the relationship between SCRM and service delivery. Data was analyzed through Microsoft Excel However, the study faced some challenges, including reluctance from Bindura Municipality management to provide information and residents exaggerating on the poor service delivery. Nevertheless, the researcher managed to gather findings and observations.

# Summary of the findings

In summary, supply chain risk management is an important section in all departments that control the resources of the department for all communities living in Zimbabwe. The Bindura municipality should adopt supply chain risk management to render its services in a desirable manner in order to make the departments to function well. If supply chain risk management is not functioning properly it affects the services offered to the community.

The study also established general findings on the indicators of quality service delivery in Bindura town and they included the following; state of the roads, health services, education sector, housing, water supply, sewerage and refuse collection system. From the findings Bindura municipality provide poor services to the residents which include lack of water supply as residents receive water twice per week, potholes on roads, not collecting refuse, shortage of medicine in the health care service, poor education and others.

Findings on the risks faced by Bindura residents were also established which include poor infrastructure, misplacement of priorities, general indiscipline, lack of skilled personnel at the Municipality, financial mismanagement, poor communication with the residents and failure to get the right service provider by the Bindura Municipality. In the quest to mitigate the risks highlighted, Municipality management confirmed that multiple sourcing, risk sharing and PPRR risk management model are the most effective supply chain risk management mitigation measures.

The majority of the participants expressed that there exists a favorable relationship between supply chain risk management and service delivery, whereas a few participants disagreed and suggested an unfavorable relationship between them. According to findings, SCRM have a positive relationship with the service delivery as the Municipality management strongly agree, even though there is still need for improved implementation of SCRM strategies to improve the service delivery to Bindura town residents.

# 5.3 Recommendations

Based on the findings, the following recommendations are suggested; the Bindura Municipality should prioritize the improvement of the state of roads and the maintenance of the road network to ensure ease of transport and safe passage for residents and should ensure that there is a steady and reliable supply of clean water to the residents to meet their basic needs. The Bindura health care service should ensure that there is an adequate supply of medicine to meet the needs of the residents, improve the education sector by providing adequate resources and facilities to ensure quality education for the children and the municipality should prioritize the collection of refuse to ensure the cleanliness of the town. The municipality should address the housing crisis in the town to ensure access to quality housing for the residents and also the municipality should prioritize the maintenance and development of the sewerage system to ensure proper sanitation in the town. Overall, the Bindura Municipality should focus on improving the quality of services provided to the residents to ensure a better standard of living for the community.

The municipality should also address the risks faced by the residents, such as poor infrastructure, misplacement of priorities, general indiscipline, lack of skilled personnel, financial mismanagement, poor communication, and failure to get the right service provider. To mitigate these risks, the municipality should implement effective supply chain risk management measures, such as multiple sourcing, risk sharing, and the PPRR risk management model. The municipality should also improve communication with the residents to better understand their needs and address their concerns. Additionally, the municipality should invest in the training and development of its staff to ensure that they have the necessary skills to provide quality services to the residents.

There is a need for the Municipality to improve its implementation of SCRM strategies to enhance service delivery. This can be achieved through regular training and capacity building for staff involved in supply chain management, as well as the adoption of modern technologies and best practices in supply chain management. it is essential that they develop strong risk management strategies to minimize the negative impact on their supply chains. It is also recommended that a proactive risk management culture be adopted to ensure that contingency plans are implemented in case of poor supply chain.

# 5.4 Conclusions

In conclusion, the study found that Bindura municipality provides poor services to its residents, including inadequate water supply, poor road conditions, and a shortage of medical supplies. The municipality also faces various risks, such as poor infrastructure, financial mismanagement, and a lack of skilled personnel. To mitigate these risks, the municipality should implement effective supply chain risk management strategies such as multiple sourcing, risk sharing, and PPRR risk management models. The study found that there is a positive relationship between supply chain risk management and service delivery, indicating the importance of implementing effective SCRM strategies to improve service delivery in Bindura town. It is recommended that the Bindura Municipality prioritize improving the quality of services provided to the residents. The municipality should also invest in regular training and capacity building for staff involved in supply chain management, adopting modern technologies and best practices in supply chain management, and developing a proactive risk management culture.

# 5.5 Recommendations for future studies

This study was centered on Bindura Municipality which is a small part of Zimbabwe, similar research should be conducted in other municipalities across Zimbabwe to determine the impact of supply chain risk management on service delivery. Additionally, there is a need to conduct studies to assess the level of supply chain risk management in public sectors. These studies would provide a better understanding of the overall state of supply chain risk management in the country and identify areas requiring improvement.

