

BINDURA UNIVERSITY OF SCIENCE AND EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF ECONOMICS



**THE ROLE OF SUSTAINABLE PROCUREMENT IN RURAL DEVELOPMENT: A CASE OF
RURAL SUPPLY CHAINS IN BIKITA, ZIMBABWE**

BY

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RELEASE FORM

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A case of rural supply chains in Bikita, Zimbabwe

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Dedication

This work is dedicated to my parents, Mr. and Mrs. Haukozi

Abstract

The main goal of the study was to assess the role of sustainable procurement in rural areas, a case of supply chains in Bikita, Zimbabwe. Research was guided by the following objectives: assessing the impact of economic sustainable procurement on rural development, determining how social issues on sustainable procurement affect rural development and analyzing how environmental issues affect rural development in procurement. A descriptive case study research was used. A population of eighty (80) from different companies and a sample size of forty-four (44) respondents were picked. Data was collected through questionnaire and interview schedule. The researcher used IBM SPSS statistics 20 and Excel to analyze data. Findings towards the role of sustainable procurement in rural development indicated that business organizations established in Bikita consider the role of sustainable procurement but not as much as the level expected. In all aspects of sustainable procurement there are certain areas they put more focus and certain areas they put less focus. The findings revealed that organizations put more focus on procurement of human and core labour standards for rural development to ensure health and safety values of employees required by trade unions and other labor organizations. However, procurement activities are not fair and ethical to achieve sustainability due to corruption, bribes and kickbacks from suppliers and lack of transparent and auditing procedures. The researcher recommends that business organizations in Bikita rural area should put their commitment on procurement activities by having policy statements that explore in various conditions to trade in as fair and ethical in a good manner as possible so as to help deliver social sustainability for rural development. The study also recommends that all procurement departments of all business organizations involved in Bikita rural area should meet and integrate to sign agreements of mutual understanding on sustainable procurement practices that bring rural development. As a result, this research is by no means comprehensive, there is a need to carry out other researches regarding the role of sustainable procurement in urban and town development. Other researchers should use different case studies to conduct a kind of research.

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Table of Contents

RELEASE FORM.....	ii
Approval Form.....	iii
Dedication	iv
Abstract	v
Acknowledgement	vi
Table of Contents.....	vii
LIST OF TABLES.....	xi
LIST OF FIGURES	xi
Chapter 1	1
Introduction.....	1
1.1 Introduction	1
1.2 Background of the study	1
1.3 Problem statement	4
1.4 Research Objectives	4
1.5 Research Questions	4
1.6 Significance of the study	4
1.7 Scope of the study	6
1.7 limitations.....	6
1.8 Assumptions	7
1.9 Definition of terms	8
1.10 Organization of the research project	8
1.11 Chapter summary	9
Chapter 2	10
Literature Review.....	10

2.1 Introduction	10
2.2 Theoretical framework	10
2.2.1 Institutional Theory	10
2.2.2 Sustainable development theory.....	11
2.3 Rural development	12
2.3.1 The structure of metrics of rural development	12
2.3.2 The Agricultural Domain	12
2.3.3 The health and welfare Domain	13
2.3.4 The Education Domain.....	14
2.3.5 The environmental Domain.....	14
2.3.6 The culture leisure Domain	14
2.4 Sustainable procurement	15
2.4.1 Environmental Sustainability	15
2.4.2 The social Sustainability	16
2.4.3 The economic context	16
2.5 The role of Sustainable procurement on rural development	17
2.5.1 The role of sustainable procurement on rural development shown on diagram below....	17
2.5.2 The role of Environmental sustainability on rural development.....	18
2.5.3 The role of social sustainability on rural development	19
2.5.4 The role of economic sustainability on rural development	20
2.6 Empirical evidence.....	21
2.7 Summary	23
Chapter 3.....	24
Research Methodology	24
3.1 Introduction	24

3.2 Research design.....	24
3.3 Population.....	25
3.4 Sample size.....	25
3.5 Sampling Techniques	26
3.5.1 Purposive Sampling.....	26
3.6 Research Instruments	26
3.6.1 Questionnaires.....	26
3.6.2 Interview guide.....	27
3.7 Document Reviews	27
3.8 Data collection procedure.....	27
3.8.1 Primary data	28
3.8.2 Secondary data	28
3.9 Data Presentation and Analysis Procedure.....	28
3.10 Reliability and validity of data	29
3.10.1 Validity.....	29
3.10.2 Reliability.....	29
3.11 Ethical considerations	29
3.12 Summary	29
Chapter 4.....	30
Data Presentation, Analysis and Discussion.....	31
4.1 Introduction	31
4.2 Response rate.....	31
4.3 Interviews	Error! Bookmark not defined.
4.4 Biographical data.....	32
4.4.1 Gender of respondents.....	33

4.4.2 Academic Qualifications of Respondents	33
4.4.3 Respondents years of service or working experience	34
4.5 Research questionnaire Analysis.....	37
4.5.1 Analyzing how environmental issues affect rural development in sustainable procurement.....	37
4.5.2 Assessing how social sustainability issues affect rural development in procurement	39
4.5.3 Evaluating the role economic sustainability issues in procurement on rural development	41
4.5 Data Analysis	46
4.6 Summary	48
Chapter 5.....	49
Summary, Conclusions and Recommendations.....	49
5.1 Introduction	49
5.2 Summary of the Research findings	49
5.3 Conclusion.....	50
5.4 Recommendations	51
5.5 Suggestion for further research	52
References.....	52
Questionnaire	58
Interview schedule.....	62

LIST OF TABLES

TABLE 3.1: TARGET POPULATION	25
TABLE 4. 1: SHOWS THE DISTRIBUTION AND RESPONDENTS OF THE QUESTIONNAIRES	31
TABLE 4.2: DEMONSTRATING THE RESPONSES FROM QUESTIONNAIRES.....	32
TABLE 4. 3 ENVIRONMENTAL SUSTAINABILITY ISSUES ON RURAL DEVELOPMENT	38
TABLE 4. 4 SUSTAINABLE PROCUREMENT SOCIAL ISSUES ON RURAL DEVELOPMENT	39
TABLE 4. 5 ECONOMIC SUSTAINABILITY ISSUES ON RURAL DEVELOPMENT	41
TABLE 4.6 BELOW SHOWS THE CORRELATION BETWEEN THE DEPENDENT AND INDEPENDENT VARIABLES	46

LIST OF FIGURES

FIGURE 2. 1:THE ROLE OF SUSTAINABLE PROCUREMENT ON RURAL DEVELOPMENT	18
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FIGURE 4.1 GENDER	33
FIGURE 4.2: ACADEMIC QUALIFICATIONS	34
FIGURE 4.3: WORKING EXPERIENCE	35
FIGURE 4.4: POSITION OR DESIGNATION HELD IN ORGANIZATION	36
FIGURE 4.5 ENVIRONMENTAL SUSTAINABILITY ISSUES ON RURAL DEVELOPMENT	44

Chapter 1

Introduction

1.1 Introduction

This first chapter provides the channel of the research it took; it starts with introducing the guidelines for the research as stated in the background of the study, statement of the problem, research objectives and research questions. The significance of the study, assumptions under which research conducted, limitations encountered during the research process and delimitations of the study are stated. At the end of the chapter definition of key terms, and chapter summary are also described in this chapter

1.2 Background of the study

The Zimbabwean government, particularly the Ministry of Agriculture and Rural Development (MARD), is executing new projects for improving rural development at national level with the goal of improving rural socioeconomic infrastructure and quality of life. The main objective of such projects is for more than 50% of townships to obtain adequate scores in all nineteen metrics in the domains of sanitation, education, transportation, electricity, income and irrigation. Even though these efforts, assessors criticize that current programs lack the competence for fully implement Zimbabwean rural development goals and do not present a long-term vision (Flora, 2009). Furthermore, this is generally acknowledged that the employment approaches are not totally appropriate or efficient. As a result, rural poverty patterns in early democratic Zimbabwe have remained relatively unchanged compared to today as it was. Climate change, natural resource depletion, threats to biodiversity, and rising poverty are all wreaking havoc on communities across the country. Food insecurity and malnutrition are common, and there is limited access to productive agricultural support services and infrastructure development (Stobbe, 2008). Sustainable procurement may also be used to address social concerns including skill development,

unemployment, poverty, diversity, equality, inclusivity, regeneration, health, and well-being. Many of these challenges are interconnected, implying that a concerted effort is required to achieve long-term societal progress. For example, inclusivity entails removing barriers that individuals and groups encounter; this is strongly related to concerns of equality (OECD, 2019).

According to CIPS and NIGP (2012), sustainable procurement is a purchasing and investment process that considers the economic, environmental, and social impacts of an entity's spending and enables an organization to meet its needs for goods and services in a way that achieves value for money over time, generating benefits not only to the organization but also to society and the economy while remaining within the carrying capacity of the environment. ('THE IMPACT OF SUSTAINABLE PROCUREMENT ON BUILDING THE COMPANY ' S', 2017) stated that the role of purchasing in any organization is becoming more important in terms of organizational growth or good performance, and as such, business practices must demonstrate that business organizations and business partners are focusing their procurement strategies on reducing the carbon footprints of their procurement and supply chain activities, on how environmental and issues relating to other aspects of the sustainable development like the society and the economy can be integrated in the procurement activities.

According to the Austrian Sustainable Procurement Guide (2018), the concept of sustainable procurement is under pressure from the Sustainable Development Goals (SDGs), which emerged at a UN conference on sustainable development, Rio+20 in 2012, the actual purpose was to maintain a balance of the three dimensions of sustainable development, namely economic, social, and environmental, which is known as the triple bottom line (TBL) (Sustainable Development Knowledge Summary 2012). Furthermore, nations were designated to contribute their efforts toward the attainment of the seventeen Sustainable Development Goals by the end of the year 2030. As a result, the UN is exerting increasing pressure to fulfill these sustainable development goals. Due to the rising necessity of development in sustainability regarding the entire globe, the notion of sustainable buying has fast gained traction (Mcharry and Defra, 2006).

According to (Johnsen, Howard and Miemczyk, 2014), taking into consideration the implications of sustainable procurement plays a part in sales growth, improving social benefits, and thriving to efficiency. Thus, it is part of procurement to guarantee that purchase decisions are founded on good principles that maximize societal benefit and match community expectations while also

guarding against reputational hazards (Pheasey, 2016). Procurement departments are so charged since they may influence purchasing efficiency and brand image by engaging in sustainable practices such as product definition, supplier sourcing, assessment, and supplier selection (CIPS 2013).

For infrastructure projects, most governments also develop grievance and dispute resolution systems. For example, in 2010, India established a National Green Tribunal with the purpose to examine environmental protection claims and resolve environmental disputes. The IFC and the World Bank Group's Multilateral Investment Guarantee Agency have created the Office of the Compliance Advisor/Ombudsman to act as an impartial recourse mechanism for projects sponsored by these institutions. It is believed that developed countries introduced policies in a way of trying and meeting sustainable development through procurement both in the private and public sectors (Walker, Miemczyk, Johnson and Spenser, 2012). (Pheasey, 2016) proposed that sustainable procurement is not well implemented considering the much expected level specifically in the public sector and all the countries that are lagging behind achieving the sustainable development goals in Africa. Chari and Chiriseri (2014) argued that in this country of Zimbabwe, there has been turn around on sustainability and the various stakeholder groups have addressed issues such as human rights, women rights and environmental management. The promulgation of the public procurement and Disposal of public assets act in 2017 (PPDPA) has seen sustainable procurement being addressed as one of its objectives, the act shall secure the implementation of any environmental, social, economic factors to be considered by a procuring entity (PPDPA, 2017)

Although the private sector is not required to follow governmental procurement requirements, it is required to support sustainable procurement activities through corporate social responsibility (CSR). According to (OECD, 2011), scholars and general practitioner have been progressively more interested in how corporations and their vendors influence the economy, society and the environment in recent years.(Lambrechts, 2021) added that this has been necessitated by the need for companies to meet the terms of environmental regulations, reduce expenses through whole life costing, manage supply chain risks, and maintain a respectable reputation in the operating community. This motivated the researcher to investigate and analyze the role of sustainable procurement in rural development.

