RELATIONSHIP BETWEEN UNIVERSITY INDUSTRY LINKAGES AND BUSINESS DEVELOPMENT SERVICES ACCESSIBILITY BY MICRO AND SMALL ENTERPRISES NEIGHBOURING ST. AUGUSTINE UNIVERSITY IN TANZANIA

BY
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DECEMBER, 2013
DECLARATION

This thesis is my original work and has not been presented for a degree in any other university or any other award.

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We confirm that the work reported in this thesis was carried out by the student under our supervision.

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DEDICATION

Dedicated to Patriciah Jossy Kagwiria and LynseyPeace Kathure aka Chichi, for their love, prayers, support, understanding and patience. They missed me dearly all this time.
ACKNOWLEDGEMENT

I give thanks to almighty God whose grace has been sufficient throughout my academic life.

My greatest appreciation goes to Eng. Wilbert Kipsang Choge for his unrelenting efforts in fundraising for my Masters degree without which a PhD dream could not have been fathomed.

This work could have been effort in futility without the guidance of my supervisors, Dr. Jagongo Ambrose and Prof. Kombo Donald.

My friends Sr. Regina, Sr. Deusdedita, Br. Makilika and Mr. Ngonzi of St. Augustine University were there for me.

Special thanks go to my children Patricia and Peace for their love and encouragement. The long days I left you to attend classes and defenses were painful.

Sincere gratitude goes to my beloved mother Josephine Neulubi aka NINA, for instilling in me the virtue of hard work and determination in life. To my late father, Peter, I have attained the dream you had for me. May your Soul RIP. Amen.
ABSTRACT

Micro and small enterprises (MSEs) play a crucial role in development globally and Tanzania in particular where majority of businesses are in this category. Despite their importance, MSEs continue to face challenges emanating from inaccessibility to business development services (BDS). Universities which have new roles in the competitive global world where innovation is a crucial factor for development are important sources of such services through university industry linkages. Though there are over 20 universities in Tanzania providing various services, MSEs have continued to face problems of BDS inaccessibility. This study investigated the relationship between the university industry linkages and accessibility to business development services by micro and small enterprises neighbouring St. Augustine University in Tanzania. The following objectives were pursued; i) To establish the relationship between university education activities and accessibility to business development services by MSEs neighbouring St. Augustine in Tanzania ii) To determine the relationship between university research activities and accessibility business development services by MSEs neighbouring St. Augustine in Tanzania, iii) To find out the relationship between university outreach activities and accessibility to business development services by MSEs neighbouring St. Augustine in Tanzania. Descriptive and explanatory research designs guided the investigation. A population of 135 respondents was targeted which comprised of 105 MSE owners operating in St. Augustine University neighbourhood and 30 members of the university management board. Data was collected through a questionnaire for MSE owners and interview guide for university management board. Data analysis was done using frequencies, means and correlations were used to test the hypotheses. ANOVA was used to test the model fitness and a multiple regression analysis tested the contributory power of the independent variables (education, research and outreach activities) to the dependent variable (BDS accessibility). A response rate of 100% for MSE owners and 86.7% for university management board members was attained. Findings showed that university education and outreach activities influenced accessibility to BDS by MSEs neighbouring St. Augustine University in Tanzania. The university research was found not to have statistically significant relationship with BDS accessibility by MSEs in the university neighbourhood. The study concludes that university education and outreach activities need to be promoted because they enhance accessibility to BDS by MSEs which are important in the economic development. The study recommends that the university need to make concerted efforts in developing more education and outreach programmes that are specifically targeted at MSEs’ promotion because they influenced accessibility to BDS by MSEs neighbouring the university. Future researchers can look into BDS accessibility by MSEs in other universities’ neighbourhood to compare the results. A study on impact of university BDS on MSEs’ performance can provide a basis for promoting university industry linkages for BDS accessibility among MSEs.
TABLE OF CONTENTS

DECLARATION .............................................................................................................. ii
DEDICATION ............................................................................................................. iii
ACKNOWLEDGEMENT .......................................................................................... iv
ABSTRACT .............................................................................................................. v
LIST OF TABLES ...................................................................................................... xi
LIST OF FIGURES .................................................................................................... xii
OPERATIONAL DEFINITION OF TERMS .............................................................. xiii
ABBREVIATIONS AND ACRONYMS ................................................................... xv

CHAPTER ONE: INTRODUCTION .......................................................................... 1

1.1 Background to the study .................................................................................. 1

1.1.1 The Importance of Micro and Small Enterprises .................................... 2

1.1.2 University-Industry linkages and Business Development ...................... 3

1.1.4. The State of Micro and Small Enterprises in Tanzania ......................... 7

1.1.5. Policies for Promoting the Private Sector in Tanzania ......................... 8

1.1.6. Business Development Services (BDS) ................................................. 9

1.1.7. Accessibility to Business Development Services by MSEs in Tanzania .. 11

1.1.7 St. Augustine University of Tanzania ....................................................... 12

1.2 Statement of The Problem .............................................................................. 13

1.3.1. General Objective ................................................................................... 16

1.3.2. Specific objectives .................................................................................. 16

1.3.3. Research Hypotheses ............................................................................ 17
1.4 Significance of the study ......................................................... 17
1.5. Scope of the study ............................................................... 19
1.6 Limitations of the study ....................................................... 21
1.7 The Organization of The Study ............................................. 22

CHAPTER TWO: LITERATURE REVIEW ........................................... 24
2.1. Introduction ........................................................................... 24
2.2. Theoretical Foundations of Business Development .................... 24
2.2.1. Resource Based View of the Firm Theory ............................. 24
2.2.2. Networking Theory .......................................................... 27
2.2.3. The Social Exchange Theory ............................................. 28
2.3 Empirical Review ................................................................. 29
2.3.1. University Education and Training Activities ....................... 29
2.3.2. University Research Activities ......................................... 30
2.3.3. University Outreach Activities ......................................... 33
2.4. Micro & Small Enterprises Development ............................... 34
2.4.1. University Industry linkages ............................................. 36
2.4.2. University Industry Linkages and Business Development Services ...37
2.4.3. Business Development Services Accessibility .................... 38
2.5. Summary of Literature and Research Gaps ............................ 41

CHAPTER THREE: STUDY METHODOLOGY ................................. 45
3.1 Introduction ........................................................................... 45
3.2. Research design .................................................................. 45
3.3. Operationalization and Measurement of Variables .................. 46
3.4 Location of the study ......................................................... 48
3.5 The Target Population ...................................................... 48
3.6. Data Collection Instruments ............................................. 49
3.6.1 Questionnaires ............................................................ 49
3.6.2. Interview Guide .......................................................... 50
3.7. Data collection Procedures .............................................. 50
3.8. Validity and Reliability Tests ........................................... 51
3.8.1 Validity ................................................................. 51
3.8.2. Reliability .............................................................. 53
3.9. Data Analysis Plan ......................................................... 55
3.9.1. Data Preparation ....................................................... 55
3.9.2. Data Analysis .......................................................... 52
3.10. Ethical consideration ..................................................... 58

CHAPTER FOUR: FINDINGS AND DISCUSSIONS ......................... 60
4.1. Introduction ............................................................... 60
4.2. The Response Rate ....................................................... 60
4.3. Firm characteristics and Demographic Characteristics of Respondents ................................................. 61
4.4. Accessibility to Business Development Services by MSEs ................................................................. 64
4.4.1. Number of BDS Accessed ........................................... 65
4.4.2. Most Accessed category of Business Development Services .............................................................. 66
4.5. University Industry Linkage Activities ................................ 68
4.5.1. University Education and Training Activities .................. 68
5.5.2. Recommendation to Government.................................................96
5.6. Suggestions for further research..................................................96
REFERENCES..................................................................................98
APPENDICES..................................................................................124
APPENDIX A1: INTRODUCTION LETTER TO RESPONDENTS..........124
APPENDIX A2: BUSINESS OWNERS’ QUESTIONNAIRE...............125
APPENDIX B1: INTRODUCTION LETTER TO INTERVIEWEES.......131
APPENDIX B2: INTERVIEW GUIDE FOR UNIVERSITY MANAGEMENT..........................................................132
APPENDIX C1: LETTER OF INTRODUCTION FOR RESEARCH PERMIT FROM ST. AUGUSTINE UNIVERSITY..............................133
APPENDIX C2: LETTER OF INTRODUCTION FROM THE MWANZA REGIONAL ADMINISTRATIVE SECRETARY.................134
APPENDIX C3: RESEARCH PERMIT FROM NYAMAGANA DISTRICT ADMINISTRATIVE SECRETARY...............................135
APPENDIX D: LIST OF MICRO AND SMALL ENTERPRISES NEIGHBOURING ST. AUGUSTINE UNIVERSITY IN TANZANIA..........................................................136
LIST OF TABLES

Table 3.1: Operationalization of Variables ........................................ 47
Table 3.2: Target Population ............................................................. 49
Table 3.3: Reliability Tests Results .................................................... 55
Table 4.1: Firm Characteristics and Demographic information of Respondents ................................................................. 62
Table 4.2: Accessibility to BDS by MSEs ............................................. 66
Table 4.3: Education and Training Activities Mean Scores ....................... 69
Table 4.4: Research Activities Mean Scores ....................................... 71
Table 4.5: Outreach Activities Mean Scores ....................................... 72
Table 4.6: Correlations of Education Activities and BDS Accessibility ....... 74
Table 4.7: Test Results of Hypothesis One ........................................ 75
Table 4.8: Correlations of Research Activities and BDS Accessibility ....... 77
Table 4.9: Test Results of Hypothesis Two ........................................ 78
Table 4.10: Correlation of Outreach Activities and BDS Accessibility ....... 80
Table 4.11: Tests Results of Hypothesis Three ................................... 81
Table 4.12: Summary of Hypothesis Test Results .................................. 83
Table4.13: Model Summary ............................................................... 84
Table 4.14: ANOVA Tests ................................................................. 84
Table 4.15: Multiple Regression Matrix ............................................. 85
LIST OF FIGURES

Figure 1.1: University-Industry Interface .................................................. 5
Figure 2.1: Conceptual Framework ................................................................. 44
Figure 3.1: Data Preparation Flow Chart ..................................................... 56
Figure 4.1: Most Accessed BDS Category Bar Chart ................................... 67
OPERATIONAL DEFINITION OF TERMS

Accessibility: In this research the term accessibility is used to mean obtaining or reaching with ease various business development services by Micro and small enterprises from the university.

Business Development Services: This term is used to refer to a wide range of non-Financial support services provided to micro and small enterprises to enhance their business operations, and they include: labour; training and skill development; technical and managerial assistance; developing, adapting and promoting new technology; assessing markets and giving market support; providing physical and soft infrastructure; and advocacy and policy issues.

Micro Enterprises: In this research this term is used to refer to income generating activities which engage 1-4 employees including the owner of the enterprise.

Small Enterprises: In this research the term is used to refer to enterprises that employ 5-49 employees including the owner.

Relationship: This term is used in this study to connote the way in which ideas, Concepts and events are connected. In this case, the way in which university business linkages and accessibility to business development services by micro and small enterprises are connected.

University-Industry Linkages: In this research this phrase is used to mean
interactions between the university and industry/business community that are either formal or informal, direct or indirect, which are for the mutual benefit of both the business enterprises and the university involved, and they are centered around key university activities of education, research, and outreach services. The term is used interchangeably with university-business linkages.

**Education:** In this research this term is used to mean the process or art of training or instruction to impart knowledge and skills by the university.

**Research:** This term is used in this study to refer to activities involved in gathering data and analysis of the same to come up with new knowledge in specific areas. The resultant of such can also be new ways of doing things or specific discoveries of new products or services.

**Outreach:** In this research this word is used to refer to activities that are carried out by the university to serve the outside community's needs to extend a gesture of good neighbourhood by the university. These activities utilize the university's endowments in resources and capacity.
## ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAU</td>
<td>Association of African Universities</td>
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<tr>
<td>ASDS</td>
<td>Agricultural Sector Development Strategy</td>
</tr>
<tr>
<td>BDS</td>
<td>Business Development Services</td>
</tr>
<tr>
<td>BEST</td>
<td>Business Environment Strengthening Programme for Tanzania</td>
</tr>
<tr>
<td>CBI</td>
<td>Center for Business Incubation</td>
</tr>
<tr>
<td>CBED</td>
<td>Center for Business and Economic Development</td>
</tr>
<tr>
<td>CEED</td>
<td>Center of Excellence in Entrepreneurship Development</td>
</tr>
<tr>
<td>CTI</td>
<td>Confederation of Tanzania industries</td>
</tr>
<tr>
<td>ESRF</td>
<td>Economic and Social Research Foundation</td>
</tr>
<tr>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>GCI</td>
<td>Global Competitiveness Index</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GEM</td>
<td>Global Entrepreneurship Monitor</td>
</tr>
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<td>GOK</td>
<td>Government of Kenya</td>
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<tr>
<td>GTZ</td>
<td>German Technical Collaboration Agency</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<tr>
<td>SAUT</td>
<td>St. Augustine University of Tanzania</td>
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<tr>
<td>MSE</td>
<td>Micro and Small Enterprises</td>
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<tr>
<td>SME</td>
<td>Small and Medium Enterprises</td>
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<tr>
<td>ILO</td>
<td>International Labour Organization</td>
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<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organization</td>
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URT: United Republic of Tanzania
LIS: Local Innovation Systems
UNZA: University of Zambia
NCOE: National Commission on Entrepreneurship
NCGE: National Council of Graduate Enterprise
TEA: Total Entrepreneurship Activity
US: United Stated of America
UK: United Kingdom
IFC: International Finance Company
TGT: Tanzania Gatsby Trust
UGT: Uganda Gatsby Trust
USIU: United States International University
UDEC: University of Dar es Salaam Entrepreneurship Center
UNDP: United Nations Development Programme
VETA: Vocational Educational Training Authority
MIT: Massachusetts Institute of Technology
MIT-TZ: Ministry of Industry and Trade- Tanzania
SEDC: Strathmore Enterprise Development Center
NSGPR: National Strategy for Growth and Poverty Reduction
MKUKUTA: Mkakati wa Kukuza Uchumi na Kuondoa Umaskini Tanzania
TIRD: Tanzania Industrial Research and Development
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Name</th>
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<tbody>
<tr>
<td>SBA</td>
<td>Small Business Administration</td>
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<tr>
<td>SBDC</td>
<td>Small Business Development Centers</td>
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<tr>
<td>SAUTSO</td>
<td>St. Augustine university of Tanzania Student Organization</td>
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<tr>
<td>SEMA</td>
<td>SAUT Environmental Management Association</td>
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<tr>
<td>LEA</td>
<td>Local Enterprise Authority</td>
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<tr>
<td>USAID</td>
<td>United States International Development Agency</td>
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<tr>
<td>RDS</td>
<td>Rural Development Strategy</td>
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<tr>
<td>SIDO</td>
<td>Small Industries Development Organization</td>
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<tr>
<td>SIDP</td>
<td>Sustainable Industrial Development Policy</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<td>YUNA</td>
<td>Youth for United Nations Association</td>
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CHAPTER ONE
INTRODUCTION

1.1 Background to the study
Micro and small enterprises (MSEs) in Tanzania continue to face challenges emanating from inaccessibility to business development services (BDS), a situation that has rendered them stagnant to the extent of not attaining their full potential. This has persisted even after the government making several efforts to improve the business environment for MSEs in the country especially in terms of policy formulation (Mnenwa and Maliti, 2009; Tamara, 2006; ESRF, 2006; and URT, 2011). This has made Tanzania to be uncompetitive in the global scene among other Sub Saharan African countries (GCI, 2012). The global competitiveness index (GCI) report points the need to address business environmental issues and improved linkages between universities and research institutes with the business community for enhanced R&D and innovation.

Universities are moving away from their traditional roles of knowledge generation and human capital training and embracing new competencies such as: technology transfer, technological innovation, leadership promotion, regional development, and networking skills. From this perspective, universities should be proactive in the transfer of created knowledge to enterprises in order to create spillover effects that generate more advanced capabilities (Hugo, 2007). This would only be possible if universities have created formal and functioning linkages with the industry. MSEs are possible consumers of university
innovations and other support services because they lack the capacities to develop their own as opposed to large enterprises which are well endowed in the R&D function.

