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AN EXAMINATION OF THE EFFECTS OF BOTSWANA'S VEGETABLE IMPORTATION BAN ON ECONOMIC DEVELOPMENT

BY

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Abstract

Over the last 3 years, the Botswana Government has implemented measures that will enable its economy to recover from the ripple effects of the Covid-19 pandemic. It has been reported as per the Botswana Weekend post that “Recent figures from Statistics Botswana show that on an annual basis local retailers import vegetables worth more than P100 million. Figures further indicate that for the month of September 2021, retailers spent around P24 million in importing vegetables from farmers outside Botswana. The Ministry of Agriculture announced that in its bid to ensure that food retailers spent chunk of money in buying from local farmers, government decided to ban imports of tomatoes, carrots, beetroots, potatoes, cabbage, lettuce, garlic, onions, ginger, turmeric, chilli peppers, butternut, water melons, sweet peppers, green mealies and fresh herbs with effect from the 1st of January 2022; and added that restrictions on the imports will be reviewed every two years. The purpose of this study lies on assessing the degree to which the import ban has affected prices of commodities in Botswana, the relationship between the import ban and economic growth in Botswana and the how the import ban has affected Botswana’s international relations basing on research findings and literature review. A review of literature related was also employed in a bid to establish what other renowned authors’ view was on the subject of import bans. The main source of related literature was internet journals. The study used the Hypothetic-deductive research design where there was use of survey questionnaires because of its cost effectiveness and efficiency. Sources of data, research instruments, populations and samples were given in the research. Primary data was presented using diagrams, pie charts and tables, to illustrate research findings and responses gathered. Research findings showed that, pricing, balance of trade and retaliation have an impact on import bans. As a result, the research recommended that the organisation should establish the best practice highlighted in the research.

Key words: Import, Ban, Economy.

Declaration Page

I declare that this dissertation is my original work except where sources have been cited and acknowledged. The work has never been submitted, nor will it ever be submitted to another university for the award of a degree.

ACHIKWANDA

_Amanda. N. Chikwanda_________ ________________________

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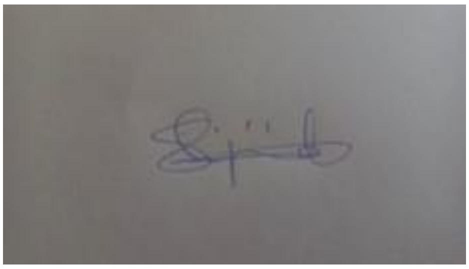

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They do say save the best for last and above all I would like to thank the Almighty for being the most valuable outstanding player in this work.

Dedication

I dedicate this piece of work to my Family- my Husband Jonathan Nhovo, my son Khalil Munatsi Nhovo, my sister Melinda Chikwanda and my parents Mr F.E Chikwanda and Mrs J. Munongi-Chikwanda.

List of Acronyms and Abbreviations

SACU	Southern African Customs Union
SA	South Africa
USD	United States Dollars
YOY	Year on Year
FMCG	Fast Moving Consumer Goods
GDP	Gross Domestic Product
LOP	Law of one price
ECM	Error Correction Model
U.S	United States
CBP	Customs and Border Protection
PPE	Personal Protective Equipment
EU	European Union
WRO	Withhold Release Order
CSR	Corporate Social Responsibility
NGO	Non-Governmental Organisation
CAATSA	Countering America's Adversaries via Sanctions Act
UFLPA	Uyghur Import Ban Prevention Act
ILO	International Labour Organization
CBSA	Canadian Border Services Agency
IUU	Illegal, unreported, and unregulated
GSP+	Generalised Scheme of Preferences Plus
MHRDD	Mandatory Human Rights Due Diligence
QPR	Quantitative Positivist Research

SPSS	Statistical Package for Social Sciences
AERA	American Educational Research Association
QDA	Qualitative Data Analysis
NES	National Export Strategy
SMEs	Small to Medium scale Enterprises
ERP	Economic Recovery Plan
ANOVA	Analysis of Variance

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Discussion

In many African countries, imports of vegetables have increased rapidly over the last 20 years (FAOSTAT, 2021a, b; Zhou & Staatz, 2016). This is especially true in West Africa, where domestic vegetables production has not kept pace with the rapidly rising demand (FAO, 2014; FAOSTAT, 2021c). The cheap imports of vegetables – mainly coming from the European Union (EU) and to a lesser extent from the USA and Brazil – have received a lot of attention in public debates about trade liberalisation, food security, and poverty (Chibanda et al., 2022; Rudloff & Schmieg, 2016, 2017). On the one hand, developing countries may benefit from cheap imports, as these help to keep domestic prices low and thus improve poor people's access to nutritious foods (Cornelsen et al., 2015; Green et al., 2013; Ivanic et al., 2022; Zachary, 2004). On the other hand, cheap imports of vegetables have long been criticized for hurting the local poultry production sector, including smallholder farmers (Rudloff & Schmieg, 2017). Agriculture is an important source of income for many poor households in Africa (ILOSTAT, 2019; Shimeles et al., 2018).

In the past, a few African countries, such as Nigeria and Senegal, have imposed protectionist trade policies, either by raising import tariffs or by banning vegetables imports altogether (Boihmah & Weible, 2021; Kornher & von Braun, 2020; WTO, 2014). Raising import tariffs is not always a legal option under the Economic Partnership Agreements (EPA) that several African countries have signed with the EU, but for some countries tariffs on poultry are excluded from the EPA. Import bans are usually not allowed and would also violate World Trade Organisation (WTO) regulations in general, even though exceptions exist under specific conditions. For instance, Botswana recently imposed a partial import ban on poultry products from five European countries following an avian influenza outbreak (Zamani et al., 2022). Hence, the question how a possible increase in tariffs for vegetables imports or even a complete import ban would affect domestic households in African countries remains interesting and policy-relevant. This question is addressed in this article.

In particular, for the case of Botswana, we analyse the effects of two hypothetical policies – a 50% import tariff for vegetables and a complete import ban – on domestic household's vegetables sales, consumption, and overall welfare, also differentiating between poor and non-poor households. We use household-level data and a partial equilibrium modelling framework.

Botswana is an interesting example because the country has been importing cheap vegetables for many years (Chibanda et al., 2022). Hence, we can compare the status quo of large quantities of cheap vegetables imports with hypothetical scenarios in which we assume more protectionist policies.

It should be mentioned that since 2015 Botswana has imposed the Economic Community of West African States' (ECOWAS) Common External Tariff (CET) of 35% on poultry imports. Nevertheless, import quantities remain high. As ECOWAS member, further raising the import tariff would have to be negotiated but seems possible in general. For instance, Senegal uses higher tariffs on a number of food items, whereas Senegal and Nigeria both have banned imports of poultry and/or poultry products (FAO & African Development Bank Group, 2015; International Trade Administration, 2020; Nigeria Customs Service, 2022).

Our study builds on the broader literature about the impacts of trade and price policies on poverty, inequality, and food security (Banse et al., 2019; Boulanger et al., 2016; Bureau et al., 2006; Chen & Ravallion, 2003; Litchfield et al., 2003; Mahadevan et al., 2017; Panagariya, 2005; Soumahoro, 2017; Swinnen & Squicciarini, 2022; Winters & Martuscelli, 2014). This existing literature suggests that trade liberalization – meaning the reduction or abolition of trade protectionist policies – has mostly positive effects on incomes and reduces poverty in general (Winters & Martuscelli, 2014). Protectionist policies can lead to higher prices and higher profits for domestic producers, but are also associated with higher prices for consumers. In the case of food, higher prices hurt poor consumers over-proportionally, as poor people spend a larger share of their income on food than rich people (Dorward, 2022; Ivanic et al., 2022; Minot & Goletti, 2020). The total welfare effects typically depend on whether a country or household is a net producer or consumer (Kornher & von Braun, 2020; Magrini et al., 2017; Mahadevan et al., 2017; Chauvin & Ramos, 2013; Swinnen & Squicciarini, 2022). While in the African context smallholder farmers often make up a large fraction of the poor, many of them are net consumers of food, meaning that they buy more food than they sell (Ivanic & Martin, 2014). In such situations, higher tariffs on food imports or other protectionist policies are not expected to be pro-poor.

A few studies have also looked more specifically at actual or potential effects of import restrictions for poultry in Africa. Andam et al., (2017a, b) have modelled potential impacts of vegetables import restrictions in Botswana, suggesting that higher domestic prices would increase domestic production but decrease consumption considerably. Based on results from their partial equilibrium model, Andam et al. (2017b) conclude that replacing vegetables imports with domestic production would be almost impossible in the short term. Zamani et al. (2022) have simulated effects of import restrictions in Botswana's poultry sector with a general equilibrium model, finding large positive production effects in the commercial sector and much smaller effects among small- and medium-scale farms. Zamani et al. (2022) have not looked at effects for domestic consumers in more detail.

In addition to these modeling studies, some research with qualitative approaches also exists. Boimah and Weible (2021) have used focus group discussions with consumers in Senegal, suggesting that the import ban may have certain positive effects for the development of the domestic poultry production sector. However, protectionist policies implemented over longer periods of time may also have unintended side-effects. In Nigeria, after a long history of import restrictions (International Trade Administration, 2021; Oyejide et al., 2020) the complete ban on poultry imports is now leading to rising incidents of border smuggling, undermining domestic price targets as well as food safety and other policy objectives (Golub, 2022; Ogunleye et al., 2016; Rudloff & Schmieg, 2017).

Our analysis adds to the existing literature on poultry import restrictions in Africa by using a quantitative modelling approach and looking more specifically than previous studies at the production, consumption, and welfare effects for different types of households, including poor and non-poor rural and urban households. To our knowledge, such distributional effects for different types of households have not been analysed previously. By focusing on households, we include small- and medium-sized poultry production activities, but exclude large commercial poultry enterprises not owned by individual households. For large poultry enterprises the effects of import restrictions may be different (Zamani et al., 2022).

CHAPTER 1: INTRODUCTION

1.1 Introduction

This chapter introduces the research topic by describing the contextual background, the problem statement which was the basis of objectives and convenient research questions formulation. The study seeks to give a comprehensive detailed background on what resulted in the researcher looking into the Vegetable Ban specific to the Botswana Economy. The study identifies the Main topic, statement of the problem, research questions and research objectives. It also identifies the Significance of the study to the researcher, the organization and the university, delimitations and Limitations of the research study. Technical key terms which could be misunderstood will be explained in this chapter.

1.2 Background of the study

Due to long-term investments in agricultural finance, irrigation infrastructure, technology, talent development across a variety of agricultural commodities, and a diversified environment, South Africa is among the top food providers in Africa (Azeez et al, 2023). Additionally, the South African government deregulated the industry, which helped to create a favourable environment for private sector investment and production expansion to serve both domestic and foreign markets. In addition to serving the domestic market, South Africa exports a sizeable amount of its vegetable products to nations within the SACU region and beyond (Babyemi, 2022). A restriction on imports from South Africa by Botswana and Namibia, which together account for an obviously sizable market share of vegetables shipped to SACU, is posing difficulties for South African farmers and agribusinesses. The average annual value of South Africa's potato exports to the world market from 2017 to 2021 was R705 million, with 97% of that sum coming from other African nations (Lifeyo, 2023).

Indicating that commerce between South Africa and SACU countries is advantageous for all SACU countries as South Africa serves as both a supply and a market for agricultural products, during this time period, potato imports averaged R125 million for Namibia and R108 million for Botswana (UN, 2022). Over and above, some of South Africa's main potato export markets include SACU, Mozambique, Zimbabwe, Angola, and Zambia. With an average export value of R447 million per year from 2017 to 2021, onions are the second most popular vegetable exported from South Africa to the rest of the African continent after potatoes. This value was at least 93% sourced from Africa (Carpantier, 2021). Onion exports to Botswana and Namibia during the same time period averaged R43 million and R27 million, respectively, and onion exports to the world market increased by 22%. Angola, Zambia, and Mozambique are a few of South Africa's other top onion export markets. For the first five months of 2022, South Africa exported potatoes (HS:0701), onions (HS:0703), tomatoes (HS:0702), and cabbage (HS:0704) for a total of R630 million. Botswana and Namibia were responsible for 32% of the exports of cabbage, 27% of potatoes, 25% of tomatoes, 11% of carrots, and 9% of onions over the same time period. These numbers demonstrate how important these two nations are to SA's exports of vegetables.

Despite having ratified the Africa Continental Free Trade Area, which advocates for the unrestricted movement of goods and services, Botswana declared in December 2021 that it will ban the import of 16 vegetables beginning on January 1, 2022. The import restriction is required, according to Botswana's minister of agriculture, to assist local farmers and promote agricultural independence. According to Botswana's Minister of Agriculture, the USD 770 million annual cost of food imports was a significant national problem, and the nation need policies to improve self-sufficiency and safeguard and assist local farmers. Tomatoes, carrots, beets, potatoes, lettuce, cabbage, butternut, onions, ginger, turmeric, chili peppers, watermelons, sweet peppers, green maize, and fresh herbs are all prohibited. Every two years, the ban will be revisited, but solely to add new veggies to the prohibited list.