1.3 Problem statement

In Zimbabwe, rural development is critical to achieving the 2030 Agenda for Sustainable Development. However, the government and procurement entities are failing to adequately manage environmental, economic, and social risks, which are critical to the success of any rural infrastructure project. Rural residents also have less access to education, health care, and other amenities. These rural-urban divides are contributing to increased rural discontent and grievances, societal polarization, and upheaval in some nations. Second, current rural development plans are proving insufficient to protect the planet's health. The continuing loss of forests and wildness has contributed to climate change and is commonly believed to be one of the causes of zoonotic diseases like COVID-19. Climate change is having an increasingly negative impact on agricultural and rural economy, resulting in a vicious cycle. This situation has obliged the researchers to carry out research on the roles of sustainable procurement in rural development.

1.4 Research objectives

- To analysis how environment issues affect rural development in sustainable procurement
- To determine how social issues on sustainable procurement affect rural development
- To assess the impact of economic sustainable procurement on rural development

1.5 Research questions

- What are the impacts of the economic sustainable procurement on rural development?
- How do social issues on sustainable procurement affect rural development?
- What are the benefits of environmental issues on rural development in sustainable procurement?

1.6 Significance of the study

The following are the apparent advantages to the given partners following the execution of the key suggestions.

The Researcher

The study will be of great significance to the scholar as it will give a source of training ground for academic development, gain essential experience in research techniques, strengthening the theoretical ideas acquired throughout the study and have a deep understanding of the roles of sustainable procurement on rural development and enhancing the application of the theoretical concepts under the area of study.

Academicians

The academicians will benefit it from this study as it will act as guide for further researchers, review and critiques which will notably help bring new ideas on e-procurement strategy in Zimbabwe.

To Bindura University of Science Education

The research project will be much important to the library of Bindura University Library where other researchers can use it as guideline and reference when they are carrying out similar projects.

To the Public

The research project will be much important to the public as it helps to raise awareness on sustainable ways of bringing rural development. Also benefit the society by having sustainable ways of bringing infrastructural development and clean environment leads to better rural development standards.

To the Government

This research help the government to implement policies that will help to achieve sustainable procurement processes for rural development and also to assist companies to bring sustainability in areas they operate.

To Bikita Rural district companies

The research will help Bikita Rural district companies both private and public organizations to have the basis for improving their sustainable procurement process that brings change on rural development.

1.7 Scope of the study

Conceptual scope

The scope selected was rural supply chains in Bikita, Zimbabwe

Time period

The period under research study is from March 2018 to March 2022 because the goal of the study was for researcher to obtain accurate information for the study.

1.7 limitations

Lack of skills

The researcher lacked sufficient competence and skills during the course of the research. However the researcher requested help from the supervisor to make the needed information for the project in time.

Financial constraints

The researcher failed to reach the distinctive representative companies since there was a long distance due to financial constraints to cover transport costs. However the researcher obtained financial help from his relatives to complete the research and he also used the current technology that is email, face book and the company's websites to obtain the required information.

Time management

The researcher conducted his research during the semester and the researcher faced a lot of pressure with school work. However the researcher put more hours to balance the research project and other modules that needed attention.

Inaccessibility to information

The respondents were reluctant to disclose their company's full information that was needed for the research because they assumed that the researcher maybe working on behalf of their competitors therefore upholding to the company's principle of confidentiality. However the researcher assured the company that the information was only needed for academic purpose and the information provided will be treated with confidentiality.

In addition the information required was difficult to collect due to the pandemic of covid 19 as only the few workers were allowed to work and others were doing the job at home. However the researcher made use of the internet and questionnaires were sent on email.

1.8 Assumptions

1. The researcher assumed that the respondents have a general understanding of sustainable procurement and the information provides is relevant, accurate and can be relied on.
2. The sample will be an accurate representation of the whole population.

1.9 Definition of terms

Sustainable procurement:(International Institute for Sustainable Development, 2016) defined Sustainable procurement is a process whereby organizations meet their needs for goods, service, works or utilities in a way that achieves value for money on a whole of life basis in terms of generating benefits not only to the organization, but also to society and the economy, while minimizing damage to the environment. Sustainable procurement is all about taking social and environmental factors into consideration alongside financial factors in making purchasing decisions.

Rural development: (Flora, 2009) defined this term as the strategy aiming on improvement of economic and social living conditions, focusing on a specific group of poor people in a rural area. It assists the poorest group among the people living in rural areas to benefit from development.

Supply chain: Barney (2001) defined it as a complex and dynamic network of organizations, people, information, processes and resources involved in moving a product or service from supplier to customer. Supply chain activities include the production, handling and distribution of materials and finished products or providing a service to the customer.

Corporate Social Responsibility (CSR): Walker and Wendy defined it as the continual commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large (Mcharry and Defra, 2006).

1.10 Organization of the research project

Chapter 1 is the introduction which gives the background of the study, the statement of the problem, research questions, and purpose of the study, significance of the study, limitations, and delimitations of the study, conceptual framework and definition of key terms.

Chapter 2 focuses on reviewing related literature. It presents view points and suggestions that were made by other researchers regarding the subject matter of role of sustainable procurement in rural development.

Chapter 3 describes the methodology that provides the research design, the population of the study, the sample and sampling procedure, data collection techniques, research instrument used for the study, data presentation procedures and data analysis used.

Chapter 4 looks at the analysis, discussions and interpretation of the finding of the research.

Chapter 5 is the final chapter which outlines the summary of the study, conclusions and recommendations of the research study.

1.11 Chapter summary

This chapter looked at the background of the study where main focus was on the role of sustainable procurement in rural development. It also covered the problem statement, research objectives, and research questions, significance of the study, limitations and assumptions as well as the definition of key terms. The chapter therefore lays the foundation of the research on the role of sustainable procurement in rural development. The next chapter is going to give a review of related literature regarding the subject matter.

Chapter 2

Literature Review

2.1 Introduction

This chapter focused on the viewpoints and arguments presented by other various researchers on the role and implementation of sustainable procurement for rural development. This chapter assists in assessing the gaps in the field of study by evaluating what other researchers from around the world have determined. This chapter also focused on the theoretical framework, conceptual framework, study justification, empirical evidence, and the summary.

2.2 Theoretical framework

This section explains the theories regarding the role of sustainable procurement in rural development. According to Creswell (2009), a theoretical framework was defined as the collection of connected concepts that guides a research project and connects the reader to current knowledge. The student decided to use two supporting theories that includes Institutional and Sustainable Development Theory.

2.2.1 Institutional Theory

Bansal and Clelland (2004) and Hoffman (1999) argued that Institutional theory has been used to describe the firm's response in increasing the requirements for environmental management since 1930. Due to the increased public awareness on organizational failure and environmental concerns, institutional theory suggests that businesses can only earn legitimacy by reducing their environmental impact and being socially responsible. Bansal (2005) added that firms have adopted sustainable procurement strategies as a way of avoiding institutional pressure. Firms can implement strategies like following environmental ways that comply with rules and adopt industry standards, or lowering the environmental impact activities that are beyond what is required by law

(ISO, 2017). Firms can create good relationships with regulators by participating in government-sponsored voluntary program which develops a voluntary agreement between government agencies and firms hence encourage technological innovation and reduction in pollution Delmas and Toffel (2008). Companies can also collaborate with their customers and suppliers to enhance their environmental performance by exchanging ideas/information, making suggestions, and making corrections as it was announced by (Quayle, 2006).

According to Meyer and Rowan (2006), the institutional environment has a greater impact on the establishment of formal structures in an organization than market pressures. Innovative structures are legitimized to boost organizational efficiency. Eventually, these ideas gain enough legitimacy that failing to accept them is considered as "irrational and careless." Even if the structural shape does not improve efficiency, new and existing companies will accept it. This means that "institutional myths" are ceremoniously accepted in order for organizations to maintain legitimacy in the institutional context by using structure vocabularies such as job titles, procedures, and functions (Johnsen, Howard and Miemczyk, 2014) .

2.2.2 Sustainable development theory

The World Commission on Environment and Development (WCED) (1987) defined sustainable development as a stage of advancement that meet current needs without compromising future generations' ability to meet their own. The relevance of future generation is emphasized in this notion of sustainability. The emphasis on future impacts encourages careful planning, resource utilization, and environmental footprint.

However, sustainability is not exclusively concerned with the environment or the "green" element only, social effects must also be considered as what Elkington (2004) suggested. The abbreviation Triple-P (People, Planet, and Profit) or triple bottom line illustrates this. Elkington (2004) also stated that the balance of economic, social, and environmental sustainability should be examined in harmony.

2.3 Rural development

The Zimbabwean government, particularly the Ministry of Agriculture and Rural Development (MARD), is applying new rural development programs at a national level with the main purpose of improving socio-economic infrastructure and quality of life in rural areas (IFAD, 2016). More precisely, the main objective of such programs is that more than 50 percent of townships achieve reasonable scores in all of the selected indicators in the domains of income, sanitation, education, electricity, irrigation, and transportation. (Flora, 2009) defined rural development as the process of improving the quality of life and economic well-being of people living in relatively isolated and sparsely populated areas. According to Lee et al. (2012), rural development is defined as the process of increasing the quality of life of individuals living in rural areas. Furthermore, Lee et al (2012) emphasized that a rural development program targets a broader range of issues, including transportation, medical care, welfare, and the environment, in addition to local industry and economics. However this study defines rural development as the process of improving the quality of life for people living in rural areas and achieving sustainable development in rural areas by addressing challenges faced by local communities in various domains such as economy, education, health, and the environment, with local people and government as the main agents of change (UN DESA, 2021).

2.3.1 The structure of metrics of rural development

(Pain and Hansen, 2019) articulated that Rural Development Guide is made up of more than five dimensions that are all linked to people's quality of life in rural areas. Economy, health, education, environment (both residential and natural), and culture leisure are the domains. Following the logical structure of Cause-Result,' the Rural Development Index consists of the result index and the cause index. The outcome index is a set of indicators designed to examine and assess the state of development in rural areas by picking indicators for each domain.

2.3.2 The Agricultural Domain

The Economy Result Index is made up of factors that can be used to calculate rural residents' income levels. A rural household's income can be separated into farm income and non-farm income

due to the particular characteristics of the rural economy. The average yearly farm revenue is used to determine the level of agricultural income. The average annual non-farm income is used to determine the level of non-farm income. Pain and Hansen (2019) proved that the Economy Cause Index is made up of variables that show factors that have a direct impact on income. Agricultural output, agricultural distribution, and agricultural infrastructure are all factors that influence farm revenue. Farm revenue is positively related to agricultural productivity; when agricultural production raises, farm income. The size of the farm, crop cultivation, agricultural mechanization, the number of producer organizations, and people's access to agricultural technology centers all influence agricultural productivity. It is also easier for farmers to share information about agricultural produce prices, and transportation circumstances for agricultural product delivery to distributors are improved. JICA (1996) states that more indicators are needed to measure the level of expansion for agricultural infrastructure such as agricultural irrigation canals and agricultural pumping stations, and the rate of road pavement is employed as an indicator of agricultural infrastructure for distribution.

2.3.3 The health and welfare Domain

UNECE (2007) suggested that Health and Welfare Cause Index is made up of indicators that are linked to factors that have a beneficial impact on one's health and well-being. The Health and Welfare Cause Index considers the state of medical facilities available to rural inhabitants, as well as the number of medical personnel providing health care. The state of one's health or overall well-being is linked to the state of medical facilities. The health of people living in rural areas improves as medical services improve. Kirton (2013) added that the number of patient beds per 1,000 persons is used as a measure of medical facility condition. Through favorable effects on health and welfare, a growth in the number of doctors, physicians, nurses, midwives, and pharmacists enhances the health status of individuals living in rural areas. The availability of health and medical manpower is measured in terms of the number of doctors per 1,000 people, physicians per 1,000 people, nurses per 1,000 people, midwives per 1,000 people, and pharmacists per 1,000 people.