1.1.1 The Importance of Micro and Small Enterprises
Studies in the US, provided that small scale enterprises form, 98.5 percent of all businesses, 75.8 percent of the nation’s new jobs, 52 percent of the private sector workforce, 51 percent of private sector GDP, 47 percent of business sales, and provide 67 percent of the young adults with their first opportunity to work (Scarborough and Zimmerer, 2003). In Europe, small and medium enterprises employed 68.6 million people as against 34.8 million people by large enterprises, (Balunywa, 2006).

In Africa small enterprises have their share in contributing to economic development. In Uganda for example, 80% of the manufacturing output comes from the small enterprises sector and the sector employs up to 2.6 million people, (Balunywa, 2006). In Kenya, the small and medium enterprises sector accounted for 74.2% of all employed persons and contributed 18.4 % of the country’s GDP in 2002, and 90% of employment in 2005 (Kibas, 2006; and GOK, 2005). In Tanzania, the contribution of the small and medium enterprises cannot be overstated. In the year 2000, it was estimated that the sector contributed between 20-30% of the total employment and 35%- 40% of GDP, (IFC, 2005).
In South Africa, it is estimated that 73% of workers are employed by firms with less than 50 employees; and that 45% of all employed people work in firms with less than 10 employees (Rankin, 2008). In Ghana, small enterprises are said to provide 85% of employment; contribute 70% to the GDP and account for 92% of businesses in Ghana (Abor and Biekpe, 2006).

Furthermore, MSEs are critical for supporting livelihoods as well as overall prosperity and progress. They create employment at relatively low levels of investment per job; utilize and add value to local resources; foster equitable income distribution; meet local needs in small markets. MSEs also serve as training ground for entrepreneurship and managerial development; they increase productivity, create employment; and bring goods and services to people. They contribute to most governments' agenda of eradicating poverty (Olomi, 2010, Zimmerer, & Scarborough, 2009; Agupusi, 2007; Kibas, 2006; Suva, 2006; and ESRF 2006).

1.1.2 University-Industry linkages and Business Development

The role of university in business development cannot be over emphasized. The university and research institutions have been hailed for providing the knowledge base required for innovation and technology development and transfer (Hugo, 2007). Universities also play a pivotal role in providing the required human resources to work in the business sector. A stream of research has also been
developed over recent years arguing the importance of linkages between the universities and industry bodies for the survival of both parties in the competitive market place and as an engine for economic growth (Siegel et al., 2004). Another perspective being advocated regarding universities is the concept of an entrepreneurial university (Gibb, 2005 and Gibb et al, 2009). This view sees a university as a more active participant in industry development and advocates for a more vibrant and visible interaction between the productive sector and the university.

The role of universities in stimulating entrepreneurship and small business development has however been underutilized (Mwamadzingo, 1996; Mohamedbhai, 2009; Olomi, 2009; Hughes, 2006; Juma, 2007; NCOE, 2000; and Olomi, and Sabokwigina, 2010). Despite the fact that universities harbor a lot of knowledge resources that can greatly aid the development of the micro and small enterprises, there has remained a gap in as far as the interactions of this sector of the economy and the universities (Shane, 2005; Olomi and Sabokwigina, 2010).

A number of relationships can be coined between the university and the business community all of which create the opportunity for networking and creating valuable interrelationships for the mutual benefit of all parties. The local Innovation Systems Project at Massachusetts Institute of Technology (MIT) has mapped out at least four interactions between university and industry/ business
(Lester, 2005) as; education and training to provide qualified manpower at work places; research activity leading to codified knowledge; problem solving role whereby the university provides solutions to industry identified problems (formal consultancy) and finally, the public space functions such as; workshops, conferences, technology parks and business incubation services, and informal faculty consultancies as well as students' internship programs. This interrelationship is illustrated below:

![Diagram](image-url)

**Figure: 1.1: University- Industry Interface**
Source: Lester, (2005)
1.1.3. Socio-economic Context of Enterprises in Tanzania

The United Republic of Tanzania (URT) is located to the eastern coast of the African continent. The country’s annual per capita Gross Domestic Product (GDP) is estimated at US $1,500. Tanzanian economy is heavily dependent on agriculture, which accounts for 25% of GDP, and provides 85% of exports and employs about 80% of the workforce.

In 1967, Tanzania adopted a socialist development strategy and a massive nationalization of major enterprises while discouraging local entrepreneurship in favour of government, community-based or co-operative owned ventures. Civil servants and leaders in the political front were barred from engaging in business activities. Since almost all educated Africans were civil servants, business activity was left to Asians and Tanzanians who had no substantial education to earn them government employment, (Olomi 2009; and Ngowi 2009).

The late 1970s saw a combination of other unfortunate events heralding a long economic crisis in Tanzania. The crisis led to the erosion of any real purchasing power of the national currency, forcing wage earners to undertake petty business activities to supplement their meager earnings (ESRF, 2006, and Ngowi, 2009). This worsened in the early 1980s and the government liberalized trade and in 1986 started implementing a transformation programme with support of the World Bank and the International Monetary Fund (IMF). This gave birth to
necessity driven entrepreneurship as people tried to make ends meet (Olomi, 2009).

The private sector is now seen as the engine of economic growth and the role of government has been redefined to focus on facilitation rather than direct ownership and operation of enterprises. Today, Tanzania’s economy is dominated by the informal sector that accounts for 70% of the employment and 58% of the gross national income (Ifunya, 2006) and controls assets estimated to be worth 29.3 billion US dollars (De Soto, 2005).

Due to the historical nature in which entrepreneurship has developed for Tanzanians, most of the MSE operators have found themselves without the requisite skills to manage their enterprises. Business Development Services are required to induce those operating enterprises to think more entrepreneurially and to provide the motivation that has been eroded by the cultural and historical factors that were not in favour of African entrepreneurship.

1.1.4. The State of Micro and Small Enterprises in Tanzania
IFC (2005) estimates that there are 2.7 million businesses in Tanzania and they employ about 3 million people. Of these businesses, majority (98%) are in the micro level category employing less than 5 people including the owner. This clearly shows the importance of this sector to Tanzanian economy. Despite its importance, however, a host of problems make it difficult for MSEs to exploit the existing potentials for further employment and wealth creation. One of the major
impediments is the limited capacity of people who start and operate the businesses, in terms of the attitudes, motivation, exposure, skills and experiences.

1.1.5. Policies for Promoting the Private Sector in Tanzania

In a bid to address the challenges faced by businesses in Tanzania, and in recognition of the important role played by the private sector, the government of Tanzania has continued to design and implement a number of policies and strategies/programmes to address the barriers to the development of the sector. These include; the Tanzania development Vision 2025; the Tanzania Mini-Tiger Plan 2020; the National Strategy for Growth and Reduction of Poverty (NSGRP) 2005; the SME Development policy 2003-2013; the National Microfinance Policy of 2000; Agricultural Sector Development Strategy (ASDS) 2000; Sustainable Industrial Development Policy (SIDP) 1996-2020; Rural Development Strategy (RDS); and Business Environment Strengthening for Tanzania (BEST).

Despite these efforts as Tamara, (2006) observes, the private sector requires support in five key areas as follows; credit facilitation; provision of business support services; technological services; skills and entrepreneurial development; and sector specific initiatives, a view shared by other researchers (Olomi, 2010; Mbura, 2007; Milanzi and Ngowi, 2006; ESRF, 2006; SwissContact, 2005; and Mnenwa and Maliti, 2009).
Business development services have been described as non-financial services which covers a wide range of business tasks. Different people have used the term to include such services as; Labour; training and skill development; technical and managerial assistance; assessing markets and giving marketing assistance, information; technology development and transfer, physical and soft infrastructure; and advocacy and policy understanding (Tekle, 2009; and Thamsanqa, 2009). These services can be formally and informally acquired by business enterprises and are important for MSE sustainability, productivity, competitiveness and growth. Gagel, (2006) identifies seven categories of BDS as follows; market access services; input supply; technology and product development services; infrastructure and information services; policy advocacy; and access to financial sources. Pietrobelli and Rabelloti, (2002) on the other hand uses only five classes of BDS in their study of BDS centers in Italy as follows; design; marketing services; technological services; training; and business management.

Obeng (2007) in a study of BDS and growth of Ghanaian SMEs, used an expanded list of BDS as was being provided by the government business support agencies in Ghana and included credit and loans to the list. Otieno and Kiraka,(2009), have identified nine categories of BDS as; business consultancy; assistance with market access; input supply; technology development and
transfer; training and technical assistance; infrastructure; professional support; and policy advocacy services. One common thing in all the classifications of BDS is that they have all included key aspects of business tasks such as; training; technology; and marketing assistance. Of interest is the exclusion of labour from most of the categories save for Tekle, (2009) who conducted her research in Ethiopia and Thamsanqa, (2009) who conducted his research in South Africa. Labour has been classified as a BDS in the extent that it is treated as the development of qualified manpower to work in the MSE sector. There are mixed reactions as to whether finance is to be treated as a BDS or not. The common understanding has however been that it is safe to treat finance or credit in this case as a standalone service which can be provided without necessarily involving other services (Gagel 2006; Otieno and Kiraka, 2009; and Tekle, 2009). The fact that the definitions have also emphasized on BDS being non financial services makes us understand it that way. Further researchers have argued that, even after a wide strand has been achieved in improving the accessibility to credit by MSEs, they have continued to perform poorly to the extent that some micro finance institutions have embedded BDS especially business training to their credit facilities (Kessy and Temu, 2010; Thamsanqa, 2009; Kushoka 2012; and Ngowi and Milanzi, 2006).

The current study used the categories of BDS identified by Otieno and Kiraka, (2009); Tekle, (2009); and Thamsanqa, (2009), and classified them into three
categories of; Education and training related; research related and outreach related. The rationale for doing this was to capture the services that emanate from the university core activities.

1.1.7. Accessibility to Business Development Services by MSEs in Tanzania
Inaccessibility to BDS has been blamed for the poor performance of Tanzania in eradicating absolute poverty, the first millennium development goal (MDG), among other factors and the government hopes to make a mile stone in poverty reduction if BDS is made accessible to the MSEs who are the major contributors to employment in the country (URT, 2011; and IFC, 2005). The need for BDS has been underscored by various researches in Tanzania (CTI, 2003; URT, 2003; Stevenson and St. Onge, 2005; Swisscontact, 2005; Olomi, 2009; Kushoka; 2012; Mnenwa and Maliti, 2009; Ngowi and Milanzi 2006; and; Mossel, (2011).

Business development services are supplied by different groups among them; government agencies/schemes; private providers; education institutions; non-governmental organizations, business associations; family and friends and community based organizations (Otieno and Kiraka, 2009; Tekle, 2009; Thamsanqa, 2009; and Kushoka, 2012). The provision of BDS is also characterized by the nature of objectives pursued by each category of providers, in terms of their profit orientation. That is some are profit oriented while others are development oriented.
Despite the fact that various researchers have reported positive impact from BDS in terms of; growth in employment, stability and loyalty, and attitude of entrepreneurs (Kessy and Temu, 2010; Olomi, 2009; Ruijter De Wildt, 2004), the accessibility to these services by MSEs has remained low especially those in developing countries such as Tanzania.

In spite of researchers identifying inaccessibility to BDS in Tanzania due to few providers, the relationship between higher learning institutions especially universities and accessibility to BDS by MSEs has not been well articulated especially as regards the MSEs that are in close proximity to the universities and other higher learning institutions, even though Tanzania has 20 fully accredited universities (URT, 2008; and Olomi and Sabokwigina, 2010). This situation exists even after the government of Tanzania through the National Science and Technology policy of 1996, the National Higher Education Policy of 1999, and the SME policy paper of 2003, expressing its expectation of Universities in economic and social development (URT, 1996; URT, 1999; and URT2003).

1.1.7 St. Augustine University of Tanzania

St. Augustine University of Tanzania (SAUT) located at Nyegezi area, was established in 1998 as a successor of the then Nyegezi Social Training Institute, under the ownership of the catholic bishops of Tanzania under the Tanzania Episcopal conference (TEC) in response to the Tanzanian government’s move to
liberalize social services. In its mission statement, the university aims to be a center of excellence by providing a high quality of education, research and public service (SAUT Prospectus, 2010).

Despite its endowment in resources and engaging in several activities to link the university to the community, nothing is known as to its contribution to the accessibility of business development services by neighbouring enterprises who serve its growing population. This study hence sought to establish the relationship between university-industry linkages and accessibility to business development services by MSEs neighbouring St. Augustine University in Tanzania. The study is informed by the university’s commitment to public service (community outreach) as underscored in its mission statement (SAUT, Prospectus, 2010).

1.2 Statement of The Problem

Micro and small enterprises play a crucial role in the economic wellbeing of a country (URT, 2003; GOK, 2005; IFC, 2005; Olomi, 2009; Balunywa, 2006; and Agupusi, 2007). For the MSEs to achieve their full potential and contribute to the desired goals, they require business development services such as; business and technical training; qualified staff; marketing assistance; technology and product development/design; professional support; policy and advocacy/information; and infrastructure; among other things (Pietrobelli and Rabelloti, 2002; Gagel, 2006; Tekle, 2009; Obeng, 2007; Otieno and Kiraka, 2009; Thamsanqa, 2009; and
Kushoka, 2012). These services help the entrepreneurs run their businesses more efficiently and hence contribute to growth and wealth creation.

Kushoka, (2012); Tekle, (2009); and Olomi, (2009) further argue that MSEs regard business development services as extremely important in the sustainability, productivity, competitiveness and growth of their enterprises. Obeng, (2007) postulates that Business development services have critical impact on the growth prospects for MSEs that accessed them. The same view is held by Kessy and Temu (2010) who found BDS to have impact on the performance of entrepreneurs who accessed them, and by Mwamila and Kantalambula (2004) who report cases of entrepreneurs whose businesses benefited in product and production improvement after accessing technological and technical assistance from the University of Dar es salaam Prospective college of engineering scientists.

Given the importance placed on BDS, various actors in economic development including governments, have formulated policies to enhance the accessibility of such services to a wide range of participants especially the MSEs (Ageze, 2006; Otieno and Kiraka, 2009; Tekle, 2009; Obeng, 2007; and Thamsanqa, 2009). For instance, Tanzania government having recognized the role of MSEs in economic development put in place policy measures to strengthen this sector to enhance its performance (URT, 2003; URT, 1999; Olomi, 2009; Mnenwa and Maliti, 2009; and Ngowi and Milanzi, 2006). These policies have led to the development of
MSE supportive environment and many other institutions have come up to provide BDS and to integrate entrepreneurship development in national economic activities (Ngowi and Milanzi 2009; Stevenson and St.Onge, 2005; and Olomi and Sabokwigina, 2010). Universities in Tanzania have on the same breath embedded entrepreneurship enhancing activities in their functions to comply with the education policy of 1999 and have also initiated industry linkages with the productive sector including MSEs (URT, 1999; Mwamila and Kantalambula, 2004; Lennart, 2004; Stevenson and St. Onge; URT, 2008; and Olomi and Sabokwigina, 2010). Such measures include, formulating entrepreneurship policies; technology development and transfer; establishing business incubation centers, establishing entrepreneurship centers; providing marketing support to small scale enterprises; conducting business research and developing curriculum relevant to the needs of industry (Olomi and Sabokwigina, 2010; Ngowi and Milanzi, 2006; Mwamila and Kantalambula, 2004; Lennart, 2004).

From the foregoing background literature, it is noticeable that considerable efforts have been made to uncover the university-industry linkage initiatives (Hughes, 2006; Mwamadzingo, 1996; and Lennart, 2004). Despite these efforts, BDS accessibility among MSEs in Tanzania has remained a challenge to the government and other stakeholders involved in promoting enterprise development (Olomi, 2009; ESRF, 2006; and Ngowi and Milanzi, 2006). Furthermore, in spite of the government of Tanzania recognizing the place of universities in SME
development (URT, 2003, 2008) no systematic studies have been conducted to link the universities with BDS accessibility. The current study sought to fill this knowledge gap and provides empirical data on the relationship between university-industry linkage initiatives and the accessibility to BDS out of these activities by the MSEs in their neighbourbood, with specific reference to St. Augustine University in Tanzania.