The government of Botswana has implemented subsidies for vegetable producers to provide a sufficient and reliable supply of vegetables from local farmers to meet the demand for vegetables at the national level. The subsidies are meant to support initiatives that reduce the negative effects of bad weather, boost vegetable production, and guarantee sound agricultural practices in vegetable growing (Gibs, 2022). Farmers and business professionals are optimistic that the neighbourhood vegetable sector can supply the country's need for veggies while also tremendously benefiting from the prohibition. To ensure that high-quality veggies reach the market, farmers must adhere to appropriate agricultural techniques and hygienic requirements. However, due to Botswana's weak borders, the restriction might lead to an upsurge in vegetable smuggling, particularly from South Africa.

The majority of Botswana's veggies are imported from South Africa; over the preceding five years, South Africa accounted for 98.2% of all vegetable imports. In 2021, Botswana bought from South Africa 57,558 tons of vegetables worth $33.8 million (World Bank, 2022). After Mozambique, Botswana is South Africa's second-largest vegetable export market, receiving 15.1% of the 224.4 million USD worth of vegetables sent in 2021. South Africa will thus suffer the most from the Botswana import restriction in 2022 and beyond. Three major vegetable exports from South Africa to Botswana potatoes, onions, and tomatoes will be most affected. The main export destination for South African tomatoes is Botswana, which seems to have been hurt the most by the export restriction (Williams, 2023). On the South African market, tomato volumes were 32% higher in W3 May-2022 YoY, which led to a 38% YoY price drop, with tomatoes trading at USD 0.38/kg. As low demand and high volumes are predicted for the upcoming weeks, further tomato price cuts are to be anticipated. The import embargo seems to be producing a glut of tomatoes on the South African market, which is driving down costs.

This investigation focuses on Botswana, a land locked country in Southern Africa located adjacent to South Africa, Zimbabwe and Namibia. Per the United Nations world population review of 2023, it can be noted that Botswana has a population of 2 658 714 individuals based on their projections. Additionally, in comparison to its neighbours for example Zimbabwe, which has a population of 15 423 753 and South Africa with 61 329 069 (per Worldometer website) showing how small the Botswana Population is. Over the past couple of decades Botswana has been heavy reliant on importation of most of goods and services some of them ranging from school uniforms, Fast Moving Consumer goods (FCMG) and Vegetables. This then meant that Botswana did not invest in producing most of its things locally although you would have a few individuals producing and making these things locally.

1.2 Statement of the problem

Over the course of the last five decades, the agricultural industry in Botswana has undergone a consistent decrease in its overall contribution to the country's gross domestic product (GDP). The suboptimal performance of the aforementioned industry presents an additional obstacle in the endeavour to combat poverty. The analysis of the vegetable import ban initiative aims to identify areas of capacity building within Botswana's agricultural sector. This effort is expected to revitalize the country's agricultural production. The findings of a comprehensive literature review indicate that extension workers exhibit deficiencies in various domains, including forestry production, interpersonal communication, practical farm skills, organization of effective field days, mobilization of people to form groups, conducting need assessment surveys, organizing effective field trips and farm walks, crop protection and pest control, fruit production and planning, and setting up result demonstrations. The growth of crop production is constrained by recurring drought, insufficient utilization of improved technology, and limited skills.

The imposition of import restrictions has led to a significant increase in prices, with some products experiencing up to a 200% surge. This has been compounded by the stagnant disposable income of Botswana's residents and the rising inflation rate, which reached its highest level since November 2008 in August 2022, standing at 14.6% compared to 14.3% in July. The primary factor contributing to the increase in prices was the cost of transportation, accounting for 39.8% of the overall upward pressure. Additionally, food and non-alcoholic beverages, specifically oils and fats and vegetables, contributed 13.2% to the increase. Housing and utilities, particularly rents, accounted for 9.1% of the increase, while miscellaneous goods and services, mainly insurance, contributed 9.8%. As per the Trading Economics website, there has been a 0.3% rise in consumer prices in comparison to the preceding month. This escalation has led to a dearth of domestically grown vegetables in several households.

The remediation of the identified deficiencies is highly advantageous for the advancement of agriculture, which subsequently aids in the implementation of poverty alleviation initiatives within the nation. The National Master Plan for Agricultural Development has designated vegetable production as a priority area with significant potential for development in Botswana. The agricultural sector of the country utilizes capacity development programs to harness such potentials. Agriculture is a crucial factor in poverty reduction, particularly in rural regions, and therefore warrants significant attention. Similarly, the disparity between the production and consumption of agricultural commodities within the nation will be reduced. In order to achieve its desired impact, it is necessary to provide in-service training to extension workers, as this is the primary intervention mechanism for addressing identified gaps in their training.

1.3 Research Objectives

This research will be guided by the following research objectives.

1. To assess the degree to which the vegetable import ban has affected price of vegetable commodities in Botswana.
2. To determine the relationship between import ban and economic growth within the Botswana government.
3. To assess the degree to which the vegetable import ban in Botswana has affected the relations with neighbouring countries.

1.4 Research Questions

1. To what extent the vegetable import ban has affected price of vegetable commodities in Botswana?

2. What is the relationship between import ban and economic growth within the Botswana government?
3. To what extent the vegetable import ban in Botswana has affected the relations with neighbouring countries?

1.5 Research Hypothesis

H_0: There is no relationship between import ban and economic development within the Botswana economy.

H_1: There is a relationship between import ban and economic development within the Botswana economy.

1.5.1 Research Assumptions.

Research will be supported under the succeeding assumptions:

- Genuine, honest and relevant information will be provided by respondents to the research.
- Designated sample is a real representation of the population.
- General economic environment in which Botswana operates are likely not going to change during the study period.

1.6 Significance of the study

This exploration is of significance to The Government of Botswana and other scholars as it will address genuine issues looked in the effects of an importation embargo. The analysis is additionally going to offer sound proposals on best systems that can be utilized. The study will empower researcher to have inside and out learning in Investment and Trade. It will likewise enable the researcher to comprehend and value the complexities associated with managing country affairs. This analysis will likewise enable the researcher to interface hypothesis learnt at school with what truly occurs in the genuine country setting.

1.7 Theoretical significance

The study seeks to analyse and investigate the extent to which the present import practices affect the performance of Botswana as a country. The identification and findings from this study will ensure possible solutions to overcome the possible and evident shortcomings in the field. Thus, the study is of benefit to all the academic scholars who find it useful as a point of reference for further study. The research will also add literature in import bans all over the world, at the same time adding value to the University's institutional repository.

1.8 Delimitation

This study is a country-level analysis concentrated on the impact of an importation ban on the economic growth in Botswana. The inquiry will be conducted in Gaborone, Botswana and will be restricted mostly to the findings and occurrences of the year 2022 thus far. Additionally, this study will look at vegetables and their importation ban in Botswana.

1.8.1 Limitations

- Respondents' may could possibly not provide all the required information due to private policies of the organisation.
- Company being state owned may restrict the release of some vital information for the research.

CHAPTER 2: REVIEW OF RELATED LITERATURE

2.1 Introduction

This document presents a comprehensive overview of the existing literature on a certain subject, encompassing the works of esteemed scholars and researchers. It includes significant discoveries, as well as noteworthy theoretical and methodological advancements. The primary objectives of this study are to position the current research within the existing body of literature and to offer contextual information for the intended audience.

2.2 Theoretical Framework

A theoretical framework can be defined as a collection of interconnected concepts, such as hypotheses, that provide guidance for research by determining the variables that a researcher will measure and the statistical relationships that the researcher will investigate. Theoretical frameworks in research aim to establish a connection with the underlying philosophical foundation upon which the research is based. They serve to organize and articulate the interrelationships between various perspectives and operational components of the research being conducted. A theoretical framework provides assurance to readers that the proposed research is not just based on the subjective perceptions or assumptions of the particular researcher, but rather is informed by established hypotheses and empirical evidence derived from rigorous studies. The endogenous hypothesis posits that higher levels of import penetration will result in increased security measures. The novel "Broke and Merge" by author X, published in 1984, offers a prophetic portrayal of the potential consequences of increased import competition. It serves as a warning against the escalation of military campaigns in the pursuit of national security. Imports and security are two interrelated criteria that have been empirically shown to assess the impact of trade advancement. The prevailing body of literature has largely neglected this contemporaneous factor, which represents a deficiency that this study aimed to address. The study observed a significant correlation between the impact of import restrictions and the endogenous display of exchange assurance. In accordance with the prohibition of vegetables, which has had an impact on the community members, it is evident that a resolution is necessary. This resolution takes the shape of implementing security measures. This research study is supported by two theories, specifically the Absolute Advantage Trade Theory and the Comparative Advantage Trade Theory.

2.2.1 Absolute advantage trade Theory

The notion of absolute advantage was initially formulated by Adam Smith in his seminal work "The Wealth of Nations" to illustrate how nations can derive advantages from trade by specializing in the production and exportation of goods in which they possess superior efficiency compared to other countries, while simultaneously importing goods that are produced more efficiently by other nations. Adam Smith's theory of absolute advantage posits that in the context of unrestricted trade, nations have the ability to specialize in the production and exportation of goods and services in which they possess a comparative efficiency advantage over other countries. Conversely, they can import commodities in which their efficiency is comparatively lower. This mutually beneficial exchange of goods and services ultimately leads to advantages for all participating nations. In essence, the concept of absolute advantage pertains to a nation's capacity to manufacture a certain product or deliver a service at a comparatively lower absolute expense in comparison to another nation engaged in the production of the same commodity or provision of the same service. According to Nyasulu (2013) and Smith (1776, 1997), labor is seen solely as a component of production in this particular theory.

2.2.2 Comparative advantage theory

The concept of comparative advantage in international trade is a fundamental principle in economics. It refers to the ability of a country to produce a certain good or service at a lower opportunity The concept of theory is a fundamental component in academic discourse. It refers to a systematic framework

The hypothesis proposed by Adam Smith raises the question of whether countries, regardless of their absolute superiority in the production of products, can still derive benefits by engaging in international trade. David Ricardo provided a solution to this inquiry through his theory, which posits that a country benefits from international trade by exporting goods in which it possesses a significant comparative advantage in terms of productivity, while simultaneously buying goods in which it possesses a relatively lower comparative advantage. This theory posits that the primary factors influencing production are labor and manufacturing technology. In a broader context, a nation can still derive benefits from engaging in international trade by allocating its resources towards its most lucrative industries, even if other countries possess an inherent edge in producing these items. Comparative advantage, as defined by Berkum and

Beijl (1998) and Nyasulu (2013), pertains to a nation's capacity to manufacture commodities and provide services with a reduced opportunity cost.

2.3 The impact of import bans on price.

There exist multiple rationales behind the decision of nations to impose limitations on the exportation of agricultural commodities. The primary objective throughout the periods of commodity price spikes in 2007-08 and 2010-11 was to mitigate domestic price volatility or prevent domestic price increases, as discussed by Bouet and Laborde (2010), Jones and Kwiecinski (2010), Mitra and Josling (2009), and Nogués (2008). A multitude of studies have been conducted to investigate the effectiveness of export restrictions implemented by governments throughout the course of the last decade in attaining their intended goals. The results exhibit variation based on factors such as the study's scope, design, geographical location, and the specific commodity under investigation. Several research have indicated that the implementation of export limitations in some nations has proven to be successful in mitigating local price volatility (Abbott, 2011; Baffes et al., 2015). Contrary findings have been reported by other studies, which indicate that these trade restrictions have led to a rise in domestic prices or an exacerbation of domestic price volatility (Baylis et al., 2014; Djuric et al., 2015; Porteus, 2012). Previous studies have reported limited or negligible effects in their analysis, as demonstrated by Götz et al. (2014). In a study conducted by Abbott (2011), a comparison was made between the fluctuations in grain and rice prices across a wide range of countries over the period of 2007 and 2008. The findings of the study indicate that the increase in prices was comparatively lower in exporting nations that imposed trade restrictions, as opposed to exporting nations that did not implement such measures.

The results, however, vary depending on the specific commodity and the country implementing export restrictions. It was seen that Asian rice exporters were able to attain a higher level of price stabilization compared to grain exporting countries in Latin America and Eastern Europe.

The findings of Asian rice markets have been substantiated by Dawe and Timmer (2012), who provide evidence that China, India, and Indonesia effectively shielded their domestic rice markets from global price fluctuations in the years 2007 and 2008. The study conducted by Baffes et al. (2015) investigates the consequences of a series of export bans in Tanzania throughout the period from 2004 to 2011. The researchers have discovered that the implementation of export limits has a notable impact on reducing domestic maize prices. Conversely, there exist research that demonstrate how export limitations have contributed to the exacerbation of domestic price volatility. According to the study conducted by Baylis et al. (2014), the imposition of an export ban on wheat and rice in India led to an escalation in domestic price volatility caused by internal supply shocks. The implementation of export limits may have resulted in increased domestic costs due to a decrease in domestic market efficiency. The study conducted by Djuric et al. (2015) investigates the effects of the export prohibition on wheat in Serbia on the prices within the local market. The authors demonstrate that the imposition of the restriction failed to effectively curb the escalation of domestic wheat prices beyond the levels observed in the global market.