# References

Ali, A., Mahfouz, A., & Arisha, A. (2017), “Analyzing supply chain resilience: integrating the constructs in a concept mapping framework via a systematic literature review”, Supply Chain Management: An International Journal, Vol. 22, No. 1, pp. 16-39.

Abdullah Kamal, S. S. L. B. (2019). Research paradigm and the philosophical foundations of a qualitative study. People: International Journal of Social Sciences, 4(3), 1386-1394.

Abugu, U., Ogbu, C., & Umeanozie, C. (2022). Supply Chain Drivers: Effect on Service Delivery. International Journal of Supply Chain Management, 11(1), 1-12.

Aqlan, F., & Lam, S. (2015). Supply Chain Risk Management: A Literature Review. International Journal of Engineering Business Management, 7. doi: 10.5772/61125.

Axelrod, R., Mitchell, W., Thomas, R. E., Bennett, D. S., Bruderer, E., 1995. Coalition formation in standard-setting alliances. Management Science, 41: 1493–1513.

Bachmann, J. and R. MacCleery, 2006. Managing municipal services delivery. New York: USAID.

Bailey, P; Farmer, D; Jessop, D; & Jones, D. (1998). Purchasing Principles and Management*,* eight editions. Prentice Hall. Financial Times: Great Britain.

Bandaly, D., Satir, A., & Shanker, L. (2016). Impact of lead time variability in supply chain risk management. International Journal of Production Economics, 180, 88-100. http://dx.doi.org/10.1016/j.ijpe.2016.07.014.

Basheka, B. (2004). Procurement Planning and Local Governance in Uganda: A Factor

Analysis Approach. Organization: Uganda Management institute.

Bloomberg, L. D., & Volpe, M. (2018). Completing your qualitative dissertation: A road map from beginning to end (4th ed.). Los Angeles, CA: Sage.

Blome, C., Schoenherr, T., & Rexhausen, D. (2014). Antecedents and enablers of supply chain risk management: a capability-based perspective. Journal of Supply Chain Management, 50(1), 55-73.

Bollen, K. A. (1989). Structural equations with latent variables. John Wiley & Sons.

Borg and Gall (2009).A Practical Guide to Behaviour Research Tools and Techniques*.*(4th ed). New York: Oxford University Press.

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. Qualitative Research in Sport, Exercise and Health, 11(4), 589-597. doi: 10.1080/2159676X.2019.1628806.

Brusset, X., & Teller, J. (2017). Supply chain resilience: a tactical and operational approach. International Journal of Physical Distribution & Logistics Management. 47(7), 555-566.

Bryman, A. & Bell, E. 2007.*Business research methods.*USA: Oxford University Press.

Busse, C., Schleper, M.C., Weilenmann, J., Wagner, S.M., 2017. Extending the supply

chain .Visibility boundary: Utilizing stakeholders for identifying supply chain

sustainability risk.

International Journal of Physical Distribution & Logistics Management, 47(1)18-40.

Burki, U.; Ersoy, P.; Najam, U. Top management, green innovations, and the mediating effect of customer cooperation in green supply chains. Sustainability 2019, 11, 103.

Camilleri, M.A., 2017. The rationale for responsible supply chain management and

stakeholder engagement. JournalofGlobal Responsibility, 8(1), 111-126.

Caroline Wanjiru Munyuko (2015). "Determining the Effects of Supply Chain Risk Management on Organization Performance: A Survey of the Private Sector Organizations in Kenya." International Journal of Scientific and Research Publications, vol. 5, no. 2, pp. 1-9.

Charles Makanyeza, Saima Sadaqat, and Victor Shikale conducted the research titled "Strategies to improve service delivery in local authorities: A case of Kajiado Local Authority, Namibia." The research was published in the Journal of Public Administration and Governance, Vol. 3, No. 4, pp. 148-161 in 2013.

Chaudhuri, A., Ghadge, A., Gaudenzi, B. and Dani, S. (2020), “A conceptual framework for improving effectiveness of risk management in supply networks”, International Journal of Logistics Management, (10.1108/IJLM-11-2018-0289).

Chen, A. T. (2018). Timeline drawing and the online scrapbook. International Journal of Qualitative Methods, 17, 1–13.

Chen, H.L. Supply chain risk’s impact on corporate financial performance. Int. J. Oper. Prod. Manag. 2018, 38, 713–731.

Chilamkurti, N. (2019). Supply Chain Risk Management and Resilience: Present and Future Research Directions. Journal of Risk and Financial Management, 12(2), 77. doi: 10.3390/jrfm12020077.