2.3.4 The Education Domain

The Education Cause Index is made up of metrics that relate to factors that have a beneficial impact on rural populations' educational levels. The Education Cause Index is based on the number of educational facilities, educational staff, and anti-illiteracy efforts. When educational facilities are enhanced, the educational level of rural populations improves. The number of students per class in primary, secondary, and upper secondary schools is used to gauge the state of educational facilities. When the number of teachers in rural areas is raised, the educational level of the population improves. Teachers' availability is measured by the number of students per teacher in primary, secondary, and upper secondary schools (Pain and Hansen, 2019).

2.3.5 The environmental Domain

Johnsen, Howard and Miemczyk (2014) articulated that the residential and natural environments make up the domain of environment, which encompasses all aspects of human life. Residential environmental components include permanent housing, safe drinking water, sanitary toilets, and renewable electricity. The level of afforestation, air, soil, and water quality should all be used as indicators to gauge the state of the natural environment. Kalubanga (2012) argued that except for the rate of afforestation, there is no indicator in Zimbabwe that measures the level of natural environment that can be discriminated by region. As a result, indicators relating to the natural environment are required to measure the quality of air, soil, and water by region, with soil and water quality being the specific components of the natural environment.

2.3.6 The culture leisure Domain

The average yearly expenditure per family on culture and leisure is used as a measure of the vitality of cultural and leisure activities. The level of cultural and leisure activities is boosted by adding more regional facilities for cultural activities, tourism, and sports. It is made up of factors that relate to the availability of cultural and recreational facilities, such as cultural, tourist, and sporting facilities. Access to cultural institutions is measured by the number of libraries per 100,000 people, cinema theaters per 100,000 people, and playhouses per 100,000 people. The average annual expenditure per household on culture and recreation is used to assess the vitality of these activities.

More regional facilities for cultural activities, tourism, and sports are being added to increase the level of cultural and leisure activities. It is made up of aspects such as cultural, tourist, and sporting amenities that relate to the availability of cultural and recreational facilities. The number of libraries per 100,000 people, film theaters per 100,000 people, and playhouses per 100,000 people are used to gauge cultural access.

2.4 Sustainable procurement

Sustainable procurement is still an emerging area and the sustainability agenda continues to evolve as our understanding and competence to deal with the issues and opportunities improve. The concept of sustainable procurement was originally introduced at the UN world summit on sustainable development in Johannesburg in 2002. Sustainable procurement is defined by Berry (2012) as the process whereby organizations meet their needs for goods, service, works or utilities in a way that achieves value for money on a whole of life basis in terms of generating benefits not only to the organization, but also to society and the economy, while minimizing damage to the environment. Sustainable procurement is composed of triple bottom line pillars which are economic, society and environment. These three pillars relate with each other for example economic sustainability impacts occur within the overall framework of society. Society in turn exists within, and is wholly dependent on, the environment, which is fundamental to our very existence as it was proposed by (Council, 2021)

2.4.1 Environmental Sustainability

Environmental concerns remain a key driver behind the sustainable procurement agenda and there is a growing consensus that humanity is placing excessive demands on available resources through unsustainable consumption patterns and lifestyle choices. (International Institute for Sustainable Development, 2016) states that sometimes ‘green’ or environmental procurement is seen as a standalone issue but generally it is now regarded as an integral part of the wider sustainable procurement agenda. The environmental focus of sustainable procurement has three main themes: (Danish Energy Management, European Union Energy Initiative and ACP-EU Energy Facility, 2007) proposed that it act as a way to help mitigate overexploitation of, or damage to, any and all

scarce resources (by ensuring all products are bought from certified sustainable sources and ensuring processing and production techniques are non-polluting).secondly as a tool to address climate change (by reducing the amount of carbon expended in the manufacture and delivery of goods and services throughout the supply chain); and as a means to minimize waste (by challenging demand, increasing the use of recycled and secondary materials, reducing material use, e.g. reducing disposable packaging and recovering materials at the end of life).

2.4.2 The social Sustainability

Sustainable procurement can also be used as a means to tackle social issues such as inclusiveness, equality, diversity, poverty, unemployment, skills development, regeneration, health and well-being. Many of these issues are interrelated which means a cohesive approach is needed to bring about lasting social improvement. For example, inclusiveness involves breaking down the barriers individuals and communities face; this is closely linked with issues of equality, diversity, poverty and the employment and skills agenda. Another example is deprivation which is a strong determinant of ill health. Today, an organization's social procurement responsibilities can extend to all the individuals and communities involved in, or affected by, the operations of its supply chains. Buying organizations operate in an increasingly globalized market; supply chains can be long and complex and organizations are recognizing that they must take adequate measures to ensure socially responsible business practices throughout these (Treviño-Lozano, 2021).

2.4.3 The economic context

Economic considerations are the traditional heartland of decision making for procurement and sustainable procurement continues to recognize the fundamental importance of sound economic strategy. From an economic perspective sustainable procurement encourages the use of more resource-efficient goods and services and encourages purchasers to evaluate cost performance over the lifetime of a contract and not limit decision making to upfront cost considerations. Whole-life costing (WLC) is increasingly being used (UNECE, 2007).

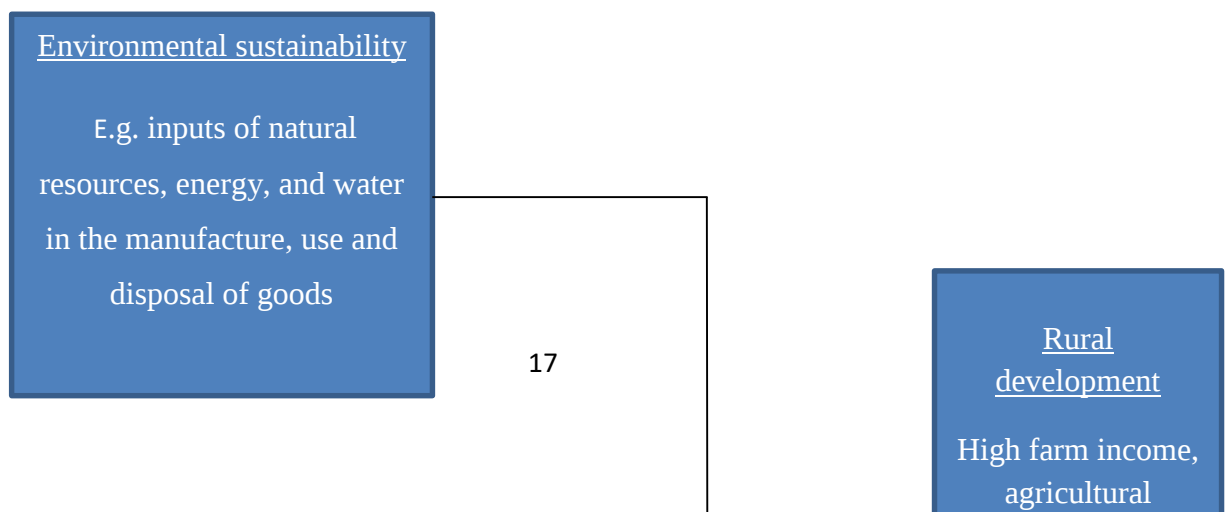
The economic pillar of sustainability also includes the need to drive job creation, develop new markets and foster innovation, such as in emerging green technologies or by creating markets for

recycled products. For example, the previous Labour government predicted that the transition to a low-carbon economy will create approximately 400,000 jobs in the low-carbon environmental goods and services (LCEGS) sector by 2015.

2.5 The role of Sustainable procurement on rural development

Rural development practices have also facilitated the elaboration and implementation of new, innovative methods to combat increasing costs. In short, sustainable rural development reconstitutes the eroded economic base of both the rural economy and the farm enterprise. Second, among the key manifestations of sustainable rural development is the emergence of new inter linkages between agriculture and society (JICA, 1996). Sustainable rural development entails the creation of new products/services; new markets and new forms of cost reduction that often coincide with the needs and expectations of society at large. As Van Der Ploeg et al (2000) suggested that, sustainable rural development implies a reconstruction of agriculture and countryside and their realignment with Europeans society and culture. Third, sustainable rural development also concerns the redefinition and reconfiguration of rural resources. Through sustainable rural development, rural resources - land, labour, nature, eco-systems, animals, plants, craftsmanship, networks, market partners, and town-countryside relations - are reshaped and recombined, as it has happened, for example, with the emergence of alternative food supply chains Van Der Ploeg et al (2000). This can be shown on the diagram below.

2.5.1 The role of sustainable procurement on rural development shown on diagram below



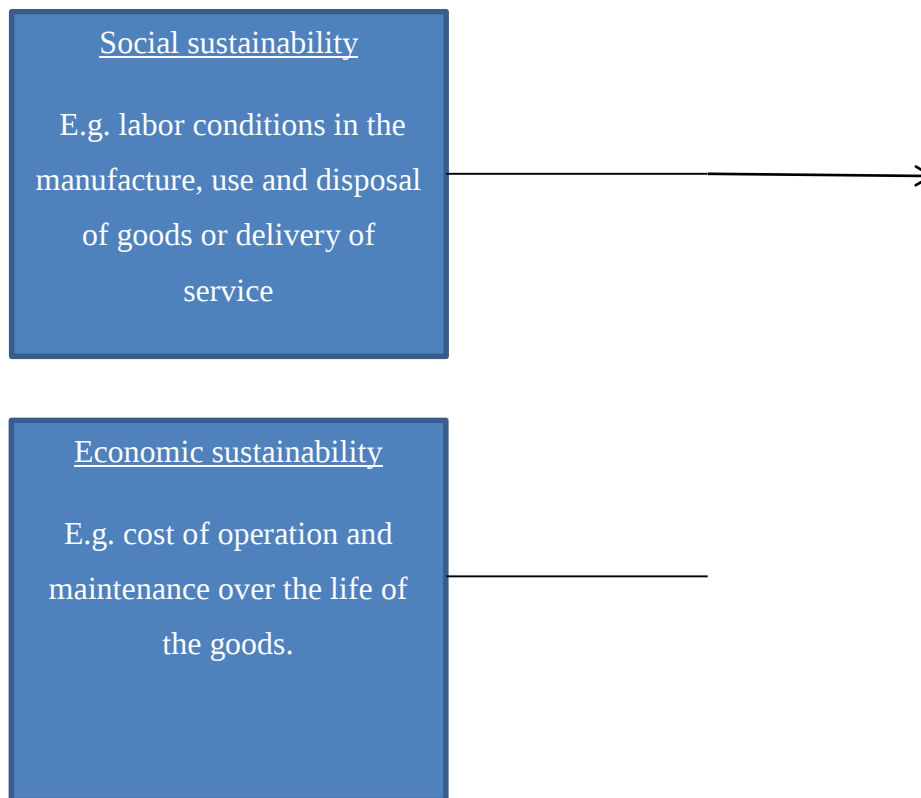


Figure 2. 1: The role of sustainable procurement on rural development

Source: SustainableProcurementGuideAustralian2013a

2.5.2 The role of Environmental sustainability on rural development

The study by Lemmet (2012) indicated a wide range of environmental implications at different stages of a product's life cycle. The French Ministry of Education has reduced waste caused during the production process by purchasing refurbished ink cartridges. The construction (Yorkshire and Humber Region, UK, and Oregon, USA) demonstrate significant CO2 emissions reductions from waste production and water usage. The Ferrara research (Italy) and the recycled paper case (Sa Paulo, Brazil) both demonstrate positive environmental consequences across the life cycle.