1.3. Study Objectives

1.3.1. General Objective
The general objective of this study was to establish the relationship between university industry- linkages and accessibility to Business Development Services by Micro and Small Enterprises neighbouring St. Augustine University in Tanzania.

1.3.2. Specific objectives

i. To establish the relationship between the university education activities and accessibility to business development services by Micro and Small Enterprises neighbouring St. Augustine University in Tanzania.

ii. To determine the relationship between university research activities and accessibility to business development services by MSEs neighbouring St. Augustine University in Tanzania.
iii. To find out the relationship between university outreach activities and the accessibility to business development services by MSEs neighbouring St. Augustine University in Tanzania.

1.3.3. Research Hypotheses

$H_{01}$: There is no significant relationship between University education activities and the accessibility to business development services by Micro and Small Enterprises neighbouring St. Augustine University in Tanzania.

$H_{02}$: There is no significant relationship between University research activities and accessibility to business development services by Micro and Small Enterprises neighbouring St. Augustine University in Tanzania.

$H_{03}$: There is no significant relationship between University outreach activities and accessibility to business development services by Micro and Small Enterprises neighbouring St. Augustine University in Tanzania.

1.4 Significance of the study

University -industry linkages are a growing form of networking among institutions of learning and the business community as a way of transferring knowledge and skills developed at the universities to the industry. The traditional roles played by universities are also changing to embrace a more focused way of
rendering services to various types of markets. The need for innovation in various areas has also seen university and industry link up through R&D activities.

However, this interaction has highly remained in the developed countries with the developing economies like Tanzania being left behind. Poor investment climate has also made business development to lag behind other sectors leaving the country with very few industries upon which to form a basis for establishing worthwhile linkages. The need for offering business development services to the MSE sector to help upgrade them to the desired level of networking with universities is required. Information in this area is lacking to guide universities into the best way to help MSEs in the accessibility to BDS. This study has provided insights into the relationship between various university activities and accessibility to BDS by MSEs which have a promise of playing a key role in the economic revival of the developing economies.

The study has also provided direction to the university management into planning worthwhile outreach programs and policies that can help boost the earning levels of businesses around the university.

There are over 20 higher learning institutions offering university degrees in various disciplines in Tanzania, which are located in almost every region in Tanzania to contribute to the government’s plan to develop manpower for all
sectors in the country. These institutions are a source of knowledge and inspiration to the communities around them and they also depend on these communities for the supply of various support services for their day to day operations. Understanding the relationship between university activities helps to recommend similar interactions to promote the accessibility of such services in these locations.

Future researchers interested in the field of university-industry linkages will find this research useful in guiding their methodology and scope decisions.

The findings can help SAUT Entrepreneurship Center (SAUTEC) to focus its activities on specific needs of the business community neighbouring the university.

The study is to finally enable the researcher to qualify for the award of a doctorate degree in Entrepreneurship.

1.5. Scope of the study

The scope of this study is the area surrounding St. Augustine University of Tanzania and only focused on the MSEs neighbouring the university. This therefore limits the generalization of the findings to other institutions and in essence the businesses with similar characteristics but in different geographical areas and neighbouring different institutions. This fact also limits the
comparability of findings to other locations because of environmental and other circumstances that could be at St. Augustine University but might not be in other institutions. For instance, St. Augustine University is a private Roman Catholic owned institution meaning that its style of management is highly influenced by the Roman Catholic doctrines.

The research was concerned with the accessibility to business development services by the MSEs neighbouring St. Augustine University. The university-industry linkages focused on were those activities at the university which in one way or another are expected to affect accessibility to BDS by business. They include among others; university research initiatives; university education activities; and university outreach activities.

The study focused on three years as the time of reference within which to gather evidence of BDS accessibility by MSEs. This time frame is taken on the premise that most undergraduate courses in the university take three years hence businesses targeting this market will have benefited from this group up to their completion. From the literature it is also noted that most MSEs in Tanzania are within 1-5 years age category.
1.6 Limitations of the study

This study was limited by several factors that were beyond the control of the researcher. However efforts were made to counter these factors to minimize their interference with the findings.

The study faced a challenge when applying the definitions of MSEs used in this study of number of employees with some business with few employees having invested quite substantially in the business. This can give misleading results especially as regards the actual size of the business involved. To go round this problem, efforts were made to establish the investment levels and this was used to place the business in its right category.

The low literacy level among most business operators meant a lot of time was spent on explaining the contents of the questionnaire. The researcher went round this problem by making the instrument in simple language and use of enumerators to collect data who clarified the issues being investigated further.

The other challenge related to the respondents requesting for payments for participating in the research. The researcher did not give monetary incentives but instead bought products from the businesses where possible and the rest were promised that they will be rewarded through giving business advice when they
needed it. To assure them of this, the researcher gave the respondents her contacts for future communication in case they needed help in business related issues.

Another limitation related to the lack of a comprehensive list of businesses in the university neighbourhood. This made it difficult for the researcher to develop a sampling frame and considerable effort was expended in generating a working list. This problem was addressed by sourcing any available record on businesses in the target location from the administrative officer of Mkolani ward (Ward Executive Officer-WEO), the university estate manager’s office and a physical head count of the businesses. The many sources were used to ensure even businesses that had no form of identification such as a business name were not left out.

1.7 The Organization of The Study

The thesis is organized in five chapters. The first chapter being the introduction which covers; the background to the study, a statement of the problem, study objectives, study hypotheses, significance of the study, and the scope and limitations to the study. Chapter two discusses the literature reviewed and gives the conceptual framework. The chapter gives both theoretical and empirical literature and identifies the research gap filled by the current research. Chapter three covers the methodology adopted in the study and describes; the study design, operationalization of variables, location of the study, the target population,
the data collection procedures and instruments, the reliability and validity tests, and data analysis techniques; and finally issues of ethical concern are explained.

Chapter four gives the findings and discussions of the study as per the research objectives and hypotheses. The chapter first gives the information on response rate, demographic characteristics of the respondents, descriptive analysis of the variables, correlations and finally hypotheses tests. The chapter concludes with a regression analysis of the independent variables; education, research; and outreach activities, on the dependent variable accessibility to BDS by MSEs neighbouring St. Augustine in Tanzania. The last chapter gives the summary, conclusions and recommendations as per the findings discussed in chapter four. Direction for future research is also given in this chapter.
CHAPTER TWO
LITERATURE REVIEW

2.1. Introduction

This chapter identifies and discusses the relevant literatures pertaining to university–industry linkages and accessibility to business development services by the micro and small enterprises. The concept of business development is explored and the various types of services that MSEs require to operate their businesses effectively are identified. Various university activities that are deemed to influence accessibility to business development services are explored. Theories upon which the study is anchored are discussed, a conceptual framework is given and finally research gaps are brought out.

2.2. Theoretical Foundations of Business Development

2.2.1. Resource Based View of the Firm Theory

University-business linkages can be viewed from the resource based view whereby businesses interact with each other to acquire resources and achieve goals that they could not achieve on their own. They create alliances and partnerships to gain competitive advantage. The central proposition of the resource based theory is that a firm must build and maintain its set of resources to survive and stay competitive. From the social networks point of view, by establishing ties between different groups, individuals are exposed to information as well as ways of thinking and behaving previously restricted to the other group.
This crossing of 'structural holes' offers them a great potential to gain information and ideas, (Burt, 2004). In a university-business linkages context, interaction mechanisms may thus foster research and discovery, by connecting heterogeneous groups, in turn positively affecting the creation of value in a relationship.

The resource based view theory was advocated by Penrose in 1959 and holds that a firm requires various resources to enhance its performance. She argued that the growth of a firm which is an indication for its performance is limited only in the long run by its internal management resources. From the business environment factors identified by Burtler (2006), we can argue that the provision of BDS will enable the firm to acquire the resources that will enhance its internal capacity especially the management capability. This will enable the firm to survive in the competitive environment.

The bundling of resources builds the capabilities that the firms need to organize the available resources for the effective operation of the firm. BDS especially training helps build on firms' management capabilities which are crucial to MSE development. Research evidence has identified challenges that limit firm development and survival as those relating to resources which a functioning BDS system can easily provide. It has often been argued that MSEs in Tanzania have failed to reach their full potential of sustainability and productivity due to lack of
valuable resources (Olomi, 2009; Ngowi, 2009; Egan, 2009; Enterprise Surveys, 2008; Swiss contract, 2005 and St. Onge, 2005).

Penrose (1959), Hofer and Schendel (1978) and Grant (1991) classified resources into; land and equipment; labour (including workers’ capabilities and knowledge); capital (organizational, tangible, and intangible); financial resources (cash flow, debt capacity, new equity availability); physical resources (e.g. plant and equipment, inventories); human resources (e.g. scientists, production supervisors, sales personnel); organizational resources (e.g. quality control systems, corporate culture, relationships); technological capabilities (e.g. high quality production, low cost plants); intangible resources (e.g. reputation, brand recognition, goodwill, market share). These resources are highly dependent on the external and internal environment and hence can be enhanced or influenced through BDS provision. The list of resources mentioned can be added with others such as; strategic business locations, marketing strategies, social corporate responsibility and strategic human resource management. Whatever the list that is included in the resources of the firm, it is important to note that no single firm can possess all the necessary resources to survive in the market place.

Penrose (1959) further notes that a firm is an administrative organization and a collection of productive resources and a bundle of resources that, its growth is both facilitated and limited by management search for the best usage of the
factors of production. From this view then it can be argued that the provision of the right set of support services will enhance the management of a firm in this case the MSE, to make effective decisions by such interventions as offering managerial training, business counseling, and business planning advice among other services that an MSE may require to function effectively.

2.2.2. Networking Theory

Networking theory can be seen from the social network perspective where by networks are depicted as a series of direct and indirect ties from one actor to a collection of actors. The networks enable exchange of information and other resources to the other members of the network. Mitchel (1969), described networks as a set of morphological dimensions, which consider the structure of networks and interaction dimensions, which consider the network process. The interactions occurring between the university and business can be viewed as a network since each of the participants gets to perform certain functions to facilitate the interaction.

Spatial proximity studies indicate that major information transformation and spillovers occur in regions between universities and firms leading to enhanced development of science and technology (Gertler, 2003). The system of linkages involves a web of activities and may evolve consciously or unconsciously, formally or informally that supports interaction leading to innovation. The
knowledge spillovers occur in the network of information that benefits firms in close proximity to information centers. Universities are important centers of information and other valuable resources that are highly required by firms (Brice, 2005).

2.2.3. The Social Exchange Theory
Social exchange theory developed, by Blau (1964), sees exchange as a dynamic and interactive process. In this theory individuals or firms interact with each and exchange valuable resources. As the process continues and relationships are built, each participant tries to strengthen the interaction as long as they derive value from such interaction. In a university- business interaction, resources are exchanged and the resources in this case are the business development services. The university also derives some benefits from the interaction either directly or indirectly, in the form of royalties in case of knowledge commercialization or good corporate image where physical gains are not immediate.

This theory guides the current research in that through exchanges, MSEs are expected to benefit in terms of accessing business development services available at the university such as, knowledge resources, technology a development and transfer, or through infrastructural development. Of importance to this theory is that interactions start informally or formally as participant come across others in different settings.
2.3 Empirical Review

Literature abounds on business development and university industry linkages. However literature linking the two in a causal relationship is scanty. University business linkages have been conceptualized as involving the core activities of a university as described by Hughes, (2006) and Lester, (2005) of education and training, research, and outreach services. This typology has been noted widely when describing the activities of a university (IUCEA, 2008; Juma, 2007; and Mohamedbhai, 2009). This section describes this typology of the university and addresses the relationship between university industry linkages from these activities.

2.3.1. University Education and Training Activities

Hughes (2006), and Lester, (2005) identified education and training activities at the university as major components in university industry linkages. Research evidence further shows that through the university education activities businesses are able to obtain qualified manpower and acquire the required skills such as business management skills and technical skills to operate business (Kessy and Temu, 2010; Olomi, 2009, Kiggundu, 2002; and Tekle, 2009). Universities and other higher learning institutions have also included entrepreneurship training in their various academic programmes (Olomi and Sabokwigina, 2010). University industry in this line will take the form of; curriculum development of short courses targeting the business community, offering academic programmes to a
wider range of participants on part time study mode and sending students on field attachments in the business community as part of their study programme (UNESCO, 2000).

2.3.2. University Research Activities

Studies have shown a relationship between research institutions/universities and economic development. This has been reported in line with new product development, innovation and technological breakthrough (Brice, 2005; OECD, 2001, and Mohamedbhai, 2009). A strong relationship between economic growth and proximity to higher learning institution has been noted. University research as a source of economic knowledge has been shown to elevate the propensity for innovative activity during the introduction stage of the business life cycle and during the decline stage, (Audretsch, 2001). This view is further advanced by Brice, (2005) who argues that universities are the repository of human intellectual property; the focal point of much research and development; and are the crossroads between business, resources and the government.

Research activities have been categorized as; innovation and contract research (Baaken, 2003; Gupta and Wilemon, 1996). Due to their capacity, universities are in a better position to provide research necessary for industry productivity (Juma, 2007). Universities are further recognized as important actors in the innovation system together with the government and the firms, whereby, universities conduct
research that is often a foundation of new products, train scientists and engineers and they interact with the industry/ firms to transfer knowledge (Brice, 2005 and Etzkowitz, 2007). Firms on the other hand produce most of the innovation that occurs in the universities, through the knowledge and personnel from the universities.

The role of technology development and transfer is putting universities in a more central role to boost regional development, (Shahid and Nabeshima, 2007). In offering business development services, centers that interact with the universities and research institutions in their localities, have been found to be more innovative and successful (Pietrobelli and Rabelleoti (2002). This can be attributed to the fact that these centers are able to tap on the capabilities at the university to supplement their resources. BDS providers have been noted to suffer from low capacity making them ineffective in delivering services to their target market (Olomi, 2009, ESRF.2006; Ngowi and Milanzi, 2006; and Thamsanqa, 2009). This implies that universities and research institutions are valuable players in the BDS system.

Research evidence in the US has shown that highly entrepreneurial regions have been associated with the presence of research institutions or universities, for example, MIT, Stanford, University of Pittsburg and Carnegie- Mellon University (Wessner, 2010). These institutions aside from contributing to the development
and economic growth of their regions have also spurred the entrepreneurial fire and encouraged business activity. The growth of the U.S. biotech industry has been attributed to the close links between American universities and industry (Washburn, 2000).

Rapid change in competition and the speed of innovation around the world have prompted the creation of linkages between research communities and commercial enterprises. A good example of universities diversifying their sources of funding is Australia where, between 2000 and 2001, consultancy and contract research contributed 21% to the total revenues of 25 Australian universities, and technology licensing contributed a further 0.7% (Knowledge Commercialization Australiasia/ KCA, 2003). This is evidence that universities are moving towards university industry linkages through research activities. Another pointer to the move towards university industry linkages is the ever increasing need of the productive sector to advance knowledge and create new products, and technologies in order to be successful in today’s market place (Gupta and Wilemon, 1996; Santoro and Chakrabarti, 2002).

Despite the portrayed important role played by university research initiatives, no studies have related these activities with accessibility to research BDS by MSEs in their locality. Yet research provides the much needed innovations and information for product development and business decision making. The available
literature has been reporting cases of developed countries and has been in technological firms. Studies in Africa are few and mostly report few cases that are limited in scope and reach as can be seen in the study by Mwamila and Kantalambula (2004) who found university engineers to have helped in developing new wine clearing process, Turyagenda, (2004), who using the case of Makerere university found out that the faculty of technology linked with the industry to provide new technology, and Mwamadzingo (1996), who investigated the commercialization of innovations from the universities and research institutions in Kenya. This shows that a lot need to be done to uncover the role universities are playing in linking with the industry especially the MSEs to provide the much needed in support in the area of research.

