DETERMINANTS OF SUSTAINABILITY FOR WOMEN OWNED MICRO-ENTREPRISES IN THE COUNTY OF VIHIGA IN WESTERN KENYA

BY

NECCY FLORENCE MUNAGI KIKAYA

UNITED STATES INTERNATIONAL UNIVERSITY – AFRICA

SPRING 2018
DETERMINANTS OF SUSTAINABILITY FOR WOMEN OWNED MICRO-ENTREPRISES IN THE COUNTY OF VIHIGA IN WESTERN KENYA

BY

NECCY FLORENE MUNAGI KIKAYA

A Research Project Report Submitted to the Chandaria School of Business in Partial fulfilment of the Requirements for the Award of the Degree of Masters of Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY – AFRICA

SPRING 2018
STUDENT’S DECLARATION

I, the undersigned declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University-Africa in Nairobi for academic credit

Signed: _____________________                      Date: _________________________
Neccy Florence Munagi Kikaya
Student ID.No.644597

This Project has been presented for examination with my approval as the appointed Supervisor

Signed: _____________________                      Date: _________________________
Dr Joseph Ngugi Kamau

Signed: _____________________                      Date: _________________________
Dean, Chandaria School of Business
COPY RIGHT

ALL RIGHTS RESERVED. No part of this research paper may be replicated, recorded, stored in a retrieval system or transmitted in any form, whether electronic or mechanical means without notifying and seeking prior consent of USIU-Africa or the author.

Copyright © 2018 Neccy Florence Munagi Kikaya
ABSTRACT

The purpose of the research was to explore the determinants of sustainability of women-owned microenterprises (WOEs) in the County of Vihiga in Western Kenya. Study responses focused on Necessity Initiatives Solutions Enterprises’ (NISE’) members - a locally established microfinance/NGO, as a case to unravel the challenges faced by women in starting, running and growing their micro businesses to sustainability. The following research questions sought to achieve: to what extent is Competition a determinant of sustainability of women-owned microenterprises?; to what extent is Capital Accessibility a determinant of sustainability of women-owned microenterprises?; to what extent does women’s Domestic Attachment a determinant of sustainability of women-owned microenterprises?; to what extent is Information Technology (IT) a determinant of sustainability of women-owned microenterprises?

The research engaged a descriptive approach on the influence of competition, capital accessibility, domestic attachment and information technology on microenterprise sustainability. The target population was derived from women registered members of NISE composed of 300 respondents. The study applied probability sampling technique to generate a sample frame, in this case, a membership list which allowed the coming up with a sample size, and the study settling on 168 respondents. Primary data was collected directly from respondents using structured questionnaires and analysed using descriptive statistics and inferential statistics on SPSS 24. Multiple regression analysis was used to test for normality, reliability, validity through correlation, analysis of variance, and factor analysis to determine the relationship of dependent and independent variables. Presentation of the study results were by the use of tables, bar graphs and pie charts.

Study analysis found Competition to have significant relationship with microenterprise sustainability. Competition had a negative and significant coefficient value ($\beta=0.192$, $T$-value =-2.743, $p<0.05$). The negative relationship means, if competition decreases by 1, microenterprise sustainability will decrease by 0.192. Capital accessibility had a positive and significant coefficient value ($\beta=0.572$, $T$-value =6.535, $p<0.05$). The positive relationship means, if Capital Accessibility increases by 1, microenterprise sustainability will increase by 0.572. Similarly, Domestic Attachment has a negative and significant relationship coefficient value ($\beta=-0.168$, $T$-value =-2.100, $p<0.05$). The negative
relationship means that if domestic attachment reduces by 1, microenterprise sustainability decreases by -0.168. Lastly, Information Technology has positive and significant relationship coefficient value ($\beta=0.211$, $T$-value $=2.185$, $p<0.05$). The positive relationship meant if, information technology increases by 1, microenterprise sustainability will increase by 0.211. Therefore variance in endogenous variable is explained by the exogenous variables with path coefficients of -0.192, 0.572, -0.168 and 0.211 respectively. The perceived quality $R^2$ value indicated 43.4% which can account for the variance in the Microenterprise sustainability with competition and domestic attachment influenced negatively, while capital accessibility and IT influenced positively.

The study concluded firstly that competitive advantage be the focus by women entrepreneurs for their micro businesses to survive to sustainability. Creativity and innovativeness is actively encouraged, together with differentiation, uniqueness of products and the desire of the individual entrepreneur to be different from other sellers in the marketplace. Secondly, capital accessibility is the biggest challenge and a stumbling block due to lack of collateral. Relatives, friends and spouses can improve the accessibility by contributing funds for boosting, expanding and managing the business. Other forms of funding/lending like Women Enterprise Fund and Youth Fund be fully explored and utilized. Thirdly, creating a balance between domestic responsibility and running a business is encouraged with the support of relatives and friends. Fourthly, rural women should be facilitated to access IT, acquire mobile phones/banking and networking.

In future, further research should be carried out by scholars on the same or similar topic that evaluates specific Kenyan communities, counties or regions on microenterprises’ sustainability of women owned micro-businesses. Furthermore, additional studies on the specific role(s) of the mobile phone and mobile money transfer platform like Safaricom M-Pesa or any others that enhance success of micro-enterprises be investigated. Challenges and impediments facing women entrepreneurs and any other factors that influence the sustainability of women owned micro businesses are minimised. The study also can be a source to guide in the development of new researches on related topics, and on the emerging challenges and viewed opportunities.
ACKNOWLEDGEMENT

First and foremost, I thank the Almighty God for giving me breath of air.

Secondly, I wish to acknowledge various people who have been instrumental in this study. In particular, my appreciation goes to Dr Joseph Ngugi Kamau of United States International University for accepting to supervise me and my work. Especially the tireless efforts and dedication exuded to see the completion of this project and for showing a lot of confidence in me and my ability to complete this thesis.

Many thanks to my entire family: starting with my husband David Kenda Adaka Kikaya for giving moral, financial and spiritual support. My children – Libese Jean, Avoga Sally, Enyumu Samson, Aggrey, for showing concern and gave moral supported throughout the entire period of study, and when writing this thesis. Each one of them read a portion of this study, made corrections or commented.

I recognize and appreciate the assistance offered by the USIU staff members throughout the research period.

To all of you who gave me insights, encouragement and information directly or indirectly on this thesis, I salute you all. Unfortunately, limitation of this paper will not allow me to mention each one of you by name, please accept my sincere thanks.
DEDICATION

To my dear parents, Inziano Harun Agesa and Martha Julia Avoga who always believed and instilled in me the ethics of hard work, the idea of personal responsibility and focus. My siblings – Museve Francis, Kidiga Simon, Ganihitsu Maurice, Nyagi Diana, Amope Fanice and Lidede Elizabeth

God Bless
TABLE OF CONTENTS

STUDENT'S DECLARATION ................................................................. ii
COPY RIGHT .................................................................................. iii
ABSTRACT .................................................................................... iv
ACKNOWLEDGEMENT .................................................................. vi
DEDICATION .................................................................................. vii
LIST OF TABLES ............................................................................ x
LIST OF FIGURES .......................................................................... xi
ABBREVIATIONS AND ACRONYMS .................................................. xii

CHAPTER ONE .................................................................................. 1
1.0 INTRODUCTION ........................................................................... 1
  1.1 Background of the Study ........................................................... 1
  1.2 Statement of the Problem ......................................................... 8
  1.3 Purpose of the Study ............................................................... 10
  1.4 Research Questions ............................................................... 10
  1.5 Significance of the Study ........................................................ 10
  1.6 Scope of the Study .................................................................. 11
  1.7 Definition of Terms ............................................................... 12
  1.8 Chapter Summary .................................................................. 13

CHAPTER TWO .................................................................................. 14
2.0 LITERATURE REVIEW ............................................................... 14
  2.1 Introduction .............................................................................. 14
  2.2 Competition as a Determinant of Sustainability of Women Owned Microenterprises ......... 14
  2.3 Capital Accessibility as a Determinant of Sustainability of Women Microenterprises ............ 20
  2.4 Domestic Attachment as a Determinant of Sustainability of Women Microenterprises ........... 26
  2.5 Information Technology as a Determinant of Sustainability of Women Microenterprises ....... 31
  2.6 Chapter Summary ................................................................... 36

CHAPTER THREE .............................................................................. 37
3.0 RESEARCH METHODOLOGY .................................................... 37
  3.1 Introduction .............................................................................. 37
  3.2 Research Design ...................................................................... 37
  3.3 Target Population and Sampling Design .................................... 38
  3.4 Data Collection Methods ........................................................ 41
  3.5 Research Procedures ............................................................. 43
  3.6 Data Analysis Methods ........................................................... 46
  3.7 Chapter Summary ................................................................... 48
CHAPTER FOUR ........................................................................................................... 49
4.0 RESULTS AND FINDINGS .................................................................................... 49
  4.1 Introduction ........................................................................................................ 49
  4.2 Response Rate .................................................................................................... 49
  4.3 General Information .......................................................................................... 49
  4.4 Descriptive Statistics of Variables ..................................................................... 55
  4.5 Normality Test .................................................................................................... 58
  4.6 Confirmatory Measurement Model ................................................................. 58
  4.7 Structural Model Estimation ............................................................................. 65
  4.8 Regression Weights .......................................................................................... 66
  4.9 Predictive Relevance of the Model .................................................................. 67
  4.10 Results and Findings ....................................................................................... 67
  4.11 Chapter Summary ............................................................................................ 67