DNV GL (2015) postulated that sustainable procurement practices necessitate the proper sequencing of procurement activities to align with policies and best practices, such as complying with and exceeding all relevant legislation and regulatory requirements, such as environmental, social, health, and safety policies. Second, by incorporating proper sustainability criteria into procurement practices, it is also possible to reduce environmental effect while increasing economic and social benefits. Third, create sustainable procurement awareness and skills among all stakeholders, as well as a stronger foundation on policy and strategy understanding while stimulating sustainability in the market place, involving current and future suppliers into best practices on sustainability along the supply chain (Proforest, 2020). That is, ensuring sustainability is a criterion in all phases of procurement by including environmental, social, and economic considerations in the procurement of products and services. In addition, evaluate the expansion of sustainable procurement in order to make positive progress, collaborate with other companies, and conduct best practice research.

Consumer awareness of environmental threats such as global warming influences their consumption's environmental consequences. Clients judge traditional companies based on the quality of their products, responsiveness in offering customer solutions, and degree of fairness as it was proposed by (Bucea-Manea-țoniș *et al.*, 2021). Nonetheless, environmental ethics are often used to assess and critique businesses.

2.5.3 The role of social sustainability on rural development

According to Goodland and Wiley (2002) in their comparison to Social, Economic, and Environmental Sustainability they defined “Social sustainability” as the maintaining social capital. Investments and services that form the foundation of society are referred to as social capital. (Flora, 2009) also added that it reduces the cost of collaboration and facilitates cooperation: confidence reduces transaction costs. This can only be accomplished by systematic community participation and a strong civil society, including the government. Community cohesion for mutual benefit, group connectedness, reciprocity, tolerance, compassion, patience, forbearance, fellowship, love, and universally accepted standards of honesty, discipline, and ethics.

Much of the work on social sustainability focuses on providing services that will help to establish conditions that will lead to a more sustainable community. When it comes to procurement, this is of limited use. While there are important procurement difficulties that are linked to those services, it may be more difficult to examine other aspects of procurement if social sustainability is solely considered in this way. We would define 'social sustainability,' based on this and other publications, as being a part of the larger process of sustainable development with a focus on five principles as it was argued by (Stobbe, 2008).

- Building social capital
- Tackling exclusion and protecting the vulnerable
- Minimizing inequalities
- Improving public health
- Bringing Long-term benefits to all relevant stakeholders

2.5.4 The role of economic sustainability on rural development

A number of studies on public procurement have found that, under particular conditions and criteria, procurement can promote economic growth and development. These requirements and circumstances may include highly-trained and skilled procurement officers with a broad understanding of contractual choices at their disposal, as well as the support of the economic planning committee in guiding the acquisition of scarce resources in a fair and efficient manner (Treviño-Lozano, 2021).

Gordon (2009) indicated that economic development goals are gradually becoming as part of procurement. Scholars have increasingly discussed the importance of procurement as a tool for economic development and a driver of innovation as it was stated by (Treviño-Lozano, 2021). Governments have discussed and implemented municipal procurement, focusing on local firms through "buy-local" campaigns, and broadly incorporating economic development goals into procurement selections. Rising policies may emerge as governments seek to strengthen work within their jurisdictions, such as "Buy America" agreements contained into the America Resource and Recovery Act and other subsidy packages (US Department of Energy, 2011). Given the

ongoing economic emergency, utilizing procurement to invigorate the local economy might be an attractive and opportunistic move for governments chasing to achieve such external goals (Johnsen, Howard and Miemczyk, 2014).

2.6 Empirical evidence

Empirical evidence refers to the studies or surveys carried out and published by other authors, examples of these studies and surveys includes.

Case study 1: Young, Nagpal and Adams, (2015)

The research was carried with the purpose to investigate on the factors that influence the adoption of sustainable procurement methods in universities in Australia and the United Kingdom. In terms of institutional structures, funding pressures, and regulation, the study findings demonstrated that the institutional environment has a crucial role in developing organizational momentum for sustainable procurement. In their decision-making surrounding sustainable procurement, UK universities tend to account for constraints from institutional stakeholders and students, whereas in Australia, sustainable procurement implementation is hampered by a lack of money. Food, stationery, waste, transport, and recycled paper are all examples of sustainable purchase in universities, according to the report.

Case study 2: McCrudden (2004)

The study focused on how public procurement may aid in achieving social goals. The findings of the study showed that the focus of many EU sustainable procurement policies is more on environmental rather than social in nature. For instance, in Italy, 30 percent of goods purchased by the government must meet ecological criteria, while Denmark, France, Netherlands, and the United Kingdom have public procurement policies specifically for wood and paper products. Belgium requires that 50% of government cars meet certain environmental standards. Based on a European Union rule on public spending, it is now a legal duty in the United Kingdom to incorporate social factors into public procurement.

Case study 3: Brammer and Walker (2007)

A study was carried out to investigate sustainable procurement in the UK public sector. Data was collected via questionnaires. The data was analyzed using both quantitative and qualitative methodologies. The study's findings demonstrated that the nature of sustainable procurement processes varied significantly across public sector agencies. Local governments are supposed to buy from local and small businesses, whereas the health sector appears to ignore sustainable procurement issues and the education sector is primarily concerned with environmental factors. In addition, the researcher identified cost and a lack of senior management support as impediments to long-term purchase.

Case study 4: Quayle and Quayle (2000)

They investigated procurement procedures in higher and further education institutions in the United Kingdom. The relevance of procurement's link with other activities at their respective institutions, the importance of supplier selection and relationship management, and the emphasis assigned to procurement as a value-adding activity were the starting points for their research. The findings revealed a need for total life-cycle management, procurement staff training, increased purchasing knowledge and priority, more accurate data, benchmarking, and the importance of purchasing consortia.

Case study 5: Chari and Chiriseri (2014)

They conducted research in Zimbabwe to find out what factors influence the adoption of sustainable procurement. Data was collected from 300 procurement and administrative employees via questionnaires and interviews. According to the study's conclusions, sustainable procurement techniques are not being used. Purchase orders were issued based on the lowest bid and other criteria such as social and environmental aspects were not taken into account while making

purchases. The survey also discovered that a lack of management support was a barrier to the adoption of sustainable procurement. The lack of availability of sustainable products, as well as a lack of understanding of the concept and the perception that sustainable products are expensive, all contributed to the barriers to sustainable product adoption.

Study 6: Islam and Siwar, (2013)

The study aimed to examine and contrast current sustainable procurement practices in Australia and Malaysia, as well as the primary potential and impediments to sustainable procurement engagement. The data was gathered from questionnaires done in both nations. According to the findings of the study, some sustainable procurement techniques may be found in public sector procurement, although the extent and character of these practices differ greatly across the two countries. In Australia, government agencies place a greater focus on the safety aspects of sustainable procurement, but in Malaysia, diversity is valued highly. Malaysia's public sector outnumbers Australia's in terms of size. Financial pressure is the most major impediment to the adoption of sustainable procurement in both countries, according to the public sector.

2.7 Summary

Sustainable procurement plays a vital role in rural development. This chapter reviewed literature implementation of sustainable procurement. It further reviewed the role of environmental, economic and social procurement on rural development. Next chapter focuses research methodology.

Chapter 3

Research Methodology

3.1 Introduction

This chapter explains the research design, sampling plan, and data collection and analysis procedures. It also covers research design, study population, sample, sampling strategies, data gathering methods, and a data analysis plan. Jankowicz (1995) defined research methodology as the analysis of, and reasoning for, the particular method or procedures utilized in a given study and in that type of study in general.

3.2 Research design

A research design directs how the research was carried out and the research plan of action. Due to the operations in the same context, the findings can be applied to other local governments. The researcher chose a descriptive research design because it is simple, authentic, and provides guidance on how to record the study questions.

The researcher used both public and private organizations operating in Bikita rural area to obtain data like Bikita Rural District Council (BRDC), Bikita mining company, the researcher also selected one primary school and one secondary school, Bikita rural hospital and business shops like N Richards and Mutema as a case study to gain a better knowledge of the organization's operations. According to Saunders et al (2009), a case study allows for the use of multi-disciplinary methodology such as qualitative and quantitative techniques inside the case. Case studies have the advantage of providing a large quantity of description and detail from a single case, as well as being cost-effective.

3.3 Population

The term population was defined by Bryman and Bell (2003) as the universe of units from which the sample will be drawn. Target populations must be defined precisely, as this determines whether sampling is required. The study concentrated on the target population of procurement staff in both public and private business organizations operating in Bikita Rural Area and local people in that rural area. Population of the study is made up of procurement managers, assistant buyers, councilors, and heads of department or unit divisions, bursars or accountants and other people in the local community. A sample is a subset of the population under investigation. Because studying the entire population at all companies in Bikita rural area was difficult, a sample was taken. The target population is represented in the table below.

Table 3.1: Target Population

Business organization	Target population
Bikita rural district council	16
Bikita mining company	16
Bikita Silveira hospital	16
Primary and secondary schools	16
N Richards and Mutema supermarket	16
Total	80

3.4 Sample size

The researcher used Solvin's of 1960 formula to determine the sample size

Formula:
$$n = \frac{N}{(1 + Ne^2)}$$

$$n = \frac{80}{(1 + 80 \times 0.1^2)}$$

$$n = \frac{80}{1.83}$$

$$n = 44$$

The sample size for Bikita Rural Supply chains organizations was 44. The researcher managed to calculate the sample size because it was difficult to deal with the whole population.

3.5 Sampling Techniques

Sampling techniques offers a variety of approaches for reducing the amount of data the researcher need to collect by focusing on data from a subset of the population rather than all conceivable scenarios Saunders (2000).

These are some of the data collection procedures that were used, and the researcher's reasoning for using them is detailed below.

3.5.1 Purposive Sampling

The procurement departments were chosen by the researcher because they are involved in the purchasing of organizational requirements and are better able to provide information on procurement operations than other staff members from other departments. The researcher only used a sample of 44 people from an 80-person workforce because they were actively involved in procurement.

3.6 Research Instruments

Different instruments can be used to collect data from respondents. In this study major instruments used were questionnaire and an interview guide to collect information from employees.

3.6.1 Questionnaires

This is a method for gathering primary data. Questionnaires were chosen because they allow respondents to fill them out at their leisure. This raises the standard of responses. They are also necessary for keeping records and future reference (Ograh and Ayarkwa, 2020).

Selected respondents from the procurement team, other departments, and the general public were asked to answer a series of structured and unstructured questions about the role of sustainable procurement in Bikita rural development.

The questionnaires were designed with the research objectives and research questions as a reference. Because of its variety, simplicity, and ability to present a list of alternative responses from which respondents might choose, questionnaires were judged to be the ideal instrument for the study. Questionnaires were reasonably quick to collect information from, and they allowed for the collection of data from a wide section of the sample population. The surveys were valuable since the questions were standardized, making it easier to compare replies from different questionnaires. In this case, the use of questionnaires that allowed respondents to provide standardized responses was deemed appropriate. However, surveys have several drawbacks, such as respondents taking longer to respond and questionnaires being time-consuming. The researcher administered 44 questionnaires to the staff of all companies operating in Bikita rural area. The questionnaire consisted of close-ended questions.

3.6.2 Interview guide

Since buyers in all targeted companies operating in Bikita rural area are the ones in charge of purchasing, an interview guide was employed to acquire information from them. An interview was applied by the researcher since it allowed for speedy responses and first-hand knowledge. The information acquired during the interview assisted the researcher in gaining a thorough understanding of sustainable procurement challenges. Winston (1997) stated that interviews focus on the review of the issue and that they are the ideal strategy to use when using case studies.

3.7 Document Reviews

Document review involved the use of existing data. The researcher used documents such as the purchase orders and Internal Purchase Requisition (IPR). The advantage of document review was that information was readily available and it was easy to obtain it.

3.8 Data collection procedure

The researcher used primary data and secondary data so as to gather information. According to (Thrasher, 2014), data is the result of interpretation and construction; for example, in order to

provide comprehensive perceptions and meanings, the researcher must actively apply knowledge, intelligence, and intuition.

The responders were given thirty questionnaires by hand and fourteen were send via email. The researcher initially explained to the organization and the college why the study was being conducted. The respondents were given three weeks to complete the surveys before the researcher followed up with them.