The authors establish a connection between this outcome and the government's decision to amass supplies during the crisis and postpone the elimination of the 30% import tariff. According to Porteus (2012), an analysis of temporary export restrictions on maize in East and Southern Africa indicates that these measures potentially led to an escalation in domestic prices and volatility. In addition to empirical investigations illustrating the impact of export limits on pricing and price volatility within the enacting nation, scholarly inquiry has also revealed that these measures had minimal efficacy. According to the findings of Götz et al. (2014), the imposition of export limitations on wheat in Ukraine, Kazakhstan, and the Russian Federation over the years 2007, 2008, 2010, and 2011 did not successfully detach domestic wheat prices from global market prices. Multiple scholars argue that export limitations not only have little effectiveness in mitigating domestic price volatility, but actually worsen international price volatility due to the creation of a domino effect. In the context described, the implementation of a price insulating strategy by one country prompted other countries to adopt similar measures.

Nevertheless, the effectiveness of individual countries' policies in reducing domestic price volatility diminishes when multiple countries adopt the same measure, leading to an escalation of international price volatility due to the cumulative impact of these measures (Anderson, 2012; Anderson and Nelgen, 2012; Anderson et al., 2013; Jones and Kwiecinski, 2010; Martin and Anderson, 2011). The study conducted by Anderson et al. (2013) investigates the effects of price insulating behavior across more than 100 nations throughout the time frame of 2006-2008. The authors specifically examine the impact of export limitations and reductions in import protection on domestic and international prices of wheat, maize, rice, and edible oils. The findings suggest that while it may appear that domestic prices had a relatively lower increase due to the installation of these protective measures, the true effect was much diminished since the cumulative adoption of these policies led to a rise in international prices.

The authors of this study simulate that the collective impact of various insulating policies accounts for 52% of the rise in the global price of rice, 18% of the increase in the worldwide price of maize and wheat, and 31% of the escalation in prices of edible oil. Giordani et al. (2014) have provided empirical evidence supporting the multiplier effect of implementing insulation trade rules, specifically in relation to a wide range of agricultural commodities. On average, there is a positive correlation between the percentage of trade influenced by insulation policies (namely import encouragement and export restriction) and the increase in international food staple prices. A 1% increase in the aforementioned trade share is estimated to result in a price increase ranging from 0.4% to 1.2% for these food staples. In their analysis, Rude and An (2015) examine the export limitations imposed on wheat, maize, rice, and soybean across a wide range of nations. According to their predictions, the imposition of export limitations during the period from 2006 to 2011 resulted in heightened levels of price volatility in the global market for wheat and rice. However, no significant impact on price volatility was observed for maize and soybean. The literature study demonstrates that prior research has yielded inconsistent findings regarding the efficacy of export limits in terms of stabilizing domestic prices or mitigating their increase.

The examination of price transmission also provides valuable insights into the efficiency and integration of agricultural markets. The presence of high price transmission across markets is widely regarded as an indication of efficient and competitive market conditions, whereas low price transmission is seen as a potential symptom of market failure. Nations in which domestic prices exhibit a strong correlation with international prices are deemed to be effectively integrated and can thus depend on the global market to mitigate domestic supply or demand disturbances. Increased market integration also results in the transmission of foreign price shocks to domestic markets. The law of one price (LOP) is the theoretical foundation for analyzing price transmission, as discussed by Fackler and Goodwin (2001). Based on the Law of One Price (LOP), the cost of a standardized commodity ought to be equivalent in both the domestic and global markets, taking into consideration transaction expenses and assuming the absence of state interventions. Price transmission is influenced by various factors. Baquedano and Liefert (2013) classify these factors into four distinct categories: (1) policies related to prices and borders, (2) fluctuations in currency rates, (3) market structure and circumstances, as well as transaction costs, and (4) limited substitutability between domestic and foreign commodities.

Following the occurrences of food price spikes in the years 2007-08 and 2011-12, a number of scholarly investigations were conducted to analyze the process by which elevated global food prices are transmitted to local markets in developing nations. In their study, Minot (2011) used a vector error correction model (ECM) to analyze the process of price transmission from global maize, rice, and wheat markets to local food markets in nine countries located in Sub-Saharan Africa. The results of the econometric research reveal that out of the 62 price series that were selected, only 13 of them demonstrate a long-term association with worldwide prices. Furthermore, it is seen that African rice markets exhibit a greater degree of price transmission from global markets compared to maize markets. Baquedano and Liefert (2013) employ the Error Correction Model (ECM) framework to examine the phenomenon of price transmission. However, they expand the scope of their investigation to encompass a broader range of countries. The findings of the study indicate that there exists cointegration between the consumer markets of developing nations and international markets for wheat, rice, maize, and sorghum. However, it is observed that the transmission of prices from the global market to local markets is generally characterized by a low level of effectiveness. The ECM technique is also employed in research endeavors that investigate the phenomenon of price transmission to a particular nation.

The study conducted by Halimi et al. (2015) investigates the potential disruption in price linkage between two nations resulting from the implementation of an export ban. The findings indicate a strong correlation between wheat and flour prices in Afghanistan and Pakistan before to 2008. However, this relationship was disrupted following Pakistan's imposition of a restriction on wheat exports in January 2008. Subsequently, there was an increased correlation between local wheat prices in Afghanistan and those observed in other nations within the Central Asian region. In their study, Hatzenbuehler et al. (2016) see a strong correlation between rice prices in urban markets in Nigeria and global rice prices. Conversely, they note a limited association between worldwide prices and the pricing of coarse grains such as maize and sorghum. Baltzer (2013) provides a comprehensive overview of the findings from fourteen individual studies on price transmission in various countries, specifically focusing on maize, rice, and wheat. The author's analysis reveals significant variations in the transmission of prices across different countries and commodities during the crisis that occurred in 2007-08. While China and India implemented measures to insulate their domestic pricing from the impact of foreign price shocks, the grain markets in Brazil and South Africa shown a higher degree of susceptibility to variations in global markets. Countries that heavily rely on grain imports, such as Ethiopia and Nigeria, encountered local price shocks that surpassed those observed in the global grain market.

The analysis further suggests that worldwide prices are influenced by export limitations. Numerous scholarly investigations underscore the significance of conducting a comprehensive examination of the effects of these policies on nations that import goods, particularly with regard to the potential consequences for food security in developing countries (Jean et al., 2011). To date, there has been a lack of study that specifically investigates the impact of export limits on the trading partners involved. The present study aims to investigate this matter.

2.4 Import bans and economic development

Import bans are legislatively sanctioned and government-enforced limitations used to prevent the admission of foreign-made commodities into a country when there are suspicions of their manufacture, including import ban (Pietropaoli et al., 2021). They have been identified as a sort of harsh regulation that can successfully address the ubiquitous labor abuses that voluntary standards and soft international law have been unable to appropriately address, according to LaFianza (2022). This paper does a thorough examination of the scholarly literature on forced import restrictions and identifies key themes within it. Only a few countries have imposed such laws, and even fewer have properly enforced them. As a result, there is a paucity of empirical evidence on the impact and efficacy of these strategies in minimizing import ban within supply chains, and the volume of study on the subject is limited.

Currently, import bans are solely in effect in the United States (U.S.) and Canada. The user's text is already academic. The implementation of the United States restriction, which was primarily carried out under Section 307 of the Tariff Act (1930), did not get major attention from Customs and Border Protection (CBP) until 2016. The existing body of literature offers a variety of viewpoints on the effectiveness of the enforcement measures mentioned in Section 307. The case study of Top Glove, a Malaysian company specializing in the manufacture of personal protective equipment (PPE), is frequently used in scholarly literature as an example of the positive outcomes resulting from the United States' import ban (LaFianza, 2022; Bengsten, 2021; Pietropaoli et al., 2021; Brudney, 2020). The United States will leave the EU in July 2020. Customs and Border Protection (CBP) issued a withhold release order (WRO) relative to imports produced in Malaysia by Top Glove, alleging allegations of import ban. As of April 2021, Top Glove had implemented a number of mitigation actions, including reimbursing about $36 million (US) to approximately 13,000 current and former employees who had expended recruitment expenditures in order to secure their employment. The prohibition was then repealed in September 2021.

According to Bengtsen (2021), the Top Glove import ban was more successful in achieving its goals than the long-standing voluntary corporate social responsibility (CSR) initiatives undertaken by the global medical industry and the enforcement proceedings carried out by Malaysia's labor inspectorate. According to the author, the efficacy of the prohibition can be ascribed to its negative influence on the company's financial income (Bengtsen, 2021). According to LaFianza (2022), the usefulness of the US model in this context has been proved. For other researchers, the extensive media coverage, NGO advocacy, and government interest in the situation of workers in Malaysia's medical gloves industry during this period makes drawing a clear causal link between the import ban and Top Glove's response difficult (Pietropaoli et al., 2021; Johnstone, 2022). The CBP's issuance of WROs in late 2021 for imports from two other Malaysian glove manufacturers has called into question the original allegations about the Top Glove case's long-term and extensive repercussions (Pietropaoli et al., 2021).

The scholarly literature also emphasizes the discretionary manner in which the import prohibition is implemented in the United States, where WROs presumably serve as political devices and protectionist trade measures rather than tools for human rights protection (Shehadi & van der Merwe, 2021; Bengtsen, 2021). As an example, it is worth noting that China accounts for a relatively modest share of the commodities listed on the U.S. Commodities Produced by Child or Import ban, according to the Department of Labor. However, the vast majority of Withhold Release Orders (WROs) issued since 2015, around 57%, have been primarily targeted against Chinese manufacturers (Shehadi & van der Merwe, 2021). Import bans lose credibility when they become politicized, according to Schwarz et al. (2022). As a result, a well-defined decision-making mechanism for both the imposition and removal of limits is critical to ensuring their successful implementation. Other restrictions linked with Section 307 include the United States' limited interpretation of it. Customs and Border Protection (CBP) (Plouffe-Malette and Brisson, 2019), a lack of transparency (Plouffe-Malette and Brisson, 2019; Bengtsen, 2021), a lack of any obligation for corporations to engage in remediation (Pietropaoli et al., 2021), and insufficient enforcement resources (Plouffe-Malette and Brisson, 2019).

The United States has enacted legislation that presumes compelled labor in the manufacture of goods originating in North Korea and Xinjiang, China. The 2017 Countering America's Adversaries via Sanctions Act (CAATSA) and the 2021 Uyghur Import Ban Prevention Act (UFLPA) impose a reverse onus, requiring importers to demonstrate that commodities originating in these regions were not manufactured using import ban. Cockayne's (2022) appraisal of the available body of research on the efficacy of the UFLPA is inconclusive.

According to sources, the Chinese government has begun the process of ratifying two major International Labour Organization (ILO) treaties on import ban. Furthermore, the government claims to have terminated activities of its vocational training center system. Nonetheless, the material provided does not support the concept that import ban in Xinjiang has been effectively eradicated or reduced, nor does it suggest that earlier cases of import ban have been appropriately resolved.

Furthermore, it might be argued that those employed in Xinjiang are particularly vulnerable to exploitation and mistreatment as a result of the government's installation of policies that restrict access to workplaces and make complete audits difficult. Furthermore, workers in this region suffer increased risks when trying to express their worries or issues (Cockayne, 2022). The obligatory import embargo in Canada went into force in July 2020, yet there appears to be a paucity of scientific investigation of its ramifications. According to recent press reports, the Canadian Border Services Agency (CBSA) has detained a single shipment since July 2020. Following the filing of proper documentation by the corporation, the items in question were eventually authorized entrance into the country (Chase, 2022a). On the other hand, it is worth noting that the United States seized around 1,400 shipments between 2020 and 2021 (Chase, 2022a). According to Chase (2022b), trade experts believe that the Canadian government's existing expenditure in enforcement and data collecting is insufficient to assure the import ban's efficacy.

The CBP worked extensively with supplier’s subject to import bans in Top Glove and comparable cases, offering input to alter production and labor standards and forcing them to execute worker-focused remediation (Brudney, 2020; Nissen, 2022). According to Nissen (2022), it is clear that import restrictions in alone are insufficient and ineffective in eliminating import ban. To properly address this issue, cross-border collaboration must be introduced as a complementary strategy (p. 378). Nonetheless, because there are no legal duties for remediation in the United States or Canada, enforcement agencies have considerable leeway in selecting their amount of cooperation in such cooperative programs. Furthermore, when corrective efforts are taken, the financial burden typically falls on domestic suppliers rather than international importers. In the case of Top Glove, it was discovered that the reimbursements granted to migrant employees were not backed by the company's international consumers (Bengsten, 2021).

