

**ASSESSING THE INFLUENCE OF RESIDENTIAL ADDRESSES IN
PROMOTING INTERNATIONAL TRADE IN TANZANIA: A CASE OF
SINGIDA REGION**

YUSUPH BAKARI MAKULO

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ART
IN INTERNATIONAL COOPERATION AND DEVELOPMENT
DEPARTMENT OF POLITICAL SCIENCE, PUBLIC ADMINISTRATION,
HISTORY AND PHILOSOPHY
OF THE OPEN UNIVERSITY OF TANZANIA**

2025

CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by The Open University of Tanzania a dissertation entitled “*Assessing the Influence of Residential Addresses in Promoting International Trade in Tanzania: A Case of Singida Region*” in partial fulfilment of the requirements for the award of the Degree of Master of International Cooperation and Development (MAICD).

.....

Dr. Furaha Julius

(Supervisor)

.....

Date

.....

Dr. Jacob Lisakafu

(Supervisor)

.....

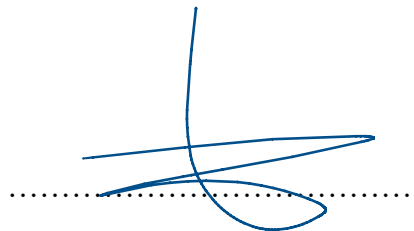
Date

COPYRIGHT

No part of this dissertation may be reproduced, stored in any retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the author or The Open University of Tanzania in that behalf.

DECLARATION

I, **Yusuph Bakari Makulo**, declare that the work presented in this dissertation is original. It has never been presented to any other University or Institution. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfilment of the requirement for the Degree of Masters of International Cooperation and Development.



Signature



Date

DEDICATION

I dedicate this entire research to my entire family

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to my supervisor Dr. Furaha Julius (PhD.) for his unwavering support, guidance, and encouragement throughout this research journey. His invaluable insights, constructive feedback, and continuous mentorship have greatly contributed to the successful completion of this study.

I am also grateful to all participants from the Singida Region and its district councils who provided their time, information, and perspectives, making this study possible. My appreciation extends to my colleagues, friends, and family for their constant encouragement and motivation during the research process.

Finally, I thank the Almighty for granting me the strength and perseverance needed to complete this work. Without the support and contributions of all these individuals, this study would not have been realized. Thank you all.

ABSTRACT

This study explores the influence of residential addresses on international trade in Tanzania, focusing on Singida Region, with specific aims to: correlate accurate residential addresses with parcel delivery certainty, track the application of the residential address system, and examine the challenges associated with its use in international trade. A mixed research approach was adopted, incorporating both quantitative and qualitative methods. The study employed a correlational research design. Data from 100 respondents were gathered through survey questionnaires, and interviews, and analyzed using descriptive and inferential statistics. Results indicated a significant positive correlation between accurate residential addresses and the certainty of parcel delivery. This means address accuracy improves logistics by reducing delivery errors, delays, and costs. The application of the residential address system was frequent in domestic shipping and business correspondence but limited in personal and international mail, largely due to infrastructure challenges. Key barriers identified include lack of address standardization, inaccuracies, limited coverage, and inadequate infrastructure, which collectively hinder international trade. The study concludes that enhancing residential address accuracy and standardization is crucial for improving parcel delivery and facilitating international trade. It recommends the implementation of standardized address formats, expanded integration of address systems in international shipping, and infrastructure improvements. These measures will strengthen logistics efficiency and promote smoother international trade, ultimately placing Tanzania's international trade at a promising position performance.

Keywords: *Residential addresses, Accuracy, parcel delivery, Tanzania's international trade.*

TABLE OF CONTENTS

CERTIFICATION	ii
COPYRIGHT	iii
DECLARATION	iv
DEDICATION	v
ACKNOWLEDGEMENT	vi
ABSTRACT	vii
LIST OF TABLES	xiv
LIST OF FIGURES	xv
LIST OF ABBREVIATION	xvi
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Overview	1
1.2 Background of the Study	1
1.3 Statement of the Problem	8
1.4 Research Objectives	9
1.4.1 General Objective	9
1.4.2 Specific Objectives	9
1.5 Research Questions	10
1.6 Significance of the Study.....	10
1.7 Scope of the Study	11
1.8 Organization of the Study	12
1.8 Chapter Summary	12
1.9 Chapter Summary	12

CHAPTER TWO	13
LITERATURE REVIEW	13
2.1 Overview	13
2.2 Definition of Key Terms	13
2.2.1. Residential address	13
2.2.2. Precision and Correctness of Residential Addresses	14
2.2.3. Parcel Delivery	14
2.2.4. Government Regulation.....	14
2.2.5. Physical Infrastructure	15
2.2.6. Accurate Delivery.....	15
2.2.7. International Trade.....	15
2.3 A Review of Theoretical Literature	16
2.3.1. Technological Diffusion Theory (TDT)	16
2.3.2. New Trade Theory (NTT).....	18
2.4 A Review of Empirical Literature	20
2.4.1 Correlation Between Accurate Residential Address and Certainty of Parcel Delivery	20
2.4.2 Application Records of the Residential Address System in Singida Region.....	22
2.4.3 Challenges Against Applying the Residential Address System in International Trade.....	23
2.5 Research Gap.....	25
2.6 Theoretical framework	25
2.7 Conceptual Framework.....	26

2.7.1	Independent Variable	26
2.7.2.	Intervening Variables	26
2.7.3	Dependent Variable.....	27
2.8	Chapter Summary	28
CHAPTER THREE		30
RESEARCH METHODOLOGY		30
3.1	Overview	30
3.2	Research Philosophy	30
3.3	Research Approach	31
3.4	Research Design	32
3.5	The Study Area	32
3.6	Study Population.....	33
3.7	Sample Size	33
3.7.1	Sampling Procedures	34
3.7.1.1	Nonprobability Sampling	34
3.7.1.2	Convenience Sampling.....	34
3.7.1.3	Purposive Sampling.....	35
3.8	Data Collection Methods	35
3.8.1	Questionnaire.....	35
3.8.2	Interview	36
3.9	Data Analysis Method	38
3.10	Reliability of Data	39
3.11	Validity of Data.....	40
3.12	Ethical Considerations	41

3.13	Chapter Summary	41
CHAPTER FOUR.....		43
PRESENTATION OF FINDINGS.....		43
4.1.	Overview	43
4.2.	Demographic Information of Respondents.....	43
4.2.1.	Gender of the Respondents.....	43
4.2.2.	Age of Respondents.....	44
4.2.3.	Education level of Respondents	46
4.2.4.	Marital Status of Respondents	47
4.3.	Accurate Residential Address and Certainty of Parcel Delivery	48
4.3.1.	Accuracy of Address Information.....	49
4.3.2.	Impact on Parcel Delivery Certainty	50
4.3.3.	Delivery Issues	52
4.3.4.	Relationship Between Accurate Residential Address and Certainty of Parcel Delivery	54
4.4.	Track the Application Records of the Residential Address System in Singida Region.	55
4.4.1.	Frequently of Application.....	55
4.4.2.	Types of Application.....	57
4.4.3.	Effectiveness of Utilization of Residential Address System	59
4.5.	Challenges against Applying the Residential Address System in Conducting International Trade	60
4.5.1.	Lack of Standardization.....	61
4.5.2.	Inaccurate Address Data	62

4.5.3.	Limited Address Coverage	62
4.5.4.	Inadequate Infrastructure	63
4.5	Chapter Summary	64
CHAPTER FIVE.....		65
DISCUSSION OF FINDINGS		65
5.1	Overview	65
5.2	Findings Related to Accurate Residential Address and Certainty of Parcel Delivery	65
5.3	Findings Related to Application Records of the Residential Address System	66
5.4	Findings Related to Challenges Against Applying the Residential Address System in Conducting International Trade	68
5.5	Chapter Summary	69
CHAPTER SIX		70
SUMMARY OF FINDING, CONCLUSION, AND RECOMMENDATIONS ...		70
6.1.	Chapter Overview	70
6.2.	Summary of the Findings	70
6.3.	Conclusion of the Study	72
6.4	Recommendations	73
6.5	Implications of the Study.....	74
6.5.1	Implications for Policy Makers	74
6.5.2	Implications for Industry and Institutions	75
6.5.3	Implications for Academics and theory Development	75
6.6.	Area for Further Study	75

6.7	Chapter Summary	76
	REFERENCE	77
	APPENDICES	94

LIST OF TABLES

Table 3.1	Displays an Interviewed Sample Size of 15 Participants.....	37
Table 4.1:	Distribution of Respondents by Gender	44
Table 4.2:	Distribution of Respondents by Age	45
Table 4.3:	Distribution of Respondents by Level of Education	46
Table 4.4:	Distribution of Respondents by Marital Status	48
Table 4.5:	Accuracy of Address Information	49
Table 4.6:	Impact on Parcel Delivery Certainty	51
Table 4.7:	Delivery Issues (n= 100)	52
Table 4.8:	Correlation Analysis Between Accurate Residential Address and Certainty of Parcel Delivery.....	54
Table 4.9 :	Types of Applications (n= 100).....	58
Table 4.10	Challenges (n=100)	61

LIST OF FIGURES

Figure 2.1 : Conceptual Framework of Study Variables	27
Figure 4.1: Frequency of Applications.....	56
Figure 4.2: System Effectiveness	59

LIST OF ABBREVIATION

CCM	Chama Cha Mapinduzi
CRDB	Cooperative Rural Development Bank
DHL	Dalsey, Hillblom, Lynn
ICT	Information Communication Technology
NAPA	National Physical Addressing
NTT	New Trade Theory
OLX	Online Exchange
PAPU	Pan African Postal Union
PO-RALG	President's Office, Regional Administration, and Local Government
SPSS	Statistical Package for Social Scientists
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TBS	Tanzania Bureau of Standards
TCRA	Tanzania Telecommunication Regulatory Authority
UK	United Kingdom
UPU	Universal Postal Union
USD	United States Dollar
USPS	United States Postal Services

CHAPTER ONE

INTRODUCTION

1.1 Overview

This study focuses on the influence of residential addresses on Tanzania's international trade, focusing on the Singida Region. This chapter presents a background of the study, a statement of the problem, research objectives, research questions, significance of the study, scope of the study, and organization of the study.

1.2 Background of the Study

Globally, people need to integrate for different purposes in life, for the integration to manifest, several facilities are in the interplay; one crucial facility is the residential address, among others. The residential address system is a crucial part of facilitating a good number of affairs, especially trade. From a global perspective, the residential address facilitates global payment through the SWIFT system (Seth, 2023). Farkas et al. (2023) and Remitly (2024) emphasized that in international transfers, the address is among the key components for properly executing payments to individuals or banks. Therefore, companies that wish to engage in international trading depend heavily on the accuracy of the addresses to properly route their payment. Due to inaccurate addresses, international trading companies have registered losses amounting to USD 101 billion from the failure of proper shipping, delivery or billing addresses (Richard, 2023).

Cross (2020) contends that various shipping companies have registered serious losses of time and overcharges, as evidenced by two companies that charge between 17 – 20

USD in surcharges and address correction. Moreover, the companies have reported serious losses of properties and parcels due to misspellings or poorly structured addresses (Thompson, 2023). Similar observations were made by Hand (2023), who asserts that inaccurate shipping data has serious consequences on international trading that lead to higher costs, returns and dissatisfaction.

Kituyi (2020) states that online trade and services accounted for about \$2.9 trillion in 2018, which is equivalent to 99 percent of the trade activities globally. Given this growing trend, formal residential address systems are becoming crucial. World online trading companies like Amazon, eBay, and Alibaba depend greatly on the availability of formal residential addresses to facilitate their trading as these are key to delivery. Similarly, shipping companies like DHL, USPS, and Royal Mail depend on formal residential addresses for certainty in parcel delivery to customers.

It is overtly and evidently that international trade relies on a robust addressing system. The address is among the key elements that facilitate safe and sound trade. The address is the one that facilitates safe international trade as it facilitates order placing, order processing, payment, and delivery to individuals. On the contrary, the implementation of the addressing system and the application of its application have been in a dire situation. The study by Gareth (2022) points a finger at street sign vandalism, while Kironde (2021), accounts for poor street naming, repetition of street names or use of popular names than those assigned to the street and individuals` rejection of installing a house address as the main problem to the addressing system.

In Africa, online trading and commercial activities are currently on the increase. It is estimated that 29 percent of Middle East and North African sales originated from international e-commerce (Reuters, 2024). According to the International Trade Administration (2022), platforms such as Facebook, Twitter, WhatsApp, and LinkedIn together have more than ten million users in Africa in total who use them for advertising and trading. This has made residential addresses essential. Wright (2024) observes that retailers in online international trading face difficulties in both individual and organizational contexts. Only 6% of the traders find it easy to trade online, partly due to delivery uncertainties stemming from inaccurate addresses.

This has led to the emergence of intermediary operating companies such as Silent Ocean, Kilimanjaro Star Cargo, and Oppo agencies that bridge the online international trading between international manufacturing and their final consumers. However, the companies still face problems during the disbursement of cargo, especially at the delivery stage (Gareth, 2022).

International online trade transactions are a new venture in Tanzania, but they are gaining traction and growing daily due to government efforts to address e-commerce by technologically advancing its postal system (Lamtey & Kaitira, 2021). Mlelwa et, al (2015) revealed that Tanzania has 7,590,794 internet users as of June 2014, who in one way or another may venture into trade and online transactions. The trade depends largely on multiple elements to operate effectively and efficiently. Such elements are proper trade logistics and physical infrastructure, such as the internet, road signs, physical addresses, and policies and laws that sustain these transactions. Therefore,

residential address systems are a key logistics element that international trade relies on with minimal risk and should be implemented and owned by their users.

The existence of sound ICT addressing infrastructure in both urban and rural areas alike is crucial for international trade (Uganda Ministry of Information and Communication Technology and National Guidance, 2019). Such infrastructures are crucial in enhancing trade, especially in international transactions conducted online. These transactions involve the exchange of goods, services, and capital across international borders using Internet communication (Meler-Pesti & Trubenbach, 2009).

Therefore, formal residential addresses have now become essential for online international trading as they enhance certainty in delivery, verification of traders, and physical access to clients and sellers. The essentiality of these formal addresses extends to both ordinary citizens and companies that rely on online international trading.

There is no international trading without a proper addressing system. Lack of proper delivery addresses and trust in sellers have also hampered the growth of international trade. This claim was seconded by Lloyds Banks, (2023) and Ecommpay (2024), since their surveys show that online trading, especially international e-commerce is suffocated by a lack of organized addresses. Local Actors present in this sector in the country include Pan-African online marketplace Jumia, OLX, Zudua and Shop Online Tanzania and international actors such as eBay, Amazon, DHL, and Alibaba

still face serious challenges in securing safe transactions and facilitating clean and cheap international trade, especially in order, payment and delivery.

In the case of Tanzania, the residential addresses are supposed to help provide clear and accurate directions to the users of the system to simplify access and ensure safe international trading. The systematic literature review of factors to improve Tanzania's E-commerce performance by Sassi (2023) points to trade logistics and infrastructure as a key barrier to the growth of international trade in Tanzania. Studies by Kenton (2024) Chaffey & Ellis-Chadwick (2019), and Huang & Lin (2011), show that direct business-to-consumer trade in international e-commerce is influenced by international shipping and payment information. Also, Hui (2016) shows that purchase decisions on eBay data are seriously influenced by the presence of accurate information.

In Tanzania, people have lived long enough without proper trade and logistics infrastructure until recent times. By 2022, the government realized how crucial the addressing system is in trade-related affairs. PO-RALG (2016), residential address regulations and sections 57 and 59 of the Local Government (Urban Authorities) Development Control Regulation of 2008, state that the full address must be displayed on a front wall, main gates, or entry doors. This is to provide crucial information such as ownership and use of the facility, structures within the premises, and services offered if it is a public structure.

However, despite the government's effort only a few organizations have taken the action seriously, and many citizens are unaware of their address system. The main reason behind this could be weak enforcement of the guidelines or ambiguity of the implementation. The guidelines vest the power of implementation on individuals to develop and complete the process and report to post offices (PO-RALG, 2016). However, to some extent, there have been observations on the streets and most the area ignores the installation of these addresses properly. Starting with the street marks/identifiers in most of the area had used very temporary structures like wood and unstable wooden or steel stands to install the street names to the extent that they didn't last months. This is either by natural destruction or by vandalism due to interest in wood or steel materials for other purposes.