2.3.3. University Outreach Activities

Universities have been forced to find new ways of generating income due to increased competition and cuts in government funding (Dino, 2010; Gibb et al., 2009; NCGE, 2006; Gibb, 2005; and Baaken, 2003). In this line, universities have developed outreach activities that supplement their earnings. They have started activities such as, business incubation services, professional support to businesses and other services to reach out to the outside community (UNESCO, 2000; Shane, 2004; Lockett et al, 2003; and Heydebreck et al, 2000). Universities have also started entrepreneurship centers and linked themselves to organizations in support of business initiatives (Olomi, Sabokwigina, 2010; Milanzi and Ngowi,
In order to improve their image in society, universities have also engaged in non-income generating activities for the benefit of the communities especially those in their neighbourhood (Loveridge, 2009). They provide such services as water and sanitation facilities, they run environmental management programmes, develop and maintain roads and organize marketing forums for the business community in their neighbourhood Loveridge, 2009). Research evidence shows that through the outreach programmes, universities have contributed to MSEs development (Byaruhanga, 2004). Despite their importance in providing outreach activities, especially in the line of professional support, no much research has linked universities outreach activities to BDS accessibility. This study investigated university industry linkages and accessibility to BDS by MSEs in the neighbourhood of St. Augustine University in Tanzania.

2.4. Micro & Small Enterprises Development
Business enterprises must scan the environment; connect their enterprises to other entrepreneurs and support institutions such as educational institutions and government support programs. They also need to understand the competitive forces that drive their industry. Due to the fragmented nature of MSEs especially
in Tanzania, they are vulnerable to the competitive environment and hence the need for support in the form of BDS to not only help them interpret the environmental forces but also help them form associations and advocacy for their voices to be heard.

Researchers have argued that MSEs require support in order to develop and mitigate the challenges of their size. Milanzi and Ngowi, (2006) in a study on MSEs situation in Tanzania have recognized that MSEs require support services to help them become competitive and sustainable. They also found out that despite the important role played by BDS in the success of MSEs, their provision has been uncoordinated and little is known as to who are the specific actors in the BDS provision in Tanzania. MSEs just like other businesses will require BDS to enable them survive in a highly competitive environment.

Butler (2006) has depicted the business environment as composing of; the external environment (PESTLE), the market environment(customers, suppliers, bankers, general public, media, wholesalers, retailers, trade unions, competitors), and the internal environment (structure, culture, finances, resources, internal politics, trading status, business skills management style, staff skills). To deal with these factors effectively MSEs require external support since unlike their larger business counterparts, they lack the requisite capacity to deal with these
forces adequately. Linkages and network with other actors with these capabilities enables them to access the resources to tackle their challenges.

2.4.1. University Industry linkages

Universities interact with the industry to form alliances that enable them to exchange resources. These interactions enable promotion of technological entrepreneurship in regions; stimulation of business support and infrastructural; developmental which leads to other startups. Universities, on the other hand benefit in term of strengthened relationships with the business community, an improvement of their image, fulfillment of their commitment to society, and income generation from patents and royalties, (Shane, 2004; Lockett et al, 2003; Heydebreck et al, 2000). To achieve this, universities use various strategies such as; incubator services, business services centers, or through normal university outreach programmes.

In a nutshell, university - industry linkages can be classified as: general support-training and education; contract research, research centers and institutes, research consortia, industrial associate/ affiliate programs and new business incubators (Loveridge, 2009; Soetanto, and Marina Van Geenhuizen, 2009; EU,2008; Olomi, 2009; Shahid, 2007; Juma, 2007; Hughes, 2006; Shane, 2005; NCOE, 2000; and Wu, 2000;).
2.4.2. University Industry Linkages and Business Development Services

Universities have been regarded as important players in the current knowledge economy and are expected to play a more participative role in their relationship with the industry (Etzkowitz, 2007; and Hugo, 2007). For this to happen, universities need to transform themselves. This transformation requires the development of new clusters with academia-industry relationships being pillars of the new economy (Lennart, 2004, Mwamila and Katalambula, 2004; and UNESCO, 2000). The implication is that universities and industry need to work together to develop partnerships that are focused and are anchored on tangible benefits for all participants.

Among the benefits that the industry accrues from linkages with the university are support in key business areas such as; manpower development, research activities, and professional support in areas of business operations. Business enterprises require such services as; business consultancy services; assistance with market access; input supply; technology development and transfer; training and technical assistance; infrastructure; incubator services; professional services; and policy advocacy services among others (Otieno, and Kiraka, 2009; and Mwamadzingo, 1996). These services have been branded as business development services (Gagel, 2006).
2.4.3. Business Development Services Accessibility

As noted in the previous section, business development services (BDS) have been described as a range of non financial services that firms especially MSEs require so as to be competitive in the market (Gagel, 2006; and Otieno and Kiraka, 2009). They include: training and skill development; technical and managerial assistance; technology development and transfer; assessing and accessing markets and giving marketing support; providing physical infrastructure; advocacy and policy among other services that specific business enterprises might require from time to time (Kushoka, 2012; Tekle, 2009, and Gagel, 2006). These services have been regarded as important to businesses in order for them to be productive and sustainable (Olomi, 2009).

Despite their importance, accessibility to BDS by MSEs has been rather problematic especially in Tanzania, (Ngowi and Milanzi, 2006; Kushoka, 2012). UDEC (2002), in a study on current initiatives in MSE support in Tanzania, found out that though various efforts were made by the government and development agencies in Tanzania, the impact was minimal. From the findings of the study by UDEC, (2002), MSEs in Tanzania were found to lack support in keys areas such as; business premises; technology development and transfer; financial services; business information and advice; market and market linkages; business education and training; and lobbying and advocacy. The study further notes that where the support services were available, they were in adequate in addressing the many
challenges that face MSEs. These findings are in agreement with other later studies which found accessibility to BDS by MSEs being among the challenges that made them stagnant and uncompetitive (Ngowi and Milanzi, 2006; Olomi, 2009; ESRF, 2006 and Kushoka, 2012). The available studies however do not address accessibility of BDS from the university industry linkages point of view even though universities have been playing MSE supporting roles especially in terms of capacity building.

Though training institutions have mainstreamed entrepreneurship training in their curriculum, little is known of how this translates into the MSEs' world in terms of knowledge and skills. The current study investigated the relationship between university industry linkages and BDS accessibility by enterprises neighbouring St. Augustine University of Tanzania. Research evidence in developed countries have shown a relationship between BDS accessibility and connection to a university of research institute (Pietrobelli and Rabelloti, 2002; Wesner, 2010, and Washburn, 2000). This view is supported by other studies for example, Marotta et al (2007), in a study of Chile and Columbia on the role of university industry linkages in fostering firm innovativeness, found out that the firms which were collaborating with a university or a research institution had an increased probability of introducing a new product. New product development is a measure of innovativeness and also an indication that the linkage with the university was bearing fruits in enhancing the capability of the firms' actors to change their
business operations to tap on opportunities in the marketplace. This research also used a small sample (30) and descriptive statistics to describe the findings.

Egurr (2009) in a study on environmental constraints on small enterprises in Tanzania using the case of retail electrical, retail clothing and travel industry, found out that lack of business skills and qualified manpower were among the major constraints that the MSE owners managers cited as affecting their firms' performance. Tekle (2009), in a study of impact of business development in local economic development in Ethiopia, that those businesses that used BDS were able to improve their performance. Thamsanqa (2009), studied the effectiveness of the local business development in the development of MSEs in South Africa, and found out that the centers were not effective in achieving their objectives. The studied centers lacked capacity and management capability to deliver their mandate. The study though on BDS centers shows challenges faced when accessing BDS, and builds a case for inaccessibility to BDS by MSEs.

Mnenwa and Maliti (2009) investigated the institutional framework of MSE support institutions in Dar es Salaam and found out that the institutions were weak and lacked to capacity to provide a wide range of BDS. This added to the already existing problem of accessibility. However in their analysis they did not include universities even though these are among the providers of support.
2.5. Summary of literature and Research Gaps

The empirical literature provided has mostly dwelled on the researches on BDS accessibility and university industry linkage activities. The literature agrees that university industry linkages that influence accessibility to BDS are basically the core activities of the University which include; education, research and outreach activities. The literature further shows an inclination towards university industry linkages without linking them to BDS accessibility.

Research on BDS accessibility and university industry for MSEs are not many with the available literature taking a narrow view of linkages. Byaruhanga, (2004) using the case of Makerere university identifies education and outreach services as the ones the university has been providing. Marotta et al (2007), have used innovation as their main focus in analysis of the collaboration of university and industry. Innovation is a component of research which is conducted at the university. The current study sought to look at linkages in its complete sense whereby all core aspects of the university were used.

Ageze, (2006), Obeng, (2007), and Tekle, (2009) looked at the impact of BDS and centers providing BDS. They did not address the issue of accessibility of these services as they targeted enterprises that were already using BDS. A desk research by Ngowi and Milanzi (2006), addressed the areas that MSEs required support for them to be competitive and found out that MSEs lacked support in the line of research, training and professional support in key business areas.
Pietrobelli and Rabelloti, (2002), Thamsanqa, (2009), and Mnenwa and Maliti, (2009), studied BDS framework from the institutions providing these services. Though they made mention of accessibility of these services, they emphasized more on the process and the services provided with the view of establishing the effectiveness and efficiency of the institutions. Kushoka, (2012), on assessing the accessibility of BDS by MSEs addressed the factors that influenced accessibility. Among the factors investigated were; awareness of services available, cost of services and perceived need.

Researches linking BDS accessibility and university industry linkage activities on the other hand have taken a rather narrow view whereby most of them have taken stock of the linkages that existed at the universities. Hughes, (2006), looked at the university linkages in general from the university point of view; Mwamadzingo, took a wide scope of industry linkages and assessed their role in commercialization of knowledge developed at the university. The research did not however address the accessibility of these services to MSEs. Mwamila and Kantalambula (2004), analyzed university industry linkage services at the University of Dar es salaam and went a step further and described a few cases that had benefited from these services. The cases were too few and they were purposively selected, while the analysis was qualitative in nature whereby their products were described. A similar study was done by Byaruhanga, (2004) in Uganda using Makerere university industry linkages. The study also only
described the linkages at the universities. Zeng (2006), in a study of technology gaps among MSES in the informal sector recognizes the need for linking the university to the industry to improve the skill gaps of the MSE operators.

From the foregoing, it is evident that university industry linkages and accessibility of BDS especially by MSEs has not been given adequate attention and the current research fells this gap.
University Industry – linkages

Variables

**Education and Training Activities**
- 2 Technical training
- 2 Business management training

**Research Activities**
- 2 Innovation
- 2 Contract research

**Outreach services**
- 2 Professional support
- 2 Infrastructural support
- 2 Business incubation services
- 2 Marketing support

MSE BDS

Accessibility
- Number of services accessed
- Most accessed BDS category

Dependent Variable

Independent Variables

Figure 2.1: Conceptual Framework

Source: Researcher, (2012)
CHAPTER THREE
STUDY METHODOLOGY

3.1 Introduction

This section covers the research design, the population of the study, the study location, data gathering strategies and the data analysis techniques. The section also explains the validity and reliability of the research instruments and the issues of ethics in as far as respondents' protection are concerned.

3.2. Research design

Research design is the glue that puts together all the elements of a research (Kombo and Tromp, 2006; Cooper and Schindler, 2005 and Saunders et al, 2007). Saunders et al., (2007) recommends that the issue of research design be clarified on the set before data is collected. Based on this understanding, this research adopted descriptive and explanatory research designs. It further took a positivist view, a deductive approach, a survey strategy and a cross-sectional stance whereby data was collected at one point in time. The descriptive and the explanatory designs fit within the philosophical view and research approach adopted. The survey strategy enabled the researcher to collect large amount of data in a largely structured manner to address the research issue. Descriptive and explanatory research designs allow a researcher to describe a phenomenon while establishing a relationship between variables of interest (cooper and Schindler, 2005; and Saunders et al., 2007). Using these designs this study established the
extent of BDS accessibility and the relationship between university industry-linkages and business development services accessibility by MSEs.

3.3. Operationalization and Measurement of Variables
The study conceptualized that university-industry linkage through the various activities at the university (education and training, research and outreach), led to accessibility of business development services. The variables in the conceptual model were thus operationalized as; education and training, research, and outreach activities. These are hypothesized to influence the accessibility of BDS by MSEs which is operationalized as the services that MSEs were obtaining at the course of their business operations. The table 3.1 below gives a summary of operationalization and measurement of the study variables.
**Table 3.1: Operationalization and Measurement of Variables**

<table>
<thead>
<tr>
<th>Category</th>
<th>Variable definition</th>
<th>Operationalization</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDS Accessibility</td>
<td>Extent of BDS accessibility by MSEs</td>
<td>Number of services accessed Most accessed BDS category</td>
<td></td>
</tr>
</tbody>
</table>

**Independent Variables**

<table>
<thead>
<tr>
<th>Education &amp; Training</th>
<th>Business Management Training</th>
<th>Business management training initiatives for MSEs</th>
<th>Extent to which university business management training influenced MSEs’ accessibility to BDS on 1-5 scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical training</td>
<td>Technical training initiatives in specific business areas for MSEs</td>
<td>Extent to which university technical training influence MSEs’ accessibility to BDS on a 1-5 scale</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>Innovation</td>
<td>Innovation services for MSEs</td>
<td>Extent to which university innovations influenced MSEs accessibility to BDS on 1-5 scale</td>
</tr>
<tr>
<td>Contract research</td>
<td>Research activities in specific business areas for MSEs</td>
<td>Extent to which university research activities lead to MSEs accessibility to BDS on 1-5 scale</td>
<td></td>
</tr>
<tr>
<td>Outreach</td>
<td>Professional support</td>
<td>Professional services in key areas for MSEs</td>
<td>Extent to which university professional services lead to accessibility to BDS on a 1-5 scale</td>
</tr>
<tr>
<td>Marketing support</td>
<td>Marketing services for MSEs</td>
<td>Extent to which university marketing assistance influenced MSEs accessibility to BDS on a 1-5 scale</td>
<td></td>
</tr>
<tr>
<td>Infrastructural support</td>
<td>Infrastructural facilities for MSEs</td>
<td>Extent to which university infra-structural facilities enabled MSEs accessibility to BDS on a 1-5 scale</td>
<td></td>
</tr>
<tr>
<td>Business incubation services</td>
<td>Business incubation services for MSEs</td>
<td>Extent to which university business incubation services contributed to MSEs accessibility to BDS on a 1-5 scale</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher, (2012)
3.4 Location of the study

This study was conducted at St. Augustine University neighbourhood. The administrative location is Mkolani ward of Nyamagana district in Mwanza region. St. Augustine University in Tanzania (SAUT) lies in the Lake Victoria basin and it extends to border the shores of Lake Victoria.

3.5 The Target Population

The target population for this study comprised of; members of the University management board (30) and the Micro and Small Enterprises owners (105), which totaled to 135. The university management board comprises of the vice chancellor, deputy vice chancellors, the deans of faculties and dean of students, the directors of units, the corporate counsel, the bursar, and the heads of academic departments. These are in charge of the day to day running of the university and they propose policies to the senate and the university council for approval. They are hence deemed the most knowledgeable groups in as far as policy issues are concerned. The university management board represents every unit and academic discipline in the university. This section of the population was chosen because it informs the research on issues of university –industry linkages. The segment was chosen because it contributed to the triangulation of information obtained from the MSEs. It also informed the research on the nature of linkages that exist at the university.
The MSE owners are the main target for the research since they are the beneficiaries of the BDS support. The MSEs being the unit of analysis for the research, and MSE owners being the contact points, they were deemed most knowledgeable about their enterprises and also the ones who access or seek BDS to enable them run the business more efficiently. They were hence expected to have the required information on the subject of inquiry. Table 3.1 below gives the distribution of the population in the study.