Several scholars have proposed that regulatory organizations impose monetary restrictions on importers in order to effectively reduce cases of import ban. These penalties can then be directed toward corrective activities targeted at assisting workers who have been affected by such violations (LaFianza, 2022; Bengsten, 2021). Import restrictions can also have different consequences depending on the fraction of the market share effected by the prohibition (Pietropaoli et al., 2021; Schwarz et al., 2022). An exemplary example of the UFLPA's influence can be found in the cotton industry, where sales of Xinjiang cotton fell by 41% between 2021 and 2022. This reduction can be linked to the United States and other Western nations' significant involvement as key importers of China's garment exports. Taplin (2022); Cockayne (2022). On the contrary, the impact on Xinjiang imports of tomatoes and polysilicon has been minimal. This is due to China's strong position as the top global producer of polysilicon, accounting for 80% of global supply, as opposed to cotton production, which accounts for only 25% of global total. Furthermore, western countries do not account for a large share of China's key importers of these goods (Taplin, 2022; Cockayne, 2022).

According to Shehadi and van der Merwe (2021), enforcing the US import embargo would have a greater impact on labor conditions in other nations, particularly in regions with considerable trade leverage. According to Shehadi and van der Merwe (2021), a sizable majority of Mexican tomato exports, 99.7%, are destined for the United States. As a result, if World Trade Organization (WTO) rules were enforced, firms engaged in this area would be quick to address import ban concerns. Another critical element to consider is the ease with which a coerced import prohibition can be circumvented. According to Ryngaert (2020), apparel goods originating in North Korea are being shipped to the worldwide market through China, thereby avoiding import bans imposed by the United States and the European Union on North Korean textiles. Similarly, there are concerns that the UFLPA may force enterprises to shift their sourcing activities to vendors in Vietnam who illegally obtain goods from Xinjiang industries (Papier & Tang, 2022). Furthermore, importers that experience border limitations in the United States and Canada have the option of re-exporting their cargo to a place that does not impose similar import controls, according to Pietropaoli et al. (2021). Indeed, media investigations have revealed that certain shipments originating from companies listed on the US blacklist eventually make their way to Canada, where regulatory restrictions are comparably less stringent (Blackwell, 2021). Jacob et al. (2022, p.29) note the vulnerability of the anticipated EU ban on import ban commodities, referred to as the "substitution" impact.

In the current climate, various countries' coordinated efforts are projected to improve the efficacy of import restrictions (Pietropaoli et al., 2021; Schwarz et al., 2022). Nonetheless, due to the absence of market dynamics, state-sponsored import ban may demonstrate a reduced level of responsiveness to coordinated import prohibitions (Jacob et al., 2022). It is commonly accepted that the adoption of compulsory import limits can have unanticipated or negative consequences for workers. Companies may choose to withdraw entirely from the affected country or region (Ryngaert, 2020; Anti-Slavery International, 2021; Jacob et al., 2022, p.29; LaFianza, 2022, p.25; Schwarz et al., 2022), or workers in affected sectors may transition to less hazardous industries, such as construction (Nissen, 2022). A specific instance cited in scholarly sources concerns Esquel, a Hong Kong-based textile manufacturer. Esquel's revenue has been reported to have decreased as a result of Xinjiang-related cargo restrictions. As a result, the corporation was forced to close two sites in Mauritius, resulting in the loss of 7,000 jobs (Papier & Tang, 2022).

Import bans, according to Rauscher and Willert (2020), have the potential to unintentionally contribute to an increase in instances of import ban within industries that are unaffected by the imposed restrictions. To mitigate these risks, import bans must be carefully crafted and governments must conduct impact-based evaluations, which should include consultations with relevant stakeholders, before implementing such restrictions (AntiSlavery International, 2021; Schwarz et al., 2022). Furthermore, it is stated that when restrictions are implemented, a concentrated effort should be made to motivate firms to undertake measures that benefit the wellbeing of their employees (Brudney, 2020). Furthermore, constraints should be enforced "until alternative cooperative measures become viable" (Nissen, 2022, p.378). Researchers admit that import bans are not a comprehensive answer to the problem of firms' lack of awareness about labor violations inside their complex supply chains (Papier & Tang, 2022). There are substantial informational prerequisites for the proper execution of import prohibitions, according to Jacob et al. (2022). These requirements include a thorough grasp of the product in question, its origin, and the presence of import ban in its manufacturing processes. As a result, the inclusion of comprehensive traceability mechanisms has been recognized as a crucial factor of import prohibition efficacy (Pietropaoli et al., 2021; Schwarz et al., 2022).

According to LaFianza (2022), governments that impose import bans should provide improved assistance to businesses in order to facilitate successful supply chain due diligence. In contrast, Schwarz et al. (2022) advise closing this information gap by encouraging greater international intelligence sharing and devoting financial resources to civil society organizations to monitor and investigate emerging trends and hazards. There is evidence that import restrictions aimed at governments, rather than importing firms, can produce favorable results. For example, the

European Union's threat to ban Thai fishery exports to EU nations, citing concerns about illegal, unreported, and unregulated (IUU) fishing, encouraged the Thai government to address IUU fishing practices as soon as possible. As a result, this campaign resulted in a significant decrease in cases of human trafficking and import ban in the fishing business (Wongrak et al., 2021). It should be emphasized, however, that the European Union's decision to suspend Myanmar's GSP+ trade benefits in 1997 in response to claims of import ban did not result in any meaningful progress toward the abolition of import ban in Myanmar during the next decade. In reality, commerce between the EU and Myanmar more than doubled throughout this period (Zhou & Cuyvers, 2011).

Import bans can be combined with other regulatory measures aimed at eliminating import ban, such as the passage of mandatory human rights due diligence (MHRDD) laws, to increase its effectiveness. This legislation requires enterprises to use prudence in order to prevent human rights violations in their operations and business connections, as well as to make concerted measures to ameliorate any ensuing harm. Scholars such as Pietropaoli et al. (2021), Amnesty International (2021), LaFianza (2022), and Jacob et al. (2022) have argued for this strategy. According to research published by Amnesty International and the European Center for Constitutional and Human Rights (2021), import prohibitions alone are insufficient to address the root causes of import ban. However, they can be regarded legitimate in situations where it is impossible to do human rights due diligence on the ground, such as when the state imposes import ban. Import bans can also be used as a form of enforcement to drive corporations to take significant preventive and corrective action against import ban, especially if their existing activities are insufficient, unlikely to achieve results, or altogether missing.

2.5 Chapter summary

This chapter presented key theories and empirical work on knowledge management and performance of various companies in different contexts. In addition, this chapter also reviewed literature in connection to the research objectives of the study as presented in chapter one. The areas covered include the theoretical framework of the study; the empirical review focusing on the variables of the study. The next chapter presents the research methodology used in this study.

CHAPTER 3: METHODOLOGY

3.0 Introduction

In the previous chapter, the fundamental theoretical framework of this study was developed. This chapter describes the methodology that will be undertaken in relation to justification of the research paradigm, questionnaire design, sampling process and data collection and administration. Development of the research instrument will be described as well as the results from a pilot study. In addition, this chapter introduces the planned analysis strategy to test the hypotheses of this study. Finally, ethical considerations relating to the research design of this study are discussed and conclusions are drawn. The researcher discusses in detail the empirical research methodology including data collection and data analysis. The data collection process, sample selection and participation developing the survey questionnaire and pilot study. After that reliability and validity are discussed to justify the data. The chapter also discusses what kind of data is required for examining the variables. Then, data analysis processes and statistical techniques are selected to analyse the data. Finally, the research ethical issues discussed to ensure the data is unbiased and can support generalisability. Conclusions are the final component of this chapter.

3.1 Research approach

Comfort and Smithson (2016) explained quantitative data as metrics (numbers) that can be used to describe the phenomenon (objects and relationships) under study. Straub el al., (2020) argued that the numbers come to represent values and levels of theoretical constructs and concepts and the interpretation of the numbers is viewed as strong scientific evidence of how a phenomenon works. Sources of quantitative data in the social sciences include survey methods, laboratory experiments, formal methods (e. g. econometrics) and numerical methods such as mathematical modelling (Myers, 2017).

3.2 Research paradigm

There are multiple study paradigms that exist, some of which display complementarity, while others indicate conflict. The research paradigm of positivism, which is extensively employed, asserts that knowledge can only be deemed genuine when it is substantiated by sensory experiences (Bryman, 2012). This approach aligns with the principles of objective methodology in research and posits that knowledge is obtained by gathering objectively verifiable data using quantitative approaches. Positivists draw a clear boundary between scientific and normative propositions, contending that normative statements lack empirical verifiability. Accordingly, proponents of positivism contend that the scope of scientific investigation is constrained to propositions that are amenable to empirical examination (Bryman, 2012). Quantitative researchers primarily adhere to the philosophical framework of positivism and utilize quantitative approaches to attain objective conclusions in their investigations. Throughout the course of history, the prevailing research methodology has been predominantly influenced by the quantitative study design or the positivist approach. Post-positivism, on the other hand, can be described as a less extreme form of positivism that upholds comparable principles but allows for increased interaction between the researcher and the participants in the research (Taylor & Medina, 2011, p. 3). Positivism lays significant importance on the objectivity of the research process, but postpositivism recognizes and respects the incorporation of subjectivity. Therefore, the study employs a blend of quantitative procedures, including surveys, and qualitative approaches, such as interviews and participant-observation.

Creswell (2007) asserts that the paradigm of pragmatism does not align itself with any specific philosophical stance. Instead, this argument suggests that the distinction between positivism and interpretivism should be discarded, as it recognizes reality as being both singular and plural. Creswell and Plano Clark (2011) suggest that pragmatism, as a philosophical standpoint, encompasses a commitment to pluralism and prioritizes practicality and the efficacy of acts. Pragmatism, as a philosophical approach, encompasses a range of techniques. However, it is crucial that the application of these methodologies stays firmly grounded in the specific context of research inquiries. To successfully accomplish research objectives, it is imperative to incorporate and acknowledge both objective and subjective forms of information. Creswell (2007) asserts that researchers who adopt a pragmatic perspective have the autonomy to choose research procedures or strategies that are best suited to meet their research queries. According to Feilzer (2010, p.14), pragmatism challenges the distinction between quantitative and qualitative approaches and addresses the paradigmatic conflict by suggesting that the key consideration should be the extent to which the research has successfully facilitated the researcher's acquisition of desired knowledge. Tashakkori and Teddlie (1998) assert that pragmatist researchers prioritize the investigation of subjects that are congruent with their individual interests and possess intrinsic significance to them. Researchers utilize various approaches to examine study difficulties based on their personal assessment of suitability. Therefore, the main justification for adopting a pragmatist perspective in a research endeavor is to allow the researcher to use a pluralistic strategy in gathering various types of data, thereby permitting the most efficient resolution of the research questions. A researcher who adopts a pragmatist perspective employs a mixed-methods strategy that integrates one or more combinations of the important research paradigms previously addressed. In a research design that integrates qualitative and quantitative methodologies, qualitative research procedures are employed to enhance comprehension of the phenomenon under investigation through the utilization of tools such as participant observation and interviews. These methodologies yield preliminary findings that provide valuable insights into the topic being studied. In contrast, quantitative methodologies are utilized to obtain impartial results through the utilization of instruments such as surveys. The aforementioned methodologies strive to collect quantitative data that may be subjected to statistical analysis, hence offering a more impartial viewpoint on the subject of study. The subsequent discourse presents an exposition on a research strategy commonly referred to as mixed methodologies.

3.4 Research Design

The study utilized a combination of quantitative and qualitative research methods, employing a mixed methods approach. Additional explanation of this methodology is included in the following chapter. Mixed methods approaches are occasionally denoted as "multi-strategy" (Brayman, 2004), "multi-method," or "multiple methods" (O'Cathain et al., 2007). Bryman (2006) conducted a study wherein a content analysis was carried out on 232 social science journal articles that centered on research including both quantitative and qualitative approaches. The research revealed that the publications under consideration predominantly employed a combination of survey methodologies and qualitative interviews in their respective studies. Therefore, the utilization of integrated approaches in the current study is widely adopted in the realm of social science research. Doyle et al. (2009) have highlighted eight main advantages or arguments for the employment of mixed approaches in research. The themes encompassed in this study are "triangulation," "completeness," "compensating for limitations and enhancing inferences," "addressing diverse research inquiries," "elucidation of findings," "visualization of data," "formulation and verification of hypotheses," and "development and validation of research instruments." The implementation of the mixed methods approach has been utilized as a strategy for triangulation, enabling the validation of quantitative and qualitative methodologies through their mutual reinforcement.

The incorporation of a mixed-methods approach represents a unique research methodology. Creswell and Plano Clark (2011) assert that the mixed-methodologies study design is distinguished by its own philosophical underpinnings and investigative approaches. As a methodological framework, it incorporates theoretical foundations that direct the procedure of collecting and interpreting data from diverse sources within a single research undertaking. The employment of a mixed-methods design offers various advantages in solving complex research challenges, since it integrates the philosophical foundations of post-positivism with interpretivism (Fetters, 2016). This technique enables a thorough and pertinent investigation of research topics by effectively incorporating both qualitative and quantitative data. Furthermore, this approach offers a solid theoretical foundation, enables flexibility in methodology, and promotes a thorough understanding of specific cases (Maxwell, 2016). The use of mixed-methods allowed the researcher to effectively address research questions with a comprehensive and in-depth approach (Enosh, Tzafrir, & Stolovy, 2014). Additionally, this approach facilitated the generalization of findings and implications to the broader population under study.