Chisango F F T, (2016). Challenges and opportunities associated with the current livestock marketing trends in Zimbabwe’s marginalized rural communities, with particular reference to one of the country’s most impoverished districts of Binga in Matabeleland North Region, International Journal of Advanced Educational Research ISSN: 2455-6157; Impact Factor: RJIF 5.12.

Chopra, S., Sodhi, M.S. (2014). Managing risk to avoid supply-chain breakdown. MIT Sloan Management Review46 (1), 53-62.

Cooper and Schindler, 2003. Business research methods, 8th edition, Tata McGraw Hall, New Dehli.

Creswell, J.W (2019) Research Design: Qualitative, Quantitative and Mixed Methods Approaches. 4th edn. London: Sage Publishing.

Dabhilkar, M., Birkie, S. E., &Kaulio, M. (2016), “Supply-side resilience as practice bundles: a critical incident study”, International Journal of Operations & Production Management, Vol. 36, No. 8, pp.948-970.

Daft, R. L., Murphy, J., & Willmott, H. (2010). Organization Theory and Design. Cengage Learning.

Daniel MuthwiiSunza (2018). Supply Chain Management and Service Delivery in Public Sector: A Case of Makueni County Government. International Journal of Supply Chain Management, 7(1), 100-113.

Deka, P. (2016). The effectiveness of supply chain management in local municipalities in South Africa. Journal of Economics, 7(1), 1-9.

De Matta, Renato. 2016. Contingency planning during the formation of a supply chain. Annals of Operations Research 257: 45–75.

Dellinger, M. (1993).A comprehensive Model for assessing quality and productivity, Courses unit.edu.com.

Dias, G. C., Hernandez, C. T., & Oliveira, U. R. (2020). Supply chain risk management and risk ranking in the automotive industry. Gestão&Produção, 27(1), e3800. https://doi.org/10.1590/0104-530X3800-20.

Dolgui, A., Ivanov, D., Sokolov, B. (2018) Ripple Effect in the Supply Chain: An Analysis and Recent Literature. Int J Prod Res, 56(1-2), 414-430.

Donadoni, M., Roden, S., Scholten, K., Stevenson, M., Caniato, F., van Donk, D.P. and Wieland, A. (2019), “The Future of Resilient Supply Chains”, in G.A. Zsidisin and M. Henke (eds.), Revisiting Supply Chain Risk, Springer Series in Supply Chain Management, Spinger Nature, Switzerland, AG., pp. 73-98.

Donaldson, T., Preston, L. E., 1995. The stakeholder theory of the corporation: Concepts,

evidence and implications. Academy of Management Review, 20: 65–91.

Dubey, R., Gunasekaran, A., Childe, S. J., Papadopoulos, T., & Fosso Wamba, S. (2017), “World class sustainable supply chain management: Critical review and further research directions”, The International Journal of Logistics Management, Vol. 28, No. 2, pp. 332-362.

Ellsworth Jonathan, Chengedzai Mafini and JoyenduBhadury. (2019), Risk Management in Strategic Sourcing: An African Perspective, Int. J Sup. Chain. Mgt Vol. 8, No.5.

Freeman, R. E., 1994. Ethical theory and business. Englewood Cliffs, New Jersey:

Prentice-Hall.

Freeman, R. E., Gilbert, D. R., Jr., 1988. Corporate strategy and the search for ethics.

Englewood Cliffs, New Jersey: Prentice-Hall.

Friday, D., Ryan, S., Sridharan, R., & Collins, D. (2018), “Collaborative risk management: a systematic literature review”, International Journal of Physical Distribution & Logistics Management, Vol. 48, No. 3, pp. 231-253.

Gentles, S. J., & Vilches, S. L. (2017). Calling for a shared understanding of sampling terminology in qualitative research. International Journal of Qualitative Methods, 16(1), 160940691772567.

Gilbert, R., Balestrini, P., Littlejohns, P., & Wingfield, J. (2012). The use of qualitative methods to inform Delphi surveys in core outcome set development. Trials, 13(1), 1-7. <https://doi.org/10.1186/1745-6215-13-218>.

Gillis, W. E., Combs, J. G., & Ketchen, D. J. Jr. (2014). The theory of entrepreneurial opportunity: A strategic perspective. Journal of Management, 40(5), 1190-1207. doi: 10.1177/0149206314527128.

Ghadge, A., Dani, S., Ojha, R., & Caldwell, N. (2017), “Using risk sharing contracts for supply chain risk mitigation: A buyer-supplier power and dependence perspective”, Computers & Industrial Engineering, Vol. 103, pp. 262-270.