3.8,1 Primary data

The use of a questionnaire with a blend of open ended and closed ended questions was a key source of data in this study. The researcher administered the questionnaires himself. The questionnaires were provided to respondents for three weeks to complete. In addition, extra information was acquired from the interview responses by doing a face-to-face interview.

3.8.2 Secondary data

Secondary data was gathered from a variety of sources, including the internet, websites, library textbooks, magazines, and procurement reports. It provided the researcher with more knowledge and a better grasp of the implementation of sustainable procurement in various parts of the world.

3.9 Data Presentation and Analysis Procedure

Data analysis aided in determining the extent to which sustainable procurement plays a role in rural development. The results from both the questionnaire and the interview guide were analyzed using the Statistical Package for Social Scientists (SPSS) software package and Excel. The data was analyzed using descriptive statistics. We conducted the analysis using inferential statistics such as percentages, mean, and standard deviation. Pie charts, bar graphs, and tables were used to convey both quantitative and qualitative data. Each diagram was accompanied by an explanation as well as connections to past research. The inferred results are utilized to compare with prior studies, and they aid in the development of best practices for implementing sustainable procurement.

3.10 Reliability and validity of data

3.10.1 Validity

The questionnaire was given a thorough examination by the researcher and his supervisor to guarantee its relevance, precision, and validity. To ensure validity, the sample chosen for this study was representative of the target population to which the results were to be applied. Thieart (2001) postulated that the main concerns with the validity are whether the measured data is relevant and precise, and the second is the extent to which we can generalize from those results.

3.10.2 Reliability

The questionnaire was created utilizing a step-by-step process that included revisions by the study supervisor to guarantee that field work was completed with high-quality data. Furthermore, literature from books and journals verified the author's quoted report's credibility as well as measures of coherence with the research topic. According to (Collis&Hussey, 2003) reliability concerns the consistency and the accuracy of the results obtained and it is achieved if the results can be repeated

3.11 Ethical considerations

Ethics, according to (Chimberengwa *et al.*, 2015), are the rules or standards of conduct that influence moral decisions about our behavior and interactions with others. The researcher was given permission to conduct the investigation by the BRDC. Respondents were assured by the researcher that their responses would be kept private and anonymous. All of the information gathered was to be utilized solely for the purpose of conducting the study.

3.12 Summary

The research methodology, research design, research instruments, and data presentation processes were all covered in this chapter. Multiple sampling and data collection methods (interview and questionnaire) were also utilized to supplement the limitations of either of the chosen procedures. The researcher identified ethical difficulties when conducting the questionnaire, assembling and

analyzing the results. The display, analysis, and discussion of data are discussed in the following chapter.

Chapter 4

Data Presentation, Analysis and Discussion

4.1 Introduction

This chapter mainly focuses on the presentation and analysis of gathered data. It presents the results that were obtained from the research instruments. The chapter serves to provide answers to the research question hence meeting the research objectives for this study. The data was presented using tables and graphs.

4.2 Response rate

The researcher distributed 44 questionnaires to Bikita rural district council, Bikita mining company, Bikita rural hospital, Bikita Mamutse Secondary school and Bambananga primary school and Mamutse supermarket shop. 38 were returned and 6 were not returned. The researcher also conducted interviews to 22 top management of these organizations since they are able to provide more details pertaining to the role of sustainable procurement on rural development.

Table 4. 1: Shows the distribution and respondents of the questionnaires

Business organizations	Number of respondents	Response rate
Bikita rural district council	9	8
Bikita mining company	9	8
Silveira mission hospital	9	8
Mutema supermarket shop	8	7
Mamutse Secondary and Bambananga primary school	9	7
Total	44	38

The researcher after obtaining the response, the questionnaires were examined and the results of the respondents are demonstrated on the table below:

Table 4.2: demonstrating the responses from questionnaires

Demonstrating the responses from questionnaires

	Frequency	Percent	Valid Percent	Cumulative Percent
Responses	38	86.4	86.4	86.4
Valid non-responses	6	13.6	13.6	100.0
Total	44	100.0	100.0	

Source: Primary data

Table 4.2 shown above demonstrates the responses from the questionnaires issued by the researcher. The response rate was therefore 86, 4% of the total number of respondents. This was a fairly high response rate, thus the results can be generalized to the total population. According to Saunders, Lewis, and Thornhill (2000), any response rate of more than 50% is representative enough to guarantee the findings' validity. According to this viewpoint, the study's response rate is typical of the entire population.

4.3Biographical data

The researcher agreed to select interview participants from the questionnaire participants, the researcher decided to mix the demographic data for both the questionnaire and interview participants. The demographic features of respondents, such as gender, occupation, work experience, and educational qualifications, are systematically presented below in the following order:

4.4 Gender of respondents

The research finding in respect to gender is systematically shown on figure 4.1

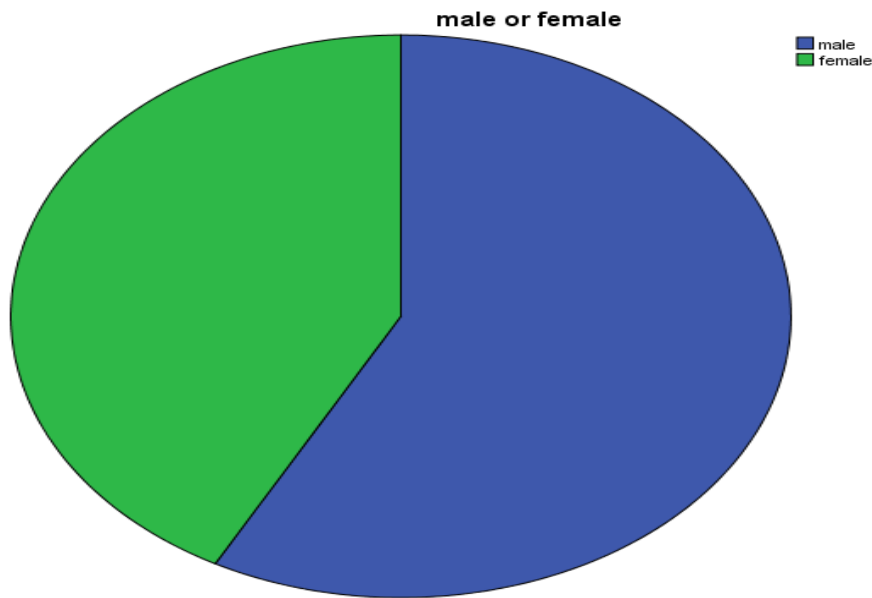


Figure 4.1 gender

Source: Primary Data

The gender distribution shows that males are dominating with a majority of 57.9% while females represented 42.1% of the respondents. This is likely an indicator that women are still struggling in their way to sustainable procurement compared to their counterpart the males. However, there was an equal involvement of both males and females and the researcher was able to get reliable information from the respondents without any favoritism.

4.4.1 Academic Qualifications of Respondents

The research findings in respect to respondents' academic qualifications are statistically depicted by diagram.

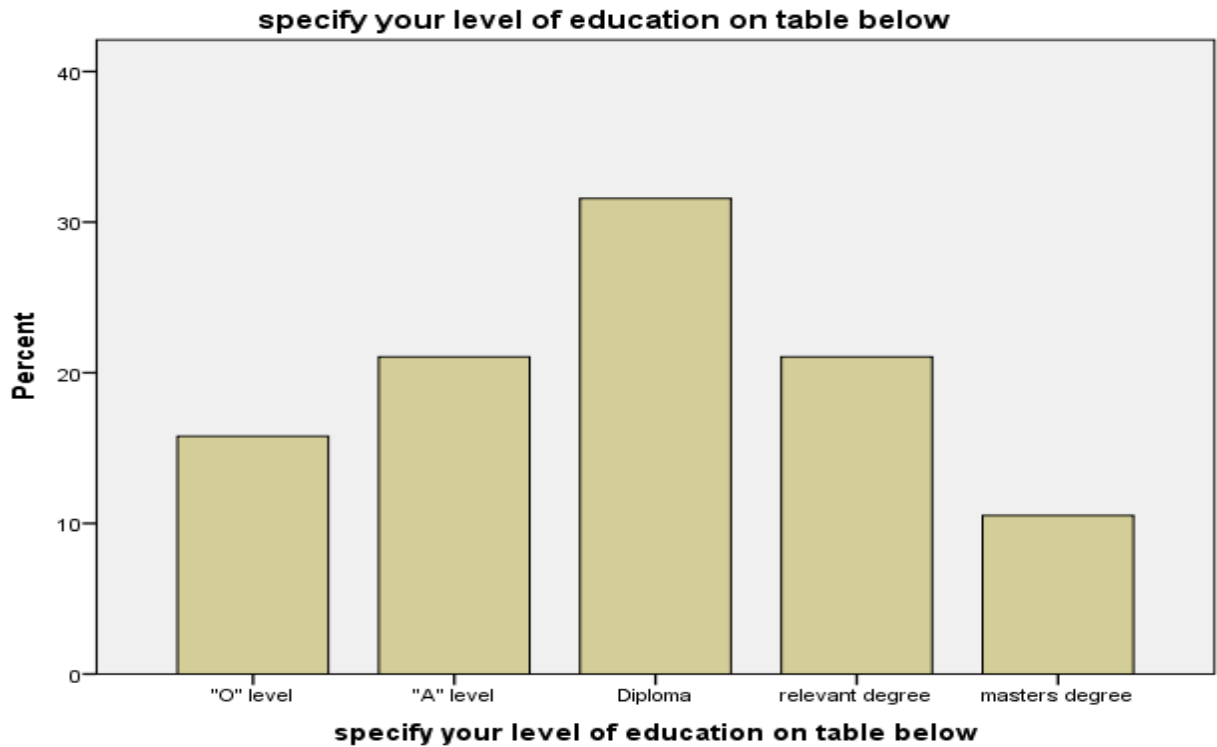


Figure 4.2: Academic qualifications

Source: Primary data

The research study indicates that a majority respondents of 32% had diplomas, followed by 21% who attained 'A' level qualification and 21% again of relevant degrees, 16% attained 'O' level qualifications and a minority of 10% had Master's degree qualifications. This shows that the respondents were literate, being able to interpret the questionnaire. The high literacy rate is important to Bikita rural supply chains area because people involved in procurement activities in those companies should be able to understand the role of sustainable procurement in their rural area.

This researcher's findings contradicted with Taban's (2011) findings in Southern Sudan on The Impact of Procurement Policy and Practices on Social Sustainability, which revealed that 68 percent of respondents had degrees or above, while the remaining had diplomas or lower.

4.4.2 Respondents years of service or working experience

The research findings in respect to working experience are statistically shown in Figure 4.4 below. Selection and distribution strategy of the questionnaires was purposively crafted with the view of

soliciting rich information from experienced people and that is why the “employment period” was included in the questionnaire.

Figure 4.3 shows the length of relevant experience



Figure 4.3: Working experience

Source: Primary data

The study findings with respect to working experience of respondents, it shows that 21.1% of the respondents have 6 to 10 years working experience in the council, 26.3% of the respondents have been in the sector for a period of 1 to 5 years, 7.9% for a period of less than 1 year while 44.7% of the respondents have been working in the council for over 10 years. This shows that most of the

respondents understand the procurement practices that were used by Bikita rural supply chains companies and work experience portrays the knowledge one has about the industry.

4.4.3 The respondents work position in all organizations research conducted

The study findings in regard to work position are systematically shown in Figure 4.4 below



Figure 4.4: Position or designation held in organization

Source: Primary data

The findings of the study in regard to work positions revealed that 12% of the respondents were procurement managers, 32% were assistant buyers, 10% bursars and accountants, 21% were councilors and 25% were head of departments. The respondents selected by the researcher were more experienced with procurement activities in all organizations chosen by the researcher and they were all involved in activities regarding the development of that area through sustainable procurement. This helped in validating the reliability of the study findings of this study.

4.5 Research questionnaire Analysis

The examination was completed focusing on the objectives of the research. The researcher divided each question into many questions in order to achieve more accurate answers.