CHAPTER FIVE .............................................................................................................. 69
5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS ............................. 69
  5.1 Introduction ........................................................................................................ 69
  5.2 Summary ............................................................................................................ 69
  5.3 Discussion .......................................................................................................... 71
  5.4 Conclusions ...................................................................................................... 78
  5.5 Recommendations ............................................................................................ 79

REFERENCES .............................................................................................................. 82
APPENDICES ............................................................................................................... 96
APPENDIX I: QUESTIONNAIRE ............................................................................... 96
APPENDIX II: TRANSMITTAL LETTER ..................................................................... 99
LIST OF TABLES

Table 4.1: Response Rate ..................................................................................................................49
Table 4.2: Nature of Business..........................................................................................................52
Table 4.3: Influence of Competition on Enterprise Sustainability ................................................55
Table 4.4: Influence of Capital Accessibility on Enterprise Sustainability ..................................56
Table 4.5: Influence of Domestic Attachment on Enterprise Sustainability ..............................56
Table 4.6: Influence of Information Technology on Enterprise Sustainability ...........................57
Table 4.7: Microenterprise’s Sustainability ......................................................................................57
Table 4.8: Normality Test Using Skewness and Kurtosis .................................................................58
Table 4.9: KMO and Bartlett's Test .................................................................................................59
Table 4.10: Total Variance Explained ............................................................................................60
Table 4.11: Pattern Matrix ...............................................................................................................61
Table 4.12: Model Fits for CFA Model ............................................................................................62
Table 4.13: Construct Reliability ....................................................................................................63
Table 4.14: Correlation Matrix ........................................................................................................64
Table 4.15: Model Fits for Structural Model ....................................................................................65
Table 4.16: Regression Weights .......................................................................................................67
LIST OF FIGURES

Figure 4.1: Age of the respondents ................................................................. 50
Figure 4.2: Age at the start of the business ..................................................... 50
Figure 4.3: Highest level of education .............................................................. 51
Figure 4.4: Marital status .............................................................................. 51
Figure 4.5: Period the business has been in Operation ..................................... 53
Figure 4.6: Business ownership ...................................................................... 53
Figure 4.7: Starting Capital ............................................................................. 54
Figure 4.8: Current Capital Status ................................................................. 54
Figure 4.9: Confirmatory Factor Analysis Model for Study Variables ............. 62
Figure 4.10: Structural Model for the Relationship of the Study Variables ...... 65
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>AVE</td>
<td>Average Variance Extracted</td>
</tr>
<tr>
<td>BDS</td>
<td>Business Development Services</td>
</tr>
<tr>
<td>BESTAP</td>
<td>Business Environment Strengthening Technical Assistance Project</td>
</tr>
<tr>
<td>BOP</td>
<td>Bottom of the Pyramid</td>
</tr>
<tr>
<td>CBOs</td>
<td>Community Based Organizations</td>
</tr>
<tr>
<td>CFA</td>
<td>Confirmatory Factor Analysis</td>
</tr>
<tr>
<td>CVD</td>
<td>Connected Value Development</td>
</tr>
<tr>
<td>EFA</td>
<td>Exploratory Factor Analysis</td>
</tr>
<tr>
<td>FIELD</td>
<td>Fund for Innovations, Effectiveness, Learning &amp; Dissemination</td>
</tr>
<tr>
<td>FIT</td>
<td>Fluency with Information Technology</td>
</tr>
<tr>
<td>GBA</td>
<td>Global Bank Alliance for Women</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>IO</td>
<td>Industrial Organization</td>
</tr>
<tr>
<td>KMO</td>
<td>Kaiser-Meyer-Olkin</td>
</tr>
<tr>
<td>LDC</td>
<td>Least Developed Countries</td>
</tr>
<tr>
<td>MBV</td>
<td>Market Based View</td>
</tr>
<tr>
<td>ME</td>
<td>Micro Enterprises</td>
</tr>
<tr>
<td>MSMEs</td>
<td>Micro and Small Medium Enterprises</td>
</tr>
<tr>
<td>MFI</td>
<td>Micro Finance Initiatives</td>
</tr>
<tr>
<td>MFIELD</td>
<td>Microenterprise Fund for Innovations, Effectiveness, Learning Dissemination</td>
</tr>
<tr>
<td>M4P</td>
<td>Marking Markets Work for the Poor</td>
</tr>
<tr>
<td>MPESA</td>
<td>Mobile Money</td>
</tr>
<tr>
<td>NDE</td>
<td>Necessity-Driven Entrepreneur</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organizations</td>
</tr>
<tr>
<td>NISE</td>
<td>Necessity Initiatives Solutions Enterprises</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization of Economic Co-operation Development</td>
</tr>
<tr>
<td>ODP</td>
<td>Opportunity-Driven Entrepreneur</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organisation</td>
</tr>
<tr>
<td>USAID</td>
<td>United States of America International Development</td>
</tr>
<tr>
<td>RVB</td>
<td>Resource Based View</td>
</tr>
<tr>
<td>SADC</td>
<td>Swiss Agency for International Development</td>
</tr>
<tr>
<td>SCA</td>
<td>Sustainable Competitive Advantage</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>SHGs</td>
<td>Self Help Groups</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
</tr>
<tr>
<td>PCA</td>
<td>Principal Components Analysis</td>
</tr>
<tr>
<td>PSDP</td>
<td>Private Sector Development Programme</td>
</tr>
<tr>
<td>WEF</td>
<td>Women Enterprise Fund</td>
</tr>
<tr>
<td>WOE</td>
<td>Women-Owned Enterprises</td>
</tr>
<tr>
<td>WOMEs</td>
<td>Women-Owned Microenterprises</td>
</tr>
<tr>
<td>YF</td>
<td>Youth Fund</td>
</tr>
</tbody>
</table>
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Tar, Mijah and Tedheke (2016) argues in “Globalization in Africa”, as the phenomenon that often assumes to hold the key to rapid economic growth and development. Globalization has an enduring legacy that is carried forward to the contemporary era. Systematically, the reported consequences of globalization include: increasing poverty, inequality, unemployment, inflation, economic crisis, instability and insecurity. The most affected by this phenomenon are women who are considered to be at the bottom of the pyramid (BOP) (Dolan, 2012). They are the bulky of the society. Brewer and Gibson (2014) reckon that most women engage in micro entrepreneurial activities to participate in economic growth, empowerment and for their own survival. They are driven more by need –“necessity driven entrepreneurs” (NDEs), (Kelley, Brush, Greene & Litovsky, 2011; Brewer& Gibson, 2014) as opposed to seeing opportunity- “opportunity-driven entrepreneurs” (ODEs) or self-employment, to escape poverty (Calderon, Iacovone, & Juarez, 2016).

Barringer and Ireland (2012), describe ‘Entrepreneurship’ as the art of turning an idea into a business, and acknowledges entrepreneurship as one of the engines for economic growth that drives the development agenda in many countries of the world. World Bank (2009) acknowledges women entrepreneurship as comprising about half of human resources in developing economies. The report also identifies women entrepreneurs as key facilitators of micro economic development and sustainability in their communities. Kelley, Brush, Greene and Litovsky (2011) recognise the great value that women entrepreneurship brings to many societies and endeavour to provide guidance for efforts shown towards equipping women with capabilities needed, including the ability and zeal to launch, operate, and creating environments in which their businesses can thrive and be sustained.

The question of sustainability of micro enterprises (MEs) is a lingering issue, given the many factors and constraints involved that impede women to realize their full potential. Gichuki, Mulu-Mutuku and Kinuthia (2014), contends that majority of women
entrepreneurs are owning their micro/SMEs in developing countries. Women in Africa for example, are a powerful force for growth and development in their countries. Shah and Saurabh (2015) raises concern about sustainability of women owned microenterprises (WOMEs) in India from a specific perspective – that of the enterprises being set up as income-generating projects, alleviating poverty and enhancing women’s status mainly. Women’s potential in microenterprises is great; however, their recognition is minimal (Gichuki et al., 2014). Perceived as the core element in the theory of economic development, microenterprises count as the largest business sector of economies dominated by women worldwide.

Gichuki, Njeru and Tirimba (2014) accept, in the African context that micro, small and medium enterprises (MSMEs) are viewed as key drivers of economic and social development. From a Kenyan economy perspective, the micro businesses sector (“the Kadogo Economy”) has both the potential and the historic task of bringing millions of people from the survivalist level including the informal economy (“Jua Kali”), to the mainstream economy. Because of their worth, WOE must be sustained in the face of the myriad of constraints experienced by the women. Challenges faced by Indian women (Shah & Saurabh, 2015) include “exploitation by middlemen (cartels), family (domestic) responsibilities, social norms (culture, customs and values), male domination, the lack of initiatives by Indian women to explore the outside world to extend their horizons and much more. Equally is the access to information, technical know-how, training, market assistance, microcredit and generally opening to up their horizons” (Shah et al., 2015).

United Nations Development Programme (2012) agrees on sustainability of women owned businesses as requiring more market study than that done of previous decades. Focus and concentration should mostly be geared upon problems that hamper on growth. Sustainability of these micro enterprises is the vitality and the underlying principle for supporting economic sovereignty (UNDP, 2012).

A list of core determinants of sustainability for WOE can be derived from the discussion that follows below in the study. In pointing out comparisons of women entrepreneurship across various groups and communities in various countries, one can conceive the numerous diverse ways in which women may experience common challenges, barriers, impediments and constraints that impact negatively in the growth and sustainability of their micro businesses. For purposes of this study, any prior research already done on
small and medium enterprises (SMEs), may significantly apply to microenterprises (MEs) in the 21st Century. The researcher encourages the read on SMEs as including (MEs).