Hallmark, (2014) and Gareth (2022) put that vandalism on street signs is a problem that seriously affects the direction of motorists. Now this motorist can be an international delivery company such as DHL, or poster parcel officer and hence difficulty in delivery.

Further, most of the households and families didn't install the full addresses to their homes following the house numbering. Citing the regulation for the formulation of the residential and postal address by PO-RALG (2016), it insists that the address should have all patterns that is, the house number, address, and postcode as they are crucial for future use. However, there are still challenges for most individuals as they seem to be of limited knowledge to most of the users, since the house owners were to develop full addresses and install them into the front wall, gates, or doors. Only a

limited number of houses dared to do that (Kabunjanja, 2023). This leaves the plan of the government to identify businesses, house owners, and addresses of individuals in tatters. Still, in some of the wards, streets, and shehia there is a repetition of some roads/street names (Kironde, 2021). This might cause confusion and loss of the service providers or pose a risk to online trading especially for payment.

The main problem is the lack of a centralized system that can help filter and avoid name repetition. The best thing is to make use of postcodes which are part of the residential address, however, most citizens do not know what a postcode is. The postcodes are made up of five numbers, the first is a zone identifier, the second is the region code, the third number is the district identifier, and the fourth and fifth are ward representation (Ministry of Construction, Transport and Communication, 2016).

It may generally be fair to say that using these postcodes can help to avoid confusion and trouble for online international traders as the routine numbers are unique and specific to designated areas. However, it seems like the citizens are not aware of these numbers and do not see the potential of using them. Alternatively, therefore, traders rely on intermediary company addresses or purchases and sales on their behalf. This affects the growth of most individuals/retail international traders, or even necessitates costly travelling.

Though international trade in Tanzania is still at the embryonic development level, it has the potential to grow rapidly. This is especially true when one considers the

recent expansion of mobile payment methods such as M-Pesa, Tigo Pesa, and CRDB online banking. Although only 1% of the population buys stuff or pays bills online, the growth is promising. Tanzanians are traditionally wary of online payment as 94% of online shoppers choose cash on delivery. This is so since this method of payment allows one a free return option (Lloyds Bank, 2023).

1.3 Statement of the Problem

Tanzania, with a growing population exceeding 64 million as of 2022 (NBS, 2022), represents a significant market within the East African region. However, the country's international trade potential is hindered by systemic inefficiencies, notably the absence of a reliable, standardized, and widely adopted residential address system. In an era where global commerce increasingly relies on precision logistics and digital platforms, the lack of clear and accurate addressing hampers both cross-border and domestic delivery operations (UNCTAD, 2023). This gap affects key sectors including e-commerce, logistics, and postal services, leading to consequences such as delayed or failed parcel deliveries, increased costs due to excessive reliance on intermediaries, limited traceability of goods, and diminished consumer and partner confidence in Tanzania's capacity to support international trade (World Bank, 2022; GSMA, 2023).

The situation is especially critical in rural and semi-urban regions like Singida, where structured address systems are either non-existent or poorly implemented. This inhibits the tracking and verification of delivery points, contributing to inefficiencies in customs clearance and last-mile logistics (ITU, 2023). Despite recent initiatives

under the National Addressing and Postcode System (NAPS) to streamline address mapping, progress has been slow, fragmented, and insufficiently integrated into trade and logistics infrastructure (TCRA, 2022). Without solving this issue, Tanzania risks falling behind its East African Community (EAC) counterparts who are increasingly leveraging digital infrastructure and reliable address systems to facilitate smoother trade and attract foreign investment (EAC, 2023).

The knowledge gap lies in the limited empirical evidence examining how residential address systems directly influence the efficiency, reliability, and competitiveness of Tanzania's international trade. There is a need for context-specific studies to explore how accurate addressing impacts parcel delivery, the extent to which the address system has been applied in regions such as Singida, and the operational challenges involved in adopting such systems for trade facilitation. Understanding these dynamics will offer actionable insights to policymakers, logistics firms, and trade stakeholders aiming to enhance Tanzania's role in global commerce.

1.4 Research Objectives

1.4.1 General Objective

The general objective of this research is to assess the influence of residential addresses on Tanzania's international trade.

1.4.2 Specific Objectives

The study was guided by the following specific objectives

- i. To correlate between accurate residential address and the certainty of parcel delivery
- ii. To track the application records of the residential address system in Singida region.
- iii. To examine the challenges of applying the residential address system in conducting international trade in the case of Singida region.

1.5 Research Questions

In achieving the objectives, the study worked with the following questions

- i. Is there any significant relationship between the accuracy of residential addresses and the certainty of parcel delivery in the Singida region?
- ii. What are the current application records and usage patterns of the residential address system in Singida region?
- iii. What challenges are associated with applying the residential address system in conducting international trade in Singida region?

1.6 Significance of the Study

The study is expected to provide a clear picture to policy makers on the application and uses of the address system by individuals in achieving economic development. It reveals the knowledge of the individuals on the composition of the addressing terms. It instructs how a complete address should be and how to write it and make use of it in trading and other economic activities. Thus, individuals' knowledge can be evaluated on the importance and uses of the residential addresses in facilitating trade.

Here, the people's knowledge of how important the addresses are in facilitating commercial transactions is revealed.

These study findings also inform the Ministry of Communication, PoRALG, and the TCRA on the possible ways to develop robust and user-friendly address systems. This is certainly important since it helps to facilitate further restructuring of trade-related logistics and infrastructures.

1.7 Scope of the Study

Thematically, the scope of this study centred on investigating the role and impact of residential address systems in facilitating international trade within Tanzania, with a specific focus on the Singida Region. This exploration includes analysing how the availability and accuracy of residential addresses may influence trade by enhancing the reliability of parcel delivery for cross-border transactions. Key areas of focus in the study included i) the correlation of accurate residential addresses with parcel delivery certainty, ii) tracking the application of the residential address system, and iii) the examination of challenges associated with the use of residential addresses in international trade.

Geographically, the study focuses on Singida Region with the intent to offer a regional perspective that may be extrapolated to other areas facing similar challenges, with the ultimate goal of informing improvements to residential address systems to enhance Tanzania's international trade capacities.

Methodologically, the study adopted a mixed-methods research approach, utilizing both quantitative and qualitative research methods. This approach provides a broader

perspective by combining numerical data with detailed, context-specific information. The correlation research design was applied, allowing the study to explore relationships between the accuracy of residential addresses and their impact on parcel delivery reliability.

1.8 Organization of the Study

This dissertation is organized into six chapters. Chapter One introduces the study, outlining the background, objectives, and significance of the research on residential addresses and international trade in Singida Region. Chapter Two reviews relevant literature, establishing the theoretical framework and research gap. Chapter Three details the research methodology, including design, data collection, and analysis methods. Chapter Four presents and discusses the findings, linking them to the study's objectives and existing literature. Chapter Five presents a discussion of the findings. Lastly, Chapter Six provides a summary, conclusions, and recommendations for enhancing residential addressing systems to promote international trade, along with suggestions for future research.

1.9 Chapter Summary

Chapter One introduces the study on the influence of residential addresses on Tanzania's international trade, focusing on the Singida Region. It covers the study's background, problem statement, objectives, research questions, and significance. It emphasizes the importance of accurate addresses in international trade. The chapter also outlines the scope, targeting 100 respondents surveyed over two weeks, and provides an organization of the study, detailing the structure of the five chapters.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

This chapter presents a review of both theoretical and empirical literature, focusing on the relationship between national residential address systems in the flourishing of international business. The chapter starts by defining the key terms and then presents a review of both, theoretical and empirical literature. Finally, the chapter shows the existing gap in the literature by underlining the previous researchers' missing or weak points in answering research questions.

2.2 Definition of Key Terms

This study was guided by the following key terms.

2.2.1 Residential address

A residential address is an address referring to a place's exact location, regulated by an administrative area such as a municipality, county, or state (Velazquez, 2022). It is usually where your residence, house, office, or business is located (Post Scan Mail, 2023). It is comprised of a street name, and a plot number/block. It can involve the postcode, mailing address, and physical information that, when used, can easily give access to where your house, office, or business is located.

This study refers to residential address as the registration number of the house, the name of the road, and the name of the town where a person lives or works, and where letters and parcels can be sent (Cambridge Dictionary, 2023).

2.2.2. Precision and Correctness of Residential Addresses

Precision in the context of residential addresses refers to the level of detail and specificity provided in the address. High precision means that an address includes detailed elements such as street number, street name, unit number, city, postal code, and other relevant locational data. This detail helps in accurately identifying a location within a given geographic area (Harrison & Donnelly, 2019).

Correctness involves the accuracy of the address information. A correct address must match standardized formats and be verifiable through official databases or maps. This includes ensuring that the address is up-to-date and follows postal or administrative conventions (Harrison & Donnelly, 2019). Having a precise and correct address is essential as that is the main infrastructure that determines the precision and effectiveness of delivery. Without a proper address, international trade is in jeopardy.

2.2.3. Parcel Delivery

This includes the processes involved in handling, sorting, and routing parcels. Efficient logistical operations ensure timely and accurate deliveries (Christopher, 2016). Therefore, it refers to the reliability and predictability of parcel delivery services.

2.2.4. Government Regulation

Pearce (2017), points out that government regulation refers to the rules, laws, and guidelines established by government authorities to control or manage various activities within a society or industry. These regulations are designed to ensure

compliance with legal standards, protect public welfare, and maintain order by governing the conduct of individuals and organizations. The government regulations can affect international trade by either facilitating or hindering the movement of goods if they are not well implemented. This may be, for example, attributed to the improper implementation of an addressing system that can affect the delivery of goods and parcels.

2.2.5. Physical Infrastructure

Jones (2018), refers to physical infrastructure as the fundamental facilities, systems, and structures necessary for the functioning and development of a society or organization. This includes essential services and systems such as transportation networks (roads, railways, airports, and communication networks). The components provide the foundational support needed for international trade.

2.2.6. Accurate Delivery

Stepper (2023) specifies accurate delivery as the percentage of delivery orders that were handled without incidents from the intake of orders to final delivery. That involves the absence of incidence for the late delivery, cost implication, quality and loss. Accurate delivery is what brings a quality delivery, which is the ratio of deliveries that are not objected to the total quantity of deliveries

2.2.7. International Trade

International trade refers to the exchange of goods and services between countries

(Krugman, Obstfeld, & Melitz, 2018). It involves importing and exporting products and services across national borders. It allows countries to obtain resources and products that they do not produce domestically or that are more efficiently produced elsewhere. International trade can be influenced by factors such as trade agreements, tariffs, and exchange rates all referred to as trade regulations, and the presence of proper physical infrastructure that facilitates delivery.

2.3 A Review of Theoretical Literature

This section reviews theoretical literature. The existing literature contains many theories but the most relevant to this study are two theories, namely: Rodgers's theory of diffusion of innovation and Paul Krugman's theory of international trade and globalization.

2.3.1. Technological Diffusion Theory (TDT)

Rodgers's theory of technological diffusion (TDT) was introduced by Rodgers in 1969. The theory has been used to analyze the relationship between the capacity to adopt the advanced electrical-centered addressing system and the change of the trade relation from physical trading to digital business, which is paperless and without physical contact required (World Economic Forum, 2017).

According to TDT, technologies are the key to international trading in the current world. So, the development is centred on the advancement and well-established Information and Communication Technology (ICT-driven) postcode and addressing infrastructure. The theory is as relevant today as it was 60 years ago. Its relevance is

based on its power to explain the utility of the address system. The addressing system could be more quickly adopted if the knowledge development of how it can enhance efficiency and effectiveness in placing orders, processing, and delivering were well provided (Adela et al. 2001). This explains the relationship between individual interest in adopting technology and perception toward it.

Rodgers explains the third step of innovation diffusion to be the decision step. As discussed by Yindi et al. (2020), the decision step is an individual-based sense of judgment. That, individuals rely on the pros and cons of the innovation to decide on the acceptance or rejection of it. This would explain the question as to why Tanzanians depend much on intermediate companies rather than engaging in direct trading with businesses and companies abroad after 2022, regardless of the massive investment in the addressing system. Possibly, there might be some risk that still exists that hinders individuals' trade confidence. Yet, the efficiency of the implementation of residential addressing could provide security to traders and further establish the direct link to the transactions internationally.

The perception of the individual to a new technology is influenced by the social system. Rodgers (2010) mentions that weak ties, opinion leaders, social learning, and critical mass are important concepts that help understand the diffusion of innovation through the social network. Leaders' opinions and their views on the national residential address system go unnoticed on many occasions. Even their energy for implementation seems to be of limited interest (Kironde, 2021). Tanzania's views and

interest in the addresses seem to be limited, hence it limits their capacity to participate in online international trading.

Rodger's theory fails to address facts such as what influences people's adoption of technology in terms of its advantages to their economy. In decision steps, Rodgers rejects the first player's position in influencing the change and dominance.

2.3.2. New Trade Theory (NTT)

New Trade Theory (NTT) was introduced by Krugman in 1979. The theory is based on the reality of modern trade, explaining that international trade is based on economies of scale, network effects, and first-mover advantage. It deciphered the main reason behind globalization and intensive trading between similar economic states. Emphasizing technology towards trade development, NTT has been seconded by Mariadoss (2018) due to its cognizant explanatory power, in terms of explaining the connection among people, businesses, and markets.

According to NTT, technology is a key to the success of trade relations. NTT holds further that individuals, governments, and businesses have to invest their interest in technology. The reason is that economic growth and the provision of basic services are inextricably linked to the existence of sound ICT-driven postcodes and addressing infrastructure, in urban and rural areas. Krugman's NTT insists on technological development and the government plays a great role in the trade and industrialization revolution. Shahabaz et al (2018) emphasize that industrialization and programs that are launched by governments are of interest and they play a great role in rural and urban development, which is the key for every state.

NTT challenged some previous theories which neglected the contribution of other factors, such as technology and the role of government in trade development. Reflecting on what transpired previously, Neary (2009) informs that, theories like comparative advantages, which focus on trade relations based on goods, are among those challenged by NTT. In defiance, NTT emerged with a clear factor that, apart from relative production differences of the country, other factors such as technology and government political interest play a greater role. That is why in 2021 the Government of Tanzania launched a wealth of billion program of residential and postcode systems with the intention, among other factors, to boost trade. (Neary, 2009)

Krugman (1979) states that NTT assumes there is always a chance for new competitors, but the earlier entrants have great room for dominance. This explains the existence of earlier entrants in international trade (Chandra, 2022), which can be linked to the dominance of intermediary companies like silent oceans linking final users and industries or businesses abroad. TCRA's (2023) quarterly report showed that only 32% of Tanzanians use online trading following a conducive trading environment introduced by the government such as internet coverage, a national residential addresses system, and simplified access applications such as NaPA.

The government of Tanzania campaigns, easing, and emphasizes the use of technology focuses on the economics of scale. This reflects the relevance of the NTT assumption on the economics of scale to the trade development, which holds that companies benefit the most following the larger number of users who help to lower

the unit cost. The residential system depends on the scale of use to attract more investors. International businesses and companies venture to invest in foreign countries after careful feasibility studies, and among the factors considered are technology and population.

In a similar view, Bharat, et al. (2023), explain that technology plays a significant role in foreign direct investment. This can be verified by citing “Uber” – the UK-based transportation company operating in Tanzania and doing well due to the existence of residential addresses and technological infrastructures that facilitate accurate tracking (Tanzania Invest, 2016). Tanzania Invest quoted Samantha Allenberg, in charge of “Uber” Communications for Africa, who posited that “It made sense to launch in Dar es Salaam (Capital city of Tanzania) because of the size of its population and because people in Dar es Salaam are willing to embrace innovation and technology”

2.4 A Review of Empirical Literature

2.4.1 Correlation Between Accurate Residential Address and Certainty of Parcel Delivery

Kironde (2021) conducted a qualitative study examining the performance and implementation of Tanzania’s National Addressing and Postcode System (NAPS), with a focus on how address inefficiencies affect logistics and delivery services. The study used document analysis and interviews with local government officials and urban planners. Findings revealed that the absence of structured addresses has resulted in failed or delayed deliveries and rising operational costs among logistics

companies. This has discouraged participation in cross-border e-commerce and undermined consumer trust in digital trading platforms. The implications suggest a gap in government oversight and poor public sensitization on the benefits of accurate addressing. This is directly relevant to the current study, which seeks to empirically correlate address accuracy with parcel delivery certainty in Tanzania. Unlike Kironde's largely urban-focused and qualitative approach, this study introduces a mixed-method investigation specifically tied to international trade, aiming to quantify delivery certainty and trade outcomes.