Table 3.2: Target Population

<table>
<thead>
<tr>
<th>Population Category</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>University board of management</td>
<td>30</td>
</tr>
<tr>
<td>Micro and Small Enterprise owners</td>
<td>105</td>
</tr>
<tr>
<td>Total</td>
<td>135</td>
</tr>
</tbody>
</table>

Source: SAUT Prospectus, (2012); Ward Executive Officer of Mkolani ward; SAUT Estate Manager's officer and a head count of businesses operating in SAUT neighbourhood conducted in June, 2012

The study adapted a census approach to reach out to the target population. There was hence no sampling done. The entire population was contacted to participate in the data gathering process.

3.6. Data Collection Instruments

3.6.1 Questionnaires

The research employed a semi-structured questionnaire to collect data from the MSEs category of the population. The questionnaire as a form of gathering survey data has been recommended where large amount of data has to be collected to describe a phenomenon (Cooper and Schindler, 2005, Saunders, et al, 2003, 2007,
Kombo and Tromp, 2006, and Sekaran, 2003). The questionnaire used in this research was divided into four sections which sought information on different aspects of the research. The items in the questionnaire used nominal for categorical data, ratio for absolute numbers data and a 5-point likert scale for interval data. The questionnaire is annexed as appendix A on the document for reference.

3.6.2. Interview Guide

The interview guide was used with the university management board respondents. Interviews have been encouraged where a researcher requires more in depth information on a phenomenon (Sauners et al., 2007). The information sought through the interview guide related to the university-industry linkage activities.

3.7. Data collection Procedures

The data for this research was collected by the researcher and two research assistants. The mode of data collection was researcher/assistant administered questionnaires for micro and small enterprises owners while the university management board members respondents, were interviewed by the researcher. The interview was face to face which involved the researcher calling on the respondents’ offices to book an appointment and explain the intention to conduct the interview. The respondents gave the time when they were available and the interview was scheduled for that time.
The research assistants were trained before the data collection exercise commenced. This ensured that they understood the study and also familiarized themselves with the instrument which was part of the training tool. Before the field work commenced a pre-test of the instruments was conducted with 10 MSE owners neighbouring Weills Bugando University of Health Sciences, (WBUHS) which was considered similar to the location of the current study.

The instrument was assessed for its suitability to collect data for the research during the pre-test stage. The pre-test enabled the researcher to correct disparities and also to estimate the time that it took to complete the instrument.

The data from the pilot was used to work out the reliability coefficients of the instrument which is given later in the section on reliability measure. After the pilot study, adjustments were made to the instrument especially in terms of structure. Once this was done the instrument were prepared for data collection.

3.8. Validity and Reliability Tests

3.8.1 Validity

Validity refers to the extent to which scales in an instrument measures what they are supposed to measure. The aim of checking the measurement validity is to ensure that the conceptual definition of a construct corresponds with the attribute being measured, and that the operational definition corresponds to the conceptual
definition (Martin et al., 2007). The contents of a measure is said to be valid if it measures what it is supposed to be measuring in the particular context.

The content validity also called face validity therefore involves a systematic but subjective assessment of the scale’s ability to measure what it is supposed to measure (Hair et al., 2003; Martin et al., 2007). It is established by determining the extent to which a measure reflects a specific domain of content.

Martin et al., (2007), recommends that a researcher must work towards content validity when developing a measure. This he argues is done by; specifying the content area covered by the phenomenon when developing the construct definition; writing questionnaires or scales items that are relevant to each of the content areas; and finally developing a measure of the construct that includes the best (most representative) items from each content. He further adds that, these aspects are best attained through a consensus approach.

In this research the content validity of the instruments was determined through a consensus approach. Three experts, two in entrepreneurship and one in research methods were requested to assess the instruments’ content validity. This technique has been used elsewhere and found to be effective in ensuring the content validity of the instrument (Mbura, 2007; and Olomi 2001). Other authors have also proposed the use of a panel of experts to judge the validity of an instrument and especially in relation to content validity (Sekaran, 2003, Kothari, 2005, Cooper, & Schindler, 2005; Housten, 2004; and Martin et al., 2007).
As a guide in establishing content validity, Housten (2004), has given a 4-point measure as follows; 1) very valid, 2) valid, 3) not valid, and 4) not valid at all. Using this guide the content validity index (CVI) of an instrument is determined as:

\[
CVI = \frac{Th}{T} \times 100
\]

Whereby `VV` denotes very valid and `V` is valid. Based on this, the content validity of the instrument in the current study is 76%. This was arrived at as follows; 13 questions were rated as very valid and 3 as valid out of 21 questions. Applying the above formula to the instrument, the CVI is 76% \([\frac{13+3}{21} \times 100]\). This validity level according to Housten (2004) is considered as good since it is above 65% which is the minimum score for an instrument to be regarded as valid. To improve the validity of the instrument further, the questions considered not valid were deleted from the final instrument.

3.8.2. Reliability

Reliability refers to the dependability of a measurement instrument or scale. That is the extent to which the instrument yields the same results on repeated trials. Therefore an instrument or scale is considered reliable if its repeated application results in consistent scores. Hair et al., (2003) further argues that if the instrument is multi item scale, the scores for individual items that comprise the scale should be correlated. Strong correlation coefficients are an indication of higher reliability of the scale and the instrument in use and hence the more reliable the data to be obtained from the instrument.
Though care has been taken to ensure that the instruments were carefully formulated as Sekaran, (2003) and Cooper and Schindler (2005) advice, it is necessary to establish the reliability levels of a measure. Saunders et al., (2003, 2007), and Hair et al., (2003), have pointed out that for multi-item scale, internal consistency reliability measure as most applicable. The internal consistency measure tries to establish whether the indicators that make up the scale are consistent and Cronbach’s alpha coefficient measure is used to test the consistency of the items. In this measure items are correlated and their scores observed. The reliability scores indicate the reliability level of the measure in question with scores ranging from 0-1. A score of 0.7 and above is considered good indicator of reliable measures, while those with a score of 0.6 as moderate and those below 0.6 considered poor. The current research used Cronbach’s alpha coefficient to measure the internal consistency for the items of the instrument.

Table 3.3 gives the reliability measures of the current study calculated from the pilot test consisting of 10 cases. All the variables measured had alpha coefficient measures of 0.8 and above which are considered good and hence very consistent signifying reliable measures.
Table 3.3 Reliability Test Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Items</th>
<th>Number of Cases</th>
<th>Cronbach’s Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and Training Activities</td>
<td>2</td>
<td>10</td>
<td>0.9</td>
</tr>
<tr>
<td>Research Activities</td>
<td>2</td>
<td>10</td>
<td>0.9</td>
</tr>
<tr>
<td>Outreach Activities</td>
<td>4</td>
<td>10</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Source: (Pilot study, 2012)

3.9. Data Analysis Plan

3.9.1. Data Preparation

Once the data had been collected, it was screened for any inconsistencies such as incomplete questions, illegible responses or any other related problems that might render the data unreliable for the study. In this research all the questionnaires were found complete and consistent for analysis, with minor clarifications which were made through follow up with research assistants and the respondents. Screening was done every day after questionnaires were back to avoid pile up. This way cases were corrected before we lost track of the respondents.

The questionnaire was then coded to develop a code sheet, which was used for data entry into the computer. Saunders et al., (2007), proposes the development of a code sheet to ensure proper entry of data with less error. Data was entered into the computer SPSS software which is the statistical program for social scientists. This software has been recommended by various authors for its user friendliness and effectiveness in generating various outputs for data analysis and interpretation for research projects (Saunders, et al., 2003; Sekaran, 2003 and
Cooper and Schindler, 2005). The flow chart below shows how the process was conducted:

**Figure 3.1: Data Preparation Flowchart**
Researcher, (2012)

The described process was followed with the questionnaire data. The interview data generated from the interview was prepared for analysis by first reading through the notes and making summaries of the key points to reduce it to manageable volume. The data was then organized into themes as per the variables of the study and analysis using content analysis was done.

### 3.9.2. Data Analysis

Data analysis involves reducing accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques to derive inferences. It can use simple techniques such as means and frequencies as well as higher level statistical measures to derive at relationships. For qualitative data key themes were identified and finally analysis was performed using content analysis technique and structured questions data were summarized in tables.

Data analysis was done by use of descriptive statistics such as; frequency and percentage tables, and means. Demographic data relating to respondents’ and firms’ background information such as; type of business, business formality,
gender, was analyzed using frequencies. Percentages and frequencies were further used to describe the data for accessibility to BDS which was organized around categories as per the responses, while the mean was used to describe the independent variables; education and training, research and outreach activities in relation to the dependent variable; accessibility to BDS.

To test the various hypotheses stated in chapter one of this thesis, a regression analysis was used. This showed the relationship between the various independent variables in explaining the accessibility to business development services by MSEs the dependent variable. A P-value of less than 0.05 (P<0.05) was used to ascertain the significance of each independent variable to the dependent variable. Multiple regression analyses has been recommended in situations where the researcher wishes to show the relationship of variables and the strength of such associations and their causal relationship (Saunders et al., 2007). This research wished to find out if university- business linkages (education and training activities, research activities and outreach activities) had significant relationship with accessibility to business development services by MSEs. The following multiple regression model guided the analysis.

Equation 3.1:
\[ Y = a_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon \]

Where;

\( Y \) = Accessibility to BDS
\( a_0 \) = Y intercept/ Constant

\( \beta_1 \ldots \beta_3 \) Coefficient of regression measuring the strength of each independent variable on the dependent variable

\( X_1 \) = Education and Training activities

\( X_2 \) = Research activities

\( X_3 \) = Outreach activities

\( \epsilon \) = Error term

**3.10. Ethical consideration**

It is considered good practice to ensure that when conducting research, the researcher takes precaution regarding ethical issues that can affect the research outcome (Mugenda and Mugenda, 1999; Saunders *et al.*, 2003; Sekaran, 2003; Cooper and Schindler, 2005; and Saunders *et al.*, 2003).

Saunders *et al.*, (2003) have highlighted a number of ethical issues that arise at every stage of the research process that the researcher in this research has taken cognizant of and made efforts to ensure that they are not violated. They include; privacy of possible and actual participants, voluntary nature of participation and the right to withdraw partially or completely from the process, consent and possible deception of participants, maintenance of the confidentiality of the data provided by the individuals or identifiable participants and their anonymity, effects of the participants to the way in which you use, analyze and report data, reactions of participants of the way in which you seek to collect data, and
behavior and objectivity of the researcher. The current research observed these concerns while collecting, analyzing and reporting the findings of the project.

Furthermore, research authority was obtained from the government of Tanzania and St. Augustine University of Tanzania. Before the clearance was obtained the relevant officials scrutinized the research proposal to ascertain there were no violations of ethical issues. A research permit was hence granted upon certification that the research passed the ethical tests.

All the relevant procedures of obtaining the permit were followed which included being cleared by the St. Augustine University of Tanzania which I am affiliated to. The director of research wrote to the regional administrative secretary in Mwanza region, who in turn wrote to the district administrative secretary of Nyamagana district who finally issued the permit that was addressed to the ward executive officer in Mkolani ward the location where the study took place. This lengthy process ensured that the data collection exercise was smooth and devoid of any ethical hitches.
CHAPTER FOUR
FINDINGS AND DISCUSSIONS

4.1. Introduction

This chapter gives the findings of the study as derived from various analysis techniques. First response rate and demographic information relating to the respondents is given. Included here is business type, business registration status, respondents’ age, education level of owners of business, age of business, gender of owners, and size of the business enterprise. Findings on BDS accessibility by MSEs under investigation and hypotheses tests are further given.

4.2 The Response Rate

The study targeted a population of 105 for the micro and small enterprises category and 30 for the university management category. The MSEs category had a 100% response rate which is attributed to the fact that the questionnaire was administered face to face.

The response rate for the university management category was 86.7% which represents 26 out of the targeted 30 respondents. The overall response rate was good as it has been recommended that a response rate of 70% and above for face to face interviews is good enough given the great variability recorded in response rates involving business studies especially when academic research is concerned (Saunders et al 2007). Top managers and organization representatives have been
noted for not availing themselves for interviews due to tight schedules in their work. This was the main reason for the less than 100% response rate for the management respondents in this. Care was taken to ensure quality information was obtained from those who were available.

4.3. Firm characteristics and Demographic Characteristics of Respondents

Firms characteristics and respondents' demographic information such as; business categories; business registration status; gender of business owners; education level of business owners; age of both the business and business owners; and business size in terms of number of employees. Table 4.1 below gives a summary of this information.
As summarized in table 4.1 above, most MSEs (59%) were in the service sector, building & construction had the least (1%), trade and commerce 10.5%, transport, 8.6%, manufacturing 3.8%, agribusiness, 5.6%, and other businesses not fitting
any of the categories 11.4%. Other researchers have found MSEs following the same pattern of sector representation (Milanzi and Ngowi 2006; and IFC, 2005). This can be explained by the fact that most service enterprises and trade and commerce are reasonably easier to set up and require lesser investment.

The findings also show that majority (63.8%) of the MSEs were registered while 36.2% were not registered under any form of authority. This finding deviates from other researches on MSEs which have found business informality very common among most MSEs (Olomi, 2009; Milanzi and Ngowi, 2006). This could be explained by the fact these businesses were transacting business with the university and hence had to have a formal identity to be able to achieve this end.

The study wished to find out the gender representation among MSE owners and findings show that 66.7% were males while only 33.3% were females. The study also found out that 21.9% had primary school and below level of education, 32.4% secondary, 16.2% college, 21% university education and 8.5% technical training.

The Findings show that (82.9%) of the businesses were in the age category of 5 years and below, 11.5% in 6-10, and only 5.6% were between 10-20 years of age. Mbura in a study of small manufacturing firms in Tanzania also found most (40%) businesses being in the 3-5 age category and only 12.9% above 13 years of age (Mbura, 2007). This can be regarded as a true characteristic of MSEs in
Tanzania as IFC (2005) also records similar age distribution among MSEs in Tanzania.

The study sought to describe the age of the owners of enterprises under investigation and found out that 44.8% of the respondents were in the 20-30, 28.5% in the 31-40, 12.4% in the 41-50 and 51-60 each, while, only 1% is in the 61-70 years category. These findings show that most of the enterprises owners were in the youth population category.

The study wished to find out the size distribution of the enterprises under investigation and found that 84.8% of the enterprises were micro (1-4 employees) and 15.2% small (5-49 employees). This finding is consistent with others whereby it has been reported that (98%) of Tanzania business enterprises are in this category employing between 1-4 people including the owner (IFC, 2005). Mbura in a study targeting small manufacturing firms in Tanzania also found out that majority (91%) of the enterprises employed between 6-20 employees (Mbura 2007).

4.4. Accessibility to Business Development Services by MSEs

The previous section has described the demographic characteristics of the respondents and the response rate. This section gives the findings on the accessibility of business development services by MSEs neighbouring St.
Augustine University in Tanzania, which is measured in terms of the number of services accessed and the most accessed BDS category.

4.4.1. Number of BDS Accessed

The following section gives the findings on the number of business development services accessed in the course of business operation. This was obtained from a list of services whereby respondents were asked to indicate the number of services accessed from those listed. The findings are presented below in table 4.2, as per the three categories of BDS identified as per the literature on BDS (Gagel 2006; Pietrobelli and Rabelloti, 2002 and Otieno and Kiraka, 2009). The three categories were created from the identified BDS for purposes of aligning them to the university-industry linkage framework. Other researchers have done similar categorization to fit BDS in their situations being investigated as the case in Pietrobelli and Rabelloti, (2002); Tekle, (2009) and Obeng, (2007) The list included among other services, management training, financial handling training, business planning writing training, entrepreneurship training and customer care training among others, while the research services category included such services as; marketing research, new product development and improvement research, customer surveys, new business processes research and new technology among others, and outreach services including marketing assistance in terms of tenders, exhibitions sales promotion, business premises, utilities roads, security services, legal issues handling assistance, taxation issues handling assistance and
networking forums among others. The data was organized into categories to make it manageable even though it was ratio type of data.