World Bank Group (2014) informs of women being disproportionately faced with financial access barriers in their effort to participate in the economy and improve their lives. Karanja (2014) highlights the lack of affordability capital. From the many empirical studied and shared, most indicate access to affordable credit as the first and most critical determinant to growth and sustainability of the enterprises. Cantwell (2014) identifies lack of effective programmes of microcredit (loan) providers and their accessibility as one of the serious constraints facing WOEIs that is hindering their progress in development. World Bank (2010) shares similar sentiments although it deduces credit alone as not the only determinant of the sustainability of SMEs; but points to other factors such as the ability of women to create savings, and access information technology. Fair “competition” (Hollensen, 2015) in the marketplace for entrepreneurs could also be significant in determining better sustainability of these MSMEs in developing countries.

Organisation of Economic Co-operation Development (2000) generally accepts that many of the “traditional problems facing MSMEs include lack of financing; difficulty in exploiting technology, constrained managerial capabilities; low productivity, and regulatory burdens. All these impediments become acute in the globalised technology-driven environment, a factor to be highly embraced”. United Nations Industrial Development Organisation (2014) contributing to sustainable development goals (SDGs) agenda, endeavours to support women acquire skills and access financial resources, but cautions that women’s barriers in operating MSMEs’ should not be generalized to the weak institutional support and/or lack of access to credit only, but also to gender specific business issues such as - lack of collateral due to uneven sharing of privatizing gains, lack of networks and traditional views in women roles. Women generally have greater difficulty in obtaining credit, finding businesses partners, getting information on opportunities (Shah & Saurab, 2015). In most cases, any pointer to opportunities fosters women access to self-employment and necessity entrepreneurship (Brush et al., 2010), lack of access to capital especially, and the control of numerous dimensions of women owned enterprises over resources, limits women in realizing the sustainability of their enterprises.
According to Mano, Iddrisu, Yoshino and Sonobe (2012), most empirical studies show access to affordable credit as being a critical determinant to growth and sustainability of enterprises. The role of social mobilization and the introduction of microcredit for women empowerment have equally proved important in accessing credit but more needs to be done. Shah and Saurabh (2015) observes that informal credit schemes or client-friendly credit schemes, that are based on savings mobilization and market oriented interest rates, would guarantee self-reliance of the entrepreneur, reducing external lending support and dependency on shylocks for sustainability of the project. However, the extent to which micro-credit alone has elevated women’s status and the autonomy for micro-entrepreneurship to alleviate poverty is still unclear (Mano et al., 2012). From a policy perspective, (Brewer & Gibson, 2014) explains the importance of understanding the underlying entrepreneurial motives and intentions of the individuals (entrepreneurs) if effective entrepreneurial encouragement and support programmes are to be developed. This should be from the onset, then made readily available and implemented.

In Iranian (Kelley, Brush, Greene & Litovsky, 2011) observes that women face no historical or legal/official barriers to economic participation. This is dwarfing the gender issue. Women entrepreneurs in Iran are fewer in relation to men because of cultural expectation, lack of business skills and financial barriers. Adema, Ali, Frey, Kim, Lunati, Piacentini and Queisser (2014) points to the gender gap in both the UK and USA economies as relating especially in the manner that both women and men access their entrepreneurial capabilities. Attitudes play a major role for these women as they may fail to utilise a bank loan facility for fear of rejection by banks. Lack of available financial support, and complexities of the administrative processes, bring problems for women (OECD, 2014). Research by the Center for Women Business Research in United States Economic Commission for Europe (2009) found access to information and capital were concerns share by over six countries. The fear of bankruptcy is also an obstacle to WOEs start-ups, leave alone growing and sustaining (European Commission, 2013). Both the UK and USA women entrepreneurs have difficulties accessing finance because the dominated male banking world does not take them seriously. Barriers on South Eastern Europe and Americas’ women entrepreneurs’ relate to the weaknesses of financial institutions and own countries’ traditional views about property rights, technology (technical skills), property and credit (Benn, 2010; OECD, 2014).
The World Bank spearheads solutions by creating programs and research to support female entrepreneurship (United Nations, 2011). Presently, the key issues facing new and upcoming WOE s in the United States include access to capital, access to information, and access to networks. OECD (2014) cites Russian and Korean women’s difficulty in accessing finance as the key obstacle, while in China issues majorly refer to problems in obtaining the necessary information as a barrier. Equally in Korea, women business owners experience financing accessibility together with the effort to balance work and family as their most difficult challenges. World Bank Group/IFC (2016), reports on Indonesian women entrepreneurs as experiencing financing difficulties due to lack of collateral. Credit givers preferred being offered land as collateral which the rural Indonesian women do not possess and that location of the land matters. Certificate from village heads or elders is typically not accepted, adds (Gordon,2011) that Indonesian female entrepreneurs experience difficulty in exporting products overseas (global reach) and increasing the volume of production, both which are important for competition in the global markets.

Ijaza, Mwangi, and Ngetich (2014) outline five major challenges facing WOMEs in Kenya as: inadequate capital, high competition, insecurity, poor infrastructure, and loan diversion. Literature reviews on African women identify outstanding factors attributed to low performance of WOE s in Sub-Saharan Africa as including: lack of credit and savings, low levels of education and lack of entrepreneurship training (World Bank, 2010). Businesses run and owned by women can be found in emerging sectors such as production and marketing of consumer goods, commercial banking financial services, insurance, information services and transport. As owners of SMEs, women furnish local, national and multinational companies with ideal technology supplies components and business services.

Richardson, Howarth and Finnegan (2010) reveal attitude of many women entrepreneurs in Africa who think they lack expertise in certain business matter, lack skills, finance, abilities, and skills. The many issues mentioned in this study appear to relate to women’s relative inability to access funds from the financial intermediaries and the lack of exposure to the world of business. UN Women (2016) and Ban Ki-Moon, the former Secretary General of the United Nations (UN), reporting on the ‘Progress of the World Women 2015-2016’, insisted that ‘a quality education, a decent job, access to healthcare
and a life free from violence and discrimination are necessary foundations for women and girls to be equal partners with men and boys in every aspect of life’. Illiteracy in women therefore, is an impediment. Women in Africa and Asia can equally be coached in demonstrating effectiveness of their knowledge and experience base through tailored training, such as record and bookkeeping, which can lead to a list of different opportunity recognition and talents that are the basis for entrepreneurial spirit (UN Women, 2016).

Amentie, Negash and Kumera (2016) identified Ethiopia’s SMEs barriers to enterprise growth as being “strong competition in the markets, high level of interest rates on loans, poor infrastructure, speed (low) of debt payment by customers; unavailability of an appropriate property, state of the country’s economy, low market demand for firms’ products/service; pricing of competitor products, unavailability of raw materials. Additionally, the attitude (negative) of banks and low availability of finance from lenders, were rated as high barriers for SMEs business growth”. Amentie rated strongly the competition in the markets, high level of interest rates on loans, and poor infrastructure as the highest barriers for M/SMEs business growth and their sustainability in developing country (Amentie et al., 2016).

Akinboade (2014) informs of Cameroon women SMEs challenges as being “lack of access to finance, bad roads/infrastructure. The lack of rural cell/mobile phone communication that reduces financial costs and the facilitating of market information is significantly correlated with enterprise growth or employment. Additionally, the lack of confidence in the country’s judiciary can affect small businesses’ ability to access credit from banks or other financial institutions. It is because enterprise credit availability to small and micro ventures depends on the infrastructure that supports financial transactions including the legal system and the information environment. Commercial laws that effectively assign and protect property rights and their efficient enforcement are crucial for financial transactions for the entrepreneurs.

Otoo, Ibro, Fulton and Lowenberg-Deboer (2012), examined Niger business success factors for micro-entrepreneurs that involved the production and sale of street foods in Niger, West Africa, drawing on the resource-based view theory. The size of firm and the vendor's perception of enterprise growth, measured the business success. The results showed that business management experience as an important success factor, while the need for cash is a constraint for business success. “As a rare resource, limited access to
financial assets translates into limited opportunities for growth of these informal micro-enterprises into viable businesses” (Otoo et al, 2012; Gikonyo et al., 2009), observes that while different approaches have been used to improve the sustainability of MSEs owned by women in developing countries, it is alleged that for WOEs to be successful, the entrepreneurs requires basic entrepreneurial training on management of enterprises, availability of affordable loans and support from their family members.

A study of Uganda women entrepreneurs by Namatovu, Dawa, Katongole and Mulira (2012) revealed the most distressing was insufficient government support and lack of credit because the situation affected the size of the enterprise. Furthermore, women's inability to earn money was limited by certain features of Uganda’s economic market which included bad roads, inadequate transport within the country, weakly differentiated product, unspecialized markets, together with inaccessibility to foreign consumers, unreliable or absent electricity, expensive petroleum fuels, high rents, trading licences and taxes (Kyomuhendo & McIntosh, 2006). Such difficulties make it impossible for women in many parts of Uganda to raise their production or marketing activities beyond a very modest level. Some of these problems are compounded by gender factors.