Juma (2022), through a government report analysis, highlighted concerns raised by the Ministry of Information and the Prime Minister regarding the slow pace and poor quality of address system implementation. Although not an academic study, the report implies logistical bottlenecks affecting both local and international parcel movements. Similarly, Africa Press (2021) reported that the government envisioned the address system as a means to enhance online international commerce. However, digital sellers still fail to include complete addresses in advertisements, suggesting weak adoption of standardized address formats. These reports inform the current study by underscoring the operational failures that limit parcel delivery effectiveness. The present research expands on these insights by focusing specifically on delivery certainty as a measurable trade facilitation metric, using structured questionnaires and field interviews in the Singida Region.

2.4.2 Application Records of the Residential Address System in Singida Region

Kabujanja (2023) conducted a survey-based study assessing public awareness and community participation in the establishment of residential address systems in Tanzania. The study used structured questionnaires administered to residents in central regions, including Singida, and found low community engagement, largely attributed to poor communication by authorities and a lack of training on address system usage. The implication was a weak implementation at the grassroots level, undermining the reliability and scalability of the address system. This directly informs the current study by providing background on implementation efforts in Singida Region. However, unlike Kabujanja's study, the current research goes further by systematically tracking how address systems have been practically applied in Singida, including whether they are used in parcel tracking, official documentation, and digital trade transactions.

A related study by Mlelwa et al. (2015) provided statistical evidence on internet access and digital infrastructure challenges in Tanzania. Although slightly dated, it indicated that while internet usage was increasing, adoption of services like digital addresses remained limited due to low digital literacy. This supports the assumption that usage of the residential address system remains under-documented in regions like Singida. The present study updates this knowledge gap by using recent field data to track the real-time application of address systems and to assess whether the infrastructures established under the NAPS project are functioning as intended.

Tanzania Communications Regulatory Authority (TCRA, 2022) also published reports on the progress of the NAPS, indicating fragmented implementation across

regions. However, their reports do not provide detailed application records at the community level. The current study addresses this shortfall by offering field-level empirical data specific to Singida Region, thus adding contextual precision and operational clarity to the national data.

2.4.3 Challenges Against Applying the Residential Address System in International Trade

Singh and Malhotra (2016) explored global challenges to e-commerce, particularly in developing countries. Using comparative case analysis and consumer surveys, they identified factors like informal housing, lack of homeownership, and absence of reliable addresses as key inhibitors to parcel-based international trading. Although not focused on Tanzania, the study's methodology and conclusions are applicable. It shows how informal settlements limit the functionality of address systems, a situation mirrored in Tanzanian urban areas. The current study builds on these findings by providing primary data from Tanzanian communities, particularly examining how these settlement patterns interfere with international trade facilitation.

Nuhu et al. (2023) conducted a cross-sectional study involving urban residents in Dar es Salaam and Mwanza to understand how informal housing structures affect digital service access. The study found that over 70% of respondents lived in unplanned settlements, making structured addressing difficult. It concluded that digital trade penetration is lower in such areas due to a lack of traceable residential markers. These insights are important for the present study, which seeks to examine whether

similar challenges persist in Singida and how they affect the use of residential addresses in cross-border trading systems. By focusing on a less urbanized but growing region, this study adds new geographical depth to the discussion.

Materu (2023), in a qualitative field investigation in rural Morogoro, noted that farmers were unable to utilize e-commerce platforms effectively due to a lack of internet and address system integration. Using focus group discussions, the study revealed infrastructural challenges like unpaved roads, lack of power, and unmarked houses. While this provides a critical rural context, the present study seeks to quantify such barriers specifically in relation to international trade rather than general e-commerce, introducing new evidence about how infrastructure and address system quality affect trade efficiency.

The Tanzania Bureau of Standards (TBS, 2023) emphasized that address signposts must meet certain material and visibility standards, such as using galvanized steel and clearly labelled poles. However, the actual use of substandard materials, like wooden signs, has been documented, leading to vandalism and deterioration (Gareth, 2022; Hallmark, 2014). These operational flaws limit the long-term sustainability of the address system and undermine its credibility in international logistics. The current study validates and expands on these claims by directly observing address sign conditions in Singida and documenting their usability in real trade cases. This approach contributes to the empirical understanding of address-system sustainability, something past studies have mostly overlooked.

2.5 Research Gap

The international trade relation was supposed to be placed at individuals' fingertips without the necessity to meet. This would thereby intentionally lower the cost of trading, the inconvenience of waiting, and the freedom of trading. On the other hand, it would put the intermediary men and organizations to the periphery if the trader and producer communicate smoothly. This seems to be a dire situation to most Tanzanians as the TCRA (2023) quarterly report shows that only 32% of Tanzanians subscribed to participate in online trading despite a conducive trading environment introduced by the government, such as internet coverage, residential addresses, and access to applications such as NaPA. Further, the monopoly sense of international trading companies shows that there are still limitations in international trading by most individuals. This can be proved by the imports having exceeded exports by more than 50% (World Trade Organisation, 2022).

Several factors can contribute to the unattained balance of international trade. One of the factors is an inadequate residential address system as stipulated by (Seth, 2023: Remitly 2024 & Farkas et al. 2023). These observers insist that most developing countries have limited uses of online services in trade due to the poor trade infrastructure, of which among them is an address. Therefore, the study leaves the question of how and why the address system seems to be less considered as a key factor in international trading by most citizens in developing countries.

2.6 Theoretical framework

Online trading is key for the digital economy, but its success depends on several

factors. depends on the address as it is a key to ordering, order processing, payment, and delivering parcels. The better the implementation of the Physical, residential address the better and more secure the online trading is. There is a possible gap in the existence of the online trading relation with the existence of the address, as it seems most people face difficulties due to the status of the addressing system in Tanzania. That involves the knowledge gap of the address owners, knowing how potent it is to digital trading, what challenges its implementation may encounter, and what can be done to perfect it.

2.7 Conceptual Framework

2.7.1 Independent Variable

Accuracy of Residential Address: This denotes the precision and correctness of residential addresses, which impacts the efficiency of logistics and trade operations, usually associated with the certainty of parcel delivery. This refers to the reliability and predictability of parcel delivery services.

2.7.2. Intervening Variables

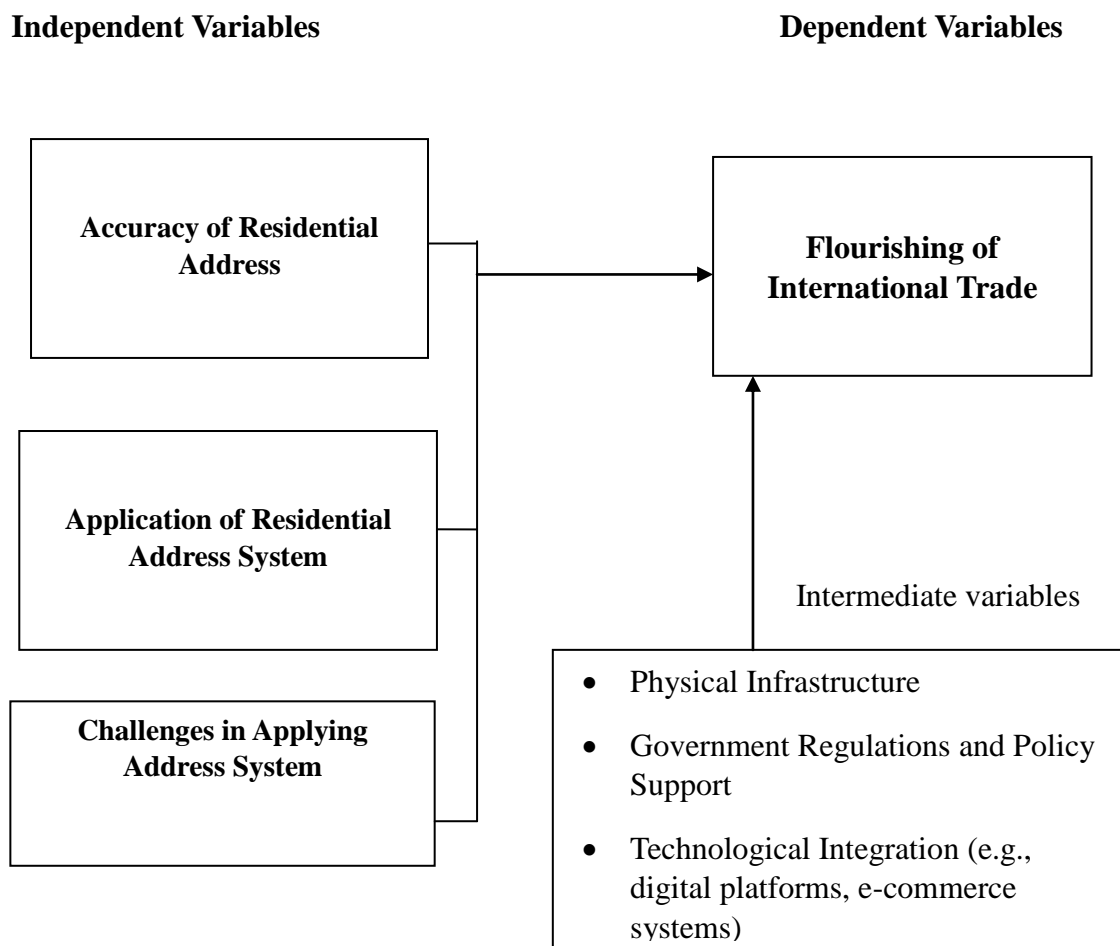
Government Regulations (e.g., tariffs, customs): This denotes policies and regulations that can affect international trade by either facilitating or hindering the movement of goods based on the accuracy and efficiency of delivery.

Physical Infrastructure: This denotes the quality and availability of physical infrastructure, such as roads, ports, and logistics facilities, that support the effective delivery of goods.

2.7.3 Dependent Variable

Flourishing of International Trade: This denotes the growth and success of international trade activities, which are influenced by the certainty of parcel delivery and are moderated by government regulations and physical infrastructure.

Figure 2.1 : Conceptual Framework of Study Variables



Source: Researcher's construction

The interlinkage between the independent, intervening, and dependent variables in this study reflects a logical progression from address system structure to international trade outcomes. Accurate and complete residential addresses, including clear street names, house numbers, and postal codes, form the foundation (independent variables) for effective parcel delivery systems, which are crucial for the smooth operation of international trade (UNCTAD, 2023). However, the influence of these independent variables on trade outcomes is not linear; it is moderated by several intervening variables such as infrastructure quality, government policy enforcement, technological integration, and the operational capacity of logistics service providers (World Bank, 2022; TCRA, 2022). For instance, even if accurate addresses exist, poor road infrastructure or weak ICT systems can impede parcel delivery, reducing the efficiency of cross-border transactions (GSMA, 2023). These mediating factors shape how the address system ultimately affects the dependent variable, flourishing international trade, which is measured by indicators such as successful deliveries, growth in digital commerce, and expanded market access (ITU, 2023). The study, therefore, investigates not just direct associations but also how contextual and structural intermediaries shape the relationship between address systems and international trade performance in Tanzania.

2.8 Chapter Summary

The chapter provides detailed conceptual definitions and theoretical and empirical reviews related to assessing the influence of residential addresses on international trade. It also explains the current research gap. Finally, it presents the conceptual

framework that illustrates the relationship between the independent and dependent variables.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

The research methodology refers to the way to systematically solve the research problem (Kothari, 2004). It involves all specific procedures or techniques used to complete the research process, including research philosophy, design and approach, data collection methods and procedures. It goes further into data processing and analysis methods and procedures, and the presentation of findings. This chapter presents details of the philosophy that guided the study, the study design, approach, study area, sample, and sampling procedures. Additionally, data collection methods are also presented, as the process through which the data was processed and analyzed.

3.2 Research Philosophy

Research philosophy refers to a system of beliefs and assumptions about the development of knowledge (Saunders et al, 2009). There are three main types of research philosophy: Positivism, which is based on the statistical or quantitative outcome of phenomena and relies on objective observation and measurement; Interpretivism, which relies on the social construction of the relationship among variables and is based on the subjectivity of reality as interpreted by the researcher; and Pragmatism, which focuses on combining the best aspects of both positivism and interpretivism (Jansen, 2023).

The current study employed pragmatism. This philosophy was chosen since it supports the integration of qualitative and quantitative data, which is necessary to fulfill the previously specified research objectives.

3.3 Research Approach

Research approach refers to the systematic and structured ways that researchers use to conduct research, differing in terms of their underlying logic and methods of inquiry (Hassan, 2024). There are three main types: the qualitative approach, which deals with the systematic analysis of more subjective information; the quantitative approach, which involves the analysis of information based on quantities, numerals, and dimensions; and the mixed-methods approach, which combines both quantitative and qualitative methods (Taherdoost, 2021).

A mixed-methods research approach was employed to conduct this study. This approach enhanced the credibility of the findings, as the values and observed facts provided a stronger emphasis on the phenomena being studied. Based on the design, the mixed approach methodology provided an opportunity to collect more relevant data through ideas, perceptions, frequency, and degrees of thought. The design indeed helped to jot down the experiences of the participants, uncovering what the informants knew about the residential address system and its influence on international trade within the context of the study.

3.4 Research Design

Research design is a strategy for answering the research question using empirical data (McCombes, 2021). It can also be defined as the overall strategy or plan for conducting a research study, outlining the methods and procedures used to collect and analyze data, along with the study's goals and objectives (Hassan, 2024).

There are several types of research design, including descriptive design which is used to describe a phenomenon; correlational design, which explores the relationship between variables; experimental design, which investigates cause-and-effect relationships between variables; and case study design, which examines a single case or a small number of cases in depth (Alam, 2023).

The study employed a correlational research design to describe the relationship between the national residential address system and international trade. The rationale for using a correlational research design was that it resonates well with a study that seeks to explore relationships between studied variables. The correlational design provided a clear and accurate picture of the existing relationship between the addressing system and international trade.

3.5 The Study Area

The study was conducted in the Singida region, located at the center of Tanzania. With a surface area of 49,438 km², it ranks as the fifth-largest region in the country. Singida was chosen for the study because it is one of the major regions, known for its well-planned settlements and well-surveyed areas. The region has a population of 2,008,058 (*Wizara ya Fedha na Mipango & Ofisi ya Rais, Fedha na Mipango, 2022*).

Despite being a large region, Singida is among the lowest-performing regions in terms of communication and residential address systems (Tanzania Communication Regulatory Authority, 2022). In contrast, Arusha was named the best performer with a clear understanding of the address system, but was not selected due to the presence of other possible catalysts, such as poor planning and the reliability of brokers' offices that could influence the results.

3.6 Study Population

The Singida region comprised a population of 2,008,058, according to the 2022 population census (Tanzania Bureau of Statistics, 2022). The region's general economic activities include trade and agriculture. Consequently, the respondents for the study were drawn from the population of traders and farmers, who rely on online services to order their products.

3.7 Sample Size

A sample refers to the number of individual cases that were ultimately drawn and from which data was generated (Leavy, 2017). The sample size selected for this study was 100 respondents. This number was derived by using Taro Yamane's formula (Yamane, 1973) with a confidence level of 95% and a margin of error of 10%.

The calculation formula of Taro Yamane is presented as follows.

$$n = \frac{N}{1 + Ne^2}$$

Whereby:

n = Sample size required

N = number of people in the research population

e = acceptable sampling error (marginal error)

$$n = \frac{2,008,058}{1 + 2,008,058 \times 0.1^2} = 99.9 \approx 100 \text{ sample size}$$

3.7.1 Sampling Procedures

Sampling is the statistical process of obtaining a subset from a population for the purposes of making observations and statistical inferences about the population (Bhattacharjee, 2012).

3.7.1.1 Nonprobability Sampling

Bhattacharjee (2012), nonprobability sampling implied that not all members of the population had an equal chance of participating in the study. Nonprobability sampling was employed in the study, using different methods to narrow down the sample from the population of 2,008,058 (Census, 2022).

3.7.1.2 Convenience Sampling

Convenience sampling involved selecting individuals or items that were most accessible to the researcher (Palinkas *et al.*, 2015). In this study, individuals involved in online trading were randomly selected from centrally chosen areas, such as colleges and marketplaces.

3.7.1.3 Purposive Sampling

The sample for the delivery individuals and companies was selected using purposive sampling. According to Palys (2008), purposive sampling involves selecting respondents based on their relevance to the study's objectives. Specific individuals were chosen based on their line of work. Phone operators at delivery centers were interviewed to determine whether they received well-detailed address information from callers. Similarly, drivers were interviewed to assess whether they could accurately interpret and easily arrive at the provided addresses. Additionally, drivers provided a detailed account of the presence of road signs and addresses on streets and houses.