The application of a quantitative methodology allows researchers to collect data from a sizable sample size, hence increasing the likelihood of extrapolating the results to a wider population. On the other hand, the qualitative approach provides a more extensive understanding of the subject being studied, recognizing and appreciating the viewpoints of the persons who are part of it. Quantitative data serves to expand the scope of the inquiry, whereas qualitative data enriches its comprehensiveness. Furthermore, the credibility of quantitative findings can be augmented by triangulating them with qualitative results, whereas qualitative discoveries can be bolstered by triangulation with quantitative data. Triangulation, as a qualitative research strategy, is the utilization of many methods or data sources to acquire a comprehensive comprehension of a study problem or to evaluate the credibility of findings through the convergence of information from numerous sources (Carter et al., 2014). The utilization of a mixed-methods design offers a favorable prospect for investigating research inquiries as it combines the advantageous aspects of two techniques, while also minimizing the inherent limits associated with each method (Johnson & Onwuegbuzie, 2004).

3.5 Population

Therefore, the target population of this research study comprise staff or employees at employed within the Botswana Agriculture Sector. According to Statistica, (2023), employment in agriculture (% of total employment) (modeled ILO estimate) in Botswana was reported at 20.39 % in 2023, according to the World Bank collection of development indicators, compiled from officially recognized sources. Botswana - Employment in agriculture (% of total employment) actual values, historical data, forecasts and projections were sourced from the World Bank on May of 2023. While, Botswana, population is estimated to be, 2 588 000 and the agriculture sector employs 20.39%, this implies that the estimated population under study is 530 000

3.6 Sample size

A sample is defined as part of the target population, carefully selected to represent the total population (Cooper and Schindler, 2021). The process of sampling involves selecting a sufficient number of cases from the target population to make conclusions about the whole population. The sample size for a study needs to be estimated at the time the study is proposed; too large a sample is unnecessary and unethical, and too small a sample is unscientific and also unethical (Smith, 2015). The necessary sample size can be calculated, using statistical software, based on certain assumptions. If no assumptions can be made, then an arbitrary sample size is set for a pilot study. In this study a sample size was calculated based on Yamane Formulae for sample size determination.

Table 3.1 Sample size technique

Where confidence Level is 95% and P=0.5

Size of Population	**Sample Size (n)** **± 5%**	**For precision (e)** **± 10%**
500	222	83
1000	286	91
2000	333	95
3000	353	97
4000	364	98
5000	370	98
7000	378	99
9000	383	99
10000	385	99
15000	390	99
20000	392	100
25000	394	100
50000	397	100
100000	398	100
>100,000	400	100

3.1 Sample size technique (Smith, 2015)

Since the targeted population for this research study range s between 530 000 which is above 100 000 a sample size of 400 employees will be drawn at 95% level of confidence.

3.7 Sampling technique

This dissertation uses a convenience sampling technique. Convenience sampling enables the researcher to select a number of cases whose size depends mainly on participants' availability and the ease of data collection. It consists of groups of individuals who are easily accessible to the researcher. The advantage of this method is that it enables the researcher to cope with the resource available for the research. Although random sampling techniques are not employed consistently throughout the methodology of this research, it was found that the sample characteristics satisfied the criteria for the target population, as suggested by previous research on target populations. This thesis targets users of the Internet; however, the Internet represents a common problem for surveying since there is no central registry of all Internet users. As such, research targeting Internet users attempts to answer questions about all users by selecting a subset of users to participate. Students have been the subject matter of research in consumer behaviour studies which have contributed valuable results (McKenzie, 2022; Russell, 2020; Eagle and Brennan, 2021)

3.8 Research instrument

In this research study, a questionnaire was used as research instrument. A questionnaire is a research instrument that consists of a set of questions or other types of prompts that aims to collect information from a respondent. A research questionnaire is typically close-ended questions and most appropriate survey method for this research was a self-administered one. This study used a self-administered survey because it had the advantages of versatility, speed, and also worked as a check-point to ensure that all respondents in this study understood the concepts they were answering (Grossnickle and Raskin, 2021).

The key strengths of a self-administered survey are mainly cost and accuracy (Aaker, Kumar and Day, 2018). In general, a self-administered survey is easily designed and administered. In addition, respondents can consider and answer questions at their discretion. In a survey, respondents may be asked a variety of questions regarding their behaviour, attitudes, demographics and lifestyle characteristics (Malhotra, 2019). In this survey, a self-completion questionnaire with closed questions was developed. The self-completion questionnaire is very common method within business research, and the research instrument has to be easy to follow and its questions have to be particularly easy to answer (Bryman and Bell, 2018). Meanwhile, whether to ask a question in an open or closed format is one of the most significant considerations for many researchers.

According to Bryman and Bell (2018), the closed question format has some advantages: it is easy to process answers; it enhances the comparability of answers, and makes it easier to show the relationship between variables. It seemed the most appropriate format for this research.

3.8.1 Non-response

The most important feature for a sample is that it sufficiently represents the target population. It is important that the research sample is sufficiently large to give us the necessary confidence in our data. Therefore, we needed to secure as high a Response rate as possible in order to ensure that our sample would be comprehensive. Non-respondents damage sample validity because of the distortion created in representing the population through refusal to be involved in the research. As a result, the respondents will not represent the whole population and the data collected may be biased (Saunders et al., 2019). The causes of non-response include: refusal to respond, ineligibility to respond or contact failure. The most common is the refusal to participate or be involved in the survey, without offering a reason (Saunders et al., 2019). According to Churchill (2015,) non-response is a problem for any survey, because it raises the question of whether those who did respond are different in some important way from those who did not respond.

3.8.2 Bias

Bias A bias sample can be defined as a sample that is systematically different to the population from which it was drawn (Fowler, 2022). This non-response bias occurs when a significant number of people in the survey sample fail to respond and have relevant characteristics that differ from those who do respond (Dillman, 2020). In such cases, the non-response is selective. As an indication of the importance of understanding non-response bias, Dillman (2021) lists non-response error as one of the four primary sources of survey error. Non-response bias arises more commonly in research that uses telephone or mail surveys to acquire data. In this research, we did not use postal mail to distribute the questionnaire. A self-administered questionnaire (paper-based questionnaires) was used to conduct this research. By adopting this procedure, any bias in data collection was minimised.

3.8.3 Reducing Non-response

Fowler (2022) suggested the following three important measures to reduce a non-response: (1) the layout should be clear, so it is easy to see how to progress; (2) the questions should be nicely spaced and easy to read; and (3) the response tasks should be easy to undertake. The response tasks should be a check, a box or circling of a number. The abovementioned three measures were followed whilst developing and validating the instruments through content validity, pre-test and pilot test. This study used a self-administered survey (paper-based) because it had the advantages of versatility, speed, and also worked as a check-point to ensure that all respondents in this study could understand the concepts they are answering (Grossnickle and Raskin, 2021). A self-administered survey is easily designed and administered. In addition, respondents can carefully consider and answer questions at their discretion. Furthermore, Kassim (2021) stated the following advantages when using a self-administrated survey

3.9 Data analysis and presentation

The completed questionnaires will be coded and statistically analysed using the SPSS 25.0 package. It is important to make a decision on how to analyse the data prior to data analysis in order to avoid collecting data in the wrong format and to prevent inaccurate findings from that data (Cooper and Schindler, 2021). In this research the collated data was analysed using SPSS version 25.0. The reason for selecting the SPSS.0 statistical package is that it facilitates the calculation of all essential statistics, including descriptive statistics, reliability test, correlation test, factor analysis, and linear and multiple regression analysis, required for data analysis and present findings. Further, SPSS is easily available and user friendly so it can be learnt within a short period of time.

3.10 Validity and reliability

According to Ticehurst and Veal (2020), reliability is the extent to which research findings would be the same if the research were to be repeated at a later date, or with a different sample of subjects. In other words, the reliability of a measure indicates the extent to which the measure is without bias (error free) and hence offers consistent measurement across time and across the various items in the instrument. This study used the most popular test f reliability that is the Cronbach's coefficient alpha. This is a test of the consistency of respondents' answers to all the items in a measure. According to Sekaran (2020), reliability less than 0.6 are considered to be poor, those in the 0.7 range, acceptable, and those over 0.8 good. Validity refers to the accuracy of measurement, whether the conceptual and operational definitions are truly a reflection of the underlying concept to be measured (Burns & Bush 2015). There are several types of validity tests include: content validity, criterion-related validity, and construct validity (Sekaran 2018).

3.10.1 Content validity

Content validity is mainly the subjective agreement among professionals that the measurement scales accurately reflect what is supposed to measure (Cooper & Schindler, 2021). In this study content validity was tested by (1) all items are taken from prior literature Review. (2) Asking a panel of professionals, who have experiences in shopping online, to provide their judgements on the questionnaire especially on the items in each concept. Some minor revisions were made to the instrument according to their suggestions. (3) Undertaking pilot study with a group of similar subjects as the population (Africa University).

3.10.2 Construct validity

Construct validity can be established though (1) correlational analysis (convergent and discriminant validity), (2) factor analysis, and (3) the multi-trait, multi-method matrix of correlations (Peter 1981). For the purpose of the pilot study, the author selected to carry on a convergent validity.

3.10.3 Convergent validity

Convergent validity refers to the items purporting to measure the same construct correlates positively with one another (Parasuraman 2015). Convergent validity is synonymous with criterion validity (Zikmund 2018) and with correlational analysis, and is one way of establishing construct validity for this study. It assesses the degree to which two measures of the same concept are correlated, with high correlation indicating that the scale is measuring its intended concept. Robinson (2015) has suggested that item-to-total correlations exceed 0.50 and the inter- item correlations exceed 0.30. Cohen (2018) suggest that correlation (r) =0.50 to 1:00 (large correlation).

3.11 Research Ethics

The conducting of research requires not only expertise and diligence but also honesty and integrity as noted by Polit & Hungler (1993) and this is done to recognize and protect the rights of human subjects that are involved in this study (Carson etal, 2001) and to render the study ethical, the rights to self-determination, anonymity, confidentiality and informed consent and voluntary were observed (Saunders and Lewis, 2007). Additionally, written permission to conduct the study was obtained from Africa University.

3.11.1 Confidentiality

It is vital to note that the information obtained from respondents was kept confidential and used for research purpose only as noted by Burns and Grove (2005) and Munyoro (2014). The researcher made sure that the information obtained was not disclosed in any way to third parties who may not use it well or disclosing it in a way that may bring hurt to the providers of the information (Oddi and Cassidy 1990). According to Ethical Standards of the American Educational Research Association (AERA), it is of paramount importance that educational researchers respect the rights, privacy, dignity, and sensitivities of their research populations and also the integrity of the institutions within which the research occurs.

3.11.2 Informed consent

It is worth noting that participants should be fully informed about the procedures and risks involved in research as argued by Ford and Reuter (1990) and in this study, participants managed to have full information about the importance of this study before filling the questionnaire (Munyoro, 2014). Additionally, informing the respondents was of greater importance to the researcher as it enabled the researcher to get the concerned data as argued by Blumberg etal (2005).

3.11.3 Voluntary participation

In any research, the respondents have the right to voluntary participation when filling questionnaires (Saunders etal; 2011; Munyoro, 2014). Thus, ethical principle of self-determination should be maintained as noted by King (2005). Likewise, subjects were treated as autonomous agents by informing them about the study and allowing them to voluntarily choose to participate or not (Saunders etal; 2011; Munyoro, 2014). For that reason, the researcher made sure that participants were not forced into participating in this research.

3.11.4 Scientific honesty

Scientific honesty is regarded as a very important ethical responsibility when conducting research Burns and Grove (2005). Therefore, the researcher tried to avoid any form of dishonesty by recording truthfully the answers of those subjects who could not read or write (King, 2004). Consequently, dishonest conduct includes manipulation of design and methods, and retention or manipulation of data (Krueger and Casey, 2000). In contrast, manipulation of data could not be done as an independent statistician being watched by the supervisor entered the data from the questionnaires into the QDA computer software program. Furthermore, the statistician produced the results independently of the researcher to avoid subjective collaboration as argued by Saunders etal (2004).

3.12 Chapter summary

The research methodology has been developed within this chapter. This methodology describes the stages in the research process. The research design was then operationalised into a protocol, which provides a 'step-by-step' procedure of the data gathering process. Details of practical considerations such as sampling and participation, measurement scales and data analysis procedure were also discussed in this chapter. Upon completion of the study, the data was cleaned, coded and entered on to the statistical package for social sciences (SPSS) version 25.0 for Windows. Analytical techniques included descriptive statistics and exploratory factor analysis was discussed briefly. The testing of the hypotheses and the relationships between independent and dependent variables is presented in Chapter 5.