Darroll (2012) acknowledges prior researches on Malawi and updates on the development support initiatives on micro, small and medium enterprises (MSMEs). The already identified myriads of constraints on this study resonate with the many challenges and problems on Malawi’s list of under-development as a country. Such barriers are acute to the growth of Malawi’s MSMEs which also impacts negatively on WOEs. Malawi is considered amongst the poorest and ranked the least developed countries (LDC), worldwide (UN Human Index, 2015). Contributory factors that include infrastructure, being a landlocked country and anon conducive business environment (UNCTAD, 2017) are major barriers faced by Malawi, let alone the women micro-entrepreneurs, who cannot effectively access local and export markets. United Nations Development Programme (2011) focuses on sustainable economic growth and poverty reduction in Malawi. Weak institutions and weak culture of entrepreneurship are amongst indigenous Malawians. Lack of access to capital, underhanded business practices in SMEs, stiff competition, overcrowded sector, traditional forms of collateral; inability to supply large orders dominate (Darroll, 2012). Lifestyle, culture are factors bearing on MSMEs development; poor repayment ethos; copycat entrepreneurs; family businesses difficulty
in collaborating with others; unethical business practices tarnishing the sector image; weak savings and investment culture; and stigmatization of those operating small business as ‘failures’ (UNCTAD, 2017). Malawi in deed has a long way to go in fostering WOE\text{\textregistered}s. The programme intervention addresses literacy and livelihood promotion through integrated approaches and private sector–led solutions.

UNDP (2013) maintains that despite efforts deployed towards economic empowerment of women, majority are confined in MSMEs. The sizes of these entities do not give the women an equal playing field for the needed growth. Size can be an impending factor to access loans and where capacity to perform is questionable. Mbugua, Njeru and Tirimba (2014) points to lack of access to business information, financial availability issues, together with competent managerial experience, which can easily lead to the stagnation and winding up. Problems include lack of information on where to source for finance, restrictive lending offered by commercial banks, lack of access to finance, insufficient financing, lack of track record required by the banks, limited access to collateral, and the fact that financial institutions lack appropriate structures to serve micro businesses and therefore, unable to expand. Mbugua adds on a cautionary note that more money than required can be much of a problem just as less money. More money means high cost in terms of interest and may also lead to un-worthwhile business (Mbugua et al., 2014). In striving to succeed, women are organizing themselves into associations of entrepreneurs in order to enhance economic policies. Women groups from various countries should highlight the diverse ways in which women may experience common challenges.

1.2 Statement of the Problem

The research seeks to explore the determinants of sustainability by unravelling persistent unwavering challenges and constraints that hinder micro entrepreneurial growth to sustainability. Such a concern is experienced by rural women entrepreneurs in Western Kenya. Women’s potential in microenterprises is great; however, their recognition is minimal (Gichuki, Njeru & Tirimba, 2014). Perceived as the core element in the theory of economic development, microenterprises count as the largest business sector of economies dominated by women worldwide, but women struggle to scale-up their micro businesses. It is controversial that in “the 21st Century, women entrepreneurs still face a glass ceiling while in the same breath, women-owned firms are the fastest growing segments of business (Cantwell, 2014). Despite the prevalent microfinance assistance,
poverty alleviation programmes and the large numbers of microcredit institutions in existence, some factors still limit women’s participation (Hammawa & Hashim, 2016). The negative persistent factors need to be studied and investigated more for women to why the barriers.

Sustainability in this research, points to improvement of easier accessibility to capital and credit, because credit overall empowers; competition – (including competiveness, uniqueness of product/services or competitive advantage); domestic attachment and family support– meaning- (women’s increased contribution to household incomes, participation, with tangible gains leadings to a more balanced economic contribution).

Previous researches and the continuing studies, tend to agree that rural women microentrepreneurs face persistent myriad of constraints during start-ups, running and scaling-up their businesses to sustainability. The UN Women 2018-2021 Strategic Plan Report for example prioritises the “empowerment of rural women and girls, by acknowledging the challenges and opportunities so far achieved through gender equality, that give women equal rights to economic resources (UN Women, 2018). However, women entrepreneurship specifically has not been put in the said priority category per see. Moreover, economic development for women tends to be seen through microfinance, but the microfinance path itself is seen mostly as a panacea for women’s poverty alleviation agendas of NGOs rather than for stable and sustainable microenterprises. As much as the microfinance factor does aid and immensely benefit women develop through microloans (Hammana & Norashidah, 2016), women’s micro-economic entrepreneurial sustainability is currently a concern, despite women entrepreneurs having untapped sources for economic growth (OECD, 2004). Their worthiness should not spring from specific perspectives where microfinance and microcredit are perceived as set up only for income-generating activities/projects, alleviating poverty only or for enhancing women’s status mainly (Shah & Saurabh, 2015). Furthermore, (USAID, 2001) briefs indicate that women-owned enterprises tend to easily stagnate, and most likely to close shop sooner than those of their male counterparts. Any framework of sustaining women micro businesses for both survival and growth is, therefore, an under estimation.

Women entrepreneurs in Vihiga County, Western Kenya region, go through similar experiences. This study discusses and the major barriers, challenges, impediment and/or constraints experienced by women owned microenterprises in different regions/countries
of the world. The study then investigates the core determinants of sustainability of women owned microenterprises specifically in the County of Vihiga, Kenya and the rural environs by unravelling their specific needs so as to access opportunities. An attempt by this research is to contribute to highlighting the microenterprise sustainability impediments, women empowerment knowledge gaps, so to present realistic opportunities and confront emerging challenges.

1.3 Purpose of the Study

The purpose of this study was to explore the determinants of sustainability of women owned microenterprises in the County of Vihiga, Western Kenya.

1.4 Research Questions

1.4.1 To what extent is Competition a determinant of sustainability of women-owned microenterprises in Vihiga County?

1.4.2 To what extent is Capital Accessibility a determinant of sustainability of women-owned microenterprises in Vihiga County?

1.4.3 To what extent does Domestic Attachment determine the sustainability of women-owned microenterprises in Vihiga County?

1.4.4 To what extent is Information Technology a determinant of sustainability of women-owned microenterprises in Vihiga County?

1.5 Significance of the Study

1.5.1 The Entrepreneurs

The research will assist individuals in the populous region realize their potential to run and grow their micro ventures. Micro businesses help women earn an income while micro-credit help boost their ventures, at whatever category. There is an increasing concern that a number of rural women entrepreneurs have stagnated in their business growth necessitating the research.

1.5.2 The Micro-Credit Provider

Necessity Initiatives Solutions Enterprises (NISE) to benefit for further creativity, innovations and further study since the background literature on Western Kenya paints a
scenario that poverty is high in Vihiga County. That the challenges faced by the women entrepreneurs in growing their businesses impacts negatively in their well-being and this to be investigated and solutions found. NISE will influence more start ups for income generation.

1.5.3 Policy Makers

The misinformed focus by the County leadership on direct employment in public sector will switch interest to developing and promoting entrepreneurship, to boost employment opportunities, trade and commerce. Leaders may see the sense to demulsify the emphasis of youth getting white-collar-jobs. The research will benefit the policy makers in drafting rules and regulation for both the County and Central Government, in terms of policy formation.

1.5.4 Local Community

Any initiative advanced would be beneficial to the community, women, young people and those under-employed to effectively participate in income generating activities and other farm-based value additions. Micro enterprises are good for the County to run financially by collecting taxes and their sustainability should be enhanced for the Vihiga County to generate revenue.

1.5.5 Academicians and Researchers

This research will be very useful to the body of academia and education in general through the knowledge and information that will be generated.

1.5.6 Other Stakeholders

This study will also help investors and funders in the making of appropriate decisions that consider investing in women owned enterprises as a critical driving force to spur economic growth.

1.6 Scope of the Study

The Study sought to analysis microenterprises’ sustainability determinants in terms of: competition, capital accessibility, domestic attachment, information technology and how each factor determines the sustainability of the rural women owned microenterprises in
the County of Vihiga, Western Kenya. It targeted 300 women respondents registered and operating under Self-Help Groups/(Chamas), registered with a local NGO/social enterprise called Necessity Initiatives Solutions Enterprises – (NISE), which formed the case study.

1.7 Definition of Terms

1.7.1 Micro-enterprise

A business operating on a very small scale, especially in the developing world that is supported by microcredit (Brewer & Gibson, 2014). For example NISE, is in that category of Micro/SMEs that operates in Vihiga County. As a facilitator, NISE assists the grassroots through other forms of credit lending practiced that include ‘table banking’ village savings pots, ‘merry-go-rounds’ or ‘crowd funding’ or ‘Lyavaya’ – (‘aimless wanderer’), to help erase the notion of the women being considered un-bankable members of the community (www.nise.co.ke). Accessing capital is very important for micro ventures.

1.7.2 Sustainability

The ability/capability of a firm to meet current needs without jeopardizing its ability to continue serving the market in the future. It is very crucial for microfinance. Sustainability in entrepreneurship can be achieved by the mix of philanthropic funding, government subsidy and earned income. A program may have some of its cost-fund through earned effort but a plan must be in place for ongoing fundraising. (Edgcomb, Klein & Thetford, 2017).

1.7.3 Domestic Attachment

Domestic attachment relates to the running of a home or to family relationships (Sigh, 2011). It is the devotion to anything relating to family including (the home, household, family relations or household affairs). The ‘attachment’ refers to the emotional bond with mothers and motherhood – (the caring of children, the nurturing of the family). Household affairs traditionally tend to define the different gender roles played in the home setup between females and males.
1.8 Chapter Summary

The chapter presents an outline of the study. It describes women entrepreneurship in Kenya in the context of micro-businesses, the challenges and constraints they persistently experienced as they conduct their micro businesses. The report will help come up with possible break-through strategies that can be replicated grow rural women entrepreneurs grow to next high levels. Counties and Central Governments, together with policy makers and the general public can be aided to better understand the effects of poverty, marginalization, inequalities, dependency and illiteracy, and therefore respond to the plight of women and youth in economic growth. The next Chapter is on Literature Review based on the research objectives, followed by Chapter Three on research methodology. Chapter Four presents a Summary of the results and findings. The last Chapter Five has the Summary, Discussion and Conclusion; Findings, Recommendations and information for further studies.
2.0 LITERATURE REVIEW

2.1 Introduction

The Chapter covers the significance of this study, thereby identifying areas where new contribution could be made. The bulk of the chapter highlights the reviews of similar studies done by other researchers and/or scholars, based on the specific research questions highlighted in the previous chapter.