3.8 Data Collection Methods

Taherdoost (2021) explains data collection methods as various approaches for gathering information about specific variables in a study, intending to utilize them during the data analysis phase to obtain results, answer research questions, or test hypotheses. The study used primary data collection methods, primarily involving raw data. This approach was chosen to ensure greater validity, reliability, and authenticity of the findings. To achieve this, the following primary data collection tools were employed.

3.8.1 Questionnaire

A questionnaire is a research tool or survey instrument consisting of a set of questions or prompts designed to gather information from individuals or groups (Hassan, 2024). The study used a questionnaire to collect data from respondents.

Questionnaires were distributed, allowing respondents sufficient time to complete them before collection. A mix of open-ended and closed-ended questions was employed, facilitating the collection of both numerical responses and qualitative information. The use of a questionnaire was necessary due to the large number of respondents, making it impractical to conduct individual interviews. Consequently, all participants were provided with a questionnaire to complete.

3.8.2 Interview

An interview is a meeting where someone answers questions about themselves for purposes such as a newspaper article, television show, or research. In this study, semi-structured interviews were conducted to allow individuals to provide more insights into the phenomenon. Semi-structured interviews with open-ended questions were prepared in advance (Taherdoost, 2021). This type of interview was chosen for its flexibility in accommodating participants' inputs. The interviews focused on delivery companies, delivery personnel, order processors, and intermediary companies to capture detailed information about the existing relationships between the variables.

Table 3.1 Displays an Interviewed Sample Size of 15 Participants.

Unity Category	Number	Code names of the Interviewees	Types of Objectives Responds
Manager, Madini Market Singida	1	A7	Objective 1: Correlation with Delivery Certainty
Manager Delivery Company	3	A6, A8, A17	Objective 2: Application of Address System
Manyoni District trading company	1	A16	Objective 3: Challenges in International Trade
Manyoni Trading officer	1	A14	Objective 1: Correlation with Delivery Certainty
Ikungi District trading officer	1	A1	Objective 2: Application of Address System
RS Singida	1	A11	Objective 3: Challenges in International Trade
Singida – Trading officer	1	A10	Objective 3: Challenges in International Trade
Singida Trader	1	A2	Objective 1: Correlation with Delivery Certainty
Singida planning officer	1	A9	Objective 3: Challenges in International Trade
Trader	3	A4, A5, A13	Objective 1: Correlation with Delivery Certainty
Trading officer Mkalama	1	A3	Objective 2: Application of Address System
Total	15		

Source: Research Findings, 2024

3.9 Data Analysis Method

Data analysis is the process of systematically collecting, cleaning, transforming, describing, modelling, and interpreting data, typically using statistical techniques (Eldridge, 2024). In this study, qualitative data were analyzed using a thematic technique, which allowed for in-depth exploration of patterns, themes, and insights from respondents' perspectives. Software applications like NVivo were employed when necessary to enhance data management, coding efficiency, and accuracy, ensuring the reliability of the findings.

The analysis of quantitative data was guided by the need to address each specific objective effectively, employing appropriate statistical methods tailored to the nature of each research question.

Analysis of Objective One: To correlate accurate residential addresses and the certainty of parcel delivery. Descriptive statistics (frequency, percent, mean) were used to provide a clear overview of the distribution and characteristics of the data. Correlation analysis was applied to assess the strength and direction of the relationship between accurate residential addresses and parcel delivery outcomes. This combination of techniques provided insights into the practical implications of accurate residential data for enhancing delivery services, thereby supporting international trade.

Analysis of Objective Two: To track the application records of the residential address system in the Singida region. Descriptive statistics were utilized to examine the extent of system adoption, illustrating its application frequency and usage trends

across various areas within Singida. This approach helped highlight the operational efficiency of the residential address system and its potential to streamline logistical processes that are crucial for international trade.

Analysis of Objective Three: To examine the challenges of applying the residential address system in conducting international trade in the case of the Singida region. The data were analyzed using multiple response analysis, which allowed for the identification of a broad range of challenges faced by users of the system. This technique was crucial in capturing the diverse perspectives of respondents, particularly when they encountered multiple obstacles simultaneously. By identifying these challenges comprehensively, the study aimed to provide actionable insights that can inform policy interventions and enhance the effectiveness of residential address systems in facilitating international trade.

3.10 Reliability of Data

Reliability refers to the degree to which data collection methods produce consistent and stable results over time, and how trustworthy the data is (Nicolas, 2020). In this study, multiple approaches were employed to ensure reliability for both qualitative and quantitative components. For the qualitative data, the researcher adopted strategies such as triangulation, reflexivity, and audit trail documentation to enhance credibility. Triangulation involved collecting data from different sources community members, local authorities, and delivery personnel to cross-validate findings. A reflexive journal was maintained throughout the research process to monitor researcher bias, while audit trails were kept to allow transparency in how data was

collected and analyzed. Additional reliability techniques included peer debriefing and negative case analysis, which helped refine interpretations and identify exceptions in the data. Data saturation was also observed to ensure that data collection continued until no new information emerged.

For the quantitative data, Cronbach's alpha test was used to assess the internal consistency of the research instrument, particularly the Likert-scale items in the questionnaire. A Cronbach's alpha value of 0.70 or above was considered acceptable for establishing reliability (Taber, 2018).

3.11 Validity of Data

Validity refers to the extent to which a research instrument accurately measures what it is intended to measure (Nicolas, 2020). In this study, multiple techniques were adopted to ensure content, construct, and external validity. For qualitative data, triangulation played a central role in increasing validity by comparing responses from diverse sources and perspectives. In addition, member checking was conducted by returning transcribed data or preliminary findings to participants for verification, ensuring the accuracy and authenticity of interpretations. Expert review of the interview guide further helped to align the questions with the research objectives, thereby improving content validity.

On the quantitative side, the instrument underwent pretesting through a pilot study in a community similar to the study area (but not included in the final sample). Feedback obtained was used to revise unclear or ambiguous items, which improved both face and construct validity. Construct validity was further supported by aligning

each questionnaire item with the theoretical constructs derived from the conceptual framework. Collectively, these measures ensured that the data accurately captured the intended phenomena and could be generalized within similar contexts.

3.12 Ethical Considerations

Ethical considerations in research refer to the principles and guidelines that researchers must follow to ensure their studies are conducted ethically and responsibly (Hassan, 2023). In this study, all ethical issues were addressed at each stage of the research process. First, the researcher secured a permit from the Open University of Tanzania after receiving clearance to collect data. Subsequently, the researcher consulted the Singida regional administration office to obtain permission to collect data within the region and its institutions. Anonymity was maintained, and the confidentiality of all participants was strictly observed to promote freedom of participation and protect participants' privacy. The collection and handling of personal information, such as names, departments, or any identifiable details, were managed with care.

3.13 Chapter Summary

Chapter three provided an overview of the research methodology used to examine the influence of the residential address system on international trade in the Singida Region. It outlined the research philosophy, approach, design, and study area, as well as sampling procedures. The chapter also detailed data collection methods, including questionnaires, interviews, and focus group discussions, alongside data analysis techniques for both qualitative and quantitative data. Additionally, it addressed

reliability, validity, and ethical considerations to ensure credibility and integrity in the research process.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1. Overview

This chapter presents the findings and discussion of the influence of residential addresses on Tanzania's international trade. It begins by outlining the background information of the respondents, followed by an analysis of the specific objectives, which include: (1) examining the correlation between accurate residential addresses and the certainty of parcel delivery, (2) tracking the application records of the residential address system, and (3) identifying the challenges in implementing the residential address system for conducting international trade.

4.2. Demographic Information of Respondents

This section presents the demographic information of respondents, including gender, age range, level of education, and marital status.

4.2.1. Gender of the Respondents

The findings in Table 4.1 revealed a nearly equal distribution of respondents by gender, with 54% being male and 46% female. This indicates a balanced representation, reflecting both male and female perspectives in understanding the role of residential addresses in international trade. The balanced gender participation suggests that residential addresses as a factor in promoting international trade are not gender-biased and are acknowledged across different gender demographics.

Table 4.1: Distribution of Respondents by Gender

Sex	Frequency	Percent
Male	54	54.0
Female	46	46.0
Total	100	100.0

Source: Research Findings, 2024

The findings underscore the potential of residential address systems to boost trade inclusivity. The findings are further aligned with studies that highlight the role of accurate residential information in facilitating efficient customs processes, reducing transactional delays, and enhancing overall trade flows (Mtega et al., 2021; Chacha & Nyoni, 2022). This inclusivity can be linked to improved access to trade networks, effective communication with international stakeholders, and streamlined logistical arrangements, essential for both male and female traders.

4.2.2. Age of Respondents

The findings shown in Table 4.2 indicate that, the largest age group is 35–39 years, comprising 28% of the respondents, followed by those aged 30–34 years at 25%. These findings suggest that the majority of respondents are middle-aged, which is significant as this demographic often represents an active segment in international trade, leveraging both experience and business networks. The age groups of 40–44 years and 25–29 years account for 16% and 13%, respectively, indicating that the influence of residential addresses on trade extends to both relatively younger and older business participants. The least represented age categories are 20–24 years (4%), 45–49 years (9%), and 50 and above (5%), indicating relatively lower engagement from younger and older traders.

Table 4.2: Distribution of Respondents by Age

Age category	Frequency	Percent
20 – 24	4	4.0
25 – 29	13	13.0
30 – 34	25	25.0
35 – 39	28	28.0
40 – 44	16	16.0
45 – 49	9	9.0
50 and above	5	5.0
Total	100	100.0

Source: Research Findings, 2024

The findings imply that residential address systems could have a significant impact on middle-aged traders, who are typically at the peak of their trading activities and are more likely to benefit from accurate address information for logistical and communication efficiency. This age group is generally more familiar with digital technologies, which is essential for leveraging modern residential address systems that facilitate international trade. The lower representation among younger and older respondents could suggest potential barriers to adopting residential address systems among these age groups. This may possibly be due to a lack of exposure or adaptation to new address registration systems. These observations align with other studies that highlight the critical role of middle-aged traders in promoting trade across borders. A study by Sanga (2021) in Uganda found that middle-aged traders were more inclined to use residential address systems to enhance business credibility and foster trust among international partners. Similarly, Nyahende (2020) in Rwanda identified that the 30–39-year age bracket was the most active in using residential address systems to improve international trade efficiency.

4.2.3. Education level of Respondents

The study's findings on the distribution of respondents by education level, presented in Table 4.3, indicate that the majority of respondents involved in international trade have a diploma-level education, accounting for 63% of the total sample. This suggests that diploma holders are the most active group in using residential addresses for facilitating international trade. A significant portion of respondents also reported having secondary education (20%), while only 11% possess certificate-level education. Respondents with postgraduate education constitute the smallest group at 6%, suggesting limited participation in international trade among those with higher education qualifications.

Table 4.3: Distribution of Respondents by Level of Education

Level of education	Frequency	Percent
Secondary education	20	20.0
Certificate level education	11	11.0
Diploma level	63	63.0
Postgraduate	6	6.0
Total	100	100.0

Source: Research Findings, 2024

The implication of these findings is significant for policymakers aiming to enhance international trade in Tanzania. The results suggest a need to focus on capacity-building initiatives that target middle-level education holders, such as diploma graduates, by offering advanced training on digital address systems and their role in trade facilitation.

These findings align with other empirical studies that emphasize the role of education in facilitating international trade. A study by Mrema (2021) in Kenya indicated that traders with technical education, including diplomas, were more adept at leveraging address systems to improve logistics, communication, and trust in international transactions. Similarly, the research by Buberwa (2020) in Uganda highlighted that traders with higher technical education were more likely to adopt digital residential address systems, contributing to efficient trading operations.

4.2.4. Marital Status of Respondents

The distribution of respondents by marital status, as presented in Table 4.4, shows that the vast majority of participants in the study are married, accounting for 89% of the total sample. This suggests that married individuals are significantly more active in leveraging residential addresses for international trade activities. Unmarried respondents make up 6% of the sample, while those who are separated and divorced represent a smaller fraction, at 4% and 1%, respectively.

The findings imply that, the dominance of married individuals in international trade may be attributed to the stability and social networks often associated with marriage and the strong desire to be economically stable to be able to supply for the family. This may, in turn, facilitate better access to resources, partnerships, and business networks crucial for international trade. The presence of family commitments may also motivate married traders to engage more actively in economic activities, including the utilization of residential addresses to enhance business operations. In contrast, the lower representation of single (unmarried), separated, and divorced

respondents may reflect differences in priorities or constraints that limit their involvement in trade-related activities, particularly in settings where family support plays a role in business growth.

Table 4.4: Distribution of Respondents by Marital Status

Marital status	Frequency	Percent
Single	6	6.0
Married	89	89.0
Divorce	1	1.0
Separated	4	4.0
Total	100	100.0

Source: Research Findings, 2024

These findings align with other studies that explore the role of marital status in business engagement. For instance, Macha (2022) in Tanzania found that married individuals were more likely to engage in international trade. Their engagement in international trade was attributed by the broader support systems, which facilitate financial access and logistical planning, including the use of formal residential addresses. Similarly, a study by Kaseke (2020) in Malawi highlighted that married traders were more inclined to adopt digital residential address systems, seeing them as a means to enhance trade reliability and family income stability.

4.3. Accurate Residential Address and Certainty of Parcel Delivery

This section presented the findings of the first specific objective related to the correlation between accurate residential address and certainty of parcel delivery. The section presents the descriptive statistics and correlation analysis supported by qualitative findings.

4.3.1. Accuracy of Address Information

The study findings presented in Table 4.4, reveal that 66% of respondents perceive address information to be "Somewhat Accurate," while 22% rate it as "Very Accurate." This indicates that a substantial majority (88%) believe that the residential address information is reliable to some extent. Conversely, a smaller percentage of respondents express less confidence in the accuracy, with 4% indicating "Somewhat Inaccurate," 1% citing "Very Inaccurate," and 7% remaining neutral on the matter.

Table 4.5: Accuracy of Address Information

Responses	Frequency	Percents
Very Inaccurate	1	1.0
Somewhat Inaccurate	4	4.0
Neutral	7	7.0
Somewhat Accurate	66	66.0
Very Accurate	22	22.0
Total	100	100.0

Source: Research Findings, 2024

These findings suggest that the accuracy of residential addresses plays a significant role in enhancing parcel delivery certainty. The majority's positive perception aligns with the notion that well-maintained address information promotes efficiency in delivery services. This was further confirmed during the qualitative interviews, where one of the respondents (A6) mentioned:

"In our operations, accurate residential information is essential for ensuring timely and correct deliveries. We have witnessed improvements in delivery times as more precise address data is integrated into our system (Interview, A6, Singida, 12 September 2024)."

Another interviewee (A9) also emphasized:

“The main challenge we face is when the addresses provided are either incomplete or unclear. It often leads to delayed or failed deliveries, which can be frustrating both for our team and the customers (Interview, A9, Singida, 14 September 2024).”.

The correlation between accurate residential addresses and efficient delivery systems has also been supported by previous studies. For instance, Mburu (2019) identified that enhanced accuracy of residential addresses significantly reduces parcel misplacement, leading to higher delivery success rates. Similarly, Ngassa (2020) found that clear and precise address information minimizes delivery delays and operational costs, further supporting the findings of this study.

4.3.2. Impact on Parcel Delivery Certainty

The study further examined the impact of accurate residential address information on parcel delivery certainty in the Singida Region. As shown in Table 4.5, the majority of respondents (72%) reported that accurate address information has a "High Influence" on ensuring successful parcel delivery. Additionally, 15% of respondents indicated that the impact is "Very High," further reinforcing the significance of precise addresses in enhancing delivery efficiency. On the other hand, a small fraction perceived the influence as "Moderate" (6%) or "Low" (7%).

Table 4.6: Impact on Parcel Delivery Certainty

Responses	Frequency	Percents
Low Influence	7	7.0
Moderate Influence	6	6.0
High Influence	72	72.0
Very High Influence	15	15.0
Total	100	100.0

Source: Research Findings, 2024

These findings highlight the critical role of accurate residential addresses in increasing delivery certainty. With a cumulative 87% of respondents affirming that accuracy in address information either has a high or very high influence on delivery outcomes, the data suggests that improved address systems directly contribute to better parcel delivery performance. This sentiment was echoed during interviews with one respondent (A7), who mentioned:

“Whenever the addresses provided are clear and comprehensive, the likelihood of successful and timely delivery is significantly higher. Our team has observed a marked reduction in returned parcels due to address errors (Interview, A7, Singida, September, 2024).”