Gligor, D. M., & Holcomb, M. C. (2014). Understanding the role of logistics capabilities in achieving supply chain agility: a systematic literature review. Supply Chain Management: An International Journal, 19(4), 438-453.

Golan, M.S., Jernegan, L.H. and Linkov, I. (2020), “Trends and applications of resilience analytics in supply chain modeling: systematic literature review in the context of the COVID‑19 pandemic”, Environment Systems and Decisions, DOI: 10.1007/s10669-020-09777-w.

Govindan, K., Mina, H. and Alavi, B. (2020), “A decision support system for demand management in healthcare supply chains considering the epidemic outbreaks: a case study of corona virus disease 2019 (COVID-19)”, *Transportation Research Part E*, DOI: 10.1016/j.tre.2020.101967.

Güller, M. and Henke, M. (2019), “Resilience assessment in complex supply networks”, in G.A. Zsidisin and M. Henke (eds.), *Revisiting Supply Chain Risk*, Springer Series in Supply Chain Management, Spinger Nature, Switzerland, AG., pp. 73-98.

Gupta S, Starr MK, Farahani RZ, Matinrad N (2016) Disaster Management from a POM Perspective: Mapping a New Domain. Prod Oper Manag 25:1611-1637.

Gurtu, Amulya, and Jestin Johny. 2019. Potential of block chain technology in supply chain management: A literature review. International Journal of Physical Distribution & Logistics Management 49: 881–900.

Harrison, J. S., St. John, C. H., 1996. Managing and partnering with external

stakeholders. Academy of Management Executive, 10(2), 46–59.

Hart, C. (2005). Doing a literature review: Releasing the social science research imagination. Sage publications.

Helmsing, A. H. J. (1995). Local Government Central Finance*.* An Introduction: New York USA.

Hernon, P. & Whitman, J. R. (2001). Delivering Satisfaction and Service Quality*:* a customer-based Approach for Libraries. Chicago: American Library Association.

Huang, Y.C., Yang, M.L., Wong, Y.J., 2016. Institutional pressures, resources

commitment, and returns management. Supply Chain Management: An International

Journal*,* 21(3), 398- 416.

Intaher A and Thabiso M (2016). "Exploring supply chain management methods used by West Rand District municipalities: A case study." Journal of Transport and Supply Chain Management, vol. 10, no. 1, pp. 1-10.

Ivanov, D. and Dolgui, A. (2020), “Viability of intertwined supply networks: extending the supply chain resilience angles towards survivability. A position paper motivated by COVID-19 outbreak”, International Journal of Production Research, Vol.58, No.10, pp. 2904-2915.

Jensen, M., Meckling, W., 1976. Theory of the firm: Managerial behaviour, agency costs

and ownership structure. Journal of Financial Economics, 3, 305–360.

Johan, N. (2006). Planning for Service Delivery Improvement. S D R Vol. l 5 No. 2 pages 106-109.

John, B. (1996). Stakeholder management and organizational wealth. Journal of Business Ethics, 15(12), 1311-1320.

Jooste, K. (2008). Public value and local service delivery: Conceptualizing roles and relationships. International Journal of Public Sector Management, 21(3), 292-307. doi: 10.1108/09513550810867020.

Jones, T. M., 1995. Instrumental stakeholder theory: A synthesis of ethics and economics.

Academy of Management Review, 20, 404–437.

Jutter, F. (2006). Risk Management in SMEs: A Systematic Approach. Journal of Risk Management of Korea, 17(3), 115-130.

Kamalahmadi M. &Mellat-Parast M. (2016) Developing a resilient supply chain through supplier flexibility and reliability assessment, Int J Prod Res, 54:1.

Kasine, Y. (2014). Supply chain management systems and service delivery: A case of Uganda. International Journal of Business and Commerce, 3(5), 1-17.

Kauppi, K., Longoni, A., Caniato, F., & Kuula, M. (2016), “Managing country disruption risks and improving operational performance: risk management along integrated supply chains”, International Journal of Production Economics, Vol. 182, pp. 484-495.

Kersten, W., Bijvank, M., & Blecker, T. (2006). Risk management in global supply chains. In Proceedings of the POMS 17th Annual Conference, Boston, USA.

König, A., & Spinler, S. (2016), “The effect of logistics outsourcing on the supply chain vulnerability of shippers: Development of a conceptual risk management framework”, The International Journal of Logistics Management, Vol. 27, No. 1, pp. 122-141.

Kraatz, M. S., 1998. Learning by association? Interorganizational networks and

adaptation to environmental change. Academy of Management Journal, 41, 621–643.