2.2 Competition as a Determinant of Sustainability of Women Owned Microenterprises

Sustainability, as viewed by Acosta, Jayoma, Salazar and EstoQuiaia (2017) from a business perspective, affirms its primary interest to many enterprises as the ability or capacity of developed programmes to continuously respond to identified community issues. Sustainability, generally means “the ability to endure” – the endurance of processes and/or systems. In business, the inter-relatedness of creativity, innovation and entrepreneurship, firmly taps into sustainability. The organizing principle of sustainability is ‘sustainable development’ (Waas, Huge, Verbruggen & Wright, 2011) - development that meets the needs of the present without compromising the ability of the future generations to meet their own needs. Sustainable development has four major interconnected domains: Ecology, Economics, Politics and Culture. Through enduring challenges and ‘competition’, the aim is to achieve long-term success while having a positive impact on the society and the environment in which the (micro) enterprise is located and domiciled (Edgcomb, Klein and Thetford (2017).

2.2.1 Sustainable Development

Waas, Huge, Verbruggen and Wright, (2011) maintains that sustainable development is about “development” - the ‘satisfaction’ of human needs and the aspirations of all. Satisfaction is the primary objective of sustainable development, with particular attention being given to the basic needs and aspirations for a decent quality of life for a vast amount of people living in extreme poverty. To develop in a sustainable way, the ‘satisfaction’ factor of human needs and aspirations should be kept within the earthly
environment. Sustainability development is not only an environmental objective or institutional, but is also ethical. In empowerment, poverty eradication is considered a prerequisite to achieving the environmental objective. The two objectives, namely developmental and environmental, are deemed inherently linked to economic activities. Furthermore, by adding the operational definition to sustainability development, a process of change is implied, in which the exploitation, direction of resources; the orientation of technological development and institutional change, are in harmony and therefore, enhancing both current and future potential to meet (‘satisfy’) human needs and aspirations.

2.2.2 Microenterprise Sustainability

Edgcomb, Klein and Thetford (2017) affirm sustainability in micro entrepreneurship to be very crucial for microenterprises and the business industry. Sustainability of micro entrepreneurship is the ability of the organization to endure ‘competition’ in the market. Edgcomb argues that a microenterprise, being an active organization that accesses markets, should have the capacity and capability of striving to meet current needs of customers without jeopardizing its ability to continue serving the market in the future. Sustainability refers therefore to the long-term continuation of the microfinance (MF) programme after the project activities have been discontinued. It assumes that appropriate systems and processes will have been put in place during the growth period to enable the microenterprise access and compete in the market. The microfinance services should also be available on a continuous basis while clients continue to benefit from these services in a continuous routinely manner. Furthermore, the programme should meet the needs of the community/members (or groups) through resources raised on their own strength, either from among themselves or from external sources to self-sustain (Edgcomb et al., 2017).

2.2.3 Competition and Porter’s Five Forces

Competition, according to Kotler and Keller (2012), is noted as a contest or a rivalry. Defined from a marketing perspective, competition is an activity that aggressively tries to win something by defeating others who are trying to do the same. “Competition” includes all the actual and potential rival’s offerings and substitutes a buyer might consider that leads to or forms the competitive advantage. Gaining of an "advantage" – is a superiority of position, condition or a benefit resulting from some course of action. "Competitive"
means relating to, characterized by, or based on competition (rivalry). To “sustain”, is to keep up or prolong (Edgcomb et al., 2017). Shimp (2000) observes that for an effective competition, it is desirable that a firm develops a ‘brand’ in order to have a unique identity. Shimp adds that it should be something rare (like a logo) that clearly differentiates the uniqueness if the brand from other competitive brands in order to gain a ‘competitive advantage’. The competition depends on the perceived value offered to the customer compared to the relative costs between the firm and the competitor.

A firm’s competitiveness, argues Hollensen (2015), is understood by examining the competitive areas in the industry through Porter’s Five Forces model and doing a competition analysis using the elements of Competition, namely: Market Competitors, Suppliers, Buyers, Substitutes, and New Entrants. First, an enterprise will always strive to gain a competitive advantage through a loyal customer base, a premier location, a good supply chains and a better understanding of the market. Differentiation, factors and hard to imitate the product or service, is key (Porter, 2008). Unless such factors are already established, the new microenterprise, therefore, may find it difficult dealing with the already-established competitors. Competition analysing seems to be the way to finding a position in the industry where the enterprise can best defend itself (Hollensen, 2015).

2.2.4 Competition and Competitive Advantage (CA)

Hollensen (2015), maintains that in order to sustain the competition and as argued by (Hall, 1980; Henderson, 1983), a firm needs to possess unique advantages. This is in relation to existing competitors, if the (firm) is to survive. Furthermore, the competitive advantage (CA) so experienced by the firm, must be sustained. The CA ultimately is derived from how well the company has fitted its core competencies and the distinctive capabilities into a tight interlocking “activity systems” that the competitors find it hard to imitate because of being unable to copy their activity system. Uniqueness of characteristics was given recognition initially by Alderson (1965) that “firms should strive for such characteristics in order to distinguish themselves from competitors and be perceived and seen so eyes by consumers”. Later, (Hamel & Prahalad, 1989) and Dickson (1992) ensued discussions on the need for firms to learn how to create new advantages that will keep them one step ahead of competitors.
2.2.5 Sustainable Competitive Advantage (SCA)

Kotler and Keller (2012) observe competitive advantage to be what accrues to companies that possess ‘distinctive capabilities’ or excellence in promoting business processes. Hollensen (2015) mentions the “Competition triangle” accordingly which consists of the customer (consumer/stakeholders), the enterprise (microenterprise) and the competitor (rival brand) in which the competition occurs. Competition, as per earlier literature with Michael Porter’s various competitive strategies, serves as a precursor to the development of sustained competitive advantage (SCA). Such arguments formed the basis for achieving SCA. Furthermore, firms may succeed in establishing an SCA by combining skills and resources in both unique and enduring ways (Vinayan, Jayashree, & Marthandan, 2012).

By combining resources in this manner, firms can focus on collectively learning how to coordinate all their employees’ efforts in order to facilitate growth of specific core competencies. Barney and Clark (2008) elaborate how a firm has a sustained competitive advantage when the enterprise is implementing a value creating strategy. The strategy adapted should not be implemented simultaneously by any current or potential competitors. SCA is evident when these other firms are unable to duplicate the benefits of this strategy, and completely failing to imitate. The fundamental basis for long term success for any enterprise, therefore, is the achievement and maintenance of a sustainable competitive advantage (Vinayan et al., 2012).

2.2.6 Sources of Uniqueness in Value Creating Strategies

Hoffman (2000) informs of the emerging literature on SCA that tends to address the SCA content. He concurs with the source and various types of strategies that maybe used to achieve the SCA. The secret lies in the prolonged benefit of the implemented unique value-creating strategy, which should not easily be implemented by any current rivals or potential competitors; along with the inability to duplicate the benefits of this strategy. Micro-entrepreneurs should strive to get to such a point in the operation of their businesses to remain relevant by sustaining the competition. Furthermore, firms may succeed in establishing an SCA by combining skills and resources in a unique and enduring ways. In so combining resources in this manner, firms can focus on collectively learning how to coordinate all employees’ efforts in order to facilitate growth of specific
core competencies. Two categorical sources involved in creating a competitive advantage (Day & Wensley, 1988) are superior skills and superior resources. However, Barney argued that not all firm resources hold the potential of SCAs; Barney lists four attributes resources that and organization must possess: rareness, value, inability to be Imitated, and inability to be substituted (Barney & Clark, 2008).

2.2.7 Immobility, Imitability and Substitutability

In continuation, Grant (1995) maintains that the sustainability of competitive advantage should be considered along the dimensions of durability, mobility and replicability. Grant argues durability as a great measure of the ability and the resilience of the organization to ward of imitation from other competitors. Mobility, says grant, refers to the extent to which resources can be transferred between competitors together with the reliability, which describes the ease with which resources can be copied by competitors. Kyengo and Kiliki (2017), reviewing on asset immobility (or imperfect mobility), points to the existence of market imperfections factors which are a necessary condition for the sustainability of the competitive advantage (CA). Immobility includes imperfect imitability and substitutability; the conditions for sustainability.

Furthermore, barriers to resource mobility, also called “isolating mechanisms or resource position barriers, are economic forces that limit the extent to which a competitive advantage can be duplicated or neutralized through the acquisition, imitation or substitution by competitors of the resources on which this advantage is built” (Besanko, Dranove & Shanley, 2000), but for sustainability, there should exist a prolonged sustenance of a value-creating and value-providing strategy which is both non imitable and not concurrently being implemented by any current rival organization. On the other hand, (Montgomery & Porter, 2009), thinks that the only way to sustain a competitive advantage is to upgrade it or make it more sophisticated by building on all the above four views (rareness, value, imitation and substitutes), with the measure for sustainable competitive advantage being devised from the four major dimensions of Porters (1985) five forces.