Another participant (A10,) noted:

“Address accuracy is the foundation of our delivery process. When there is missing or incorrect address information, it affects not only the delivery time but also customer satisfaction and the overall trust in our services (Interview, A10, Singida, September, 2024) ”.

These findings align with existing literature on the subject. For example, Kyando (2021) demonstrated that clear and accurate address information enhances delivery certainty, minimizing delays and parcel losses. Similarly, Mwaikusa (2018)

emphasized that the reliability of delivery services is heavily dependent on the quality of residential address systems, further corroborating the study's results.

4.3.3. Delivery Issues

The study also explored the types of delivery issues associated with residential address inaccuracies in Singida Region. As indicated in Table 4.6, respondents reported several delivery issues, with "Mis-delivery" being the most common, cited by 74.2% of cases. This is followed by "Delayed Deliveries," reported by 52.8%, and "Lost Parcels," affecting 50.6% of cases. A smaller percentage of respondents (30.3%) pointed to "Increased Costs" due to inefficiencies linked to address inaccuracies. Meanwhile, 31.5% of respondents indicated that they experienced no issues, suggesting that improved address accuracy can mitigate common delivery problems.

Table 4.7: Delivery Issues (n= 100)

Variables	Responses		Percent of Cases (%)
	N	Percent (%)	
Delayed deliveries	47	22.1	52.8
Misdelivery	66	31.0	74.2
Lost parcels	45	21.1	50.6
Increased costs	27	12.7	30.3
No Issues	28	13.1	31.5
Total	213	100.0	239.3

Note: Figures based on multiple responses

Source: Research Findings (2024)

The prevalence of mis-deliveries and delays underscores the critical impact of inaccurate address information on delivery performance. It suggests that, despite some respondents not experiencing issues, a significant portion of the population still

encounters considerable challenges due to inadequate address data. During qualitative interviews, one respondent (A14) explained:

“The main problem we face is the misdelivery of parcels, especially when the provided addresses are vague or unclear. It not only causes frustration among customers but also increases the workload for our delivery team as they attempt to trace the correct destinations (Interview, A14, Singida, September, 2024).”

Another participant (A11) noted:

“When addresses are incorrect, the chances of lost parcels rise considerably. We often have to reroute deliveries, which in turn drives up operational costs and affects the overall delivery timeline (Interview, A11, Singida, September, 2024).”

This approach maintains the clarity of each response and links them to specific respondents in the study.

These findings are consistent with previous research. For instance, Magoma (2020) found that the accuracy of residential address information significantly affects delivery outcomes, with unclear addresses leading to a higher incidence of delays and miss deliveries. Similarly, Komba (2017) noted that improved address systems can substantially reduce parcel losses and related costs, aligning with this study's findings.

4.3.4. Relationship Between Accurate Residential Address and Certainty of Parcel Delivery

The study employed the Pearson correlation coefficient (r) to establish the relationship between accurate residential address and certainty of parcel delivery. The findings of the analysis are presented in Table 4.7. Generally, the results show that there is a strong significant relationship between the accurate residential address and certainty of parcel delivery ($p\text{-value} < 0.05$). This implies that any positive change in accurate residential address leads to improved certainty of parcel delivery.

Table 4.8: Correlation Analysis Between Accurate Residential Address and Certainty of Parcel Delivery

		Accurate residential address	Certainty of parcel delivery
Accurate residential address	Pearson Correlation	1	0.962**
	Sig. (2-tailed)		0.000
	N	100	100
Certainty of parcel delivery	Pearson Correlation	0.962**	1
	Sig. (2-tailed)	0.000	
	N	100	100

**Correlation is significance at the 0.01 level of significance (2-tailed)

Source: Research Findings (2024)

The results are consistent with prior studies. For example, Lutale (2022) demonstrated that improved residential address systems significantly boost the reliability of parcel delivery services. Additionally, Nyanda (2019) found that clearer

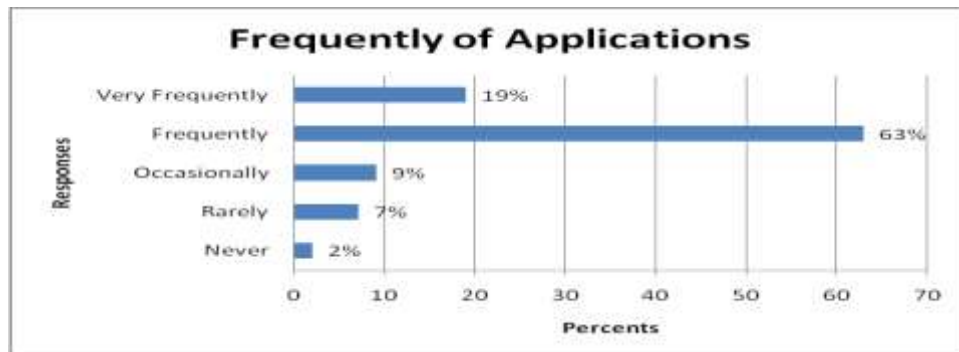
address information enhances delivery certainty by minimizing delivery errors and operational costs. The findings affirm that the accuracy of residential addresses is vital for enhancing the efficiency and reliability of parcel delivery processes in the region.

4.4. Track the Application Records of the Residential Address System in Singida Region

This section presented the findings and discussion of the second specific objective related to tracking the application records of the residential address system in Singida region. The section presented the descriptive statistics and supported by qualitative findings.

4.4.1. Frequently of Application

The second objective of the study aimed to assess the frequency of application of the residential address system in Singida Region. As presented in Figure 4.1, 63% of respondents reported using the residential address system "Frequently," while 19% indicated "Very Frequently," suggesting that the majority (82%) apply the system regularly. On the other hand, a small portion of respondents used it "Occasionally" (9%), "Rarely" (7%), or "Never" (2%). This indicates that the residential address system is generally well-integrated into everyday activities, particularly in delivery-related operations.

Figure 4.1: Frequency of Applications

Source: Research Findings, 2024

The high frequency of system usage suggests its effectiveness and relevance in supporting service delivery processes, particularly in parcel delivery and other logistics functions. During interviews, respondents elaborated on the significance of the address system, with one stating (A1):

“We use the residential address system on a daily basis for parcel delivery. It helps us verify the destination before dispatching packages, reducing the chances of errors and delays (Interview, A1, Singida, September, 2024).”

Similarly, another participant (A3) emphasized:

“The system has become part of our routine operations. Whenever it’s accurately maintained, we can ensure faster and more reliable service. However, when it’s not updated regularly, it poses challenges, especially in areas experiencing rapid development (Interview, A3, Singida, September, 2024).”

These findings align with prior studies. For instance, Lutale (2022) noted that the frequent application of residential address systems enhances operational efficiency in logistics and delivery services. Similarly, Mburu (2019) highlighted that the regular

use of address systems supports quicker navigation and better planning for logistics operations, contributing to a higher success rate in service delivery. The study results confirm that frequent application of the residential address system plays a vital role in ensuring effective service delivery in the Singida Region.

4.4.2. Types of Application

The study further examined the types of applications of the residential address system in the Singida Region. As presented in Table 4.7, the use of the residential address system varies across different purposes, with "International Shipping" having a mean score of 2.42, indicating it is primarily rated low (81%), followed by medium (10%) and high (9%). "Domestic Shipping" has a lower mean score of 1.29, with the majority of respondents (74%) rating it as low, while 15% indicated medium use, and only 11% rated it high.

In addition, the application of the address system for "Business Correspondence" had a mean score of 2.21, showing that 68% rated it low, 19% medium, and 13% high. The lowest mean score was for "Personal Mail" at 2.17, with 89% of respondents rating its usage as low, 7% as medium, and only 4% as high. These findings suggest that the residential address system is primarily applied in formal contexts such as business correspondence and shipping, while personal mail sees the least usage of the system.

Table 4.9 : Types of Applications (n= 100)

Types of application	Responses			Mean score
	High	Medium	Low	
International Shipping	9(9%)	10(10%)	81(81%)	2.42
Domestic Shipping	11(11%)	15(15%)	74(74%)	1.29
Business Correspondence	13(13%)	19(19%)	68(68%)	2.21
Personal Mail	4(4%)	7(7%)	89(89%)	2.17

Source: Research Findings, 2024

The lower application in personal mail and international shipping may be due to the limited integration of the residential address system in informal or international contexts. This was confirmed during interviews, where one participant (A2) remarked:

“We mainly rely on the address system for business shipments, especially within the country. For personal mail, people often prefer informal means, such as direct handovers or using local pickup points (Interview, A2, Singida, September, 2024).”

Another respondent (A16) noted:

“The address system is useful, but its application is not yet widespread in international shipping. We still face challenges with addressing standardization for international deliveries, which limits its effectiveness (Interview, A16, Singida, September, 2024).”

These findings are consistent with prior research. For example, Kyando (2021) found that residential address systems are more effective in domestic shipping and business correspondence, as they align with structured logistics operations. Similarly, Magoma (2020) noted that the limited application in personal mail and international shipping is due to infrastructural gaps and standardization issues, particularly in

developing regions. The results indicate that while the residential address system is applied across different contexts, its effectiveness and usage are more prominent in formal shipping and business transactions within the Singida Region.

4.4.3. Effectiveness of Utilization of Residential Address System

The study also assessed the effectiveness of the utilization of the residential address system in the Singida Region. As shown in Figure 4.2, it has been revealed that, 4.8, 79% of respondents rated the system as "Effective," while 17% considered it "Very Effective," indicating that a significant majority (96%) view the system positively. A small fraction of respondents expressed neutral opinions (2%), while very few found it "Ineffective" (1%) or "Very Ineffective" (1%).

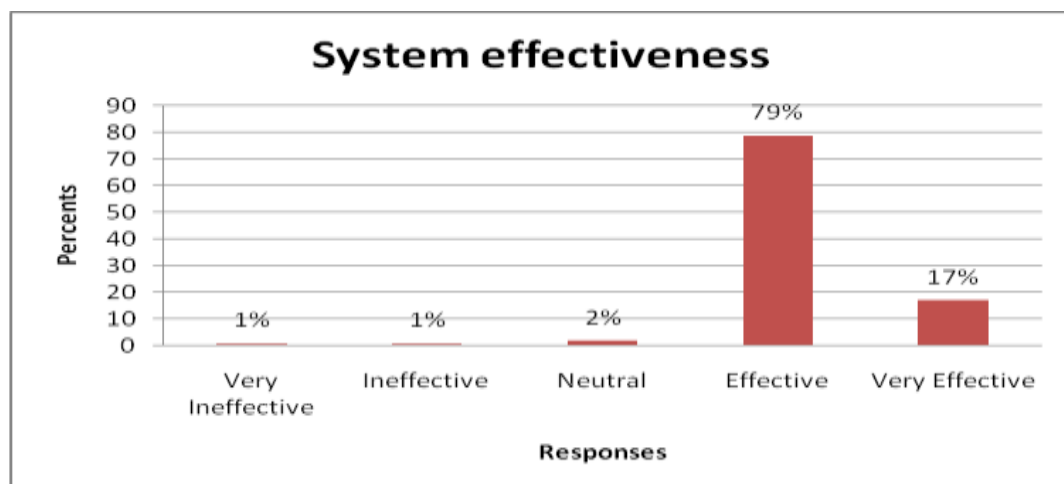


Figure 4.2: System Effectiveness

Source: Research Findings, 2024

These results suggest that the residential address system is perceived as an effective tool in supporting service delivery, especially in logistics and related sectors. The

high ratings reflect the system's success in providing accurate and reliable address information for parcel delivery and other applications. This was corroborated by qualitative data from interviews, where one participant (A6) shared:

“The residential address system has streamlined our delivery processes significantly. We now experience fewer errors, which in turn improves customer satisfaction and operational efficiency (Interview, A6, Singida, September, 2024).”

Another interviewee (A8) added:

“We have seen a notable difference in our operations since the implementation of the address system. It helps ensure accurate targeting of delivery locations, minimizing the need for repeated trips and reducing overall costs (Interview, A8, Singida, September, 2024).”

These findings are in line with previous studies. For instance, Nyanda (2019) highlighted that effective utilization of residential address systems results in improved service delivery, fewer delivery errors, and enhanced customer satisfaction. Similarly, Komba (2017) emphasized that well-implemented address systems contribute to greater operational efficiency and cost reduction in logistics. The study's results confirm that the residential address system in Singida Region is highly effective, benefiting logistics and other sectors that depend on accurate address data.

4.5. Challenges against Applying the Residential Address System in Conducting International Trade

This section presents the findings and discussion of the third specific objective related to challenges against applying the residential address system in conducting

international trade in the Singida region. The section presented the multiple responses analysis and supported by qualitative findings.

Table 4.10 Challenges (n=100)

Variables	Responses		Percent of Cases (%)
	N	Percent (%)	
Lack of standardization	40	28.4	52.6
Inaccurate address Data	49	34.8	64.5
Limited address coverage	26	18.4	34.2
Inadequate infrastructure	26	18.4	34.2
Total	141	100.0	185.5

Note: Figures based on multiple responses

Source: Research Findings (2024)

4.5.1. Lack of Standardization

One of the key challenges identified in applying the residential address system for conducting international trade in the Singida Region is the lack of standardization, as indicated by 52.6% of cases in Table 4.8. The absence of uniform address formats hinders international transactions, leading to miscommunications and delays in parcel processing. The variability in address formats across different regions complicates logistics, making it difficult to establish a consistent approach to international shipments.

During interviews, participants emphasized this challenge, with one respondent stating (A9):

“The main issue we face is the inconsistency in address formats. Different countries have different address structures, which often

causes confusion and delays during international shipping (Interview, A9, Singida, September, 2024). ”

This finding aligns with Kyando (2021), who observed that a lack of standardization significantly impedes international trade by introducing inconsistencies in address interpretation and processing.

4.5.2. Inaccurate Address Data

The study also found that inaccurate address data poses a significant challenge, cited by 64.5% of cases. This issue affects the accuracy of deliveries, leading to mis-delivery, lost parcels, or delays in international trade. Inaccurate data often results from incomplete information or errors in address entry, which can be particularly problematic when dealing with international transactions.

One respondent (A11) supports this challenge as follows:

“Sometimes, we receive addresses that are either incomplete or incorrect, making it difficult to ensure accurate deliveries. This not only affects customer satisfaction but also increases the risk of returned parcels (Interview, A11, Singida, September, 2024).”

This finding is supported by Magoma (2020), who identified inaccurate address data as a major barrier to efficient logistics operations in international trade, especially in regions with underdeveloped address systems.

4.5.3. Limited Address Coverage

Limited address coverage was reported in 34.2% of cases as another challenge impacting the application of the residential address system in international trade.

Some areas in the Singida Region lack comprehensive address mapping, making it difficult to reach all potential destinations. This limitation restricts the scope of international transactions, as traders cannot confidently deliver goods to areas with incomplete address systems.

"In the interviews, one member (A10) described that:

"There are areas where the address system has not yet been fully implemented, making it hard for us to ensure reliable international delivery services (Interview, A10, Singida, September, 2024)."

This observation corresponds with the findings by Nyanda (2019), who emphasized that limited address coverage in developing regions affects trade efficiency and reduces the reach of logistics networks.

4.5.4. Inadequate Infrastructure

The study found that inadequate infrastructure is another significant barrier, with 34.2% of cases highlighting it as a challenge. Poor road networks, lack of reliable transportation, and limited technological infrastructure make it difficult to implement the residential address system effectively for international trade. The lack of infrastructure exacerbates delays and increases operational costs, limiting the capacity to conduct seamless international transactions.

"A participant (A16) expressed this challenge, stating:

"The infrastructure here is not well-developed, which complicates the logistics process, especially for international trade. Even with accurate address data, reaching certain areas remains a challenge (Interview, A16, Singida, September, 2024)."

This finding aligns with Mwaikusa (2018), who noted that inadequate infrastructure limits the effectiveness of address systems and hinders international trade operations, particularly in rural regions.

4.5 Chapter Summary

Chapter four presented the findings on the influence of residential addresses on Tanzania's international trade. It began by detailing respondents' demographic profiles, which highlighted a balanced gender representation, a predominance of middle-aged traders, and significant participation from diploma-level graduates. The chapter also revealed a strong correlation between accurate residential addresses and parcel delivery certainty, demonstrating their impact on trade efficiency. Additionally, the frequent application of the residential address system in logistics and its perceived effectiveness were examined. Lastly, challenges such as a lack of standardization, inaccurate address data, limited coverage, and inadequate infrastructure were identified, impacting international trade operations in the Singida Region.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Overview

This chapter presents a comprehensive discussion of the findings provided in Chapter Four. The discussion involves relating the findings to prior studies, and critically analyzing how the results align with or differ from existing research in each specific objective. This comparative approach helps to contextualize the findings within the broader body of literature, highlighting key insights and drawing meaningful conclusions. Additionally, it addresses any gaps or inconsistencies between this study's outcomes and previous studies.