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter focuses on the data collected from the questionnaire that was delivered to participants. The researcher employed a self-administering strategy to collect data in this research study. This study's target group included Botswana economists, trade institutions, and farmers who had direct knowledge of the import limits. The questionnaire was designed using a 5-point Likert-scale format. The survey approach was chosen for this study due to the minimal number of respondents. The questionnaire was pilot tested prior to being distributed to the intended respondents. The Statistical Package for Social Sciences (SPSS) Version 25 for Windows was used to analyze the data. In this regard, responses (from highly agreed to strongly disagree) were merged in the form of averages and standard deviations when the findings were presented. Section A of this chapter deals with demographic characteristics, whereas Section B analyzes the response to vegetable import limits using descriptive and inferential statistics. Furthermore, statistical tests were performed to determine the significance of the link between variables. The results were analyzed using the services of an outside statistician.

4.1 Response rate

A total of 400 questionnaires were distributed to the sample of the study, however, not all the issued questionnaires were returned. This estimation is therefore presented in table 4.1

Table 4.1 Response rate

Targeted sample	Responses	Response Rate
400	369	92.25%

Source: Primary Data 2023

Considering table 4.1, the study discovered that 400 questionnaires were issued to the respondents, which represents 100%. However, it is discovered that not all the questionnaires were returned. Out of the 400 questionnaires issued, 369 questionnaires were returned and this represented 92.25% of the distributed questionnaires. According to Nyaga (2021), a response rate of over 60% is enough for final analysis and presentation, having a response rate of 92.25% is appropriate for the analysis for this research study.

4.2 Demographic Responses

This section analyses the demographical details of the respondents using appropriate baseline computations. These demographics responses comprised of gender, age and education as illustrated below.

4.2.1 Participants consent.

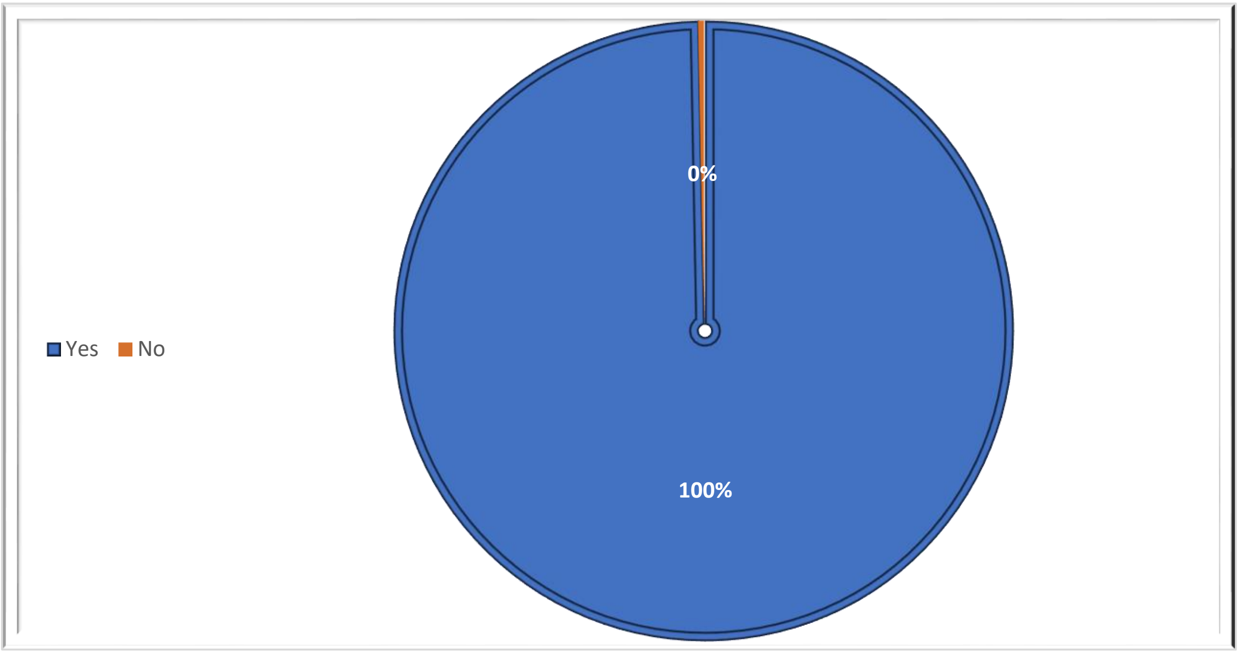

Figure 4.1 Participant consent (Primary Data, 2023)

During the research process and questionnaire distribution, the researcher requested participants to sign a consent form prior the fill in their responses. In this case, it has been observed that all the participants have filled their consent forms.

4.2.2 Gender

This section presents gender responses for the research participants as illustrated in figure 4.2 below.

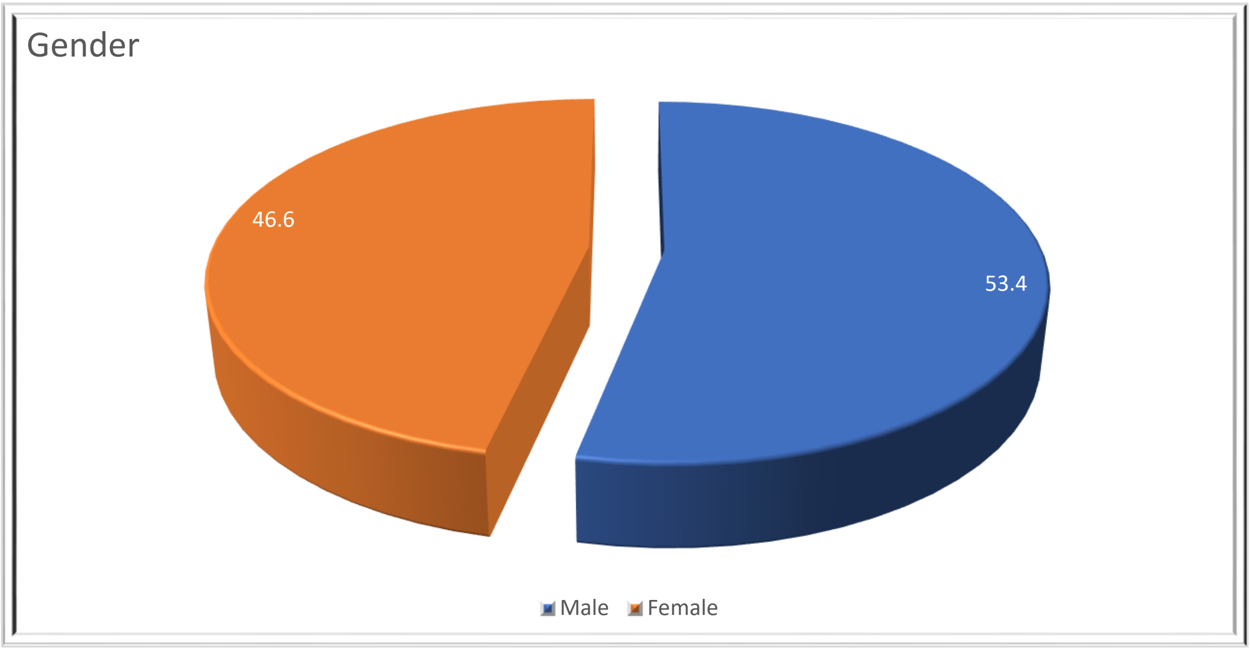

Figure 4.2 Respondent Gender (Primary Data, 2023)

Looking at figure 4.2, it is discovered that the male gender had a percentage of 53.4%, which means that the sample of the study was dominated by male respondents. The female gender of the study was discovered to be 46.6% represents female respondents. This result implies that there were more men than men in the respondents of the study than women. After looking at the respondents of the study, the study went ahead to look at the age group of the respondents. Figure 4.3 therefore presents the age of the sample respondents.

4.2.3 Respondents age group

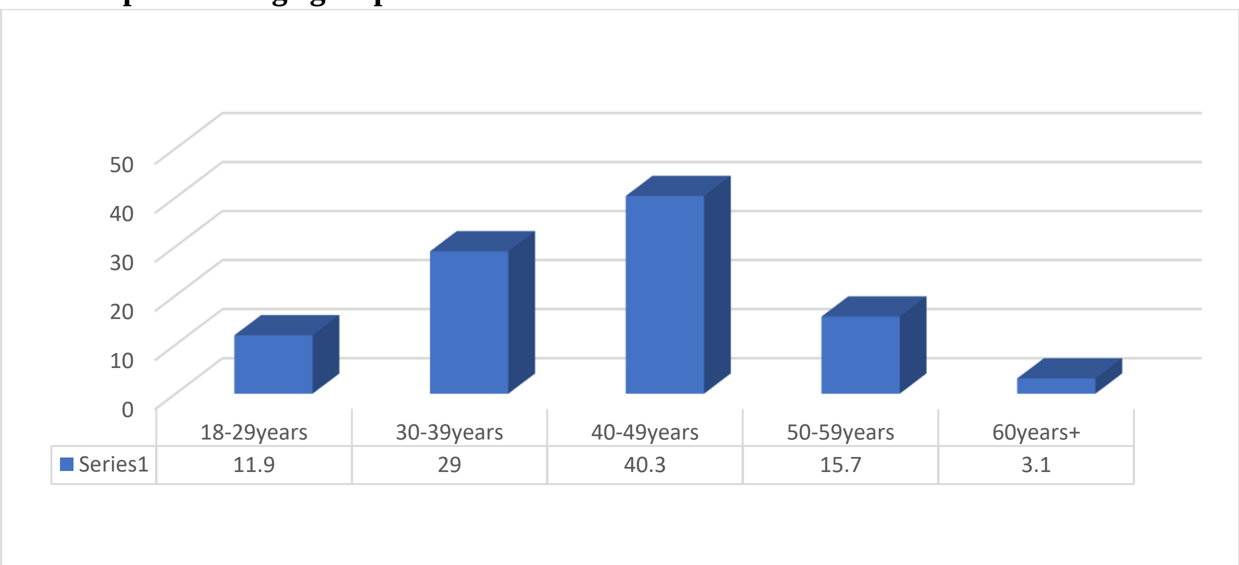

Figure 4.3 Respondent Age Group (Primary Data, 2023)

Figure 4.3 presents the age of the respondents. From the figure it has been observed that the respondents within the age range of 40-49 has dominated the responses with a percentage of 40.3 were 29% represented 30-39years and the least being 3.1% obtained from respondents who are aged 60years and above. After the age of the respondents, the study proceeded to look at the educational status of the employees in the firm. Table 4.5 therefore presents the educational qualification of the respondents.

4.2.4 Respondents Level of Education

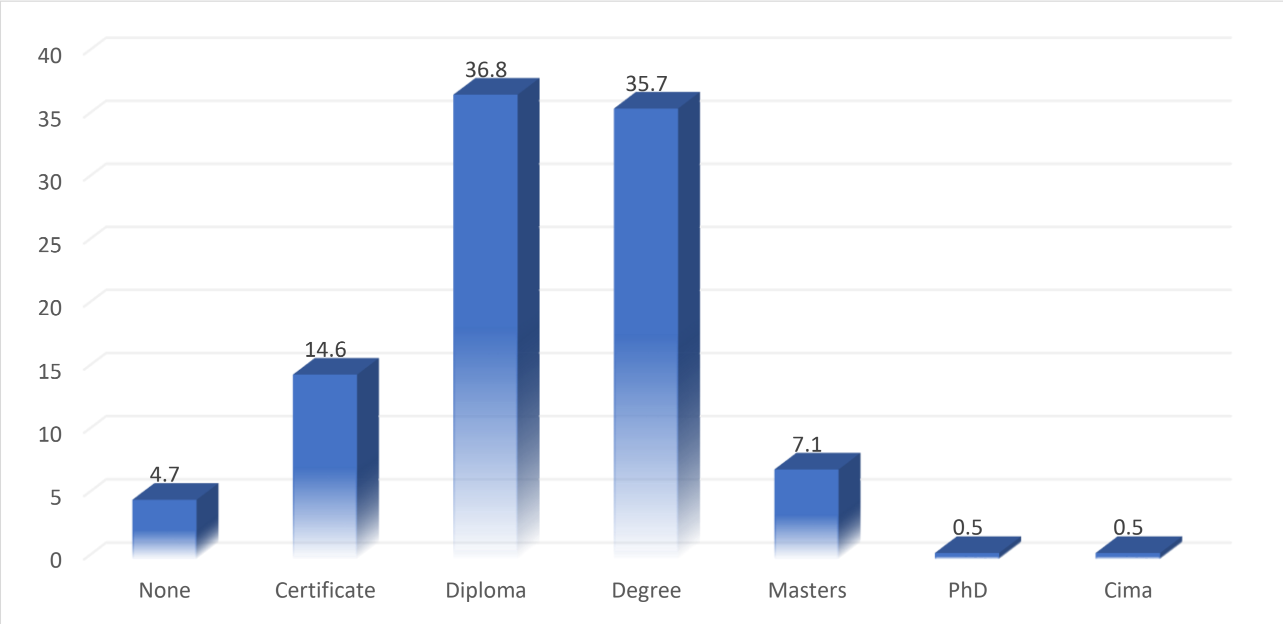

Figure 4.4 Respondent Age Group (Primary Data, 2023)

In this research study, the research also sought to understand the respondents age group. From the research findings, it was observed that the research study was dominated by diploma holders which constituted about 36.8% of the total responses. This was followed by degree holders with 35.7%. Overly, these findings signify that data was collected from well-educated respondents hence they can be relied upon. After the qualification of the respondents, the study proceeded to look at the years of experience of the employees. This also shows that most of the respondents were academically qualified in their respective career and hence understood the real factors and impacts import bans. The following section is based on presentation and analysis of the research findings through the use of descriptive statistics.