2.2.8 Disruptions, Entry and Mobility Barriers

Hoffmann (2004) research focuses in the Operationalization of Sustainable Competitive Advantage. The study tends to omit the traditional Industrial Organization (IO)
economics but advances instead the structural approach (SA), which SA is very much rooted in the IO economics; and therefore picks the Structural Approach – (approach that emphasizes on the role of entry and mobility barriers that are erected to safeguard an organization from the competitive forces and threats from current rivalries, substitutes and potential new entrants). Hoffmann proposes the “creation of new games (or strategies), rather than fighting strongly against the incumbent player (the already established competitor), which impedes the attainment of sustainable competitive advantage” (Hoffman 2004). Growth unlocks people’s creativity as much as their confidence to act. Barney (1991:102) bases on resource based view, that “a firm is said to have a competitive advantage when it is implementing a value-creating strategy not simultaneously being implemented by any current or potential competitors”. Barney proposes a framework using four primary attributes – value, rareness, inimitability and non-substitutability. Subsequently, Peteraf (1993) mentions four conditions that are necessary to achieve an SCA. They are listed as “resource heterogeneity, resource immobility, ex-ante and ex-post limits to competition” (Peteraf, 1993). His model was most applicable for single business strategy and diversification. Perhaps such model suits well with individual entrepreneurs seeking unique opportunities and to fade off imitations.

2.2.9 Firms Core Capabilities

Kyengo and Kilika (2017) points out to the fact that should a firm’s strategy not set up the correct structures, control systems and reward systems to support the resource, it is most improbable that the resource will contribute to the firm’s competitive advantage. Hollensen (2015 points to a firms core competences based on its core capabilities and resources as behaviours that help to identify and develop hard to imitate strategies that distinguishes a firm from its competitors in the eyes of the customers. Manning, Ahearne and Reece (2014), adds that a demonstrated value creation can take the form of timely service delivery, follow-up, feedback, supper installation, and the enduring value of differential products or services between the organisation and the competitor’s. Manning (2014), further documents that the roots of competitive advantage that aids competition, are being derived from: (i) Resource Based View; (ii) Market Based View.

Carmen, Fernando and Ramon (2003) argued too that distinctive capabilities lead to competitive advantage when they are applied to an industry and brought to a market,
considering that capabilities, by their very nature are intangible. Carmen refers to a firm’s capacity in using, treating and developing their resources for a specific purpose or objective. The capacity is obtained from the firm’s experiences, tacit knowledge, and unique complex of combinations of the firm’s resources or resource based view (RBV). The firm’s CA is, therefore, based on its ability to respond to evolving opportunities which then depends on business processes or capabilities. Businesses’ success or failure depends on a firm’s ability in choosing the right capabilities to build, managing them carefully and exploiting them fully (Coates & McDermott, 2002). Equally (Carmen et al., 2003) agrees that capabilities should be rare because competitors must find them difficult to emulate. Their complexity should be explained by a number of linked factors as in the creation of superior customer value, and be tacit because they are inextricably embedded in organizational experience and practice (Johnson & Scholes, 2009). Capabilities mostly are developed through learning processes when the firm’s employees repeatedly apply their skills and knowledge to solving the firm’s marketing problems. One important aspect of developing capabilities emphasizes (Carmen, Fernando & Ramon, 2003) is achieved in ways in which knowledge is integrated. Thus, capabilities can be thought of as integrative processes by which knowledge-based resources and tangible resources come together to create valuable outputs. Capabilities are very important to individual female entrepreneurs.

2.3 Capital Accessibility as a Determinant of Sustainability of Women Owned Microenterprises

Modigliani and Miller (1958) define Capital Structure as the mixture of a firm’s funding (capital) with debt and equity. It has been one of the most argumentative subjects in corporate finance, since the outstanding study by (Bevan & Danbolt, 2004). Many theories have been developed in the literature of finance for examining the determinants of capital structure and these theories focus on identifying the significant determinants which are likely to have a major role in the leverage decision. Previous studies on capital accessibility have shown that a number of factors affect firm’s capital structure choice, such as “tangibility, tax, size, profitability, growth, non-debt tax shield, volatility” and more. In their illustrious work, (Harris & Raviv, 1991) summarizes that “leverage increases with fixed assets, non-debt tax shields, investment opportunities and firm size. Moreover, it decreases with volatility of earnings, advertising expenditure, and
probability of bankruptcy, profitability and uniqueness of the product”. However, the relationship between the factors and capital structure is not consistent.

Many empirical researchers have explored the determinants of capital structure from different point of views and in different environments related to developed and developing economies. The empirical results vary and sometimes contradict in many studies (World Development Report, 2001). Capital is a fundamental concept in business and its accessibility is crucial for microenterprises. Women micro entrepreneurs experience serious challenges in accessing financial resources. Being a part of the overall entrepreneurial cadre, they face common constraints to those of the private sector faces, but in different propositions, notably on a small scale when accessing financial resources. Furthermore, women-owned microenterprises face specific challenges associated with their gender (Wole, 2009) because the collateral demanded by financial institution to be given as security for accessing capital, is mostly what challenges women in Africa.

2.3.1 Collateral, Culture and the Male Ultimogeniture Rule

Fombad (2014) highlights a court case and questions the traditional exclusion of Botswana women from property inheritance through the male ultimogeniture rule that makes women lack collateral. Male ultimogeniture practiced in Botswana, discriminates on the ground of age, birth and most importantly, gender. Ultimogeniture rule, practice and custom recognizes only the last born son (male) as entitled to inherit the parent’s homestead and land to the exclusion of the other children, thus discriminating against women or even other siblings. Maragoli culture, a Bantu sub-culture/tribe of the Luhya Nation of Western Kenya, into which the researcher was born, resonates with the Botswana’s custom on male ultimogeniture rule. Women in Vihiga County (predominantly Maragolis, Tirikis and Banyores) culturally suffer discrimination (Bulimo, 2012). Unashamedly and unapologetically, the women are openly discriminated by society on gender, age and marital grounds; and when culture demands the enactment of the ‘male ultimogeniture practices and customs come to a fore. The researcher is a victim of the mentioned ultimogeniture male rule in Luhyaland and in presenting this study, is her humble experience as one of the Vihiga women who fails to produce collateral because of cultural dictates that hinders her to access capital funding to grow and expand her commercial activities.
2.3.2 Micro-Enterprises and Capital Accessibility

Studies on capital accessibility on microenterprises’ growth have showed that increasing the depth of credit pushes up the profit level. This indicates that a firm’s access to formal finance is a factor in facilitating its business growth. The extent of sales value in SMEs (microenterprises) was typically found to be smaller than in large firms, being attributed to their constrained levels of credit access (Shinozaki, 2012). Entry barriers were said to be high for new business starters to access loan finance. Two reasons can be sighted as the causes for this state of affairs. Firstly, new business starters, especially SMEs (microenterprises), lack information and the experiences as to how to approach microfinance institutions. Secondly, microfinance institutions trust entrepreneurs with whom they have had long business relationships much more than the soundness of the business ideas. Once business dealings are started and good track records established, one does not face any problems getting additional loans (Wole, 2009). Access to finance by SMEs (microenterprises) is an important factor in order for a company to experience continuous growth (Beck & Demirgüç-Kunt, 2006).

Microenterprises and SMEs’ option is to raise capital through venture capitalists injections which is different from a bank loan. It is an equity investment which involves higher risk, however potentially rewarded by higher returns. Venture capital is necessary for potentially high growth companies especially at their early growth stages. Its financing involves: informal investments by private individuals (business angels); venture capital; and stock markets specialized in Small and Medium Enterprises, and high growth companies. Together these make up the risk capital market (European Union, 2006).

2.3.3 Women Enterprise Fund

Five major challenges facing petty (micro) businesses were outlined by (Ijaza, Mwangi, & Ngetich, 2014) whose previous study focused on challenges faced in accessing the utilization of the Women Enterprise Fund (WEF) by the women in Hamisi Constituency, Western Kenya. The challenges included inadequate capital, high competition, insecurity, poor infrastructure, and loan diversion. The study showed that disbursing small loan sizes was among many challenges cited by both borrowers and lenders. The women loanies acknowledged in deed that size mattered. That the amounts loaned to them were much less than what they specifically needed to improve their enterprises (Ijaza et. al., 2014). The disbursement of funds from WEF took too long to get to the women. It cited
corruption issues and mismanagement of funds within WEF. Microfinance Institutions largely exist to addressed the issue of access to credit; their focus largely turned to poverty eradication rather than enterprise development. Previously, (Kinyanjui, 2006; Kiraka, 2009), had pointed out in a study that even though empowering and the size of the loans given, tended, therefore, to be too small to support (‘micro’) enterprise growth. Loyal customers are, by definition, hard to steal away. Core capital supplier relationships give the firm trusted allies.

Efficient systems in firm’s internal operations go beyond the right tools and equipment; they are developed through work processes and cost-effective or revenue-generating activities. The CEO of Global Banking Alliance for Women, Inez Murray is quoted prioritizing access to capital, marketing, networking, education and training. GBA views creating women’s markets, as another key driver of financial sustainability (GBA, 2014). Emphasis is for WOEs to build on initiatives, to innovate, encourage the thinking and tapping into opportunities. Comprehensiveness of programmes, and networking, will provide WOE with vital access to capital, markets and education. Woman Enterprise Fund (WEF) is a good example. Women should be able to easily access WEF if the fund is managed well without corruption. The Kenyan WOE are currently worse off; they are yet to experience the goodness of the fund (Ijaza et al., 2014).

The WF lacks management capability but women should have courage and a voice to demand for easy accessibility and availability. As the UN Economic and Social Council on Population maintains that, bold steps must be taken to deliver the much needed innovative tools so that developing states can achieve the new SDGs. Accessing microcredit as a form of empowerment, counts as the principle element identified for their success to create jobs and build sustainable ventures. Women owned microenterprises and SMEs have little or no access to education.