Table 4.2: Accessibility of BDS by MSEs

<table>
<thead>
<tr>
<th>BDS Category</th>
<th>Number accessed</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training related BDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>90</td>
<td>85.7</td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>15</td>
<td>14.3</td>
<td></td>
</tr>
<tr>
<td>11-20</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Research related BDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>100</td>
<td>95.2</td>
<td></td>
</tr>
<tr>
<td>6-11</td>
<td>5</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>11-20</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Outreach related BDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>15</td>
<td>14.3</td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>67</td>
<td>63.8</td>
<td></td>
</tr>
<tr>
<td>11-20</td>
<td>23</td>
<td>21.9</td>
<td></td>
</tr>
<tr>
<td>Overall Total (N)</td>
<td>105</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>


From the table 4.2 above, most MSEs accessed between 1-5 services especially for the services related to research and training as is seen by the 95.2% and 85.7% response respectively. Outreach related services were the most accessible to the MSEs neighbouring St. Augustine university in Tanzania 63.8% accessing between 6 and 10 services, 21.9% accessing between 11 and 20 services and only 4.8% accessing between 1 and 5 services.

4.4.2 Most Accessed category of Business Development Services

This study classified BDS into three categories of education related BDS; research related BDS and outreach related BDS. Based on this classification the study sought to find out the most accessed BDS category among the MSEs under investigation. The findings show that MSEs accessed outreach related services more than the other categories of training and research related. These findings are
in agreement with those from the number of services accessed discussed in the previous section. The bar chart below gives these findings.

![Bar Chart](image)

**Figure 4.1: Most Accessed BDS Category**  
Source: Researcher, (2013)

As can be seen from figure 4.1 above, training related services were second (31.4%) most accessible while research related services were the least (25.7%) accessible and outreach related the most(42.9) accessible. The findings of this study to an extent deviates from those from previous studies which have found training related BDS to be the most accessible category as noted in Tekle, (2009); kessy and Temu, (2010). The findings however agree with previous researches that research related BDS was among the least accessed among MSEs, a situation that has been associated with the low capacity of organizations providing support
to MSEs especially in Tanzania (Mwamila and Kantalambula, 2004; Olomi, 2009; and Ngowi and Milanzi, 2006).

Outreach related BDS have mixed findings with some reaching finding them to inaccessible to the studied groups and others indicating them to be accessible (Tekle, 2009; Mfaume and Wilhem, 2004; Egan, 2009; Stevenson and St. Onge, 2005; and Swiss contact, 2005). The Tanzania SME Policy Paper has also identified these services as among those not adequately accessible to MSEs. This study has however found these services to be the most accessible among the MSEs studied. This situation could possibly be explained by the proximity these enterprises are to the university which could be providing such services. However this view will be ascertained from further analysis of the relationship of BDS accessibility and university-industry linkages that will be conducted later in the chapter.

4.5. University Industry Linkage Activities

4.5.1. University Education and Training Activities

The first objective of this study was to establish the relationship between university education and training activities and accessibility to business development services by MSEs. This is based on the view that education and training at the university is one of the key aspects that the University interacts with the industry. In this line two activities are identified as; business management training and technical training. The section describes using means
these education related activities in terms of their influence on accessibility to BDS by MSEs. The measure used is a 5 point likert scale. The findings are as shown in the table 4.3 below.

**Table 4.3. Education and Training Activities Means Scores**

<table>
<thead>
<tr>
<th>Activities</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Management Training</td>
<td>105</td>
<td>3.04</td>
<td>1.01</td>
</tr>
<tr>
<td>Technical Training</td>
<td>105</td>
<td>2.70</td>
<td>1.06</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>105</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher, (2013)

From the findings in table 4.3 above, management training had a mean of 3.04 which was moderate, while technical training had 2.70 which is relatively lower. This implies that business training from the university was perceived to have moderate influence on accessibility of BDS by MSEs neighbouring St. Augustine in Tanzania. This finding shows that university business management training had influence on the accessibility to BDS. Other studies have found business training programmes to influence accessibility to training related BDS. However universities and other learning institutions were not ranked highly in terms of providing this service among the studied MSEs (Obeng, 2007; Thamsanqa, 2009).

A study by Olomi (2009) on services at the university of Dar es salaam entrepreneurship center however identifies business training as among the services attracting MSEs to the center’s services. Technical training from the university has been highly rated as a booster to BDS accessibility in other areas also. Turyagenda (2004) using the case of Makerere university faculty of
technology notes the value of technical training in transferring knowledge to MSEs from the faculty engineers. The same is noted in Mwamila and Kantalambula, (2004), using the case of university of Dar es salaam prospective college of engineering. In this study these activities were rated moderately in terms of their contribution to BDS accessibility though.

4.5.2. University Research Activities

The study further sought to find out the influence of the research to the accessibility of BDS. This was in line with the second research objective of the study. In this category, two activities are identified as, university innovations and contract researches. These were perceived to the activities that would influence accessibility to research related BDS by MSEs. The activities have also been identified from the literature as among those that the university links with the industry (Loveridge, 2009; Hughes, 2006; Lester, 2005 and Byaruhanga, 2004).

This section gives the means for the descriptive analysis of these activities as the respondents perceived them on a 5 point likert scale.

**Table 4.4. Research Activities Mean Scores**

<table>
<thead>
<tr>
<th>Activities</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovations</td>
<td>105</td>
<td>2.11</td>
<td>1.02</td>
</tr>
<tr>
<td>Contract research</td>
<td>105</td>
<td>2.43</td>
<td>.95</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>105</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher, (2013)

From table 4.4 above, it is seen that innovation activities at the university were perceived to influence little the accessibility to BDS by MSEs neighbouring St.
Augustine university in Tanzania with a mean score of 2.11, and the contract researches having a score of 2.43 which is slightly above but much difference. This agrees with earlier findings of BDS accessibility where research based BDS was the least accessed. Findings from previous researches have concurred that though universities were well endowed with research capacity, they were not contributing to researches needed in the industry especially by MSEs (Wu, 2000; Zeng, 2006; Shane, 2005; Juma, 2007, and Ngowi and Milanzi 2006). Mwamila and Kantalambulla (2004) conquers with the same view from their research on the MSEs needs where research that can lead to improved products and technology were considered as areas that the MSEs needed urgent help. This can be attributed to lack of resources at the university especially financial as Turyagenda (2004) further notes their inability to reach many clients with their services.

4.5.3. University Outreach Activities

This section describes the outreach activities that are perceived to influence the accessibility to BDS by MSEs neighbouring St. Augustine University in Tanzania. In this category four activities are identified as; professional support; infrastructural support; marketing support; and business incubation services. The table 4.5 below gives these findings as descriptive analysis using a 5- point likert scale.
Table 4.5. Outreach Activities Means Score

<table>
<thead>
<tr>
<th>Activities</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional support</td>
<td>105</td>
<td>3.0</td>
<td>1.18</td>
</tr>
<tr>
<td>Infrastructural support</td>
<td>105</td>
<td>3.0</td>
<td>1.22</td>
</tr>
<tr>
<td>Business incubation services</td>
<td>105</td>
<td>3.0</td>
<td>1.16</td>
</tr>
<tr>
<td>Marketing support</td>
<td>105</td>
<td>2.9</td>
<td>1.20</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher, (2013)

The findings show that MSEs perceived most of the outreach activities of; professional support 3.0; infrastructural support 3.0; business incubation services 3.0; and marketing support 2.9; as influencing accessibility to BDS. Other researchers have recorded mixed findings especially as regards professional services and infrastructural facilities. Stevenson and St. Onge, (2005); and Ngowi and Milanzi record low accessibility of such services among MSEs. However Mwamila and Kantalambula, (2004) and Byruhanga (2004) record accessibility of these services from the university of Dar es Salaam and University of Makerere respectively. Pietrobelli and Rabelloti, (2002) have also recorded high accessibility of such services. Obeng, (2007) has recorded moderate accessibility of these services. This shows that services in this category played a substantial influence on the accessibility of BDS by the MSEs in the St. Augustine University neighbourhood.

This section has described the various independent variables using means and set the stage for further analysis and hypotheses test. The sections that follow give
correlations and tests of the hypotheses as the requirement of the deductive approach where hypotheses are stated and tested.

4.6. Correlation Analysis and Hypotheses Tests

The preceding section has given descriptive statistics on the variables of study. This section gives result of correlation analysis and tests of the various hypotheses of the study. A Pearson product moment correlation is used to analyze the various independent variables on the dependent variable, where the correlation coefficient is computed. The guide for interpreting correlation coefficient values range from -1 to 1. The absolute values signify the strength of the relationship while the sign -/+ signifies direction of the relationship (Saunders et al., 2007). The P-value signifies the significant level, whereby, a P-value lesser than 0.05 is considered significant and the two variables are said to be linearly related. While a P-value larger than 0.05 signifies that the two variables are not linearly related. This study computed the correlations of the university-industry linkage activities of education, research and outreach activities to ascertain their relationship with BDS accessibility by MSEs neighbouring St. Augustine university of Tanzania.

4.6.1. University Education Activities

The first objective of this research was to establish the relationship between education activities and the accessibility to BDS by MSEs neighbouring St. Augustine University in Tanzania. The components of the education activities are
correlated with the accessibility to BDS and a correlation coefficient determined.

The following table 4.6 below gives the findings.

**Table 4.6. Correlations of Education Activities and BDS Accessibility**

<table>
<thead>
<tr>
<th>Business Management Training</th>
<th>BDS Accessibility</th>
<th>Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.759</td>
<td>Positive &amp; Strong correlation</td>
</tr>
<tr>
<td>Sig. (P-Value)</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical Training</th>
<th>BDS Accessibility</th>
<th>Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.470</td>
<td>Positive correlation</td>
</tr>
<tr>
<td>Sig. (P-value)</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher, (2013)

The findings in table 4.6 show strong positive correlations regarding business management training ($r=.759$ and $p=.000$) and technical training ($r=.470$ and $P=.000$) on accessibility of BDS by MSEs. The relationships are also statistically significant ($p<0.05$) implying linear relationship. The findings show that business management training and technical training had a positive effect on accessibility of BDS by MSEs neighbouring St. Augustine University in Tanzania. The significant p-values ($P=.000$ and $P=.000$) shows that the variables had a linear relationship with business development services accessibility. The variables can therefore be said to influence accessibility to business development services positively, meaning an increase of the education activities in line of MSEs related knowledge and skills will improve accessibility by MSEs.
4.6.2. Test of Hypothesis One

The research wished to test the hypothesis that there is no significant relationship between education and training activities and accessibility of business development services by MSEs neighbouring St. Augustine University in Tanzania. A composite variable of education activities was computed and correlated with the accessibility to BDS measured by the number of services accessed. The table below gives the test results.

<table>
<thead>
<tr>
<th>Table 4.7. Tests Results of Hypothesis One</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Activities</td>
</tr>
<tr>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Sig. (P-value)</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (P<0.01).**

Source: Researcher, (2013)

From the findings in table 4.7 above on the tests of hypothesis, there is a positive strong correlation coefficient (r=.610; P=.000) which is also statistically significant (P<0.01). This leads us to reject the null hypothesis that there is no significant relationship between university education activities and accessibility to business development services by MSEs neighbouring St. Augustine University in Tanzania accept the alternative hypothesis that there is a significant relationship between the university and the accessibility of BDS by MSEs neighbouring the university. This implies that education activities are positively and linearly correlated with accessibility to BDS by MSEs and the association is statistically
significant. This means education activities positively influence accessibility of BDS by MSEs neighbouring the university. From the university management interview it was established that the university has taken various measures to extend its curriculum to a wide range of beneficiaries including MSEs by introducing part-time classes and holiday classes. The university has also a strong entrepreneurship programme among other programmes that were targeting such clients as MSE owners. These findings agree with previous research where university’s training activities were found to be a major attraction to university-industry linkage initiatives. The outcome is a boost in accessibility of the various training packages by the business community. The MSEs have been found to appreciate training especially in entrepreneurship and other business related. Mwamila and Kantalamala (2004) found out that MSEs benefited from their training activities, a view that is reiterated by Byaruhanga, (2004) and Olomi, (2009). UNESCO (2000) identifies curriculum development activities and extending the existing programmes to a larger client base including MSEs through flexible study time as a move towards increasing university-industry collaborations based on the traditional functions of the university.

4.6.3. University Research Activities

The research in the second objective wished to find out the relationship between research activities on the accessibility of BDS by MSEs neighbouring St. Augustine university of Tanzania. To achieve this, the components of the
research variable were correlated with BDS accessibility and Pearson correlation coefficients computed. The significance levels were also determined based on p-values at the 0.05 significance level. The table 4.8 below gives the findings.

Table 4.8. Correlations and Research Activities and Accessibility to BDS

<table>
<thead>
<tr>
<th>Research Activities</th>
<th>BDS Accessibility</th>
<th>Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovations</td>
<td>Pearson Correlation</td>
<td>.092 Positive Correlation</td>
</tr>
<tr>
<td>contract research</td>
<td>Pearson Correlation</td>
<td>.145 Positive Correlations</td>
</tr>
</tbody>
</table>

Source: Researcher, (2013)

From the findings in table 4.8 above, the variables innovations and contract research had positive but weak correlations ($r=0.092$, $P=0.353$; $r=0.145$, $P=0.141$), which are not statistically significant because of the larger p-values ($P>0.05$). This implies that innovations and contract research from the university are positively related to accessibility of BDS by MSEs neighbouring the university. However, the non significant P-values ($P>0.05$), shows that the relationship is non-linear.

4.6.4 Test of Hypothesis Two

The study sought to test the hypothesis that there is no significant relationship between university research activities and accessibility to BDS by MSEs neighbouring St. Augustine University in Tanzania. In this end a composite
variable research was correlated with the variable accessibility to BDS by MSEs and the results are given in table 4.9 below.

### Table 4.9 Tests Results of Hypothesis Two

<table>
<thead>
<tr>
<th>Research Activities</th>
<th>BDS Accessibility</th>
<th>Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.165</td>
<td>Positive Correlations</td>
</tr>
<tr>
<td>Sig. (P-value)</td>
<td>.092</td>
<td>Accept $H_0$</td>
</tr>
</tbody>
</table>

Source: Researcher, (2013)

The findings in table 4.9 above shows that research activities have a positive relationship ($r=.165; P=.092$), which is statistically not significant ($p>0.05$). This implies that research activities and accessibility to BDS by MSEs neighbouring St. Augustine University in Tanzania, are positively related, but the relationship is non-linear owing to the large p-value ($P>0.05$). This leads us to accept the null hypothesis that there is no significant relationship between the university research activities and the accessibility of BDS by MSEs neighbouring St. Augustine University in Tanzania.

The findings have mixed reactions, with some earlier researches finding strong associations between university research with accessibility to BDS especially when it comes to improving technology used by MSEs and contributing to development of new and improved products (Pietrobelli and Rabelloti, 2002; Mwamila and Kantalambula, 2004; Mwamadzingo, 1996; and Marotta et al., 2007). In other researches however, for example Wu, (2000) and Zeng, (2006), universities were found to contribute very little in terms of innovations needed by
the industry. The study by Wu, (2000) rates the university very lowly 2.7 on a 7 point scale, as a source of innovation for the industry. This disparity might be explained by the different populations used by the researches which included all categories including the larger firms as opposed to the current study which used only MSEs as a target population. Another explanation could be the information asymmetry that exists between the university and the industry as noted by Loveridge (2009), where the industry does not know what exists in the university and vice versa.

4.6.5. University Outreach Activities
The study further sought to find out the relationship between university outreach activities and the BDS accessibility by MSEs neighbouring St. Augustine University in Tanzania. The outreach activities comprised of professional support; infrastructural support; business incubation services; and marketing support services. A Pearson correlation analysis was performed on the outreach activities and the accessibility of BDS by MSEs and a correlation coefficient was computed. The table 4.10 below gives these findings.
Table 4.10. Outreach Activities and BDS Accessibility Correlations

<table>
<thead>
<tr>
<th>Professional support</th>
<th>BDS Accessibility</th>
<th>Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.741(**)</td>
<td>Positive &amp; Strong Correlation</td>
</tr>
<tr>
<td>Sig. (P-value)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Infrastructural Support</td>
<td>Pearson Correlation</td>
<td>.744(**)</td>
</tr>
<tr>
<td>Sig. (P-value)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Marketing support</td>
<td>Pearson Correlation</td>
<td>.541(**)</td>
</tr>
<tr>
<td>Sig. (P-value)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Business incubation Services</td>
<td>Pearson Correlation</td>
<td>.775 (**)</td>
</tr>
<tr>
<td>Sig. (P-value)</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (P<0.01).**
Source: Researcher, (2013)

The findings in the table 4.10 above shows that university professional support (r=.741, P=000), university infrastructural support (r=.744; p=000), marketing support (r=.541; p=000), and business incubation services (r=.775, p=.000), had positive and strong relationship with MSEs' BDS accessibility. The relationship is statistically significant (p<0.01). This implies that the relationship is linear and that outreach activities influence to a large extent the accessibility of BDS by MSEs. Improving these services will lead to more MSEs accessing the BDS. These findings agree with the findings of Byaruhanga, (2004), who found university outreach activities to have been crucial in the support of MSEs in
Uganda through the activities of Uganda Gatsby trust at Makerere University in Uganda.