4.3 Descriptive statistics

In this research study, descriptive statistics were used to provide summarizing information of the characteristics and distribution of values in one or more datasets. The classical descriptive statistics allow analysts to have a quick glance of the central tendency and the degree of dispersion of values in datasets. They are useful in understanding a data distribution and in comparing data distributions.

4.3.1 Effects of vegetable import bans on commodity prices

The first objective of this study sought to establish the effects vegetable import bans on commodity prices. As illustrated in table 4.2 below.

Table 4.2 The effects vegetable import bans on commodity prices

Description	Mean	Std-Dev
Import ban has reduced competition resulting in increase in prices from local manufacturers.	4.166	1.844
Import ban has resulted in failure to meet the demand of locally manufactured or grown commodities.	4.526	1.153
Import ban has resulted in increased exports	2.448	0.614
Import ban has resulted in increase in the demand of local commodities	3.474	0.158

Primary Data, 2023

Data presented in table 4.2 above illustrates the impacts of import bans on commodity prices within the Botswana economy. In this regard, it was established that import ban has resulted in failure to meet the demand for local commodities as indicated by the highest average mean of 4.526 signifying that majority of the respondents have strongly agreed to the statement posed by the researcher. On the other hand, a least means of 2.448 was recorded indicted that majority of the respondents have been disagreeing to the fact that import bans have resulted in increased exports of vegetable commodities.

These research findings align with the conclusions of multiple studies that have investigated the effectiveness of export restrictions implemented by governments over the previous decade in achieving their intended objectives. The results exhibit variability based on factors such as the study's scope, design, geographical location, and the specific commodity under investigation. Several scholarly research has demonstrated the efficacy of export limitations implemented by specific countries in mitigating domestic price volatility (Abbott, 2022; Baffes et al., 2021). Contrary findings have been reported by other studies, which indicate that these trade restrictions have led to a rise in domestic prices or an exacerbation of domestic price volatility (Baylis et al., 2023; Djuric et al., 2021; Porteus, 2022). Other studies have reported a restricted or negligible impact (e.g., Götz et al., 2023). In a study conducted by Abbott (2022), a comparison was made between the price fluctuations of grains and rice across a diverse range of nations over the period of 2007 and 2008. The findings of the study indicate that exporting countries that imposed trade restrictions experienced comparatively lower increases in prices, as opposed to exporting countries that did not implement such measures. The consequences, however, vary depending on the specific product and the country implementing export restrictions. It was shown that Asian rice exporting nations were more successful in achieving price stabilization compared to Latin American and Eastern European countries that export grains.

The aforementioned finding regarding the Asian rice markets has been substantiated by Dawe and Timmer (2022), who provide evidence that China, India, and Indonesia effectively shielded their respective domestic rice markets from the fluctuations in global prices over the period of

2007 and 2008. Baffes et al. (2021) conducted a study to analyze the consequences of a series of export bans that were enforced in Tanzania from 2004 to 2022. The researchers discovered that the implementation of export prohibitions resulted in a decrease in domestic maize prices. Conversely, there exist research that demonstrate how export limitations have further intensified fluctuations in domestic prices. According to the study conducted by Baylis et al. (2023), the imposition of an export ban on wheat and rice in India has led to an escalation in domestic price volatility caused by internal supply shocks. The implementation of export limits may have resulted in increased domestic costs due to a decrease in domestic market efficiency. In this study, Djuric et al. (2021) investigate the effects of the export prohibition on wheat in Serbia on the domestic price levels. The authors demonstrate that the imposition of the restriction did not effectively mitigate the rise of domestic wheat prices beyond the levels observed in the global market.

4.3.2 The relationship between import ban and economic growth within the Botswana government.

The second objective of the study sought to establish the relationship between import ban and economic growth within the Botswana government. Research findings based on this objective have been presented in table 4.3 below.

Table 4.3 The relationship between import ban and economic growth within the Botswana government.

Description	Mean	Std-Dev
Import bans has reduced the balance of trade deficit	4.676	1.421
Import ban resulted in increased production	3.860	0.359
Import ban has increased the income per capita	3.998	1.699
Import ban increased the employment rate	4.604	0.798

Source: Primary Data 2023

From the research findings presented in table 4.3 above it has been observed that majority of the respondents have strongly agreeing to the fact that imports bans have resulted in reduced balance of trade as in represented by the highest mean of 4.676. On the other hand, a least means of 3.860 was recorded were respondents indicated that import ban has resulted in increased production.

These research findings align with the conclusions of multiple studies that have investigated the effectiveness of export restrictions implemented by governments over the previous decade in achieving their intended objectives. The results exhibit variability based on factors such as the study's scope, design, geographical location, and the specific commodity under investigation. Several scholarly research has demonstrated the efficacy of export limitations implemented by specific countries in mitigating domestic price volatility (Abbott, 2022; Baffes et al., 2021). Contrary findings have been reported by other studies, which indicate that these trade restrictions have led to a rise in domestic prices or an exacerbation of domestic price volatility (Baylis et al., 2023; Djuric et al., 2021; Porteus, 2022). Other studies have reported a restricted or negligible impact (e.g., Götz et al., 2023). In a study conducted by Abbott (2022), a comparison was made between the price fluctuations of grains and rice across a diverse range of nations over the period of 2007 and 2008. The findings of the study indicate that exporting countries that imposed trade restrictions experienced comparatively lower increases in prices, as opposed to exporting countries that did not implement such measures. The consequences, however, vary depending on the specific product and the country implementing export restrictions. It was shown that Asian rice exporting nations were more successful in achieving price stabilization compared to Latin American and Eastern European countries that export grains.

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4.3.3 How import bans affected neighbouring countries

The third and final objective the study sought to establish how import affected the neighbouring countries of Botswana. The research findings for this were presented in table 4.4 below

Table 4.4. How import bans affected neighbouring countries

Description	**Mean**	**Std Dev**
Import resulted in economic isolation	4.562	0.865
Import ban resulted slow economic growth rate	3.654	0.558
Import ban has resulted in retaliation	4.813	0.458

Source: Primary Data 2023

Based on the findings presented in table 4.4 above it is clear that import ban has major effect on retaliation as indicated by the highest mean of 4.813 implying that majority of the respondents have been strongly agreeing to this statement. On the other hand, it was observed that import ban also results in political isolation as indicated by an average mean of 4.562.

Marius (2021) asserts that the government can implement import tariffs, which are substantial levies imposed on imported commodities, as well as absolute prohibitions on the importation of goods that can be domestically produced. One of the advantages of implementing such measures is that they can provide benefits to domestic producers. When the cost of imports rises, domestic manufacturers are able to capitalize on this by raising the prices of their goods, so gaining a competitive advantage. As a result of the rise in prices, there is a corresponding shift to the right in the supply curve. The augmentation of production by individuals contributes to the overall growth of the Gross Domestic Product (GDP) of the country (Williams, 2019). Nevertheless, it is important to acknowledge that the implementation of import tariffs and restrictions can give rise to a potential drawback, namely the possibility of instigating a trade war among nations (Collins, 2023). Consequently, the impact of bilateral trade on countries can result in a decline in the country's exports.

4.4 Regression Analysis

Simple linear regression is a model that assesses the relationship between a dependent variable and an independent variable. Linear regression analysis involves examining the relationship between one independent and dependent variable. Statistically, the relationship between one independent variable (x) and a dependent variable (y) is expressed as: $y= \beta_0+ \beta_1x+\varepsilon$. In this equation, β_0 is the y intercept and refers to the estimated value of y when x is equal to 0. The coefficient β_1 is the regression coefficient and denotes that the estimated increase in the dependent variable for every unit increase in the independent variable. The symbol ε is a random error component and signifies imprecision of regression indicating that, in actual practice, the independent variables are cannot perfectly predict the change in any dependent variable. If the p-value for a variable is less than your significance level, your sample data provide enough evidence to reject the null hypothesis for the entire population. The data favour the hypothesis that there *is* a non-zero correlation. Changes in the independent variable *are* associated with changes in the dependent variable at the population level. This variable is statistically significant and probably a worthwhile addition to your regression model.

Table 4.5 Model Summary

R	**R-Square**	**Adjusted R Square**	**Std. Error of the Est**
.898	.797	.747	0.245
Predictors: (Constant) Commodity pricing; Economic Growth; Relations with Neighbouring countries			

Source: Primary Data (2023)

Table 4.6 ANOVA

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	19.658	4	4.869	75.055	0.00
Residual	5.451	365	0.056		
Total	25.109	369			
Dependent Variable: Economic Development					
Predictors: (Constant) Commodity pricing; Economic Growth; Relations with Neighbouring countries					

Source: Primary Data (2023)

Additionally, it was necessary to ascertain the statistical significance and appropriateness of the regression model that connects import restrictions with economic advancement inside the governmental framework of Botswana. The analysis of variance was employed to determine the significance of the derived F value of 75.055, which was found to be statistically significant at a significance level of 0.05 (Sig = 0.000, < 0.05). Through the examination of the F critical value against the F calculated value, it has been determined that the F calculated value (75.055) surpasses the F critical value (2.482) at a significance level of 0.05. This outcome serves to validate the aforementioned conclusions. The findings indicate that the regression model, which establishes a connection between import bans and economic development, had statistical significance and demonstrated a good match with the dataset.

4.7 Chapter Summary

The present study elucidated the findings pertaining to the impact of portfolio diversity on the financial performance of investment enterprises. The regression model exhibited statistical significance in its ability to predict the dependent variable. The subsequent chapter presents a comprehensive overview encompassing the summary, discussions, conclusions, recommendations, and suggestions for further research.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses the conclusions that have been derived from the study's findings and the debates that were presented in chapters four and five. The study also places importance on the policy implications and offers suggestions for topics that have not received sufficient attention within the current scope of the study, but could be explored in future research.

5.2 Discussion

The government of Botswana employs a strategy of implementing restrictions on vegetable imports as a means to safeguard native producers and mitigate reliance on imported goods. This dissertation posits that the implementation of such rules yields adverse consequences for net consumers of those products, mostly attributable to the resultant escalation in costs. Poor households have vulnerability due to trade regulations, since approximately 70 percent of their budget is allocated towards food expenses, while around 13 percent of their overall budget is dedicated to products that are susceptible to import bans. The prices of certain food goods that are subject to import restrictions have been observed to exceed their hypothetical values in the absence of such prohibitions. The literature analysis revealed that numerous developing nations, particularly in Latin America, adopted import restrictions during the 20th century. The underlying justification was that the perpetual reliance of developing countries on imports of manufactured goods from rich countries would perpetuate their disadvantageous position, hindering their ability to foster domestic industrial growth. However, the implementation of import ban rules can have detrimental effects on an economy over an extended period of time, manifesting in various ways.

Initially, the implementation of an import ban has the potential to result in elevated pricing and diminished quality of items. During the 1970s, the United States implemented import limitations on Japanese automobiles entering its domestic market. Consequently, this policy resulted in increased car costs within the US and a subsequent downturn in the American automotive industry. The escalation in prices can also be attributed to the increased influence of local enterprises in determining pricing, resulting from the elimination of foreign competition. In smaller nations, the economic feasibility of local manufacturing is limited due to the absence of economies of scale, resulting in higher production costs and compromised product quality for sectors catering solely to the domestic market. As a consequence, inefficiencies arise and there is a decrease in overall economic productivity. Industries characterized by limited economies of scale and geared to cater to a somewhat smaller domestic market may encounter challenges in engaging in export activities. The absence of exports leads to a deceleration in economic growth.

Furthermore, the implementation of an import ban serves to safeguard indigenous sectors by shielding them from the pressures of foreign competition. This phenomenon hinders organizations' inclination towards innovation, since they tend to prioritize serving the domestic market and get complacent in doing so. The absence of motivation to allocate resources towards the development of novel technologies and experimentation with alternative business models has enduring adverse implications for the trajectory of economic progress. Moreover, the implementation of import bans has the potential to escalate into trade conflicts. When a nation imposes import restrictions to protect its own industry, it may elicit a reciprocal response from the other nation, resulting in reduced imports and the potential escalation of a trade conflict.