2.3.4 Microfinance Enhances Women Participation

UNDP (2011) reports a study done on a proposal for USAID Funding of Microfinance in Myanmar, where “microfinance is more than a financial intervention”. As a social financial intervention, MF works towards strengthening a county’s civil society; uplifting women’s status; elevates their roles and increases decision making authority in the household. In the community; MF promotes economic independence, increasing participation in good governance in the areas where they live. Increased access to credit
means women’s increased contribution to household incomes that leads to tangible gains for poor families in achieving a more balanced economic contribution from both men and women. Women’s participation in MF groups increases individual’s capacity, confidence, widens own and the household’s social networks and horizons. The targeted women eventually begin to engage in much larger family roles, rural and village-level decision-making. Studies indicate overall empowerment and participation of the poor women especially, is far greater in villages where such groups are represented. Empowering rural women through access to credit, their political voice is heard and strengthened.

2.3.5 Increased Sales Volume for Profit

Ochola, Okelo, Ojwang, Aila, and Ojera (2013) refer to microfinance as a provision which intertwines with microenterprises. The provision for financial services should be available to the locally owned micro entrepreneurs, in this case, WOE. To minimize challenges Ochola asserts that “micro entrepreneurship’s sustainability depends on the practice of sustainable delivery of service” (Ochola et al, 2013). The delivery is to “a world in which as many poor people and poor households as possible have permanent access to an appropriate range of high quality financial services - not only credit, but also savings, insurance and transfers” (Robert et al, 2004). Furthermore, the way to measure business growth can be done in many ways – including sales turnover, profits, the number of people employed, or in market and technology domain (Marc, 2000). O’Gormoma (2001) argues to therefore being no one single measure of growth and if there is, it is negligible, and the assertion is that none of these options presents itself as the most appropriate measure. Marry (2004) contributes further to the fact that the growth of an enterprise is reflected in the increased sales volume, new improved products, and increased market share. Additionally, (O’Gormoma, 2001) asserts women business performance as being measured by the investment they put in innovation that enables their businesses to grow, but the competitiveness literature links advantage or dominance to a business’s ability to compete over time to their innovation capabilities (McCarthy, 2000).

2.3.6 Market Surveys

Most firms use ratios analysis to measure the growth of their enterprises. The performance of a firm is measured by evaluating its sales growth, increase in assets, capital expenditure and financial stability of the business. From the information provided
in the financial statements, one can evaluate the liquidity, profitability and the capital structure of a company. Tschumi and Haggan (2008) articulates the importance of market system in the “Making Markets Work for the Poor (M4P)”, an approach to poverty reduction used by funders especially – the Department of International Development and Cooperation (DFID) UK and the Swiss Agency for Development Cooperation (SDC). The market system being competitive, Micro entrepreneurs fall under such and operate in this poor category with limited state service provisions.

Therefore as both consumers and stakeholders, they must rely on these competitive markets to meet their needs for food, essential services and save for investment for the sustainability of their business ventures. As many of the world’s poor (mostly being and micro entrepreneurs), live in areas with limited state service provisions and for the reason, they must therefore rely on private but competitive markets for their livelihoods (Tschumi & Haggan, 2008). Poverty and illiteracy put women at a disadvantage too. As consumers, and poor, they do not research further but rely on these markets to meet their needs for food and essential services. Critical market frictions usually prevent entrepreneurs – especially women, from realizing their potential, confining them into self-employment, driven by personal and family needs that often lead to stagnated microenterprises (Beck, 2009).

2.3.7 Diversification and Value Creation

According to Amoake, Arthur, Bandoh and Katah (2012) customer satisfaction (loyalty), is a business philosophy tasked with creation of value for customers. Through customer loyalty, a firm can anticipate and manage customers’ expectations by demonstrated ability and responsibility to satisfy their needs, and thus gaining competitive advantage. Rizwan (2014), points out customer satisfaction to be a strong variable affecting customer loyalty and trust positively. Khokhar (2011) adds that through variables - customer satisfaction is the resultant of the actual and the expected functions of a product and/or service. Satisfaction is the main determinant of customer service that affects the different variables for the firm’s economic progress (Khokhar et al., 2011). Kiraka, Kobia and Katwalo, (2013) in their study on growth of SMEs (microenterprises) and innovation in Kenya, agree that lack of diversification of products and services can make these activities in micro businesses stagnate, decline and leading to ultimate collapse. Competition (Bowen, Morara, & Mureithi, 2009) comes due to lack of differentiation
because in rural areas of Kenya, there is a scarcity of wide variety of economic activities for women to choose from. Costs are switched to customers, with increased competition among micro entrepreneurs for cheaper credit facilities.

2.4 Domestic Attachment as a Determinant of Sustainability of Women Owned Microenterprises

Domestic attachment generally refers to the devotion to anything relating to family including the home ‘place’, household or domestic (family) affairs. A “home” (Easthope, 2004) agrees with the literature available on ‘place’ but emphasizing ‘home’ as a significant place that provides insight into the relationships between people - (mother’s bonding, nurturing, derived identities and psychological well-being)”. Psychoanalyst John Bowlby, the first theorist to formulate the basic tenets of “Attachment Theory” (McLeod, 2009) drew concepts from developmental psychology, ethologic, cybernetics, information processing, psychoanalysis, then defined ‘attachment’ as the emotional/affection between two people (especially mother and child) that influenced how the individual interacted with the society. McVay (2012) agrees on the linkage of human social development, with psychological behaviours/emotions and the healthy human development, for it exudes close and caring relationships especially the parent and care givers (family). The ‘attachment’ refers to ‘emotional bonding and behaviours’– (caring, nurturing and concern for child’s welfare).

2.4.1 Relationship Behaviours in Human Achievement

According to Waight (2006) attachment with its anxiety overtones, may easily relate to creativity achievement and entrepreneurship, adding that creative people and/or entrepreneur people appear to have similar anxieties and experiences in early childhood and many similar psychological characteristics. Gituma (2016) maintains that female business owners go through such experiences as they are both mothers and entrepreneurs adding that mothering and motherhood are those pronounced behaviours in women entrepreneurship. Furthermore, that “entrepreneurship is a continuum of behaviours that relate to and are similar to creativity” (Gituma, 2016). Pitman (2012) points out that relationship behaviour cannot be discussed without considering the effects of attachment. Leung (2011) considers motherhood as an enabling factor in female entrepreneurship rather than a constraint. Waight adds by recommending the development of ways to
increase knowledge of entrepreneurial behaviours, anxieties or emotions by developing better understanding of the psychological factors involved in this form of human achievement (Waigt, 2006).

2.4.2 Mumprenuers in Business

Manley (2015) introduces how entrepreneur’s attitudes regarding different gender roles influence behaviour in seeking help for success for the entrepreneurship. Traditionally, household affairs or domestic attachment traditionally to define the different gender roles played in the home setup between females and males (Brush, deBruin, & Welter, 2009). Motherhood and mothering theories are at the centre of the ‘attachment’. Female entrepreneurs are the most affect by domestic attachments than men. Brush observes that motherhood, when mingling with the social, political, cultural expectations and norms, appears to pronounce the domestic role/attachment (emotion, anxiety) that affects women in particular. Duberly and Carrigan (2013) adapt “Mumpreneurs” as a term or name befitting the women who setup new businesses so that they can combine income generating activities with care responsibilities of their children. Situations like these tend to give women entrepreneurs different values and priorities. Through the said motivations and emotions they are guided as they make decisions to start their own businesses ventures.

Gituma (2016) acknowledges women entrepreneurs as being both mothers and business women, and pointing to the fact that Kenyan women tend to perceive their business as a family affair. It is irrespective whether or not these women exercised control over their business’s day-to-day operations. Their spouse and other family members tend to be part of the company ownership’s overall structure. Gituma’s results from the women interviewed also revealed that 90% involved their husbands as partners in the business. Domestic attachment and support then solidly helps to sustain the microenterprises as women continue to play much larger roles in family, rural and village-level decision-making. Such sustainable WOEa activities may elevate them to national participation platforms or strengthened more with business sustainability in view (Gituma, 2016).

2.4.3 The Role of Gender in Entrepreneurship

In gender entrepreneurship literature, Bilimoria and Piderit (2007) critically addresses arguments that consider women as still stuck or burdened by the ‘double shift’— a
situation of having one swift at work (self-employed) and one at home, making the integration of entrepreneurial activities or work and domestic responsibility more of a necessity than a choice. Considering women entrepreneurs are individuals, Goffee and Scase (1985) categorises women by considering their domestic attachment values and entrepreneurial values as: ‘conventional’ – those committed to both values; ‘radicals’-are feminists, with low commitment to both values; ‘innovators’– prioritises entrepreneurial values, especially self-employment; and ‘domestics’-committed to domestic attachment values but their businesses are secondary. They are further categorised into ‘traditional’ and ‘modern’ (Moore, 1990) differentiated by business skill levels but faced by similar problems. Scholars are working from the gender perspective to initiate changes to society who maintain that the concepts such as ‘patriarchy’, ‘the politics of the family’ and the ‘gender division of labour’, as well as ‘power relations’ to re-structure through the links of ‘market and non-market activities’, to embrace domestic attachment into entrepreneurship (Gituma, 2016).

Cromie and Hayes (1988) examined problems faced by women to establish how these difficulties could be overcome through entrepreneurship so that the women can grow and sustain their enterprises. A research was based on an empirical study of 34 aspiring female proprietors, that resulted in it being inappropriate to speak of ‘the female entrepreneur’ without indicating their differences, whether traditional or modern woman. For example, the woman entrepreneur is an individual and one that prospects for opportunities to engage in. In such a quest, she has the tenacity to face challenges (Winn 2005). Gender withstanding, of course, women bears the most of responsibilities and nurture children. They are independent home-makers, but such commitment should not be construed and dismissed as economic actors (Oketch, 2009) even though Cromie maintains women to be less concerned with making money and often choose business proprietorship as a result of career dissatisfaction, and see entrepreneurship as a means of meeting simultaneously their own career needs and the needs of their children (Cromie & Hayes, 1988).