4.5.1 Analyzing how environmental issues affect rural development in sustainable procurement

The respondents were asked on how environmental issues affect rural development in sustainable procurement in Bikita rural supply chain. The researcher required the respondents to rank the environmental issues concerned on a five point Likert scale where there is points 5,4,3,2 and 1 represented ‘strongly agree’, ‘agree’, ‘Not sure’, ‘disagree’ and ‘Strongly dis-agree’ respectively. The environmental issues measured by the researcher includes removal and recycling of products, natural resource utilization, commitment to ISO 14001 and level of emissions (toxic gases). The results of the respondents shown on Figure 4.5 below

Descriptive Statistics of environmental sustainable procurement issues

	N	Minimum	Maximum	Mean	Std. Deviation
Natural Resource Utilization	38	1.00	5.00	3.2105	1.25543
Level of industrial emissions (toxic gases)	38	1.00	5.00	3.9474	1.16125
Commitment to ISO 14001	38	1.00	4.00	2.8421	.91611
Removal and recycling of materials	38	1.00	3.00	2.0526	.80362

Validity N (listwise)	38				
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Table 4. 3 Environmental sustainability issues on rural development

Source: primary data

The gathered information of the researcher with respect to the natural resource utilization on environmental sustainability to rural development in Bikita rural area. Table 4.3 showed a mean of 3.2105 and standard deviation of 1.25543. The results showed that majority of respondents disagreed that natural resource utilization concept in business organizations plays a role on rural development. According to Lăzăroiu et al., (2020), environmental concerns have led to the development of a new concept of SM with the primary goal of reducing the manufacturing sector's environmental effect. Manufacturing industries are responsible for a large portion of the world's resource use and trash production. In 2014, it accounted for about 20% of global total fuel combustion. ('Environmental Management Systems Meeting Stakeholder Expectations,' 2015) stated in their study that in order to develop sustainably, transformation is required in industrial processes, resource kinds and amounts used, waste management, emission control, and final products created.

Figure 4.5 also shows that the majority of respondents agreed that there business organizations are not registered and committed to ISO 14001 policies for rural development in environmental sustainability with a mean of 2, 8421 and standard deviation of 0.9161. So there is need to introduce and follow the following aspects of sustainable environmental procurement under ISO 14000. (Zimon, Madzik and Sroufe, 2020) stated that the environmental policy is the driving force behind an organization's environmental management system, which allows it to maintain and maybe improve its environmental performance. DNV GL (2015) went on to say that this policy should show senior management's commitment to complying with applicable legal and other obligations, preventing pollution, and consistently improving. Internal and external stakeholders should be able to understand the environmental policy, which should be evaluated and amended on a regular basis to reflect changing conditions and facts.

Current government policy, according to Wilkinson and Kirtugo (2009), offers little to encourage the public sector to consider the carbon emissions connected with procurement. None of the National Indicators pertaining to climate change, for example, include procurement activity directly. As a result, the bulk of public sector organizations have paid little attention to lowering procurement-related emissions. The majority of respondents agreed that in Bikita rural area there is lower level of industrial emissions contributing to the role rural development in sustainable procurement with a mean of 3.947 and a standard deviation of 1.161. This research showed that there is less air pollution and clean air in this rural area.

Purchasing products with recycled content act as an important part to reduce, reuse, and recycle life cycle. The demand for recycled materials and recycling is fueled by the purchase of recycled-content products. When manufacturers employ recycled materials rather than raw materials, they contribute to reduce manufacturing pollution, conserve natural resources, and cut greenhouse gas emissions. Making recycled products also helps to advance green technologies and build local economies, all while encouraging a sustainable community, business, and personal lifestyle (Kalubanga, 2012). The majority of respondents strongly agreed that packaging, removal and recycling products is considered as greatly important issue in sustainability for rural development with a mean of 2.0526 and a standard deviation of 0.804

4.5.2 Assessing how social sustainability issues affect rural development in procurement

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
human rights and core labor standards	38	1.00	5.00	2.0789	1.21659
equality on gender, race etc.	38	1.00	5.00	3.8684	1.11915
fair and ethical trade	38	1.00	5.00	2.4211	1.26559
Valid N (listwise)	38				

Table 4. 4 Sustainable procurement social issues on rural development

Source: primary data

Table 4.4 illustrated that majority of respondents strongly dis-agreed that human rights and core labor standards are respected in business organizations to ensure rural development in Bikita area with a mean score of 2.079 and a standard deviation of 1.2171. The results showed that business organizations in Bikita rural area exploit the human rights and they are not aware on health and safety of their workforce. Employees are the internal entity of the corporation, according to (Trevio-Lozano, 2021). Basic human rights, such as health and safe working conditions, are sought by workers. They demand that the corporation protect their health by limiting the use of hazardous chemicals in manufacturing and employing safety devices and practices.

Research findings shows that majority of respondents dis-agreed that there is fair and ethical trading practices in business organizations for rural development with a mean of 2.4211 and a standard deviation of 1.269. The results indicated that many business organization operates on unethical and unfair procurement practices that limit the level of rural development As firms are increasingly held accountable for how they treat their suppliers (Lambrechts, 2021), it's apparent that the focus on ethical and sustainable behavior extends beyond the organizational level to the supply chain level. As a result, in order to become more sustainable, businesses must work together with their supply chain partners (Morales-Contreras *et al.*, 2019). This is mirrored in the growing interest in Sustainable Supply Chain Management (SSCM) as a subject of study, according to Ahi and Searcy (2013), where ethical and sustainable sourcing are major topics under examination. Lower pricing acquired through global sourcing in underdeveloped and/or emerging countries may be an indicator of unethical behavior in a globalized world, as these countries have less social and environmental limitations (Thrasher, 2014).

A majority of respondents dis-agreed that equality on gender, race and dis-ability in social sustainable procurement contributes much in regard to rural development with a mean of 3.869 and standard deviation of 1.112. As advocated by Fernandes, Sampaio, Samairo, and Truong (2017), the procurement function can promote gender equity and women's empowerment by implementing procedures that benefit minority firms, particularly those owned by women. Kirton (2013) highlighted that using an evaluation preference that awards bonus points to minority entrepreneurs is a straightforward and simple technique. A commitment to achieve gender equality where it matters most – in policies directing the flow of economic resources – is reflected in the

gender component to public procurement and trade concerns. However, there is still a gap between de jure and de facto gender inclusion in trade and public procurement policies, as well as in the efficacy of these efforts to accomplish the declared goal of gender equality (Danish Energy Management, European Union Energy Initiative and ACP-EU Energy Facility, 2007).

4.5.3 Evaluating the role economic sustainability issues in procurement on rural development

The respondents were asked if they consider the role of economic sustainable procurement criteria on rural development in Bikita rural area supply chains. The results of the respondents are shown

Table 4. 5 Economic sustainability issues on rural development

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Supporting procurement from local suppliers	38	1.00	5.00	2.6842	1.35777
Quality-ISO 9001 installed and product performance	38	1.00	5.00	3.5263	1.05873
efficiency on inventory level	38	1.00	5.00	3.3684	1.12517
Valid N (listwise)	38				

Source: Primary data

Sustainable procurement practices can also support the development of local entrepreneurs by requiring that a certain percentage of goods and services be locally sourced. The study findings

with respect to the support of procurement from local suppliers in sustainable procurement sustainability, results showed that majority of respondents agreed that there organizations are not willing to procure materials from local suppliers with a mean of 2.684 and standard deviation of 1.358. Interviewers argued that this is due to poor quality and high costs. According to Seuring and Müller (2008), firms have devised supplier assessment schemes that include environmental and social factors of evaluation since competition is fierce. Supplier self-evaluation is one of these initiatives, in which suppliers must explain how they are considering environmental and social issues in their operations.

(Quayle, 2006) argued that before purchasing products from a company, customers consider pricing and quality, firms' production of low-cost, high-quality goods is dependent on the price and quality of the products they receive from their suppliers. In other words, Tay et al., (2015) argued that customers have begun to consider the brand's long-term viability as well as the price and quality of the product they will purchase. The majority of respondents were not sure that business organizations in Bikita rural area are offering goods and services of higher quality approved by ISO 9001 with a mean of 3.527 and standard deviation of 1.0587and, 29% agreed. The results indicated that business organizations in Bikita are offering goods of higher quality approved by ISO 9001 and there is less complaints on their performance

A majority of respondents agreed that business organizations in Bikita rural area manage their stock level more efficiently for rural development with a mean of 3.369 and standard deviation of 1.126. According to (Mcharry and Defra, 2006), recent advances in the field of inventory management have concentrated on information exchange and communication technology, which, in turn, have enabled fluid collaboration between business partners such as manufacturers and their suppliers. Proforest (2020) went on to say that accurate information sharing allows suppliers to keep proper stock levels to meet their customers' needs and aim for adequate stock velocity. When searching for sustainable storage, the volume of scholarly material collected shows this. Adopting sustainable warehousing principles has a significant impact on an organization's ability to meet its long-term goals.

4.5.4 Assessing the achievements made buy the business organizations operating in Bikita Rural area to bring rural development

The researcher asked the respondents to correspond to achievements made by their business organizations through sustainable procurement to bring rural development in Bikita Rural Area. The results of the respondents are shown below

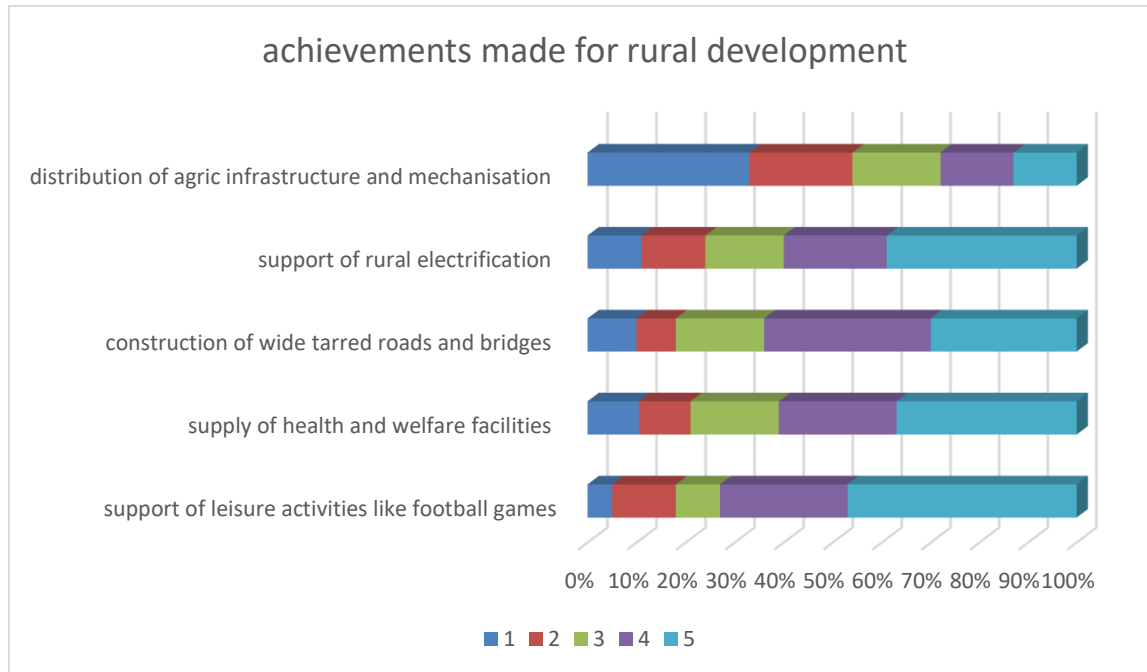


Figure 4.5 Achievements made by various organizations in sustainable procurement to bring rural development

Source: Primary data

Agricultural production supports animal husbandry and wellbeing by combining optimal environmental practices, maintaining biodiversity, and contributing to the conservation of natural resources. As proposed by (Bucea-Manea-țoniș et al., 2021), a gap in this field has been identified in the ways by which agriculture can comply with and respect consumers' desires for healthy products.