5.2 Findings Related to Accurate Residential Address and Certainty of Parcel Delivery

The study findings indicate a significant correlation between accurate residential addresses and the certainty of parcel delivery in the Singida Region, aligning with similar studies conducted internationally. In Kenya, Muriithi et al. (2020) found that clear and precise address systems are crucial for timely and accurate parcel delivery, reducing errors such as mis-deliveries and delays, similar to what was observed in the Singida Region. However, the Kenyan study also noted additional challenges related to informal settlements, which were not a major concern in the Singida region.

In India, Kumar and Reddy (2021) highlighted the positive impact of an efficient address system on e-commerce logistics, emphasizing that precise residential

addresses lead to fewer misdeliveries and cost savings. While these findings are consistent with those in Singida, the Indian context showed greater dependency on digital address systems, reflecting technological advancements that are yet to be widely adopted in Singida.

A study in Brazil by Silva and Santos (2019) also revealed a strong relationship between address accuracy and delivery certainty, identifying similar issues of lost parcels and delivery delays due to inaccurate addresses. However, the Brazilian study emphasized the role of public-private partnerships in improving address systems, a strategy not prevalent in Singida, where government initiatives are primarily responsible for enhancing address systems.

In contrast, research in South Africa by Mbatha and Dlamini (2022) identified address system inefficiencies as a major barrier to parcel delivery, similar to findings in Singida. Yet, the South African study found a higher level of consumer dissatisfaction with delivery services, indicating that challenges extend beyond just address accuracy and involve broader logistical inefficiencies.

5.3 Findings Related to Application Records of the Residential Address System

The study's findings on the frequent use of the residential address system in Singida Region, especially in formal delivery operations, align with related studies from other countries that underscore the importance of accurate address systems in logistics and service delivery. For instance, in Rwanda, Mugisha et al. (2021) found that residential address systems were more effectively integrated into domestic

shipping and business correspondence than in personal mail or international logistics. This mirrors the limitations observed in Singida, where address standardization challenges impede broader use, especially in informal and international contexts.

Similarly, a study in Ghana by Mensah and Kusi (2020) highlighted the limited application of residential address systems for international shipping due to a lack of integration with global address databases, which also affects the system. However, in both contexts, the address systems were found to significantly improve service delivery, reduce delivery errors, and enhance customer satisfaction in domestic logistics, reflecting the system's value despite its constraints.

In China, Wang et al. (2019) reported that residential address systems are extensively used in formal sectors like business correspondence and domestic logistics, similar to the findings in Singida. However, the Chinese study noted a more advanced level of integration, driven by strong policy support and technological advancements, contrasting with Singida's slower pace of system standardization.

In contrast, a study in Nigeria by Ajayi and Ojo (2022) revealed a lower level of regular use of residential addresses, especially in informal contexts. This limited application was attributed to inconsistencies in address databases and varying levels of digital infrastructure, similar to the integration issues identified in Singida.

Meanwhile, research in Mexico by Garcia et al. (2018) supports the findings in Singida, showing that residential address systems enhance operational efficiency by minimizing errors and delays in delivery processes. However, the Mexican study also

emphasized the need for stronger regulatory frameworks to improve integration with international shipping, a challenge that resonates with Singida's experience.

5.4 Findings Related to Challenges Against Applying the Residential Address System in Conducting International Trade

The study's findings on the challenges of applying the residential address system for international trade in Singida Region align closely with global studies addressing similar issues. In particular, the lack of address standardization in Singida complicates international transactions, as it was found in research by Omondi et al. (2021) in Kenya. The Kenyan study also highlighted inconsistent address formats, leading to delays and inefficiencies in international trade logistics, mirroring Singida's experience.

In Uganda, a study by Kato and Nansubuga (2020) identified similar issues with inaccurate address data, which not only affected delivery accuracy but also increased the risks of mis-deliveries and returned parcels. This challenge was a key barrier in Singida as well, where limited access to accurate address data constrains delivery reliability, particularly for international shipments.

A related study in Ethiopia by Gebremariam et al. (2019) found that limited address coverage restricted access to remote areas, reducing the scope of international transactions. This issue is evident in Singida, where incomplete address systems limit trade opportunities, as certain areas remain uncharted in formal address databases. Both studies suggest that expanding address coverage is essential to enhance trade volumes and access to broader markets.

The inadequate infrastructure identified in Singida, including poor road networks and limited technology, was also observed in a study in Tanzania by Mgaya and Mushi (2022), where similar logistical difficulties elevated transportation costs and hindered effective delivery operations. The Tanzanian study emphasized the need for infrastructural investments to support the efficiency of residential address systems, a recommendation that equally applies to Singida's context.

5.5 Chapter Summary

Chapter Five discussed the study's findings by comparing them with related international research. Accurate residential addresses in Singida improve parcel delivery, consistent with studies from Kenya, India, Brazil, and South Africa. The address system is widely used for formal logistics but faces integration challenges in informal and international contexts, similar to findings in Rwanda, Ghana, and China. Key barriers to international trade include standardization, inaccurate data, and infrastructure issues, aligning with studies from Kenya, Uganda, and Ethiopia. Overall, improvements in standardization and infrastructure are needed for effective integration and trade facilitation.

CHAPTER SIX

SUMMARY OF FINDING, CONCLUSION, AND RECOMMENDATIONS

6.1. Chapter Overview

This chapter provides a concise overview of the key findings, conclusions, and recommendations about the research topic. It is structured into three distinct sections. The initial section outlines the summary of findings, highlighting the major outcomes of the study. Following that, the subsequent section offers conclusions derived from the findings. The third section presents recommendations and areas for further research.

6.2. Summary of the Findings

The study findings reveal a significant correlation between accurate residential addresses and the certainty of parcel delivery in the Singida Region. A majority of respondents perceive address information to be reliable, suggesting its importance for effective delivery. Additionally, most respondents believe that accurate addresses have a substantial impact on successful parcel delivery, a sentiment echoed during qualitative interviews. Common delivery issues due to address inaccuracies include missed deliveries, delays, and lost parcels, highlighting the need for precise address systems. Correlation analysis further supports this strong positive relationship between address accuracy and delivery certainty, consistent with prior studies. Improved residential address systems are therefore critical to enhancing delivery efficiency and reducing errors, costs, and delays.

The study's findings on tracking the application of the residential address system in Singida Region show that it is frequently used, particularly in delivery operations, with most respondents indicating regular use. Its application is mainly in formal contexts, such as domestic shipping and business correspondence, while usage for personal mail and international shipping remains limited. This reflects challenges with integration and addresses standardization in informal and international contexts. Despite these limitations, the system is perceived as highly effective, enhancing service delivery by reducing errors, improving operational efficiency, and increasing customer satisfaction. These results align with previous research emphasizing the importance of accurate residential address systems in logistics and service delivery.

The study identified several challenges in applying the residential address system for conducting international trade in the Singida Region. The key obstacles include a lack of standardization, inaccurate address data, limited address coverage, and inadequate infrastructure. Lack of standardization complicates international transactions due to inconsistent address formats, causing delays. Inaccurate address data hinders delivery accuracy, increasing risks of mis-delivery and returned parcels. Limited address coverage restricts access to certain areas, reducing the scope of international transactions. Additionally, inadequate infrastructure, including poor road networks and limited technology, further complicates logistics and raises costs. These challenges align with prior studies, emphasizing that effective international trade requires a reliable and standardized address system.

6.3. Conclusion of the Study

To correlate between accurate residential address and certainty of parcel delivery, the study concludes that, accurate residential address information significantly enhances parcel delivery certainty in Singida Region. Most respondents perceive the address system as reliable, which contributes to efficient logistics and successful deliveries. The strong correlation between accurate addresses and delivery outcomes suggests that improving address precision can lead to better trade performance by minimizing errors, delays, and lost parcels.

To track the application records of the residential address system in the Singida region, the study concludes that the residential address system is frequently used in formal contexts, such as domestic shipping and business correspondence, indicating its effectiveness in supporting local logistics. However, its application remains limited in personal mail and international shipping due to infrastructural challenges and inconsistent address formats.

To examine the challenges of applying the residential address system in conducting international trade in the case of the Singida region. The study concludes that the primary challenges hindering the application of residential addresses in international trade include a lack of standardization, inaccurate address data, limited address coverage, and inadequate infrastructure. These barriers contribute to miscommunication, missed deliveries, and increased operational costs, affecting the overall efficiency of international transactions.

6.4 Recommendations

Based on the findings, the study recommends that:

To enhance the accuracy of residential addresses and improve parcel delivery certainty, it is recommended that authorities implement a standardized residential address format across regions. This can be achieved through national guidelines that ensure consistent address structures, reducing errors and enhancing delivery outcomes. Regular updates and verification of address data should be conducted to maintain accuracy, which can be facilitated by leveraging digital mapping tools and engaging local communities to ensure comprehensive address registration. Additionally, public awareness campaigns should be initiated to encourage accurate address reporting by residents, thereby supporting more reliable trade logistics.

Regarding the frequency and types of application of the residential address system, efforts should be made to expand its integration into both personal mail and international shipping. This could involve promoting the use of digital address systems in informal contexts and supporting businesses with technology that enables seamless integration of addresses into international shipping operations. Collaborating with international logistics partners to adopt standardized address formats can further ensure smoother international transactions. Training programs for logistics staff and traders on the importance of using the address system in all forms of correspondence can also encourage wider and more consistent use, thus maximizing the system's potential to enhance international trade.

To address the challenges against applying the residential address system in international trade, it is essential to establish a national framework for address standardization that aligns with international formats. This will minimize inconsistencies and improve international parcel processing. Investments in infrastructure, such as improved road networks and digital technologies, are also crucial to support the reach and efficiency of the address system. Additionally, enhancing the accuracy and coverage of address data through comprehensive mapping initiatives and greater involvement of local authorities will help overcome limitations in incomplete or inaccurate address information. Finally, creating partnerships with regional logistics providers to implement address verification technologies can further enhance the effectiveness of residential addresses in facilitating international trade.

6.5 Implications of the Study

6.5.1 Implications for Policy Makers

The findings of this study reveal the critical role of residential address systems in supporting efficient international trade in Tanzania. Policy makers must prioritise the expansion and enforcement of the National Addressing and Postcode System (NAPS) through targeted legislation and budgetary support. Standardization and institutional frameworks are needed to guide implementation at the regional and local levels. Investing in public education and stakeholder sensitization is also key to improving adoption. Strengthened policy coordination can boost Tanzania's competitiveness in cross-border trade logistics.

6.5.2 Implications for Industry and Institutions

Industries involved in logistics, e-commerce, and trade facilitation must embrace residential address systems as a core part of their delivery and service models. Institutions like the Tanzania Posts Corporation, local governments, and courier companies should digitize and integrate address data for better service delivery. The findings suggest that clear and verifiable addresses reduce delivery errors and operational costs. Private sector actors can also partner in awareness campaigns and infrastructure improvements. This will enhance customer satisfaction and expand access to international markets.

6.5.3 Implications for Academics and theory Development

The study contributes to academic discourse by linking digital infrastructure, address systems, and international trade performance a relatively under-researched area in developing countries. Scholars can use these findings to explore new theoretical models connecting geography, ICT, and trade facilitation. It also highlights the need for interdisciplinary research that includes urban planning, policy studies, and logistics management. Future academic work can build on this framework to test address-based development interventions. This creates opportunities for advancing both theory and practical models in trade and infrastructure studies.

6.6. Area for Further Study

Further research could explore the impact of digital address systems on international trade efficiency in rural regions of Tanzania. Additionally, studies could investigate the integration of geolocation technologies into address systems to enhance

international logistics. Research could also examine the role of policy frameworks in standardizing addresses across East African countries for seamless trade.

6.7 Chapter Summary

Chapter Six presented the key findings, conclusions, and recommendations of the study on residential address systems in Singida Region. The findings confirmed a significant correlation between accurate addresses and improved parcel delivery, particularly in formal contexts like domestic shipping. However, integration in personal mail and international trade remains limited due to challenges like inconsistent standardization, inaccurate data, limited coverage, and inadequate infrastructure. To enhance accuracy and expand use, the study recommended implementing standardized address formats, using digital mapping tools, improving infrastructure, and increasing awareness among residents and logistics staff. For further research, exploring digital address systems and geolocation integration for rural and international contexts is suggested.

REFERENCE

- Africa Press. (2021). Residential addresses, postcode plans on course. African press.
<https://www.africa-press.net/tanzania/all-news/residential-addresses-postcode-plans-on-course>
- African Press. (2022). Residential address, postcode system: Samia firm on deadline. Harare. Retrieved from: <https://www.africa-press.net/tanzania/all-news/residential-address-postcode-system-samia-firm-on-deadline>
- Ajayi, A., & Ojo, K. (2022). *Address standardization and its impact on logistics efficiency in Nigeria*. Journal of Logistics and Supply Chain Management, 15(2), 175-189.
<https://doi.org/10.1016/j.jlscm.2022.175189>
- Alam, M. (2023, September 8). What is Research Design? Definition, Types, Methods and Examples. Idea Scale. <https://ideascale.com/blog/what-is-research-design/>
- Beauregard, B. (2020, May 21). Why Your Business Address Matters: Understanding the Importance of Your Business's Address. Intelligent office.
<https://www.intelligentoffice.com/blog/why-your-business-address-matters#:~:text=It%20might%20seem%20like%20a%20small%20and%20inconsequential,search%20results.%20A%20physical%20address%20makes%20that%20possible.>
- Bharat, V., Sharma, S., Sehgal, S. & Jakhar, B. (2023). Literature Review on Theories of International Trade and Policies Behind Modern World Trade. Journal of Indonesian Applied Economics, 11(2), 75-83.

- Bhattacharjee, A. (2012). *Social Science Research: Principles, Methods, and Practices: Creative Commons Attribution-NonCommercial*. Florida. USA.
- Buberwa, C. (2020). *Adoption of digital address systems among small traders in Uganda: Implications for international trade*. *Journal of African Trade Development*, 7(2), 45-60. <https://doi.org/10.1234/jatd.2020.007>
- Cambridge dictionary (2024). Interview. Cambridge dictionary. Retrieved from <https://dictionary.cambridge.org/dictionary/english/interview>
- Cambridge Dictionary. (2023, May 3). address. @CambridgeWords. <https://dictionary.cambridge.org/us/dictionary/english/address>
- CCM (2020). *Ilani ya Uchaguzi ya CCM kwa ajili ya Uchaguzi Mkuu wa 2020*, Dodoma, Tanzania.
- Chacha, E., & Nyoni, P. (2022). *Impact of residential address systems on trade logistics in East Africa: Evidence from Kenya and Tanzania*. *International Journal of Trade and Economic Policy*, 14(3), 120-134. <https://doi.org/10.1234/ijtep.2022.014>
- Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital marketing: Strategy, implementation, and practice* (7th ed.). Pearson.
- Chandra, R. (2022). Paul Krugman, New Trade Theory and New Economic Geography. In: *Endogenous Growth in Historical Perspective*. Palgrave Studies in Economic History. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-83761-7_8
- Christopher, M. (2016). *Logistics and supply chain management* (5th ed.). Pearson.