Following the conclusion of the First World War, the United States initiated a trade conflict by implementing elevated taxes on imported goods. Consequently, this policy decision contributed to a significant contraction in economic expansion within the United States. The implementation of an import restriction might potentially result in severe consequences for fiscal policy and economic growth over several timeframes, including the short, medium, and long term. The consumer in an open economy is afforded the advantage of accessing products that exhibit superior quality and are offered at more competitive prices. Additionally, this phenomenon leads to enhanced competitiveness and innovation among local enterprises, hence fostering the growth of a prosperous export sector. As cited by Pronczuk, M. (2022), this phenomenon has the potential to result in increased fiscal income for governments and foster enhanced economic growth.

5.3 Policy Implications

The findings of the study hold significant significance for the formulation of economic development policies in Botswana. The policy implications derived from the findings of this study were classified according to the variables that influenced them, including exports, imports, capital, and labor force. Based on the aforementioned consequences, significant policy recommendations were derived and emphasized as indicated below. The obtained positive and statistically significant outcome pertaining to exports bears major policy implications for the country's overall economic growth.

This policy additionally seeks to enhance the capabilities of domestic industries to meet domestic demand and generate excess for export, thereby benefiting from international trade. It is recommended that the government of Botswana actively promote the diversification of its export portfolio to include products that are in demand within the area, alongside its traditional export commodities such as tea and coffee. This measure is expected to result in a decrease in the consumption of foreign goods and services, potentially leading to a reduction or even cessation of imports. In order to enhance the competitiveness of their exports in the worldwide market, it is imperative for vegetable farmers to enhance the quality of their products. It is recommended that the government proceed with the implementation of the recently introduced National Export Strategy (NES) in order to attain sustainable economic development. This can be achieved through enhancing the accessibility of Botswana's exports of goods and services to various markets, fostering the ability of firms to enter and expand within the export market, and establishing a facility to facilitate export growth. The government of Botswana should prioritize the use of advanced technological solutions to enhance the processing of its key export commodities. This would result in improved export quality and increased revenue generation.

5.4 Recommendations

According to the findings of this study, the export-led growth policy exhibits a high degree of validity. Therefore, it is recommended that the Government of Botswana continues to focus on enhancing its export-led economic growth strategy, specifically through the implementation of the Made in Botswana Policy. The aforementioned strategy was implemented in the year 2021 and is widely seen as beneficial due to its promotion of domestically produced goods, hence mitigating the disparity between imports and exports. In order to enhance the promotion of food exports, it is recommended that the Government of Botswana bolster the allocation of subsidies to producers with a focus on exports, specifically targeting smallholder farmers and small to medium scale enterprises (SMEs). Furthermore, it is advisable to implement a moderate rise in export producer pricing.

The provision of subsidies and the establishment of high producer prices will serve as motivating factors for smallholder farmers to continue engaging in export-oriented production, thus resulting in increased export revenue for the nation. Botswana should strategically leverage its physical and institutional infrastructure to effectively conduct testing, accreditation, and certification processes for its export commodities, aligning with the technical requirements established by the international trading system. The presence of a positive and statistically significant correlation between imports and the level of GDP provides confirmation that the Import-led Growth hypothesis is applicable to the context of Botswana.

Based on the aforementioned discovery, it is advisable that the government of Botswana enhance its import policies by actively promoting the importation of non-direct consumables that are utilized in agricultural commodities, hence enabling the surplus to be exported. The existence of a positive and statistically significant correlation between the labour force and economic growth in Botswana suggests that the country should persist in pursuing labour-intensive economic growth strategies, specifically through labour-intensive industrialization within the export sector. Furthermore, it is imperative for the government to enhance the caliber of its workforce in tandem with augmenting its GDP growth rate and attaining its long-term developmental objectives.

Hence, it is imperative for the government to make substantial investments in the procurement of contemporary technology and in fostering the enhancement of the workforce's skill set. The findings of this study indicate that there is a statistically significant and positive relationship between capital and economic growth in Botswana. These results have substantial consequences for the country's economic policies. This suggests that it is advisable for the government to persist with its policies that are designed to stimulate domestic investment and entice international investors in order to attain economic expansion. In order to foster foreign direct investment and facilitate capital creation and economic progress, it is imperative for the nation to allocate resources towards enhancing its infrastructure, particularly in the domains of transportation and energy (namely electricity and fuel). Furthermore, it is imperative for the government to ensure convenient availability of financial resources to export-oriented businesses, with a special focus on small and medium scale enterprises (SMEs). Development banks play a crucial role in facilitating financial support for export-oriented firms.

It is imperative for the government to implement robust and flexible initiatives and strategies in order to effectively address the long-term repercussions of the pandemic. It is recommended that Botswana allocate significant resources towards the implementation of the Economic Recovery Plan (ERP) over an extended duration. This plan should prioritize the examination of trade components that are most susceptible to vulnerability, and provide financial and political assistance to small and medium firms in order to enhance their growth and development. In order to enhance the volume of both exports and imports, it is advisable for the government to actively encourage the utilization of electronic commerce (e-commerce) platforms. These platforms would serve as centralized hubs, facilitating efficient communication between exporters and importers. By leveraging such hubs, exporters would gain valuable insights into the demand for their products, while importers would be able to identify suitable sources for their desired goods. The primary objective of this hub is to offer comprehensive assistance and guidance to area enterprises in their endeavour to get access to significant trade markets.

5.5 Suggestions for Further study

This study conducted a comprehensive analysis of the worldwide effects of import bans on the economic growth of Botswana. Drawing on the theory of comparative advantage in trade, further investigation can be undertaken to examine each export commodity in order to determine the primary commodities in which Botswana possesses a competitive advantage and can be recommended to produce at a low cost for export to global markets. Conversely, this analysis can also identify the commodities in which Botswana lacks a comparative advantage and should not allocate significant resources towards their production. The examination of import goods is also a viable area of study.

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Appendices

APPENDIX 1: AUREC Approval Letter

Investing in Africa's future
AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (AUREC)

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare-Tel (+263-20) 60075/60026/61611 Fax: (+263 20) 61785 website: www.africau.edu

Ref: AU2912/23 15 June, 2023

AMANDA NOLUSINDISO CHIKWANDA
C/O Africa University
Box 1320
MUTARE

RE: AN INVESTIGATION OF THE EFFECTS OF IMPORT BAN ON AN ECONOMY: A CASE STUDY OF BOTSWANA'S VEGETABLE IMPORT BAN

Thank you for the above-titled proposal that you submitted to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following. a) Research proposal

- **APPROVAL NUMBER** AUREC 2912/23

  This number should be used on all correspondences, consent forms, and appropriate documents.
- **AUREC MEETING DATE** NA
- **APPROVAL DATE** June 15, 2023
- **EXPIRATION DATE** June 15, 2024
- **TYPE OF MEETING** Expedited

After the expiration date, this research may only continue upon renewal. A progress report on a standard AUREC form should be submitted a month before the expiration date for renewal purposes.

- **SERIOUS ADVERSE EVENTS** All serious problems having to do with subject safety must be reported to AUREC within 3 working days on standard AUREC form.
- **MODIFICATIONS** Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)
- **TERMINATION OF STUDY** Upon termination of the study a report has to be submitted to AUREC.

AFRICA UNIVERSITY
RESEARCH ETHICS COMMITTEE (AUREC)
APPROVED
P.O. BOX 1320, MUTARE, ZIMBABWE

Yours Faithfully

Chinzou

MARY CHINZOU
ASSISTANT RESEARCH OFFICER: FOR CHAIRPERSON
AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE

APPENDIX 2: Participants Information and Guide Sheet

Amanda N Chikwanda Research Questionnaire

PARTICIPATION INFORMATION SHEET

My name is Amanda N Chikwanda 170234 I am a **Master's in International Relations and Diplomacy** at the Africa university. You are being invited to take part in a research project in partial fulfillment of my degree program. The dissertation is entitled An Investigation of the Effects Of Import Ban On An Economy: A Case Study Of Botswana's Vegetable Import Ban. Before you decide on whether to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully before you decide whether you wish to take part. You are welcome to discuss this project with others before you make your decision. My contact details are below. Please ask me if there is anything that is not clear or if you would like more information.

Why am I making this project?

I am making this project as part of the assessed coursework. I will be working on this project while studying at the Africa University and will be supervised by a member of the teaching team on the International Relations.

Why am I contacting you?

You were selected because of the unique perspective that you bring to the table regarding this matter. I am reaching out to you in the hopes that you will be able to lend a hand to me with the project that I am working on. Participation in the study is entirely optional.

I will get in touch with you initially for the sole purpose of conducting research or pre-production on the project. This is to further my understanding of the topic I am researching and to conduct primary research for the project I am working on. When I have finished putting the finishing touches on my project proposal and my manager has given his stamp of approval, I may get back in touch with you to see if you are interested in assisting me further with my project. It's possible that I'll ask you to take part in this project as an on-camera contributor, or I might ask you for some background information that will help shape the project.

How will my contact details and other information/materials about me be stored?

Any personal data relating to you, in any format whether paper or electronic, held in files, on password protected laptops and phones and cloud storage, which is collected by students in the making of their university work, will be safeguarded in accordance with the Privacy and Data Protection Act.

What will happen to the finished project?

In the first instance, my project is being made for educational purposes. However, the finished project (or extracts of it) may be shown/played in public spaces within Africa University.

What happens if I agree to take part but change my mind?

Participation in the project is completely voluntary. You are free to leave the project at any time and for any reason up until the point of recording, with no repercussions to yourself. You are not required to provide a reason for your withdrawal. I will ask you to sign a consent form if you are being recorded or filmed. If you sign, your image will be used in the finished film. You will receive a copy of this signed consent form for your records, and I will send you a copy of the completed film.

What should I do if there is a problem?

If you have any concerns about this project, you should raise it in the first instance with the named student, who will do her best to answer your questions.

Amanda N Chikwanda 170234 **Cell +263784431531**

Thank you very much for taking the time to read this document.

INSTRUCTIONS

1. Feel free to express your views to the best of your knowledge.

2. Please TICK appropriate box

3. Once you are done, kindly click submit.

Sign in to Google to save your progress. Learn more

AFRICA UNIVERSITY

A United Methodist-Related Institution

APPENDIX 3: Consent Form

Participation Consent Form

I have read the Information Sheet and had the details of the study explained to me.

My inquiries regarding the study have been addressed in a manner that satisfies me, and I am aware that I may still pose additional inquiries at any time.

I understand that I am free to withdraw from the study within the time limits outlined in the Information Sheet, without providing a reason for my withdrawal, or to decline to answer any particular questions in the study without any consequences to my future treatment by the researcher. I also understand that if I withdraw from the study within the time limits outlined in the Information Sheet, I will not be required to answer any particular questions in the study.

I acknowledge that the information I provide to the researcher will be kept confidential, and I consent to the conditions outlined in the Information Sheet.

Under the terms outlined in the Information Sheet, I would like to take part in the research project that is being conducted.

I agree that the information collected for the purposes of this research study may be used for any other research purposes, provided that it is first anonymized (so that it cannot be used to identify me) and then used.

Having read the above conditions, do you give consent?

- ○ Yes
- ○ No

APPENDIX 4: Questionnaire Survey Instrument

1. Kindly indicate your gender

- ◯ Male
- ◯ Female

2. Indicate your age group.

- ◯ 18-29years
- ◯ 30-39years
- ◯ 40-49years
- ◯ 50-59years
- ◯ 60years+

3. What is your highest level of education?

- ◯ None
- ◯ Certificate
- ◯ Diploma
- ◯ Degree
- ◯ Masters
- ◯ Other:

4. To what extent do you agree with the following statements on the extent to which vegetable import ban has affected price of vegetable commodities in Botswana. Where; 1 - Strongly Disagree (SD), 2– Disagree (D), 3– Neutral (N), 4– Agree (A), 5-Strongly Agree (SA).

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Import ban reduces competition hence increase in prices	○	○	○	○	○
Import ban resulted in increased demand for local commodities	○	○	○	○	○
Import ban resulted in increased exports of local commodities	○	○	○	○	○
Import ban resulted in a shortage of commodities on the market	○	○	○	○	○

5. To what extent do you agree with the following statements on the relationship between import ban and economic growth within the Botswana government. Where; 1 - Strongly Disagree (SD), 2– Disagree (D), 3– Neutral (N), 4– Agree (A), 5- Strongly Agree (SA).

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Import bans reduced has reduced the balance of the trade deficit	○	○	○	○	○
The import ban has resulted in increased productivity	○	○	○	○	○
The import ban has increased income per capita	○	○	○	○	○
This resulted in an increased employment rate	○	○	○	○	○

6. To what extent do you agree with the following statements on the vegetable import ban in Botswana has affected the relations with neighboring countries. Where; 1 - Strongly Disagree (SD), 2– Disagree (D), 3– Neutral (N), 4– Agree (A), 5- Strongly Agree (SA).

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
It led to political and cultural isolation, which, in turn, led to even more economic isolation.	◯	◯	◯	◯	◯
Increased import ban would slow down global growth	◯	◯	◯	◯	◯
Results in retaliation	◯	◯	◯	◯	◯