As illustrated on figure 4.5, 33% of the respondents strongly dis-agreed that their business organizations achieved a lot on distribution of agricultural infrastructure and mechanization for rural development. 21% dis-agreed, 18% were not sure, 15% agreed and 13% strongly dis-agreed.

The results showed that the cumulative frequency majority of 54% dis-agreed that business organizations are distributing agricultural infrastructure and mechanization. Lingegård *et al.*, (2021) revealed that both infrastructure projects were constructed in a context where political interests heavily influenced their decision-making, according to half of the interviewees. Interviewees 6, 3 and 7 mentioned, respectively, that often, “decisions on infrastructure answer more to political rather than technical reasons”; “preparation processes are strongly contaminated by the political aspect” and “political aspirations” are incompatible with “securing sustainability aspects”; and there is no compliance “if there is no political will to integrate different sustainable factors.

The research findings shows that 34% agreed that their business organizations achieved a lot in construction of tarred roads, roads pavements and bridges to develop Bikita rural area through sustainable procurement, 30% strongly agreed, 18% were not sure, 8% dis-agreed while 10% strongly dis-agreed. Trevino-Lozano (2021) hypothesized that developers provided direct and indirect jobs in his paper Sustainable Public Procurement and Human Rights: Barriers to Deliver on Socially Sustainable Road Infrastructure Projects in Mexico. Local workers were hired to build the road, and local suppliers provided food and beverages to company employees on the job site, giving local families new sources of income. Broesterhuizen *et al.*, (2014) postulated that local engineering students received professional training through internship programs in the company. Local residents' living standards were also taken into account in terms of economic accessibility to road services, local mobility, and disaster resilience, such as flooding.

Pauser, Fuente and Djerma (2015) suggested that supply to remote settlements with low income is not economically sustainable, which is one of the major roadblocks to rural electrification. As a result, financial sustainability is a critical, yet difficult, part of rural electrification projects and initiatives. Figure 4.5, shows that, 39% strongly agreed that their business organizations achieved a lot in the support of the process of rural electrification to develop Bikita rural area through sustainable procurement, 21% agreed, 16% were not sure, 13% dis-agreed while 11% strongly dis-agreed. (Danish Energy Management, European Union Energy Initiative and ACP-EU Energy Facility, 2007) added that the central government has a significant role in the majority of rural electrification business models. The federal government must enact enabling legislation and regulations, as well as provide support to those working to enhance and expand rural electrification

central government has a significant role in the majority of rural electrification business models. The federal government must enact enabling legislation and regulations, as well as provide support to those working to enhance and expand rural electrification (Broesterhuizen *et al.*, 2014).

In the healthcare sector, there are important concerns regarding green policies and procurement, the impact of products on the environment, inconsistent organizational strategies on GPP, a high value of cost or benefits balance of green products inefficient supplier value-chain, governmental law and nudges on GPP. A cumulative majority of 61% of the respondents showed that their business organizations achieved a lot to supply health and welfare facilities in hospitals and clinics to improve rural development program in Bikita area. 37% strongly agreed, 24 % agreed, 18% were not sure, 10% dis-agreed same as with those who strongly agreed.

Active purchasing, according to Gwati (2014), aims to increase quality, equity, and efficiency by taking into account the population's health needs and the interventions that best satisfy those needs with the available resources. BUZAN (2016) added that it also covers the right balance of therapeutic, promotional, preventive, and rehabilitative services, as well as how and from whom they should be obtained. The formulation of a plan to revive the health sector in the shape of the 100-day plan began with the founding of the Government of National Unity in 2009. The strategy recognized that health financing is critical to the functioning of health systems in terms of equity, efficiency, and service quality. The conceptual framework of the plan was to restore basic health services and to provide social safety nets to vulnerable groups to access health services, thereby consolidating the policy of universal access to primary health care services (Bastas and Liyanage, 2018).

The findings of the research in regard to achievements made by the business organizations to support of leisure activities, supporting of cultural activities and funding of sports facilities through sustainable procurement for rural development. 47% strongly agreed, 26% agreed, 9% were not sure, 13% dis-agreed while 5% strongly dis-agreed. According to (Mega-Sporting Events Platform for Human Rights, 2017), sports events act as a catalyst for, or accelerate, previously planned urban development and associated building works, sports, and the provision of new or upgraded sporting facilities, and the hosting of MSEs may offer a range of social goods. Community amenities, new public spaces, or the provision of low-cost housing, post-event, or urban regeneration (possibly achieved through land remediation), for example, may be critical

components of a winning bid. Bradshaw (2019) added that the procurement process was also subjected to independent assurance as part of the overall Games by a Sustainability Commission, whose mandate included tracking all stakeholder complaints, including human rights issues locally and in worldwide supplier chains.

4.6 Data Analysis

Table 4.6 below shows the correlation between the dependent and independent variables
Correlations

		construction of wide tarred roads and bridges in sustainable procurement for rural development	the role of Quality ISO (9001) on rural development
Spearman's rho	construction of wide tarred roads and bridges in sustainable procurement for rural development	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	38
	the role of Quality ISO (9001) on rural development	Correlation Coefficient	.924**
		Sig. (2-tailed)	.000
		N	38

Zscore: level of emissions (toxic gases) on rural development	Correlation Coefficient	.901**	.901**
	Sig. (2-tailed)	.000	.000
	N	38	38
Zscore(levelofemisions) level of emisions (toxic gases) on rural development	Correlation Coefficient	.901**	.901**
	Sig. (2-tailed)	.000	.000
	N	38	38

Correlations

		Zscore: level of emisions (toxic gases) on rural development	Zscore(levelo femisions) level of emisions (toxic gases) on rural development
Spearman's rho	construction of wide tarred roads and bridges in sustainable procurement for rural development	Correlation Coefficient	.901
		Sig. (2-tailed)	.000
		N	38
		Correlation Coefficient	.901**

the role of Quality ISO (9001) on rural development	Sig. (2-tailed)	.000	.000
	N	38	38
Zscore: level of emissions (toxic gases) on rural development	Correlation Coefficient	1.000**	1.000**
	Sig. (2-tailed)	.	.
	N	38	38
Zscore(level of emissions) level of emissions (toxic gases) on rural development	Correlation Coefficient	1.000**	1.000**
	Sig. (2-tailed)	.	.
	N	38	38

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

Since the coefficient of 0.01 shown above is less than 0.05, it means that the sustainable procurement is of less significant to rural development as shown by the Spearman's analysis above.

4.6 Summary

This chapter looked at data presentation, interpretation, analysis and discussion. The next chapter will focus on summary, conclusions and recommendations of the study.

Chapter 5

Summary, Conclusions and Recommendations

5.1 Introduction

The previous chapter put much more focus on data presentation, analysis and discussion of research findings. This chapter will focus on summary of the research findings, conclusions and recommendations.

5.2 Summary of the Research findings

The main purpose of the research was to analyze the role of sustainable procurement in rural development, a case of rural supply chains in Bikita. The research project managed to state environmental, social and economic issues in sustainable procurement that may lead to rural development as well as achievements made by various companies through sustainable procurement to rural development.

In order to attain objectives of the research, the research appraised significant theoretical and empirical literature to construct the precarious apprehensions on the issues that impedes the role of sustainable procurement on rural development. The researcher used questionnaire and interview guide to collect data regarding the role of sustainable procurement in rural areas. Data was collected from working staff of various organizations operating in Bikita rural area and a high response rate of 86% was achieved. The research findings were presented, analyzed and discussed in chapter 4.

The research findings discovered that a majority of respondents indicated that they ensure the natural resource utilization of water, forestry and minerals in environmental sustainability through procurement for rural development. However, on ISO 14001 the majority of respondents were not sure that their business organizations accept and committed to that policy. On removal and recycling of products the majority of respondents agreed that their business organization considers it while the minority of respondents dis-agreed. In regard to social sustainability the majority of

respondents dis-agreed that their business organizations ensure fair and ethical trading in procurement activities to ensure rural development. The study also revealed that the majority of respondents dis-agreed that their business organizations buying from local suppliers.

The research revealed that majority of 33% and 21% dis-agreed and strongly dis-agreed that their business organization achieved the distribution of agricultural infrastructure and machinery for rural development through sustainable procurement due to political reasons. The study also revealed as the majority of 37% agreed that their organizations are supplying drugs and medicines to improve health and welfare facilities for rural development, while the minority of 10% dis-agreed. The research also revealed that cumulative majority of 73% agreed that their business organizations are supporting leisure activities and sports with finance and equipment's whilst the cumulative minority of 18% dis-agreed.

5.3 Conclusion

The comprehensive objective of the research was to determine the role of sustainable procurement in rural development. The research findings of the student indicated that business organizations established in Bikita considers the role of sustainable procurement but not as much as the level expected. In all aspects of sustainable procurement there is certain areas they focus with and some areas they put less focus. For instance, on environmental sustainability results shows that there focus is more on reducing the level of emissions and, removal, packaging and recycling of products unlike on their commitment to ISO to 14001 and Natural Resource Utilization. Bikita mining company is utilizing al resources like minerals, water and forestry without appropriate conservation measures of those resources due to financial and economic instability.

In regard to social sustainability in procurement, the researcher also concludes that business organizations like Bikita mining company, Bikita rural hospital and schools put more focus on procurement of human and core labour standards for rural development to ensured health and safety values of employees required by trade unions and other labor organizations. However, procurement activities are not fair and ethical to achieve sustainability due to corruption, bribes and kickbacks from suppliers and lack of transparents and auditing procedures. On economic sustainability, the results showed that organizations like schools, supermarkets and mining company are not in a position to promote Indigenization and Empowerment Policy by supporting

local suppliers. Their focus is more on importing due to poor quality and expensive of goods produced by local suppliers. The efficiency of inventory is at moderate level as majority of the respondents replied that they were not sure. The inventory level efficiency is less due to low demand of goods and services as the consumers lacks enough finance to purchase goods due to economic hardships.

The study also concludes that business organizations achieved lot for rural development Bikita rural area in areas like infrastructural development on road construction, road pavements and bridges, supply of electricity in business centers and rural homes as well as supplying of health and medical facilities. All of these things achieved improved living conditions of local people due to easier transportation of goods and services, use of electricity as a source of energy. Through sustainable procurement Bikita mining company also support local people with football kits, transport and finance for sports and other leisure activities. However, on support to agricultural infrastructure and machinery, there is corruption and political influences which result for it to be less successful. Other respondents argued that support on agricultural infrastructure and machinery is due to drought conditions found in that area, so it's not necessary for companies to waste their finance investing in agricultural activities.

5.4 Recommendations

Using the conclusions above, the researcher is recommending business organizations operating in Bikita rural area to put their commitment on ISO 14001. The great concern is on Bikita mining company that all policies set by this company should be related to the priorities of the ministry of environment and they should obtain certificates certified by Environmental Management Agency (EMA) and their decision should be based and contributing towards the improvement of environment sustainability in Supply. This will bring a better effect to rural development

Business organization in Bikita rural area should put their commitment in procurement activities by having policy statements that exploring in various conditions to trade in as fair and ethical in a good manner as possible so as to help deliver social sustainability for rural development. The great concern is on BRDC, Bikita rural hospital and government schools like Mamutse secondary school to management team to ensure that all relevant staff and departments understand this decision has been taken and how it may affect both rural development and their work.

The study also recommends on procurement of agricultural infrastructure and mechanizations by saying that business organization in Bikita rural area should adopt Corporate Social Responsibility (CSR) by agreeing and joining together to construct more dams for irrigation and irrigation equipments should be supplied in order to promote food industry and supporting our economy and brings rural development.

The study also recommend that business organization operating in Bikita rural area especially Bikita mining company and Mutema supermarket to train their staff and offering them skills about sustainable procurement and how to use sustainable procurement for rural development. Staff should be aware of important of sustainable procurement like company good reputation and perceived costs.

The study recommends that all procurement departments of all business organizations involved in Bikita rural area should meet and integrate to sign agreements of mutual understanding on sustainable procurement practices that brings rural development.