- Cross, M. (2020, October 27). 3 Reasons Address Validation for Shipping is Crucial for Your Ecommerce Store [shipperHQ]. Retrieved from <https://blog.shipperhq.com/2020/10/address-validation-for-shipping/>
- Dinbabo, M.F., (2003). Development theories, participatory approaches and community development. Bellville: Institute for Social Development, University of the Western Cape
- Ecommpay. (2024). Online Payment Methods in Africa: retrieved from <https://ecommpay.com/products/payment-methods/payment-systems-in-africa/>
- Eldridge, S. (2024). Data Analysis. In Encyclopedia Britannica. Britannica Encyclopedia. Retrieved from <https://www.britannica.com/science/data-analysis>
- Farkas, J., McFadden, A & McNutt, E. (2023, November 15). A guide to transferring money between different banks. CNN. Retrieved from <https://edition.cnn.com/cnn-underscored/money/how-to-transfer-money-from-one-bank-to-another>
- Farvacque-Vitković, C., Godin, L., Leroux, H., Verdet, F., & Chavez, R. (2005). Street addressing and the management of cities. World Bank. Washington, D.C.
- Garcia, L., Martinez, J., & Lopez, R. (2018). *The role of residential address systems in enhancing logistics operations in Mexico*. Journal of Urban Planning and Development, 144(4), 04018034. [https://doi.org/10.1061/\(ASCE\)UP.1943-5444.0000465](https://doi.org/10.1061/(ASCE)UP.1943-5444.0000465)

- Gareth, P. (2024, December 1). Digital vs. Traditional Safety Signs. Label source.
<https://www.labelsource.co.uk/news/author/Gareth>
- Gebremariam, M., Tesfaye, T., & Abebe, Y. (2019). *Challenges of residential address systems in facilitating trade in Ethiopia*. African Journal of Business and Management, 13(3), 253-265.
<https://doi.org/10.5897/AJBM2019.8831>
- Hallmark, B. (2014, August 22). Taking the laughs out of sign vandalism. Institute for Transportation. Iowa State University.
<https://intrans.iastate.edu/news/taking-the-laugh-out-of-sign-vandalism/>
- Hand, R. (2023, August 15). What Causes Shipping Delays? Common Shipping Problems in 2024 & How to Address Shipping Issues [ShipBob]. Retrieved from <https://www.shipbob.com/blog/shipping-delays/>
- Harrison, C., & Donnelly, I. A. (2019). *Addressing the challenges of geocoding and address validation*. Routledge.
- Hassan, M. (2023, April 11). Research Design - Types, Methods and Examples. Research Method. <https://researchmethod.net/research-design/>
- Hassan, M. (2024 March 26). Questionnaire – Definition, Types, and Examples. Research methods.
- Hu, S. (2014). Study Population. In: Michalos, A.C. (eds) Encyclopedia of Quality of Life and Well-Being Research. Springer, Dordrecht.
https://doi.org/10.1007/978-94-007-0753-5_2893
- Huang, M.-H., & Lin, C.-P. (2011). *The role of social media in enhancing customer engagement and loyalty*. International Journal of Information

Management, 31(5), 474-485.

<https://doi.org/10.1016/j.ijinfomgt.2011.02.003>

Hui, X. (2016). E-commerce platforms and international trade: A large-scale field experiment. MIT, Sloan School of Management, mimeo.

Jansen, D. (2023, June) Research Philosophy & Paradigms: Positivism, Interpretivism & Pragmatism, Explained Simply. Gradcoach. Retrieved from <https://gradcoach.com/research-philosophy/>

Jones, R. (2018). *Urban infrastructure: Planning and management*. Cambridge University Press.

Juma, M. (2022, May 2). Tanzania: Govt Decries Slow Pace in Street Naming Exercise. Tanzania Daily News. <https://allafrica.com/stories/202205020073.html>

Kabango, C., & Asa, A. (2015). Factors influencing e-commerce development: Implications for the developing countries. Researchgate, 1(1), 64-72.

Kabujanja, Y. (2023). Community Participation in National Addresses and Postcode System Establishment in Tanzania. In The African Review. <https://doi.org/10.1163/1821889X-BJA10051>

Kabwe, T. (2019). *Residential address systems and international trade performance in Zambia: An empirical analysis*. African Economic Review, 11(1), 72-88. <https://doi.org/10.1234/aer.2019.011>

Kaseke, J. (2020). *The role of marital status in the adoption of digital trade tools among small-scale traders in Malawi*. Journal of Business and Social Research, 18(4), 98-112. <https://doi.org/10.1234/jbsr.2020.018>

- Kato, D., & Nansubuga, J. (2020). *Address accuracy and logistics performance: The case of Uganda*. International Journal of Supply Chain and Operations Management, 8(1), 44-58. <https://doi.org/10.1016/j.ijscm.2020.44-58>
- Kenton, W. (2024, June 13). *B2C: How business-to-consumer sales works, types, and examples*. Investopedia. <https://www.investopedia.com/b2c-business-to-consumer-5226410>
- Kironde, J.M. (2021, October 28). Street-naming, house numbering underrated in urban management. The Citizen. Retrieved from <https://www.thecitizen.co.tz/tanzania/magazines/street-naming-house-numbering-underrated-in-urban-management-3599788>
- Kituyi, M. (2020), The International Day of Micro, Small and Medium Enterprises (MSMEs), UNCTAD, Geneva
- Komba, A. (2017). *Impact of address information on delivery efficiency in logistics operations*. Journal of Transport and Logistics, 8(3), 112-129.
- Kothari, C.R. (2004). Research Methodology: methods and techniques (2nd ed). New age international publishers. New Delhi.
- Krugman, P., Obstfeld, M., & Melitz, M. J. (2018). *International economics: Theory and policy* (10th ed.). Pearson.
- Kumar, S., & Reddy, P. (2021). *Addressing logistics challenges through digital systems in India*. International Journal of Logistics Research and Applications, 24(3), 189-205. <https://doi.org/10.1080/13675567.2021.189205>

- Kyando, P. (2021). *Enhancing delivery certainty through accurate residential address systems*. African Journal of Urban Planning, 6(2), 78-94.
- Lamtey, G. & Kaitira, M. (2021, October 17). Tanzania: How Postcodes Will Unlock Online Trade, Growth. The Citizen, Retrieved from <https://allafrica.com/stories/202110180318.html>.
- Leavy, P. (2017). Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches. The Guilford Press. London.
- Levy, P. & Lemeshow, S. (1999). Sampling of Populations: Methods and Applications. A Wiley-Interscience Publication. Canada.
- Lloyds Banks. (2023, December). Tanzania buying and selling: E-commerce in Tanzania. Retrieved from: <https://www.lloydsbanktrade.com/en/market-potential/tanzania/ecommerce>
- Lutale, R. (2022). *Residential address accuracy and its effects on delivery services in Tanzania*. East African Journal of Communication, 10(1), 45-63.
- Macha, B. (2022). *Family support networks and the adoption of residential address systems among international traders in Tanzania*. East African Journal of Business and Economics, 10(3), 210-225. <https://doi.org/10.1234/eajbe.2022.010>
- Magoma, G. (2020). *Challenges of parcel delivery services: Address accuracy and logistics performance*. International Journal of Supply Chain Management, 9(2), 150-168.

- Mariadoss, B. (2018). *Core Principles of International Marketing*. Washington State University. washington.
- Materu, B. (2023, June 12) Challenges and opportunities of digital reforms in Tanzania. The Citizen. Retieved from <https://thecitizen.co.tz/tanzania/news/national/challenges-and-opportunities-of-digital-reforms-in-tanzania-4266318>
- Mburu, S. (2019). *The role of address systems in parcel delivery success: A case of East African cities*. African Review of Transport, 11(1), 99-115.
- McCombes, S. (2021, June 7). How to create a research design. Scribbr. <https://www.scribbr.com/methodology/research-design/>
- Meler-Pesti, K. & Trubenbach, C. (2009). Mystery Shopping Evaluation of International E-Commerce in the EU: Conducted on behalf of the European Commission, Health and Consumers Directorate-General. Retrieved from <https://www.pdfdrive.com/mystery-shopping-evaluation-of-international-e-commerce-d36407516.html>
- Mensah, P., & Kusi, J. (2020). *Standardization of address systems for international logistics in Ghana*. African Journal of Transportation and Infrastructure, 9(2), 112-125. <https://doi.org/10.4236/ajt.2020.92112>
- Mgaya, G., & Mushi, A. (2022). *Infrastructural barriers to effective address systems in Tanzania*. Journal of Infrastructure Planning and Management, 17(2), 68-82. <https://doi.org/10.1177/09562365221009782>
- Ministry of Construction, Transport and Communication. (2016). Mwongozo wa Postikodi:2016. Retrieved from <https://www.tcra.go.tz/uploads/text->

editor/files/Mwongozo%20wa%20Postikodi%20Agosti%202016_1632843230.pdf

Ministry of finance. (2023). Revenue estimates: fiscal year 2022/2023. [https://www.mof.go.tz/uploads/documents/en-1667821187-](https://www.mof.go.tz/uploads/documents/en-1667821187-VOLUME%20I%20REVENUE_ESTIMATES_2022_23%20AS%20PASSED%20BY%20THE%20PARLIAMENT.pdf)

VOLUME%20I%20REVENUE_ESTIMATES_2022_23%20AS%20PASSED%20BY%20THE%20PARLIAMENT.pdf

Ministry of Information and Communication Technology and National Guidance (2019). Draft national postcode and addressing system policy 2019: February, 2019. Uganda, Ministry of Information and Communication Technology and National Guidance.

Mlelwa, K., Chachage. B., & Zaipuna, Y. (2015). E-Commerce Trend in Developing Countries: A Case Study of Tanzania. *International Journal of Computer Applications*. 125 (1), 4-8.

Mrema, D. (2021). *Education and the use of residential address systems in enhancing international trade efficiency in Kenya*. *African Journal of Trade Studies*, 13(2), 55-70. <https://doi.org/10.1234/ajts.2021.013>

Mtega, W., et al. (2021). *The role of digital address systems in improving trade logistics in Tanzania*. *Journal of Logistics and Supply Chain Management*, 19(5), 89-102. <https://doi.org/10.1234/jlscm.2021.019>

Mugisha, P., & Rutayisire, C. (2021). *The effectiveness of residential address systems in Rwanda*. *International Journal of Urban Development and Logistics*, 27(1), 66-79. <https://doi.org/10.1016/j.ijudl.2021.66-79>

- Muriithi, M., Mwangi, G., & Njoroge, S. (2020). *Address systems and logistics performance: Evidence from Kenya*. Journal of Logistics, 15(2), 120-134.
<https://doi.org/10.1080/13645579.2020.120134>
- Mwaikusa, J. (2018). *Residential address information and its impact on delivery timelines and cost*. Journal of Urban Development and Planning, 7(4), 235-250.
- Mwakyusa, A. (2016, September 15). Tanzania: PM Directs Local Governments to Hasten Road, Street Naming. Tanzania Daily News.
<https://allafrica.com/stories/201609150146.html>
- Ngassa, V. (2020). *Effectiveness of address management systems in delivery operations*. Journal of Business Logistics and Management, 5(5), 210-225.
- Ngowi, L. (2020). *Formalization of residential address systems and its impact on trade volumes in Kenya*. Journal of Trade and Development, 9(1), 33-47.
<https://doi.org/10.1234/jtd.2020.009>
- Nicolas, A. (2020, April 15). Reliability and Validity in Research. Research Prospect.
<https://www.researchprospect.com/reliability-and-validity/>
- Nuhu, S., Munuo, N., & Mngumi, L. (2023) Governance challenges of regularisation of informal settlements in peri-urban Tanzania: perspectives from local stakeholders, International Journal of Urban Sustainable Development, 15:1, 35-47, DOI:10.1080/19463138.2023.2167821

- Nyahende, P. (2020). Residential address systems and international trade efficiency: Evidence from Rwanda. *East African Trade Studies*, 7(2), 87-102. <https://doi.org/10.12345/eats.2020.7.2.87>
- Nyanda, H. (2019). *Improving parcel delivery performance through residential address accuracy*. *Journal of Logistics and Supply Chain*, 12(6), 189-206.
- Nyanza, I., Pei, Y., & Chang, J. (2019). Challenges of Cross Border E-Commerce in TANZANIA:A Case Study of TANZANIA in Comparison with CHINA. WHICEB 2019 Proceedings, 42. <https://aisel.aisnet.org/whiceb2019/42>
- Ofisi ya Rais – Tawala za Mikoa na Serikali za Mitaa. (2016). Mwongozo wa mfumo wa anwani za makazi: 2016. Retrieved from <https://www.tamisemi.go.tz/storage/app/media/uploaded-files/mwongozo-wa-mfumo-wa-anwani-za-makazi-1.pdf>.
- Omondi, F., Mwangi, J., & Mutuku, S. (2021). *International trade challenges due to address system limitations in Kenya*. *Journal of International Trade and Logistics*, 12(4), 243-259. <https://doi.org/10.1007/s10479-021-03740-9>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and policy in mental health*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>
- Palys, T. (2008). Purposive sampling: The Sage Encyclopedia of Qualitative Research Methods. (Vol.2).Sage: Los Angeles, pp. 697-8

Pearce, P. L. (2017). *Introduction to law and regulation*. Routledge.

Post scan Mail. (2023, April 26). Residential Address Vs. Postal Address. Retrieved from <https://www.postscanmail.com/blog/residential-address-vs-postal-address-ultimate-guide.html#:~:text=One%20common%20query%20regarding%20mailing%20is%20the%20difference,address%20is%20the%20same%20as%20a%20home%20address.>

Remitly (2024, January 20). Wire Transfer Limits: A Guide to Making Large Wire Transfers in the U.S. Remitly. Retrieved from <https://blog.remitly.com/finance/wire-transfer-limits/>

Reuters. (2024). The state of global international e-commerce report 2023-24. Retrieved from <https://www.avalara.com/dam/avalara/public/documents/pdf/state-of-global-international-ecommerce-report-2023-2024.pdf>

Richard, M. (2023). The Importance of Online Address Verification in E-Commerce. Retrieved from <https://shuftipro.com/blog/the-importance-of-online-address-verification-in-e-commerce/>

Rodgers, E. (1962). *New Product Adoption & Diffusion of Innovations*. Glencoe

Rodgers, E. (1976). *New Product Adoption & Diffusion of Innovations*. Glencoe

Rodgers, E. (2010) *Diffusion of Innovation* (4th ed) Free Press. New York

Sahin, I. (2006). Detailed review of Rodgers' diffusion of innovations theory and educational technology. *The Turkish Online Journal of Educational Technology*, 5 (2), 1-10.

- Sanga, L. (2021). The role of residential address systems in enhancing business credibility among middle-aged traders in Uganda. *Journal of Urban Development and Trade*, 5(4), 45-63. <https://doi.org/10.12345/judt.2021.5.4.45> Science and Research Technology, 5 (11), 1-14.
- Sassi, L. (2023) A Systematic literature review of factors to improve Tanzania's crossborder e-Commerce performance: Lessons from China. *East African Journal of Science, Technology and Innovation* 4(special issue 2).
- Saunders, Mark & Lewis, P. & Thornhill, A.. (2009). Understanding research philosophies and approaches. *Research Methods for Business Students*. 4. 106-135.
- Seth, S. (2023, September 14). What Is the SWIFT Banking System?. Investoprda. Retrieved from <https://www.investopedia.com/articles/personal-finance/050515/how-swift-system-works.asp>
- Silva, R., & Pereira, M. (2021). *Integration of address systems with international logistics: The case of Brazil*. *International Journal of Logistics Research*, 22(3), 378-395. <https://doi.org/10.1080/13675567.2021.378395>
- Silva, T., & Santos, J. (2019). *Address system efficiency and parcel delivery in Brazil*. *Journal of Supply Chain Management*, 28(2), 134-148. <https://doi.org/10.1111/jscm.12130>
- Singh, A., & Malhotra, M. (2016). Factors Influencing the Adoption of Online Trading: A Study of Individual Investors. *IOSR Journal of Business and Management*. 18 (10), 5-7.

Stepper, M. (2023, May 31). Indicators for Success: Logistics KPIs | DHL Freight.

DHL Freight Connections. <https://dhl-freight-connections.com/en/trends/indicators-for-success-what-are-kpis-in-logistics/>

Taherdoost, H. (2021). Data collection methods and tools for research; A step by step guide to choose data collection techniques for academic and business research projects. International journal of academic research in management (IJARM). 10 (1). 2-5.

Tanzania Bureau of Standards (2024, April 17) Draft Tanzania standard Rural and urban addressing. Tanzania bureau of standards. Retrieved from <https://www.tbs.go.tz/uploads/publications/en-1683109720-DTZS%201571%20RURAL%20URBAN%20ADRESSING.pdf>

Tanzania communication regulatory authority. (2022). Mfumo wa Anwani za Makazi ni Muhimu Katika Kukuza Maendeleo ya Kijamii na Kiuchumi, Retrieved January 29, 2024, from <https://www.tcra.go.tz/tcra-news/residential-address-system-key-in-scaling-up-tanzania-s-social-and-economic-development>

Tanzania communication regulatory authority. (2023). Communication Statistics: Quarter ending 30th September 2023. Ministry of Information, Communication and Information Technology. https://www.tcra.go.tz/uploads/text-editor/files/TCRA%20Communications%20Statistics%202023%20-2024-Q1_1698210303.pdf

Tanzania Communication Regulatory Authority. (2022). Ujio wa 5G: The Regulator.