Kumar, R. (2005). Research methodology: A step-by-step guide for beginners. SAGE Publications.

Kumar, S., Singh, R. K., & Shankar, R. (2016). Supply chain risk management: a review.

International Journal of Business Science and Applied Management, 11(2), 21-35.

Langseth, P.; Kato,D. ; Kisubi, D. ; & Pope, J.(1997). Good Governance in Africa. A Case study from Uganda. EDI Working Papers, Economic Development Institute of the World Bank.

Lawal, S. (2000) *“*Local Government Administration in Nigeria: A Practical Approach”.

Lee, K.H.; Vachon, S. Supply Chain Sustainability Risk. In Business Value and Sustainability; Palgrave Macmillan: London, UK, 2016; pp. 245–280.

Li, H., Pedrielli, G., Lee, L. H., & Chew, E. P. (2017). Enhancement of supply chain resilience through inter-echelon information sharing. Flexible Services and Manufacturing Journal, Vol. 29, No. 2, 260-285.

Liu, C. L., & Lee, M. Y. (2018), “Integration, supply chain resilience, and service performance in third-party logistics providers”, The International Journal of Logistics Management, Vol. 29, No.1, pp. 5-21.

Leedy,M. 1997. Practical research: Planning and Design, Prentice Hall, London.

Madzidzela, N. (2008). Towards a sustainable human settlements development framework for the Eastern Cape Province, South Africa. Master's thesis, Nelson Mandela Metropolitan University, Port Elizabeth, South Africa.

Mangan John, Chandra Lalwani. Global Logistics and Supply Chain Management. Hoboken: Wiley, 2016.

Mawhood, R. (1983). The local government procurement system: an overview. Public administration, 61(3), 293-317.

Meyer, A., Niemann, W., Uys, G. & Beetge, D., 2019, ‘An exploration of supply chain risk management in the South African third-party logistics industry’, Acta Commercii 19(1), a612.

Michalski, M., Montes-Botella, J. L., & Guevara Piedra, W. (2017), “Can asymmetry impact performance, collaboration and integration? An empirical study”, The International Journal of Logistics Management, Vol. 28, No.4, pp. 939-963.

Miller, R. L. (1992). A framework for integrated risk management in international business. Journal of International Business Studies, 23(2), 311-331.

Mizgier, K. J. (2017). Global Sensitivity Analysis and Aggregation of Risk in Multi-Product Supply Chain Networks. International Journal of Production Research, 55(1), 130-144.

Mochamad A. Wibowo, Elizar, Moh N. Sholeh, Hadjar S. Adji, Supply Chain Management Strategy for Recycled Materials to Support Sustainable Construction, Procedia Engineering 171 (2017) 185 – 190.

Mohamed, A.-B.; Gunasekaran, M.; Mohamed, M.; Chilamkurti, N. A framework for risk assessment, management and evaluation: Economic tool for quantifying risks in supply chain. Future Gener. Comput. Syst. 2019, 90, 489–502.

Mourney, P. (1991). The taxpayer as customer: quality service in the public sector. Public Administration Review, 51(1), 17-25.

Mukweli, N., & Chikodzi, D. (2015). An assessment of service delivery in Zimbabwean urban councils: A case study of Bindura Municipality. African Journal of Public Affairs, 8(1), 77-89.

Mullins, M. (2003). Municipal supply chain management: A strategic approach to the complexities of service delivery. Supply Chain Management: An International Journal, 8(2), 122-128. doi: 10.1108/13598540310469211.

National Treasury (2003). Policy Strategy to Guide Uniformity in Procurement Reform Processes in Government. Pretoria. Government Printers.

National Treasury (2005). Supply Chain Management: A Guide for Accounting Officers of Municipalities and Municipal Entities. Pretoria. Government Printers.

N Bizana, N Sibanda, and E Kudzayi (2015). "Supply chain management as a contributing factor to local government service delivery: A case study of the Greater Tzaneen Municipality." Journal of Transport and Supply Chain Management, vol. 9, no. 1, pp. 1-10.

Oboth, M. J. (2001). Decentralization and Service Delivery: Constraints and Controversies. Kampala: Makerere University Library.

Oliver, C., 1990. Determinants of inter-organizational relationships: Integration and future

directions. Academy of ManagementReview, 15: 241–265.

Oliver, C., 1991. Strategic responses to institutional processes. Academy of Management

Review,16, 145–179.

Ortegoli, A.; Ghadim, M.R.K. The effect of risk factors on the green supply chain and prioritizing of the effects by using AHP. Int. J. Humanit. Cult. Stud. 2016, special issue (March), 1478–1493.