The research also recommend the government to enforce the Indigenization and Empowerment Policy that promote local companies. Strategies should be implemented to improve procurement programs by enforcing big organizations like Bikita mining company, schools and N Richard super market to support local suppliers. Supplier development should be used to small suppliers operating in that rural area and this will meet sustainable procurement goals and rural development.

The research also recommends several business organizations to ratify environmental legislation and policies to guide the utilization of natural resources like minerals, soil, and forestry. For Bikita mining company to meet the procurement sustainable goals, they should put their money in corporate social responsibility as a sign of compensating the exhaustion of natural resources. The company should develop roads, support sports activities and safe water for rural development.

5.5 Suggestion for further research

The research project was proposed to evaluate the role of sustainable procurement in rural development using the case of Bikita rural supply chains. As a result, this research is by no means comprehensive, there is need to carry other researches regarding the role of sustainable procurement in urban and town development. This current study is based on the case study of

Bikita rural area, other researchers should conduct this similar research using other rural areas as case studies across the country to check if similar results can be achieved for more generalization of the research.

References

Bastas, A. and Liyanage, K. (2018) 'ISO 9001 and supply chain integration principles based sustainable development: A Delphi study', *Sustainability (Switzerland)*, 10(12). doi: 10.3390/su10124569.

Bradshaw, S. (2019) *Sustainability and Gender Equality, Environment and Sustainability in a Globalizing World*. doi: 10.4324/9781315714714-14.

Broesterhuizen, E. *et al.* (2014) 'Sustainable procurement for port infrastructure projects', *Topics in Safety, Risk, Reliability and Quality*, 24(January), pp. 11–26. doi: 10.1007/978-3-319-02493-

6_2.

Bucea-Manea-țoniș, R. *et al.* (2021) ‘Green and sustainable public procurement—an instrument for nudging consumer behavior. A case study on romanian green public agriculture across different sectors of activity’, *Sustainability (Switzerland)*, 13(1), pp. 1–25. doi: 10.3390/su13010012.

BUZAN, Y. N. S. B. G. (2016) ‘HANDBOOK ON Integration Sustainability Criteria Paints and Varnishes.’

Chimberengwa, P. *et al.* (2015) ‘Procurement Processes at Gwanda Provincial Hospital, Matebeleland South Province, Zimbabwe, 2012; a Descriptive Cross Sectional Study’, *Austin J Public Health Epidemiol. Austin J Public Health Epidemiol*, 2(2), pp. 1018–1.

Council, N. (2021) *Sustainable Public Procurement and the Sustainable Development Goals, Sustainable Public Procurement and the Sustainable Development Goals*. doi: 10.6027/nord2021-010.

Danish Energy Management, European Union Energy Initiative and ACP-EU Energy Facility (2007) ‘Thematic Fiche no . 7 Sustainability - Business Models for Rural Electrification’, (7), pp. 1–22.

DNV GL (2015) ‘ISO 14001:2015 Enviromental Managment Systems – Requitements’, *Guidance Document*. Available at: [https://www.dnv.com/se/Images/ISO 14001 2015 GUIDANCE DOCUMENT_tcm37-56526.pdf](https://www.dnv.com/se/Images/ISO%2014001%202015%20GUIDANCE%20DOCUMENT_tcm37-56526.pdf).

Flora, C. B. (2009) ‘Unfolding Webs: The Dynamics of Regional Rural Development’, *Rural Sociology*, 74(4), pp. 632–634. doi: 10.1526/003601109789864035.

IFAD (2016) *Rural Development Report 2016*. Available at: <https://www.ifad.org/ruraldevelopmentreport>.

International Institute for Sustainable Development (2016) ‘The Role of Public Procurement in Deploying Sustainable Infrastructure’, (November). Available at: www.iisd.org.

ISO (2017) ‘ISO 20400:2017 (E) - Sustainable procurement - Guidance’, *International Standard Organization*, 2017, p. 62.

- JICA (1996) 'Effective Approaches for Rural Development', *Approaches for Systematic Planning of Development Projects*, pp. 173–229.
- Johnsen, T., Howard, M. and Miemczyk, J. (2014) *Purchasing and Supply Chain Management*, *Purchasing and Supply Chain Management*. doi: 10.4324/9781315819211.
- Kalubanga, M. (2012) 'SUSTAINABLE PROCUREMENT: Concept, and Practical Implications for the Procurement Process.', *International Journal of Economics and Management Sciences*, 1(7), pp. 01–07.
- Kirton, R. M. (2013) 'Gender, trade and public procurement policy: Kenya, India, Australia, Jamaica.' Available at: <http://thecommonwealth.org/sites/default/files/news-items/documents/Gender, Trade and Public Procurement Policy.pdf>.
- Lambrechts, W. (2021) 'Ethical and Sustainable Sourcing: Toward Strategic and Holistic Sustainable Supply Chain Management', (November 2020), pp. 402–414. doi: 10.1007/978-3-319-95867-5_11.
- Lingegård, S. *et al.* (2021) 'Sustainable public procurement in large infrastructure projects—policy implementation for carbon emission reductions', *Sustainability (Switzerland)*, 13(20). doi: 10.3390/su132011182.
- Mcharry, J. and Defra, F. (2006) 'The impact of Procurement Policy and Practice on Social Sustainability', pp. 1–31.
- Morales-Contreras, M. F. *et al.* (2019) 'Evaluating sustainable purchasing processes in the hotel industry', *Sustainability (Switzerland)*, 11(16). doi: 10.3390/su11164262.
- OECD (2011) 'Public Procurement for Sustainable and Inclusive Growth', *Oecd Publishing*, pp. 1–18.
- OECD (2019) *Reforming ISSSTESON's Public Procurement for Sustainability*.
- Ograh, T. and Ayarkwa, J. (2020) 'Using Fair-trade to Advance Sustainable Procurement among Small-Scale Farmers in Ghana : Challenges and Prospects', (September).
- Pain, A. and Hansen, K. (2019) 'What is rural development?', *Rural Development*, pp. 1–33. doi: 10.4324/9781315773643-1.

Pauser, D., Fuente, K. and Djerna, M. (2015) ‘Sustainable Rural Electrification Plans’, *GSDR 2015 Brief*, (March), pp. 1–6.

Pheasey, D. (2016) *Supply Management, A Practical Introduction to Supply Chain*. doi: 10.1201/b21595-5.

Proforest, A. (2020) ‘Gender Equality Guidance Paper for Responsible Sourcing Projects’, (May), pp. 1–9.

Quayle, M. (2006) *Purchasing and Supply Chain Management: Strategies and Realities Hershey • London • Melbourne • Singapore*. Available at: <http://www.eurospanonline.com>.

Stobbe, M. (2008) *Supply Chain and Supply Chain Management, Logistic Optimization of Chemical Production Processes*. doi: 10.1002/9783527622771.ch1.

‘THE IMPACT OF SUSTAINABLE PROCUREMENT ON BUILDING THE COMPANY ’ S’ (2017), (February).

Thrasher, R. (2014) ‘On Fairness and Freedom : The WTO and Ethical Sourcing Initiatives’, (May), pp. 1–15.

Treviño-Lozano, L. (2021) ‘Sustainable public procurement and human rights: Barriers to deliver on socially sustainable road infrastructure projects in mexico’, *Sustainability (Switzerland)*, 13(17). doi: 10.3390/su13179605.

UN DESA (2021) ‘World social report: Reconsidering rural development’, *World Social Report*, pp. 1–172.

UNECE, U. N. E. C. for E. (2007) ‘Approaches in selecting a core set of indicators’, *Handbook of Rural Households’ Livelihood and Well-being: Statistics on Rural Development and Agriculture Household Income*, pp. 143–156. Available at: http://www.fao.org/fileadmin/templates/ess/pages/rural/files/2.3_Chapter_VII_Approaches_In_Selecting_A_Core_Set_Of_Indicators.pdf.

Zimon, D., Madzik, P. and Sroufe, R. (2020) ‘The influence of ISO 9001 & ISO 14001 on sustainable supply chain management in the textile industry’, *Sustainability (Switzerland)*, 12(10), pp. 1–19. doi: 10.3390/su12104282.

BINDURA UNIVERSITY OF SCIENCE AND EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF ECONOMICS

Questionnaire

My name is Haukozi Mafia T, a final year student at Bindura University doing a Bachelor of Commerce Honors Degree in Purchasing and supply. I am carrying out a research project on the topic entitled: The role of sustainable procurement on rural development, a case of rural supply chains in Bikita, Zimbabwe. I would like your cooperation by answering questions from this questionnaire truthfully. The research is purely for academic purpose and your response are to be kept with confidentiality and then researcher wishes to thank you in advance for your valuable time to complete this questionnaire

Section A: Personal Details

Please kindly provide the following information (tick where proprietary)

1. Gender

Female	
Male	

2. Age group in years

18-30	
31-45	
46-60	
61- above	

3. Level of education

Degree and above	
Diploma	
Certificate	

A 'level	
----------	--

4. Length of employment period in the organization (years)

0-10	
11-15	
16-20	
21-above	

5. Name of organization and position held

.....

Section (B): Sustainable procurement issues on rural development

6. To what extent does your organization agree on the following environmental sustainability issues on rural development in procurement? Rate as below

Environmental issues	Strongly Agree (SA)	Agree (A)	Not sure (N)	Dis-agree (D)	Strongly dis-agree (SD)
Natural resource utilization e.g water, forestry, minerals etc.	5	4	3	2	1
Acceptance of the environment management system such as ISO 14000	5	4	3	2	1
Level of emissions (toxic gases)	5	4	3	2	1
Packaging, reuse and recycling	5	4	3	2	1
Level disposal of solid waste through registered contractors	5	4	3	2	1

7. To what extent does your organization agree on the following social sustainability issues on rural development in procurement? Rate as bellow

Social issues	SA	A	N	D	SD
Human rights and core labour standards	5	4	3	2	1
Fair and ethical trade	5	4	3	2	1
Abolition to child labour	5	4	3	2	1
Equality on gender, race and disability	5	4	3	2	1
Elimination of child labour	5	4	3	2	1

8. To what extent does your organization agree on the following economic sustainability issues on rural development in procurement? Rate as below

Economic issues	SA	A	N	D	SP
Quality on ISO Quality installed , product performance and reliability	5	4	3	2	1
Procuring from local suppliers / local enterprises	5	4	3	2	1
Efficiency on inventory level	5	4	3	2	1
Responsiveness on production flexibility	5	4	3	2	1

9. To what extent does your organization agree on the achievement of the following issues on rural development through sustainable procurement? Rate as below

Rural development issues	SA	A	N	D	SD
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Distribution of agricultural infrastructure and mechanization	5	4	3	2	1
Infrastructural development on road pavements, construction of bridges and wide tarred roads	5	4	3	2	1
Support on rural electrification	5	4	3	2	1
Supply of health and welfare facilities like drugs, gloves and machines	5	4	3	2	1
Supply of educational facilities like furniture, computers and construction of class blocks	5	4	3	2	1
Construction of dams for clean water supply, swimming and fishing activities	5	4	3	2	1
Supporting of leisure activities, supporting of cultural activities ,funding of sports facilities	5	4	3	2	1

Thank you for your cooperation, valuable time and information

INTERVIEW GUIDE

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF ECONOMICS

Interview schedule

The interview will take about 30 minutes

1. Do you use sustainable procurement criteria in your organization to develop rural areas? If no have you ever considered it? Do your suppliers consider sustainable procurement policies to develop rural areas?
2. What are the achievements made by your organization to develop this rural area through sustainable procurement?
3. What are the ways used by your organization for waste management and reducing air pollution to achieve environmental sustainability?

Appendix 4: Application letter to carry out the research

House No 6117

Southlea Park, Waterfalls

Harare

07 May 2022

RE: Application for approval to conduct research project

I am a final-year Bachelor of Commerce Honors Degree in Purchasing and Supply student at Bindura University of Science Education. I respectfully request your permission to do my research at your company in order to improve my research.

Your cooperation is greatly appreciated

Yours Faithfully

Haukozi Mafia T