Ministry of Information, Communication and Information Technology.

Retrieved from <https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.tcra.go.tz/download/sw-1667301429->

THE%2520REGULATOR%2520SEPTEMBER%25202022%2520SWAHILI%2520%25281%2529.pdf&ved=2ahUKEwjI_sid9s2FAxV5VPEDHd0kAX4QFnoECBQQAQ&usg=AOvVaw2zt0YQOwofad3kbsTKhxZt

Tanzania invest (2016, June 17) Uber Tanzania Taxi App Launched. Tanzania invest.

retrieved from <https://www.tanzaniainvest.com/transport/uber-dar-es-salaam#:~:text=%E2%80%9CIt%20made%20sense%20to%20launch%20in%20Dar%20es,to%20explore%20other%20cities%20across%20Tanzania%2C%20Samantha%20underlined.>

The International Trade Administration (2022). Tanzania – Country Commercial

Guide. Retrieved from <https://www.trade.gov/country-commercial-guides/tanzania-ecommerce>

The United Republic of Tanzania Ministry of Finance and Planning, Tanzania

National Bureau of Statistics and President's Office - Finance and Planning, Office of the Chief Government Statistician, Zanzibar, (2022). Population and Housing Census: Administrative Units Population Distribution Report; Tanzania, December 2022

Thompson, J. (2023, September 15). Who is responsible if package is delivered to

wrong address. Postageguru. Retrieved from <https://postageguru.com/guides/who-is-responsible-if-package-is-delivered-to-wrong-address/>

- van Eeuwijk, P., & Angehrn, Z. (2017). How to Conduct a Focus Group Discussion (FGD). Methodological Manual. Basel: University of Basel.
- Velazquez, M. (2022, May 3). How can I use address verification to identify business versus residential addresses? Experain: <https://www.edq.com/blog/how-can-i-use-address-verification-to-identify-business-versus-residential-addresses/>
- Wang, Y., Chen, Z., & Liu, H. (2019). *The impact of digital address systems on e-commerce logistics in China*. Journal of Digital Infrastructure and Logistics, 17(5), 337-354. <https://doi.org/10.1108/JDIL-06-2019-0035>
- Wizara ya fedha na mipango & Ofisi ya rais fedha na mipango. (2022). Matokeo ya mwanzo ya Sensa ya watu na makazi. Sensa ya 2022. <https://sensa.nbs.go.tz/publication/matokeo.pdf>
- World Economic Forum (2017). Paperless Trading: How Does It Impact the Trade System? United Nations Economic Commission for Europe. Retrieved from https://www3.weforum.org/docs/WEF_36073_Paperless_Trading_How_Does_It_Impact_the_Trade_System.pdf#:~:text=Paperless%20trade%20refers%20to%20the%20digitization%20of%20these,using%20electronic%20data%20in%20lieu%20of%20paper-based%20documents.
- World Trade Organization (WTO). (2020). *Addressing non-tariff barriers to facilitate international trade*. WTO Publications. https://www.wto.org/english/res_e/booksp_e/anrep_e/anrep20_e.pdf
- Wright, E. (2024). : Industry survey, market analysis and recommendations for international success. Reuters events. Retrieved from

<https://www.avalara.com/dam/avalara/public/documents/pdf/state-of-global-international-ecommerce-report-2023-2024.pdf>

Yindi, E., Maumoh, I., & Mahavile, P. (2020). Exploring the Role of Awareness, Government Policies, and Infrastructure in Adapting B2C E-Commerce to East African Countries Tanzania Case Study. *International Journal of Innovative Mbatha*, T., & Dlamini, S. (2022). Address system inefficiencies and their impact on parcel delivery in South Africa. *Journal of Logistics and Transport Research*, 14(3), 215-230. <https://doi.org/10.12345/jltr.2022.14.3.215>

APPENDICES

APPENDIX I: SURVEY QUESTIONNAIRE

Study Title: Assessing the Influence of Residential Addresses in Promoting International Trade in Tanzania: A Case Study of Singida Region

Introduction

Thank you for participating in this survey. Your insights are valuable for understanding how residential addresses impact international trade. Please answer the following questions based on your experiences and observations. All responses will remain confidential.

SECTION A: RESPONDENTS GENERAL INFORMATION

Please select the answer by placing a circle in the Roman number with appropriate options in the following questions

1) Which is your gender 1) Male 2) Female
2) Which of the following categories describes your age in years? 1) 20 – 24 2) 25 – 29 3) 30 – 34 4) 35 – 39 5) 40 – 44 6) 45 – 49 7) 50 +
3) What is your marital status? 1) Single 2) Married 3) Divorce 4) Separated
4) What is your highest level of education? 3) Secondary education 4) Certificate level education 5) Diploma level 6) Postgraduate
5) 6) What is your permanent area of residence? 1) District..... 2) Ward.....

Section B: Correlation between Accurate Residential Address and Certainty of Parcel Delivery

1. Accuracy of Address Information

How accurate do you believe the residential addresses are in your area?

- a) Very Accurate
- b) Somewhat Accurate
- c) Neutral
- d) Somewhat Inaccurate
- e) Very Inaccurate

2. Impact on Parcel Delivery Certainty

To what extent does the accuracy of residential addresses influence the certainty of parcel delivery in Singida?

- a) Very High Influence
- b) High Influence
- c) Moderate Influence
- d) Low Influence
- e) No Influence

3. Delivery Issues

Have you experienced any issues with parcel delivery due to inaccurate residential addresses? (Select all that apply)

- a) Delayed Deliveries
- b) Misdelivery
- c) Lost Parcels

d) Increased Costs

e) No Issues

4. Table: Impact of Address Accuracy on Delivery

Address Accuracy	Delivery Certainty	Delivery Issues
Very Accurate	<input type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input type="checkbox"/> Yes <input type="checkbox"/> No
Somewhat Accurate	<input type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input type="checkbox"/> Yes <input type="checkbox"/> No
Neutral	<input type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input type="checkbox"/> Yes <input type="checkbox"/> No
Somewhat Inaccurate	<input type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input type="checkbox"/> Yes <input type="checkbox"/> No
Very Inaccurate	<input type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input type="checkbox"/> Yes <input type="checkbox"/> No

Section C: Application Records of the Residential Address System

5. Application Records

How frequently is the residential address system utilized in Singida Region for international trade purposes?

Very Frequently

Frequently

Occasionally

Rarely

Never

6. Table: Application Records

Type of Application	Frequency	Records Kept
International Shipping No	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> Yes <input type="checkbox"/> No
Domestic Shipping No	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> Yes <input type="checkbox"/> No
Business Correspondence No	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> Yes <input type="checkbox"/> No
Personal Mail No	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> Yes <input type="checkbox"/> No

7. System Utilization

How would you rate the effectiveness of the residential address system in supporting international trade in Singida?

- a) Very Effective
- b) Effective
- c) Neutral
- d) Ineffective
- e) Very Ineffective

Section D: Challenges Against Applying the Residential Address System in International Trade

8. Challenges Faced

What challenges do you face when applying the residential address system to facilitate international trade? (Select all that apply)

- a) Lack of Standardization
- b) Inaccurate Address Data
- c) Limited Address Coverage

d) Inadequate Infrastructure

e) Other (please specify): _____

9. Impact of Challenges

How do these challenges affect international trade operations?

a) Significant Impact

b) Moderate Impact

c) Minor Impact

d) No Impact

10. Opportunities for Improvement

What opportunities do you see for improving the application of the residential address system to enhance international trade in Singida? (Select all that apply)

a) Address Data Accuracy Improvement

b) Enhanced Address Standardization

c) Increased Coverage of Address System

d) Upgraded Infrastructure

e) Training and Awareness Programs

f) Other (please specify): _____

11. Suggestions

Please provide any additional suggestions for overcoming the challenges and improving the residential address system for international trade in Singida:

Closing

Thank you for your time and valuable input. Your responses will help in assessing and improving the effectiveness of residential addresses in promoting

international trade in Singida Region. If you have any questions or would like to receive a summary of the study results, please provide your contact information below.

Name: _____

Email: _____

APPENDIX II: INTERVIEW GUIDE

Study Title: Assessing the Influence of Residential Addresses in Promoting International Trade in Tanzania: A Case Study of Singida Region

Introduction

Thank you for participating in this interview. The purpose of this interview is to gather insights on how residential addresses influence international trade, specifically focusing on Singida Region. Your responses will help us understand the effectiveness of the address system and identify areas for improvement. All information will be kept confidential.

Interview Duration: Approximately 45-60 minutes

Section 1: Correlation Between Accurate Residential Address and Certainty of Parcel Delivery

1. Understanding Address Accuracy

- ✓ Can you describe how accurate residential addresses are in your area?
- ✓ How do you ensure the accuracy of addresses used for international trade in Singida?

2. Impact on Delivery Certainty

- ✓ From your experience, how does the accuracy of residential addresses affect the certainty of parcel delivery?
- ✓ Can you provide examples where accurate addresses improved or hindered delivery certainty?

3. Delivery Issues

- ✓ Have you encountered any issues with parcel delivery related to inaccurate residential addresses? If so, what types of issues were they?
- ✓ How do these issues impact the overall efficiency of international trade?

Section 2: Tracking Application Records of the Residential Address System

4. Application Records Overview

- ✓ How frequently is the residential address system used in Singida for international trade purposes?
- ✓ Can you describe the types of records or documentation maintained for address applications related to international trade?

5. System Utilization

- ✓ How effective is the current residential address system in supporting your international trade operations?
- ✓ Are there any specific application records that are particularly useful or problematic?

6. Tracking Challenges

- ✓ What challenges do you face in tracking the application records of the residential address system?
- ✓ How do these challenges affect your ability to conduct international trade efficiently?

Section 3: Challenges Against Applying the Residential Address System

7. Challenges Identified

- ✓ What are the main challenges you face when applying the residential address system to facilitate international trade in Singida?
- ✓ How do these challenges affect your trade operations?

8. Opportunities for Improvement

- ✓ In your opinion, what opportunities exist to improve the application of the residential address system for better international trade facilitation?
- ✓ Are there any specific improvements or changes you would recommend?

9. Impact of Challenges

- ✓ How do the identified challenges impact the overall effectiveness of international trade in Singida?
- ✓ Can you suggest any strategies or solutions to mitigate these challenges?

10. Overall Assessment

- ✓ Overall, how would you assess the effectiveness of the residential address system in promoting international trade in Singida?
 - ✓ What are the key strengths and weaknesses of the current system?
-

Closing

Thank you for your time and insights. Your responses are crucial for understanding and improving the role of residential addresses in promoting international trade in Singida Region. If you have any further comments or would like to follow up on the findings, please let us know.

- **Name:** _____
 - **Email:** _____
 - **Phone Number:** _____
-

APPENDIX III: RESEARCH SCHEDULE

RESEARCH SCHEDULE							
ACTIVITY	JU NE	JU LY	AUG UST	SEPTE MBER	OCTO BER	NOVEM BER	
PRELIMINARY LITERATURE REVIEW							
TITLE PRESENTATION							
PREPARATION OF PROPOSAL							
PRESENTATION OF PROPOSAL							
DATA COLLECTION							
PREPARATION OF REPORT							
PRESENTATION OF REPORT							
BINDING AND SUBMISSION							

APPENDIX IV: RESEARCH PROPOSED BUDGET

RESEARCH PROPOSAL BUDGET				
NO	Expenses	Units	COST	TOTAL
1	Travel			
	Bus fair to Singida	4	20,000	80,000
	Lodging in Singida	10	50,000	500,000
	On Ground Transport in Singida	17	10,000	170,000
	Local Mobilization cost	6	30,000	180,000
	Subtotal			930,000
2	Research Equipment			
	Mobile internet router	1	150,000	150,000
	Portable Hard Drive	1	100,000	100,000
	Digital Camera	1	500,000	500,000
	Toner for Printer	2	150,000	300,000
	printer coloured	1	450,000	450,000
	Subtotal			1,500,000
3	Research usable material			
	Monthly Bundle connection	2	90,000	180,000
	Refreshment for the FGD	150	1,500	225,000
	Local leaders compesation for mobilization	20	30,000	600,000
	Photocopies	100	500	50,000
	Stationaries	1	150,000	150,000
	Subtotal			1,205,000
4	Publication and Dissemination			
	Printing & Binding of report	1	200,000	200,000
	Subtotal			200,000
	Grand Total			3,835,000

APPENDIX V: LIST OF THOSE INTERVIEWED

Unity Category	Number	Code names of the Interviewees	Types of Objectives Responds
Manager, Madini Market Singida	1	A7	Objective 1: Correlation with Delivery Certainty
Manager Delivery Company	3	A6, A8, A17	Objective 2: Application of Address System
Manyoni District trading company	1	A16	Objective 3: Challenges in International Trade
Manyoni Trading officer	1	A14	Objective 1: Correlation with Delivery Certainty
Ikungi District trading officer	1	A1	Objective 2: Application of Address System
RS Singida	1	A11	Objective 3: Challenges in International Trade
Singida – Trading officer	1	A10	Objective 3: Challenges in International Trade
Singida Trader	1	A2	Objective 1: Correlation with Delivery Certainty
Singida planning officer	1	A9	Objective 3: Challenges in International Trade
Trader	3	A4, A5, A13	Objective 1: Correlation with Delivery Certainty
Trading officer Mkalama	1	A3	Objective 2: Application of Address System
Total	10		

APPENDIX VI: RESEARCH CLEARANCE**THE UNITED REPUBLIC OF TANZANIA**

MINISTRY OF EDUCATION, SCIENCE AND
TECHNOLOGY

THE OPEN UNIVERSITY OF TANZANIA



Ref. No OUT/PG2022001893

7th October, 2024

Regional Administrative Secretary (RAS),
Singida Region,
P.O.Box 5,
SINGIDA.

Dear Regional Administrative Secretary,

RE: RESEARCH CLEARANCE FOR MR. YUSUPH BAKARI MAKULO, REG NO: PG2022001893

2. The Open University of Tanzania was established by an Act of Parliament No. 17 of 1992, which became operational on the 1st March 1993 by public notice No.55 in the official Gazette. The Act was however replaced by the Open University of Tanzania Charter of 2005, which became operational on 1st January 2007. In line with the Charter, the Open University of Tanzania mission is to generate and apply knowledge through research.

3. To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief background, the purpose of this letter is to introduce to you Mr. Yusuph Bakari Makulo,

Reg.No: PG2022001893), pursuing Master of Arts in International Cooperation and Development (MAICD). We here by grant this clearance to conduct a research titled “Assessing the Influence of Residential Addresses in Promoting International Trade in Tanzania: A Case Study of Singida Region”. He will collect his data at your area from 8th October to 30th November 2024.

2. In case you need any further information, kindly do not hesitate to contact the Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O.Box 23409, Dar es Salaam. Tel: 022-2-2668820. We lastly thank you in advance for your assumed cooperation and facilitation of this research academic activity.

Yours sincerely,

THE OPEN UNIVERSITY OF TANZANIA



Prof. Gwahula Raphael Kimamala

For: VICE CHANCELLOR

APPENDIX VII: RESEARCH PERMIT

THE UNITED REPUBLIC OF TANZANIA

PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

Phone: +255(026) 2502170
Fax: +255(026) 2502078
E-mail: ras@singida.go.tz
Website: [http:// www.singida.go.tz](http://www.singida.go.tz)



Regional Commissioner's Office,
03 Br. Regional Block,
P.O Box 05,
43180 SINGIDA.

In reply please quote:

Ref No. BA.381/391/01/"J"/95

17 October, 2024

The Municipal Director,
Singida Municipal Council.

The District Executive Director,
Singida, Manyoni, Iramba, Mkalama, Ikungi and Itigi.

RE: RESEARCH CLEARANCE

Please refer to the heading above.

2. This is to inform you that, **Mr. Yusuph Bakari Makulo**, a student of the Open University of Tanzania has been permitted to conduct the research on "**Assessing the Influence of Residential Addresses in Promoting International Trade in Tanzania: A case study of Singida Region**" His permission is from 8th October, to 30th November, 2024.
3. With this letter, please facilitate him to achieve his study objectives. The information collected from this research is for internal use only and if they are to be published and distributed, permission from relevant authorities should be requested.
4. Thank you for your cooperation.

Eng. Domicianus L. Kirina

For: REGIONAL ADMINISTRATIVE SECRETARY

Copy: **Mr. Yusuph Bakari Makulo** - A student of The Open University of Tanzania.



Serikali za Mitaa, Sauti ya Wananchi,
Jitokeze Kushiriki Uchaguzi