Parasuraman, A., Berry, L. Leonard, &Zeithaml ,A. Valarie. (1996). *The behavioral*

Consequences of service quality. Financial Times.

Park, J., & Park, M. (2016). Qualitative versus quantitative research methods: Discovery or justification? Journal of Marketing Thought, 3(1), 1-7.

Pilot, J., & Hungler, B. (2007). Research methods in education (7th ed.). Pearson.

Powell, W. W., Koput, K. W., Smith-Doerr, L., 1996. Interorganizaitonal collaboration

and the locus of innovation: Networks of learning in biotechnology. Administrative

Science Quarterly, 41, 116–145.

Qazi, A., Dickson, A., Quigley, J. & Gaudenzi, B. (2018), “Supply chain risk network management: A Bayesian belief network and expected utility-based approach for managing supply chain risks”, International Journal of Production Economics, Vol. 196, No. 2, pp. 24-42.

Rampoma, S.S. (2020). Supply Chain Management for Service Delivery in the Municipal District: A Case Study of Fetakgomo-Greater Tubatse Local Municipality. Journal of Economics and Behavioral Studies, 12(2), 66-78.

Ravi Kaina, Ajay Verma, Logistics Management in Supply Chain – An overview, Materials Today: Proceedings 5 (2018) 3811–3816.

Revilla, E., Saenz, M. J., (2017), “The impact of risk management on the frequency of supply chain disruptions: A configurationally approach”, International Journal of Operations & Production Management, Vol. 37, No. 5, pp. 557-576.

Rostamzadeh, R.; Ghorabaee, M.K.; Govindan, K.; Esmaeili, A.; Nobar, H.B.K. Evaluation of sustainable supply chain risk management using an integrated fuzzy TOPSIS-CRITIC approach. J. Clean. Prod. 2018, 175, 651–669.

Samuel Pule (2014) Uganda conduct research on supply chain information management and service delivery in public health sector organization.

Saunders M, Lewis P and Adrian T, 2009. Research Methods for Business Students, 5th Edition, Halow, England.

Sawik T (2016) on the risk-averse optimization of service level in a supply chain under disruption risks. Int J Prod Res 54(1):98-11

Scheibe K.P., & Blackhurst, J. (2018). Supply chain disruption propagation: a systemic risk and normal accident theory perspective. Int J Prod Res, 56(1-2), 43-59.

Schermerhorn, J. R., Shirland, L. E., 1981. Hospital administrator felt needs for

Inter-organizational cooperation and actual cooperative outcomes by their hospitals. 1Decision Sciences, 12, 486–501.

Schmitt T.G., Kumar S., Stecke K.E., Glover F.W., Ehlen M.A. (2017). Mitigating disruptions in a multi-echelon supply chain using adaptive ordering. Omega, 68, 185-198.

Sheffi, Y., (2005). The Resilient Enterprise: Overcoming Vulnerability for Competitive Advantage. Cambridge, MA, MIT Press*.*

Sifile, O., Marinda, E., & Juru, T. (2020). Towards improving service delivery in local authorities: A hybrid approach. Journal of Public Affairs, e2170.

<https://doi.org/10.1002/pa.2170>.

Sinclair, A. (2010). A history of stakeholder theory. In The Oxford handbook of corporate social responsibility (pp. 133-144). Oxford University Press.

Soonhong Min, Zach G. Zacharia, and Carlo D. Smith. (2019) Defining Supply Chain Management: In the Past, Present, and Future. Journal of Business Logistics, 2019, 1–12.

Terre, B. 2006. Research in Practice; Applied methods for the social science, University of Capetown.

Tomlinson, M. R. (2011). The politics of housing delivery in South Africa: A case study of the Nelson Mandela Bay Metropolitan Municipality. Habitat International, 35(1), 98-104.

Touboulic, A., Walker, H., 2015. Theories in sustainable supply chain management: a

structured literature review. International Journal of Physical Distribution & Logistics

Management, 45(1/2), 16-42.

Tshamaano, V., 2012, ‘Impact of supply chain management on service delivery: The case of provincial department of economic, development, environment and tourism in the Limpopo province’, Master’s dissertation, University of Limpopo, Polokwane, pp. 1–81.

Webster Denhere, Maxwell Sandada, and Tendai Chitsike (2011). "Assessing the quality of service delivery in Zimbabwean urban councils." International Journal of Public Sector Management, vol. 24, no. 1, pp. 7-18.