4.6.6. Test of Hypothesis Three

The study sought to test the hypothesis that university outreach activities were not significantly related to BDS accessibility by MSEs neighbouring St. Augustine University in Tanzania. A composite variable of outreach activities was correlated with the variable BDS accessibility. Table 4.12 below gives the computed Pearson correlation.

**Table 4.11. Test Results of hypothesis Three**

<table>
<thead>
<tr>
<th>Outreach Services</th>
<th>BDS Accessibility</th>
<th>Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.752(**)</td>
<td>Positive &amp; Strong correlation</td>
</tr>
<tr>
<td>Sig. (P-value)</td>
<td>.000</td>
<td>Reject H₀</td>
</tr>
</tbody>
</table>

**Correlations significant at 0.01(P<0.01).**
Source: Researcher, (2013)

The findings show that university outreach services have a positive and strong (r=.752; p=.000) relationship with business development services accessibility by MSEs neighbouring St. Augustine University in Tanzania. The relationship is also statistically significant and it is linear as shown by the small p-value (p<0.01). This implies that university outreach services have positive relationship with the accessibility of BDS by MSEs neighbouring St. Augustine University in Tanzania. This leads us to reject the null hypothesis that university outreach
services are not significantly related to BDS accessibility by MSEs neighbouring St. Augustine University in Tanzania. Findings from the university management interviews pointed out that the university had put several measures in place to extend its services to the business community. Services such as offering business counseling from the university business incubation center, offering special considerations to MSEs when making purchase decisions and organizing business promotion events during university open days and student organized extra curricula competitions. These findings are therefore in agreement showing that improving these services further has the potential to influence business development services accessibility by MSEs.

4.7. Summary of the Hypotheses Tests

The study sought to test three hypotheses as described in chapter one of this thesis. This section gives a summary of the tests result of these hypotheses. Table 4.13 below gives these findings.
Table 4.12 Summary of Hypotheses Test Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Constructs</th>
<th>Result</th>
<th>Explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>H01</td>
<td>Education &amp; Training Activities</td>
<td>Reject</td>
<td>University education and training activities have statistically significant effect on Accessibility of BDS by MSEs neighbouring St. Augustine University in Tanzania.</td>
</tr>
<tr>
<td>H02</td>
<td>Research Activities</td>
<td>Accept</td>
<td>University research activities have no statistically significant relationship with accessibility to BDS by MSEs neighbouring St. Augustine university in Tanzania.</td>
</tr>
<tr>
<td>H03</td>
<td>Outreach Activities</td>
<td>Reject</td>
<td>University outreach activities have a positive statistically significant relationship with BDS accessibility by MSEs neighbouring St. Augustine university in Tanzania.</td>
</tr>
</tbody>
</table>

Source: Researcher, (2013)

From the findings in table 4.13 above accessibility to BDS is positively influenced by education and training activities and outreach activities.

4.7. Multiple Linear Regression Analysis

This study sought to establish the relationship between various independent variables with the accessibility of business development services by MSEs. The study used a multiple regression model to guide the analysis. Before the analysis was done, the model fitness test was done using ANOVA, and adjusted $R^2$ computed to test the model fitness and suitability of the variables in the model.
4.7.1. Model Summary and ANOVA Tests

As a preliminary step in the multiple regression analysis, a model fitness summary is provided and ANOVA. Table 4.14 below gives the model summary.

Table 4.13. Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.788(a)</td>
<td>.620</td>
<td>.609</td>
<td>.93577</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Education Activities, Research Activities, Outreach Activities, and BDS Accessibility, Source: Researcher, (2013)

From the model summary above adjusted R Square is .609 or 60.9% which means that the variables tested that is, education, research and outreach activities explain 60.9% of the variations of accessibility to BDS by MSEs. A further test of ANOVA gives the variable variations within the model and the test of significance.

Table 4.14. ANOVA Tests

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>f</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>144.532</td>
<td>3</td>
<td>55.019</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>88.441</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>232.974</td>
<td>104</td>
<td></td>
</tr>
</tbody>
</table>

a) Predictors: (Constant), Education, Outreach, Research
b) Dependent Variable: BDS Accessibility

Table 4.15 above shows a f-test of 55.019 which is significant at 0.01 (P<0.01). This means that the model adopted was significant and fitted the study and that the variables tested fitted the model.
After ascertaining the significance level of the model, the multiple regression analysis was performed on the three independent variables (Education, Research and Outreach activities) to ascertain their casual relationships with the dependent variable. The equation below guided this analysis.

**Equation 4.1**

\[ Y = a_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \]

From the table 4.16 below, the variables education and outreach were found to be statistically significant at 1% (\(P<0.01\)) level in influencing the accessibility of BDS by MSEs. Using the t-test, the non significant variable of research (\(P>0.05\)) which was the acceptable level of significance in this study was extracted from the model.

**Table 4.15. Multiple Linear Regression Matrix**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Standardized Coefficients Beta ((\beta))</th>
<th>T-Statistics</th>
<th>Sig. level P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td>3.601</td>
<td>.000</td>
</tr>
<tr>
<td>Education</td>
<td>.271</td>
<td>3.652</td>
<td>.000</td>
</tr>
<tr>
<td>Research</td>
<td>.066</td>
<td>1.063</td>
<td>.290</td>
</tr>
<tr>
<td>Outreach</td>
<td>.590</td>
<td>7.916</td>
<td>.000</td>
</tr>
</tbody>
</table>

a)Dependent Variable: BDS Accessibility  
Source: Researcher, (2013)

Based on the findings in the table 4.16, the new regression model for this study is as shown below in equation 4.2, which includes only the education activities and the outreach which were found to be statistically significant in influencing BDS accessibility by MSEs neighbouring St. Augustine University in Tanzania.
The revised regression model:

**Equation 4.2**

\[ Y = a_0 + \beta_1 X_1 + \beta_3 X_3 + \varepsilon \]

From the findings in table 4.16 above, University education activities which include business management training and technical training play a significant role in influencing accessibility to BDS by MSEs. This means if efforts are made in this end to come up with training programmes that are geared towards MSEs clients to build the much needed capacity among this group of clients it can go a long way in enhancing their competitiveness. Similarly the university outreach activities of professional support, infrastructural support, business incubation services, and marketing support are shown to influence accessibility of BDS by MSEs neighbouring the university. This means increasing these services will increase the accessibility of BDS by more MSEs.

These finding are in support of other findings in this line although the statistical tests were not as rigorous in the previous studies, such as the research by Tekle, (2009) in Ethiopia who found training to be a very important component in BDS accessibility. Research relating university activities and BDS accessibility were scanty but the available data show that universities linked with the industry for purposes of research and knowledge transfer. The current study finds no significant correlation between university research activities (innovations and
contract research) and accessibility to BDS by MSEs neighbouring St. Augustine University of Tanzania.

University outreach activities were found to be crucial in influencing accessibility of BDS in the current study and in other studies. Byaruhanga, (2004) in reference to outreach activities at Makerere University in Uganda found these activities to have influenced MSE access to vital services.

This section has given the model adopted in the research and the revised model after analysis. The chapter has given the key findings and discussed them in light of the research hypothesis and the empirical literature. The chapter that follows gives the summary, conclusions and recommendations.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter gives the summary, conclusions and recommendations as per the findings of the study given in the previous chapter. The chapter is organized as per the objectives of the study. The chapter gives the summaries first, followed by conclusions drawn from the findings and finally recommendations. Suggestions for further research are also given at the end of the chapter.

5.2. Summary

Though MSEs have received recognition as key players in poverty reduction and economic development in the Tanzania Vision 2025, they have continued to face challenges that among other things are related to inaccessibility to business development services. This situation persists even though Tanzania has seen various agents coming up to provide BDS including universities and other higher learning institutions.

This study investigated the relationship between university industry linkages and accessibility of business development services by micro and small enterprises neighbouring St. Augustine University in Tanzania. In this regard it sought to; establish the relationship between university education and training; university research; and university outreach activities and the accessibility to BDS by MSEs
neighbouring St. Augustine University in Tanzania. The study used descriptive and explanatory research designs. A population of 135 was targeted which comprised of MSE owners (105) and university management (30). Out of the 105 enterprises studied, 89 were micro and 16 were small employing between 1-49 employees.

5.2.1. General Findings Summary

The study recorded a response rate of 100% for MSEs and 86% for university management. Research validity and reliability were established whereby the study instruments recorded a content validity index of 76% and a Cronbach’s alpha coefficient of over 0.8 reliability level, which is considered as very good. Data was collected using a questionnaire and an interview guide which were pretested prior to use. Data was analyzed using descriptive statistics such as frequencies, means and inferential statistics such as; correlation analysis and a linear regression. The Pearson correlation was used, to test the various hypotheses while a multiple regression analysis was used to test the various variables on their suitability in explaining the relationship of BDs accessibility and university industry linkages.

Findings show that most businesses (59%) were in the service sector and the rest of the sectors had below 15%. Many (84.8%) enterprises were Micro employing 1-4 people including the owner. Majority (82.9%) of enterprises were aged below
5 years, males owned 66.7% of the enterprises, 73.3% of the business owners were aged 40 years and below, 69.6% of business owners had secondary school and above level of education.

A model fitness test shows the explanatory power of the model whereby the variables explained (adjusted $R^2$) 60.9% of the variance of the dependent variable, BDS accessibility. ANOVA analysis showed the f-test of 55.019 which was significant at 0.01 level ($p<0.01$).

5.2.2. MSEs Accessibility To Business Development Services
This study wished to find out the relationship between university industry linkages and the accessibility of BDS by MSEs neighbouring St. Augustine University in Tanzania. The dependent variable accessibility to BDS was therefore investigated and the number of services accessed measured. Findings show that majority (65.4%) of the MSEs accessed between 1-5 services with outreach (42.9%) and training (31.4%) based services being the most accessed while research (25.7%) related services were the least accessible.

5.2.3. University industry Linkages and BDS Accessibility
The study sought to determine the relationship between university industry linkages and BDS accessibility by MSEs neighbouring St. Augustine University in Tanzania. The university industry linkage activities of education and training, research, and outreach services were investigated. The first objective therefore
was to determine the relationship between university education and training activities and accessibility to BDS by MSEs. The findings show that education activities which included; business management training and technical training had statistically significant influence on accessibility of BDS by MSEs neighbouring St. Augustine University. This led to rejection of the null hypothesis and accepting the alternative that, university education and training activities had a statistically significant influence on the accessibility to BDS by MSEs neighbouring St. Augustine in Tanzania.

The second objective sought to determine the relationship between university research activities and accessibility of business development services by MSEs neighbouring St. Augustine University in Tanzania. The findings showed that university research activities which included innovations and contract research had no statistically significant influence on accessibility to BDS by MSEs neighbouring St. Augustine University in Tanzania. Based on this finding the null hypothesis that, there is no statistically significant relationship between university research activities and accessibility to BDS by MSEs neighbouring St. Augustine in Tanzania, was accepted.

The third objective was to establish the relationship between university outreach activities and accessibility of BDS by MSEs neighbouring St. Augustine University in Tanzania. The findings show that university outreach activities
which included; professional support, infrastructural support, incubation services and marketing support, had a statistically significant influence on accessibility to BDS by MSEs neighbouring St. Augustine in Tanzania. Based on this the null hypothesis that there is no significant relationship between university outreach activities and accessibility to BDS by MSEs neighbouring St. Augustine university in Tanzania, was rejected and the alternative that; there is a significant influence of university outreach activities to accessibility of BDS by MSEs neighbouring St. Augustine University in Tanzania accepted.

5.3. Conclusions

The issue of university industry linkages has received considerable attention in literature. Its connection to MSEs and accessibility to BDS has however been scanty. The current study evaluated university industry linkages and BDS accessibility by MSEs and found significant relationship between some of the key activities of the university. In a study by Mwamila and Kantalambula, (2004), using a few cases of MSEs, they found the university of Dar es Salaam to have enabled some MSEs to access vital services for their business operations.

The findings of the current study also show that university education and training activities influenced accessibility to training related BDS by MSEs neighbouring St. Augustine University in Tanzania. This leads us to conclude that the various training and education related programmes influenced positively the accessibility
This study therefore concludes that university industry linkages are important in promoting accessibility to BDS by MSEs especially in terms of education activities and outreach services.

5.4. Contribution of the Study to the existing Body of Knowledge

From the literature, university industry linkages are anchored on the core activities of the University of; education, research and outreach services. This study has shown the extent that these activities influence accessibility to BDS which is a key factor in MSE sustainability and productivity. This research has provided an empirical model against which future researchers can evaluate university industry linkages.

The study has provided insight into the symbiotic relationship between the industry and the university whereby both tap from each others’ resources for their mutual benefit. The business community apart from benefiting from the vast market provided by the university also taps on the knowledge endowment in the institution. The university on the other hand, apart from getting a market for its programmes, also connects to the industry as a gesture of good corporate responsibility. This study therefore shows direction into corporate activities that can lead to economic development as well as promoting good neighborhood between academic institutions and the business community.
5.5 Recommendations

The study investigated university industry linkages and the accessibility of BDS by MSEs neighbouring St. Augustine University in Tanzania. The findings showed a statistically significant relationship between the university industry linkages and BDS accessibility by MSEs. Based on these findings the following recommendations are made.

5.5.1. Recommendation to Policy

The study recommends that policy makers at the university need to develop more education activities that are geared towards MSEs knowledge needs because these activities were found to influence significantly the accessibility to BDS by MSEs.

The study found university research activities not to have significant influence on BDS accessibility by MSEs. This means these services are not appropriate for MSEs especially the micro and those in the service sector as the study shows. Because research activities are key activities in the university setup, more focusing need to be done for these activities to contribute to economic development.

Universities should focus on providing more of outreach services such as; professional support, infrastructural support; business incubation services and marketing support, since they were found to influence BDS accessibility by MSEs.
5.5.2. Recommendation to Government

In the education policy of 1999, and the SME policy of 2003, the government of Tanzania has underscored the role universities can play in enhancing the development of the private sector for economic development and wealth creation (URT, 1999; and URT, 2003). This research recommends that the government need to follow-up on university curriculum development activities to promote more enterprise related programmes since they are found to enhance accessibility to BDS among MSEs.

The government needs to evaluate university outreach activities and commend those that boost economic development to encourage more institutions to devote more efforts in these activities since they influenced accessibility to BDS by MSEs. In this end the government can provide incentives to universities engaging in outreach activities that are geared towards MSEs development.

5.6. Suggestions for further research

The current study dwelt on the relationship between university industry linkages and accessibility to business development services by MSEs. Further research is needed to compare other factors influencing accessibility to BDS by MSEs in university neighbourhood.

To ascertain the impact of university BDS on enterprises, a study on the enterprises which have benefited from specific university support such as training,
could be conducted. This can give the basis of promoting specific university services for MSEs.

Further research is necessary to find out why university research activities were not significant in influencing accessibility to BDS by MSEs yet in other studies research activities especially innovations from universities were found to be an important source of product improvement and new product development.

The current study only focused on one university and only the enterprises that were in the vicinity of the university. Future researchers can conduct a survey of all universities in Tanzania and include enterprises from different locations to shed light on the general picture of the relationship between university industry linkages and BDS accessibility by MSEs. In the same note, an inclusion of all sizes of enterprises in the analysis can help us appreciate further the role of university activities in support of business development.
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R&D Management, 30(1)89-100.