Wiewel, W., Hunter, A., 1985. The inter-organizational network as a resource: A

comparative case study on organizational genesis. Administrative Science Quarterly, 30,

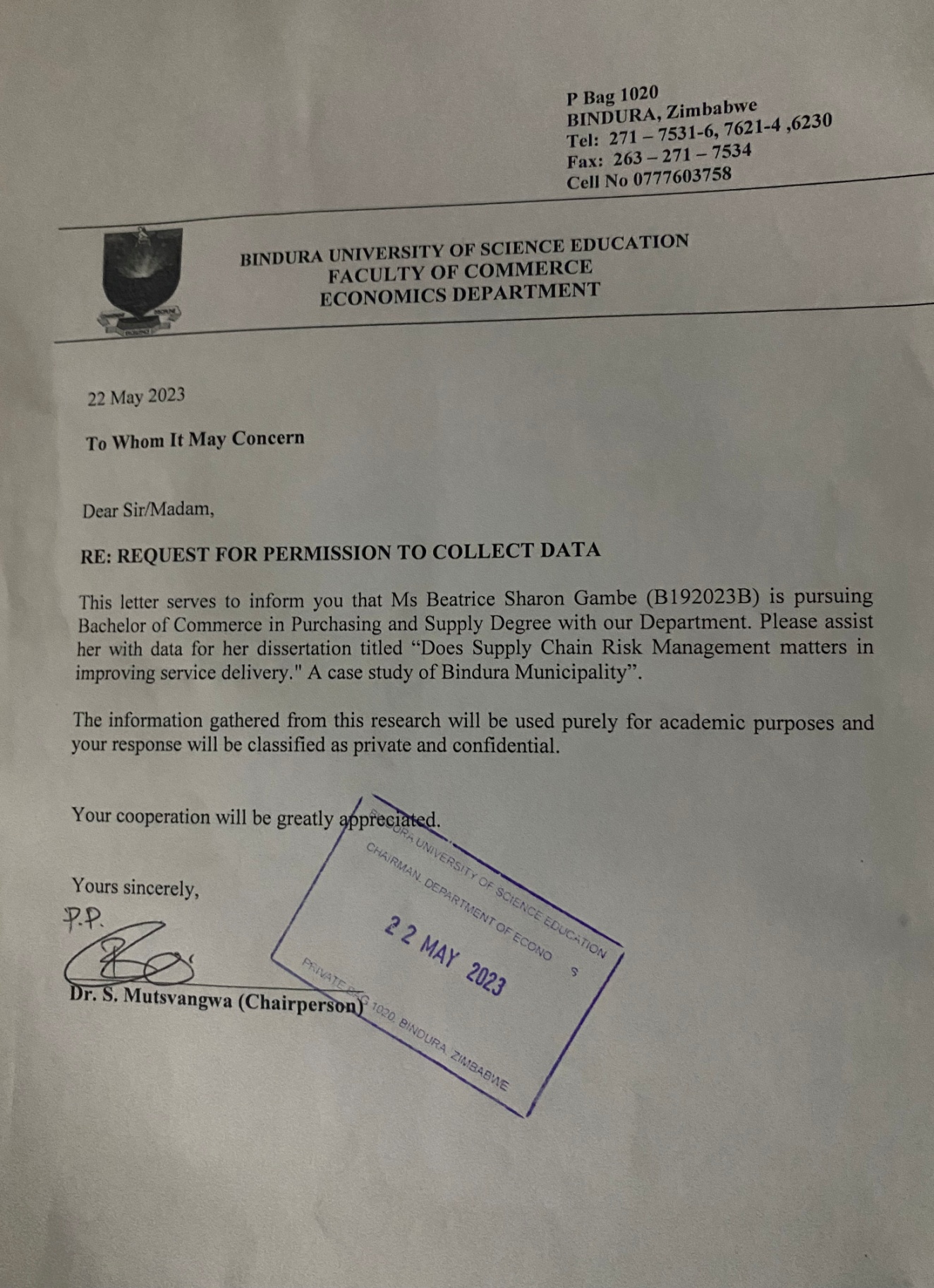
482–496.

Woojung, C.; Alexander, E.E.; Kim, K.; George, R.F. Supply chain integration and firm financial performance: A meta-analysis of positional advantage mediation and moderating factors. Eur. Manag. J. 2016, 34, 282–295.

World  Bank,  (2000)  Total  Quality  Management  in  the  African Business Community.

Xu, M.; Cui, Y.; Hu, M.; Xu, X.; Zhang, Z.; Liang, S.; Qu, S. Supply chain sustainability risk and assessment. J. Clean. Prod. 2019, 225, 857–867.

**APPENDIX 1**



# APPENDIX 2

**QUESTIONNAIRE**

Dear Sir / Madam

I am Beatrice Sharon Gambe, a student of Bindura University of Science Education pursuing a bachelor’s degree in Purchasing and Supply. As a requirement for obtaining this degree, I have to carry out a research in question, “Does Supply Chain Risk Management matter in improving service delivery of Bindura Municipality Authority?”You have been selected to participate in the study by answering the questions below. Kindly answer them as honestly as possible. Any information you will give shall be treated with utmost confidentiality and kept for academic purposes only.

**Section 1**

**Socio-Demographic characters of respondents.**

Please tick the correct option in the box below.

Sex: Female Male

Age**:** (Below 25yrs) (25 - 35yrs) (36 – 45yrs) (46 – 55yrs)

(Above 55yrs)

Level of Education

Primary Secondary Certificate Diploma

Degree Masters

Years of work experience (To be completed by Bindura Municipality Management)

0 – 5 years 5 – 10 years 10 – 15 years

Above 15 years

Which department do you work in the organization?(To be completed by Bindura Municipality Management ………………………………

**Section II**

**Rate the quality of services offered by the Bindura Municipality using the following quality indicators (Tick appropriately)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Service** | **Don’t Know** | **Poor** | **Fair** | **Good** | **Excellent** |
| Roads |  |  |  |  |  |
| Housing |  |  |  |  |  |
| Water Supply |  |  |  |  |  |
| Refuse Collection |  |  |  |  |  |
| Sewerage |  |  |  |  |  |
| Health |  |  |  |  |  |
| Education |  |  |  |  |  |

**What are the risks faced by Bindura town residents? (Tick appropriately)**

**SD- Strongly Disagree D- Disagree SA- Strongly Agree A- Agree NS- Not Sure**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Risks** | **SD** | **D** | **A** | **SA** | **NS** |
| Poor infrastructures affect service delivery |  |  |  |  |  |
| Embezzlement of funds intended for services can hinder the provision of those services, as corruption diverts resources away from their intended purpose. |  |  |  |  |  |
| Finding a service provider with the necessary equipment to do a job well is a difficult challenge. |  |  |  |  |  |
| A lack of effective communication with the local communities has also been identified as a barrier to the delivery of services by the organization. |  |  |  |  |  |
| Financial mismanagement and failure to follow financial laws and regulations can negatively impact the provision of services. |  |  |  |  |  |
| Shortage of skilled personnel has made it challenging for the organization to meet the increasing demands of the local population. |  |  |  |  |  |
| General indiscipline of service providers affects service delivery |  |  |  |  |  |
| Misplacement of priority affects service delivery |  |  |  |  |  |

**Indicate how effective are the supply chain risk management mitigation measures?**

**SD- Strongly Disagree D- Disagree SA- Strongly Agree A- Agree NS- Not Sure**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Risk mitigation measures** | **SD** | **D** | **NS** | **A** | **SA** |
| Risk Avoidance |  |  |  |  |  |
| Risk Control |  |  |  |  |  |
| Risk Sharing |  |  |  |  |  |
| Multiple Sourcing |  |  |  |  |  |
| Risk Acceptance |  |  |  |  |  |
| Risk Reduction |  |  |  |  |  |
| PPRR Risk Management Model |  |  |  |  |  |

**Does risk management play any role in the provision of the following service delivery indicators?**

|  |  |  |  |
| --- | --- | --- | --- |
| **Service** | **Yes** | **No** | **Not sure** |
| Roads |  |  |  |
| Housing |  |  |  |
| Water Supply |  |  |  |
| Refuse Collection |  |  |  |
| Sewerage |  |  |  |
| Health |  |  |  |
| Education |  |  |  |

**What is the relationship between supply chain risk management and service delivery indicators? (To be answered by Bindura Municipality Management)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Service** | **Positive relationship** | **Negative relationship** | **No relationship** |
| Roads |  |  |  |
| Housing |  |  |  |
| Water Supply |  |  |  |
| Refuse Collection |  |  |  |
| Sewerage |  |  |  |
| Health |  |  |  |
| Education |  |  |  |

# APPENDIX 3

**INTERVIEW GUIDE FOR BINDURA TOWN RESIDENTS**

Have you heard anything about Supply Chain Risk Management?

If yes, can you tell me something about Supply Chain Risk Management?

If yes, what do you think is the relationship between risk management and service delivery?

Does the town council provide social services to the residents?

What are some of the services provided by the town council?

What are the indicators of service delivery in Bindura town?

What are the risks faced by Bindura residents?