Edward Elgar Cheltenham, UK.


APPENDIX A1: LETTER OF INTRODUCTION

12th Dec. 2012

Dear Respondent,

The attached questionnaire is intended to collect data on the accessibility of Business Development services (BDS) to micro and small enterprises neighbouring SAUT. The information so sought is for academic purposes only and to ensure anonymity, we do not require the name of business or your name.

Kindly support us in this endeavour by providing the required information. The questionnaire will be administered to you by the researcher/research assistant at your business premises. The questionnaire items will be read to you and clarifications made where necessary to enable you respond as accurately as possible.

The findings will enable the university to offer the necessary support to businesses in its neighbourhood in a more coordinated way. The findings will further help in improving the relationship between the university and the business community.

Thank you for your time to respond to the questionnaire.

Sincerely Yours,

NKIRINA S. P.

Marketing Department,
St. Augustine University of Tanzania
Phone: 0755021932
Mwanza, Tanzania.
APPENDIX A2: BUSINESS OWNERS’ QUESTIONNAIRE

Part A: Background Information

1. Type of business?
   a). Trade and Commerce (General supplies shop) [ ]
   b). Catering Services (food vendors (mama ntilie), hotels, bars and restaurants) [ ]
   c). Fishing and fish mongering [ ]
   d). Secretarial services (stationery shop, cyber café etc) [ ]
   e). Agribusiness (Grocery store, dairy and poultry firm) [ ]
   f). Light Manufacturing (fish processing, brick making, furniture making, posho mills etc) [ ]
   g). Building and Construction [ ]
   h). Accommodations (Hostels, guest houses, residential rental houses) [ ]
   i). Transport (Daladalas, bodabodas, taxis, and car hire services) [ ]
   j). Beauty Parlours (Barbershop, hair dressing salons, beauty products shops) [ ]
   k). Education (schools, kindergarten, colleges/training institute etc) [ ]
   l). Clothing and Textile (tailors and dress makers, clothes stores, shoe repairs) [ ]
   m). Banking and financial services (Commercial banks, M-pesa agents, MFIs etc) [ ]
   n). Others (specify) [ ]

1b). Is your business enterprise registered under any formal agency eg. City council licensing?

   Yes [ ]
   No [ ]

2. Gender of owner:
   [ ] Female [ ] Male

2b. Age of owner(s) of the business in years____________________________

3. What is your Education level?
   a). Primary school and below [ ]
3b. How old is your business in years? 

4. How many employees do you have in your business including yourself currently?

---

**Part B: Business Development Services Accessibility by MSEs**

5. In the course of your business operations, how many of the services listed below do you have access to? *(Please indicate the number in each category on the space provided)*

**Business Development Services**

**Training Based Services**
- Management Training
- New product development Training
- New Technology adaptation training
- Business Plan writing training
- Financial Management training
- Entrepreneurship training
- Waste management training
- Access to qualified manpower
- Technical training in specific business areas
- Customer care Training
Research based services

Marketing research services
Product improvement issues Customer surveys
Government policy research
New technology research
New product development assistance
New innovations in your line of business
New inputs supplies in your line of business (machinery, raw materials)
New business processes
Product quality control and testing services
Customer surveys

Outreach Services

Taxation issues handling assistance
Procurement and inventory control issues handling assistance
Legal issues handling assistance
Human resources issues handling assistance
Business plan writing assistance
Sales promotion services /exhibitions
Business structuring assistance services
Financial sources advice
Markets/tenders and opportunities to sell more goods
Information and business counseling services
Promotion media (radio, T.V, print media, billboards)
Provision of Space / premises for operating the business
Banking/ financial institutions services
Roads construction and Maintenance services
Utilities (Clean tapped water, electricity and telephone services)
Waste management facilities (sewerage systems, public toilets, garbage collection services)
Security services provision
Extension support services (agricultural, animal husbandry, fishing etc.)
Networking with government and donors activities
Conferences/workshops for discussing MSE issues

6. Of the BDS categories (training, research and outreach) listed above, which category do you consider to be the most accessible to you? (circle the number representing your choice)

1. Training related BDS  2. Research related BDS  3. Outreach related BDS

PART C: Education and Training Activities

7. In a scale of 1-5 rate the extent to which university business management training activities contributed to your accessibility of BDS listed in Q5? (Circle number representing your response).


8. In a scale of 1-5 rate the extent to which university technical training in specific areas have contributed to your accessibility of BDS listed in Q5. (Circle number representing your response).

PART D: Research Activities

9. In a scale of 1-5 rate the extent to which university innovations contributed to accessibility of BDS listed in Q5. (Circle number representing your response).


10. In a scale of 1-5 rate the extent to which university contracted research activities have contributed to your accessibility of BDS listed in Q5. (Circle number representing your response).


PART E: University Outreach Activities

11. In a scale of 1-5 rate the extent to which university professional support activities have contributed to your accessibility of BDS listed in Q5. (Circle the number representing your response).


12. In a scale of 1-5 rate the extent to which university infrastructural support initiatives has contributed to your accessibility of BDS listed in Q5. (Circle number representing your response).


13. In a scale of 1-5 rate the extent to which university business incubation services contributed to your accessibility of BDS listed in Q5. (Circle the number representing your response).

14. In a scale of 1-5 rate the extent to which university marketing support activities contributed to your accessibility of BDS listed in Q5. (Circle number representing your response).


END

THANKYOU FOR YOUR COOPERATION
APPENDIX B: INTRODUCTION LETTER TO INTERVIEWEES

December 2012.

Dear Interviewee,

In a tracer study conducted by the faculty of Business Administration in the year 2010/2011, it was found out that university-business linkages are not well developed at SAUT. Of particular concern is the poor preparedness of students in venturing into self-employment. Though SAUT has taken several measures to improve this scenario, among them initiating the business incubation center and the proposed SAUTEC, little is known on how the core activities of the university (Academic programmes, Research & consultancy services, and community outreach) has contributed to the support of MSEs to enable them run ventures that can act as learning avenues for our students.

It is on this understanding and being motivated by Mwalimu J. Nyerere’s vision of a university to contribute to the subjects of immediate concern to the society within which institutions of higher learning operate, that this interview is being conducted. Given the diversity of our programmes and the sheer number of our students, we can be a valuable resource in offering support to business community in our neighbourhood.

Kindly allow us to interview you for more insights into university business linkages for the promotion of business development support services access among MSEs in our neighbourhoods and Tanzania in general.

Thank you for your time in this endeavour.

Sincerely Yours,

NKIRINA S. P.
Entrepreneurship Researcher,
Marketing Department
St. Augustine University of Tanzania,
Mwanza Campus.
APPENDIX B2: INTERVIEW GUIDE FOR UNIVERSITY MANAGEMENT

A). BACKGROUND INFORMATION

1. Level in management structure.

i) Top Management (V.C, DVCs)

ii) Middle Level Management (Corporate counsel, Bursar, Deans, and Directors of Units)

iii). Line Managers (Heads of departments, heads of units and project managers)

B) EDUCATION AND TRAINING ACTIVITIES

2. In your view how does the university education and training activities contribute to MSEs in SAUT neighbourhood to accessibility of BDS?

C). RESEARCH ACTIVITIES

3. In your opinion how does the university research activities contribute to the accessibility of BDS by MSEs in the university neighbourhood?

D) UNIVERSITY OUTREACH

4. In your opinion how does the university outreach activities contribute to the accessibility of BDS by MSEs in the university neighbourhood?

5. What other ways does the university engage in to promote accessibility of BDS by MESs in its neighbourhood?

THANKYOU FOR YOUR TIME
The Regional Administrative Secretary (RAS)
Mwanza Region
TANZANIA

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR NKIRINA SEVERINA PETER

I write to introduce Ms. Nkirina Severina Peter who is a Lecturer at St. Augustine University of Tanzania. She is registered at Kenyatta University for a Ph.D degree programme in the Department of Business Administration.

Ms. Nkirina intends to conduct research for a proposal entitled, “Contribution of University-Business Linkages to Business Development Services Access by Micro and Small Enterprises Neighboring St. Augustine University in Tanzania” and needs to collect data to accomplish that objective.

Any assistance given to her will be highly appreciated by St. Augustine University of Tanzania.

If you need any clarifications about Ms. Nkirina’s work, you can contact me at hbandiho@yahoo.com or call me at 0754-051-699

Thank you for your cooperation.

Yours Sincerely,

[Signature]

Dr. Hellen A. Bandiho
Director, Postgraduate Studies, Research, and Consultancy
Ref. Na. DA.333/372/01/74

District Commissioner, NYAMAGANA.

RE: RESEARCH PERMIT TO NKIRINA SEVERINA PETER

Please refer the subject above.

This is to inform you that the mentioned person above is boniface student of the University of St. Augustine of Tanzania currently his conducting research, the title of the research in question is "Contribution of University -Business Linkages to Business Development Services Access by Micro and Small Enterprises Neighboring St. Augustine University in Tanzania".

Kindly I request your good office to facilitate the permission.

Thanks for cooperation.

A. Swaleh
For: REGIONAL ADMINISTRATIVE SECRETARY MWANZA

Copy: Nkirina Severina Peter
Student
APPENDIX D3: RESEARCH PERMIT FROM NYAMAGANA DISTRICT
ADMINISTRATIVE SECRETARY

JAMHURI YA MUUNGANO WA TANZANIA

OFISI YA WAZIRI MKUU

TAWALA ZA MIKOA NA SERIKALI ZA MITAA

WILAYA YA NYAMAGANA

Anwani ya Simu: "ADMIN"
Simu Na.: 028-2501046
Unapojibu tafadhali taja:

OFISI YA MKUU WA WILAYA
WILAYA YA NYAMAGANA,
S.L.P 1148
MWANZA

Kumb. Na. DC/P.20/2/ Tarehe: 08/02/2013

Kwa: 

ARISA MTEREASI

KATIA TAA MKOLANI

MTEREASI

YAH: KIBALI CHA KUFANYA UTAFITI WILAYANI NYAMAGANA
NDUGU: NKIRINA SEVERNA PETR

Mtajwa hapo juu ni Mwanafunzi/Wamanafunzi wa

ST. AUGUSTINE UNIVERSITY OF TANZANIA

..........................................................
Ameruhusiwa/Wameruhusiwa kufanya
utafiti kuhusu

CONTRIBUTION OF UNIVERSITY BUSINESS LINKAGE TO BUS
DEVELOPMENT: RELIABLE ACCESS BY M.C.E. NOCHI
ST. AUGUSTINE UNIVERSITY OF TANZANIA

wilayani Nyamagana.

Tafadhali apewe/wapewe msaada na ushirikiano atakaohitaji/watakaohitaji ili

kufanikisha utafiti huo.

Kny: KATIBU TAWALA WA WILAYA
NYAMAGANA

Nakala kwa: Mkuu wa Chuo SAUT
MWANZA
APPENDIX D: LIST OF MICRO AND SMALL ENTERPRISES NEIGHBOURING ST. AUGUSTINE UNIVERSITY IN TANZANIA

<table>
<thead>
<tr>
<th>S/N.</th>
<th>Name of business/ type of business</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Malimbe bodaboda</td>
</tr>
<tr>
<td>2</td>
<td>M-pesa point</td>
</tr>
<tr>
<td>3</td>
<td>Green Grocery kiosk</td>
</tr>
<tr>
<td>4</td>
<td>Bags and leather products</td>
</tr>
<tr>
<td>5</td>
<td>Friends corner</td>
</tr>
<tr>
<td>6</td>
<td>Ramadhan Electrical shop</td>
</tr>
<tr>
<td>7</td>
<td>Release me Tailoring shop</td>
</tr>
<tr>
<td>8</td>
<td>Triple “A” Saloon and Beauty Shop</td>
</tr>
<tr>
<td>9</td>
<td>University corner cutz</td>
</tr>
<tr>
<td>10</td>
<td>Wraps Taste Grill</td>
</tr>
<tr>
<td>11</td>
<td>Udoba Kiosk General supplies</td>
</tr>
<tr>
<td>12</td>
<td>MOU Nyama Choma</td>
</tr>
<tr>
<td>13</td>
<td>Shoe Repair</td>
</tr>
<tr>
<td>14</td>
<td>New Mpesa services</td>
</tr>
<tr>
<td>15</td>
<td>Gogo restaurant</td>
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<tr>
<td>16</td>
<td>Upendio butchery</td>
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<tr>
<td>17</td>
<td>B4U Saloon</td>
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<tr>
<td>18</td>
<td>Three ways Saloon</td>
</tr>
<tr>
<td>19</td>
<td>Doroth Photocopy &amp; Stationary services</td>
</tr>
<tr>
<td>20</td>
<td>Elen Secretarial Services</td>
</tr>
<tr>
<td>21</td>
<td>Zandook stationery</td>
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<tr>
<td>22</td>
<td>Njoka stationery</td>
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<tr>
<td>23</td>
<td>Mchungi secretarial services</td>
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<tr>
<td>24</td>
<td>Pendo secretarial services</td>
</tr>
<tr>
<td>25</td>
<td>Sleek touch Hair dressing &amp; beauty shop</td>
</tr>
<tr>
<td>26</td>
<td>P. star secretarial services</td>
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<tr>
<td>27</td>
<td>France nyama choma</td>
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<tr>
<td>28</td>
<td>Imani hair saloon and cutz</td>
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<td>29</td>
<td>Balaka medical store</td>
</tr>
<tr>
<td>30</td>
<td>Niggers one public hair cutz</td>
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<tr>
<td>31</td>
<td>Aulora secretarial services</td>
</tr>
<tr>
<td>32</td>
<td>Massah secretarial services</td>
</tr>
<tr>
<td>33</td>
<td>God only shop</td>
</tr>
<tr>
<td>34</td>
<td>Maria stationery</td>
</tr>
<tr>
<td>35</td>
<td>Nairo cosmetics</td>
</tr>
<tr>
<td>36</td>
<td>M.M Secretarial services</td>
</tr>
<tr>
<td>37</td>
<td>KUM and brothers</td>
</tr>
</tbody>
</table>
38  Eddy secretarial services
39  SBJ hair dressing
40  Kampala Stationery
41  DHD stationery
42  JTC stationery
43  Faith Stationery
44  New classic cyber café’
45  Holland Fast food
46  Mama Harriet Stationery
47  Charity Secretarial Services
48  Kamuhanda shop
49  Jabraste mini market
50  Jose stationery
51  Serengeti stationery
52  K.B shoe repair
53  Dozana fast food
54  Vivy saloon and beauty shop
55  Jodari stationery
56  Green grocer
57  Malimbe cyber café’
58  K.D. stationery
59  Kili saloon
60  Furaha cyber café’
61  ATM usafiri
62  Nsumba malimbe daladala
63  M.B. society dress making and tailoring
64  Swalala secretarial services
65  Bongo sapien shop
66  Mabala hair cutz
67  Bethlu shop
68  H.K. stationery
69  Mamka garment stall
70  Shalom beauty shop & saloon
71  Stadi shop
72  K.P. hair dressing saloon
73  Chelsea Mmarekani hair cutz
74  F & J food joint and bar
75  Antex enterprises limited
76  Nyegezi mini shop
77  Bubble hair dressing
78  Pamba shop
79  Faith stationery
80 Method café
81 Ebenezer secretarial services
82 Lucy stationery
83 Super galaxy shop
84 Kinolu general company ltd
85 Damas stationery & secretarial services
86 F&J. shop
87 Snark restaurant and food café
88 Pazima construction company ltd
89 DTI enterprises
90 SAUT shop
91 Rukya winery enterprises
92 SAUT farm
93 Kashekulo catering services
94 Burger point catering services
95 Mama mkinga catering services
96 St. Joseph Hostels
97 Furniture makers
98 Posho mill
99 Acute security services
100 Uzunguni hosteli
101 Elia Mpesa Point
102 Mzanzibari shop
103 Maisha plaza Hosteli
104 Fish dealer
105 Kristu mfalme accommodation services and business center

Source: SAUT Estate Manager’s office, Mkolani Ward Executive Office (WEO) and a physical head count of enterprises at the university neighbourhood.