Mupedziswa and Gumbo (2001) researched on the women in Harare, Zimbabwe (a great similarities with Kenya), and confirmed the general agreement that the poor (women) have been losers in the struggle for economic development. The domestic attachment in such an endeavour for sustaining their businesses, can somewhat be attributable to the study. The study elements on which interviews were conducted were competition,
diversification, savings problem, lack of differentiation, lack of financial support for business, government rules ignorance, household consumption patterns, trader aspirations and gender relations.

**2.4.4 Market Pressure and Family Subsistence**

Dignard and Havet (1995) inform of the free-market pressure values and motivation that frequently are at odds with those practiced by micro-entrepreneurs in both developed and developing countries. While larger free-market enterprises consider profit making and growth the very essence of entrepreneurship, the microenterprises focus on family subsistence. The domestic attachment then leaves women entrepreneurs to support their kin, earning income which they then allocate according to principles of a human. The quest for autonomy and flexibility may be relevant for those entrepreneurial women doing business with caring responsibility (Carter, 2000; Winn, 2004, 2005), who, accordingly, seek to combine entrepreneurship with domestic activities.

Manning, Ahearne, and Reece (2014) maintain culture as the accumulation of values, rules and behaviour, forms of expression, religious beliefs, transmitted behaviour patterns, and the like, for a group of people who share a common language and environment. Culture tends to encourage or discourage particular behaviours and mental processes. Culture may support or undermine growth. Furthermore, the entrepreneur is a person, not a team, committee or organization. The individual person has a comprehensive advantage in decision and makes decisions. They, however, must be informed decisions that can contribute to the conventional wisdom either because the person (entrepreneurs) has better information (knowledge) or has different perception (experience) of the events or opportunities. An entrepreneur must have the courage of his conviction to face the courageousness of her actions. Entrepreneurships are performed in all communities and societies where judgment differs from the norm.

**2.4.5 Licence to Grow**

Regeer, Mager, and Oorsouw (2011), inform of an approach that aims to transform perceived trade-offs into complements. Regeer points out that “those entrepreneurs that manage to successfully connect a business agenda with societal challenges definitely have a ‘licence to grow’. Those Mumprenuers mentioned elsewhere in this research deserve such an award as they strive to scale up micro businesses, and deal with domestic
attachments combined (Duberly & Carrigan, 2013). However, not a tangible licence per se and no single individual or institution awards it, but a resultant from incorporating different societal values (‘domestic attachments included’), into primary processes of businesses (‘micro-enterprises’). The resultant new value of the society affects the product and services created on issues of equity (finance), participation, health and environment” (Regeer et al., 2011). Patriarchal or matriarchal society values therefore, withstanding. It is noted that women entrepreneurs are faced with multiple responsibilities. They do not have adequate time to tend to their businesses due to their many responsibilities (Kyomuhendo & McIntosh, 2006).

2.4.6 Insecurity and Culture of Saving

According to Muriungi (2012), the responsibility of providing for the extended family and relatives is a challenge for many women. Most WOEs enterprise’s financial resources are not usually isolated from personal finances and hence these family obligations are met from resources earned from the business. Their demands tend to drain their savings and income made by the business, since such finances would otherwise be used in the enterprise expansion and growth. Muriungi’s study cited insecurity as another main challenge faced by women in running their small businesses. Most of the structures used as business premises were mostly semi-permanent mud walled structures which are insecure (Murungi, 2012). Findings from this study indicated that some borrowers used WEF microcredit for other purposes other than starting or expanding businesses. Some respondents admitted to have used the money on school fees, medical bills, and meeting domestic needs. This partly leads to the default cases recorded (Ijaza et al., 2014). Providing entrepreneurial training and education to potential and existing entrepreneurs is one way of enhancing entrepreneurial activity.

2.4.7 Female Headed Household

Seeking family security in the form of guaranteed self-employment can be a factor determining venture continuity and sustainability. According to Fielden and Davidson, (2005:163), the existence of ‘pull’ and ‘push’ factors contribute to (‘the seeking of satisfaction’) and, therefore women’s decision to start own businesses, even if at the micro level. The Uganda women micro traders, according to Kyomuhendo and McIntosh (2006) encountered a lot of pressures, whether married or single, as heads of own households, widowed/separated/divorced, are pushed strongly into the ‘cash-based’
economy if only to keep themselves and their children alive. Due to lack of education, and skills, they enter at the BOP, where many get stuck in those petty (Micro) for the rest of their lives. The pressures of standards of bad living force them to want to perfect the activities towards sustainability of their microenterprises. Efforts in trying to increase women’s human capital endowments, earnings and productivity, definitely would strengthen their bargaining power and give incentives for them to want to lift up for the entrepreneurial challenges. An entrepreneur’s technical and operations competence are important (Dorf & Byers 2005) because form an existing power that facilitates the implementation of the business vision and strategy. UNDP (2012:126-127) notes of human development as an expansion of freedoms and capabilities that speaks to the imperatives for women to become custodians of their lives. Fielden further ads that barriers and situational constraints exists that are linked to the ‘push’ factors. Push factors are those challenges that push people out of their comfort zones, idleness and jobs, or if ones aspirations are threatened. ‘Pull factors’ are those that pull an individual towards entrepreneurship – they may include self-fulfilment, challenges, self-determination, to gain profit, to fill a sense of accomplishment, control, and as family security (Fielden & Davidson, 2005).

2.5 Information Technology as a Determinant of Sustainability of Women Owned Microenterprises

Snyder (2000) informs us of ‘nowhere’ in the world being remote any longer because of the emerging information technology (IT). Today’s economies are experiencing a “remarkably broad-based technological revolution that is being made possible by information technology. The 21st Century is irreversibly dependent of computers and networking. Universally, IT is regarded as an essential tool in enhancing competitiveness of any country. Additionally, IT has the potential in changing the way enterprises are managed, alter where and how people work, live and transforming village lives” (Synder 2003). UN Women, (2018) for example, emphasises on participation and access to information technologies, communication and the media to enhance individual women capacities, confidence, widening of own household’s social networks and business growth. According to Snyder (2000), IT is a “broad term that encompasses computers, networks, online information resource, software applications, digital media and other related forms of information and technology. Anything encountered when seated down to
a computer is included in the definition. IT is concerned with information – its representation, structure and organization, processing, transmission, distribution. Those technologies implementing those activities include – computers, networks, software, search engines, and data processes” Snyder (2000). The “Fluency with IT” (Snyder 2003; 2015) is a process of life-long learning in which one steadily adds to ones knowledge of IT. It is building on one’s present knowledge and acquiring facility with the new advances. Furthermore, fluency with IT will enable one to “keep up” with the advances. It is, therefore an individual’s responsibility to keep pace with IT as it ever advances and expands becoming more potentially useful for those who understand how to use it (Snyder, 2015).

2.5.1 Information and Communication Technology (ICT)

Kwanya (2009) highlights the Information and Communication Technology (ICT) concept that adds “Communication” to IT and begins by defining IT as “any equipment, system or subsystem, or a software application engaged in the automatic creation, acquisition, processing, storage, manipulation, exchange, display and disposal of data or information. The term may refer also to the methods, techniques used in information handling; retrieval and use information processed or organized data which can be understood. Communication Technology (CT) refers to all hardware, the know-how, the software programmes and techniques used in facilitating correct message transmission from source to destination in an efficient and cost-effective way. Communication is the exchange of information between or among parties” (Hollensen, 2015) and that CT has helped communication evolve in two aspects namely – creation and storage of messages (information) on the one hand and the channels or means of transmission (Technology) of the message from the source to the destination on the other hand (Kwanya, 2009; Hollensen, 2015).

Computers, as noted by Kwanya (2009), are an emergent initiative that recognized the edge of machines (1940s) over human beings which were considered in terms of precision, resilience and versatility in accomplishing a great myriad of task. Computer, an electronic device, accepts information (data) and instructions. Data is then processed and stored for later retrieval. Sometimes it generates output usually based on the processing (Skeete, 2004). In describing ICT, Kwanya complements the “management and exploitation of data; the way the different related tools work with each other and the skills
the users utilise to harness their potential” (Kwanya, 2009). In addition, information communication technology considers “all the digital devices and techniques used by individual or firms to create, capture, organise, package, store, use, disseminate and dispose information” (Kwanya, 2009; Snyder, 2015).

2.5.2 The Effects of Information Technology

In Snyder (2015) the “Fluency Approach” is introduced. These are “computing ideas to enhance students’ (read entrepreneurs’) ability to apply computation. In Fluency with Information Technology (FIT), Snyder captures the assertion that the traditional computer literacy does not have the ‘staying power’. For knowledge to evolve and adapt to changes, there is need for learners to keep pace with the rapid IT changes. For sustainability of IT in people’s lives, the “bar needs to be raised” Snyder (2015). The dubbed (FIT) recommended alternative refers to a package of skills, concepts, and capabilities that is wrapped in a project-oriented learning approach that ensure content is fully integrated, so that people can become effective IT users Snyder (2015). Oliveira and Martins (2011) inform of IT is acceptance today as having a significant effect on organisations’ productivity. However, effects will only be fully realized if, and when, IT is widely spread and used. It is crucial, therefore, to understand the determinants of IT adoption and the theoretical models that have arisen when addressing IT adoption. The observation is that not many reviews of literature about the comparison of IT adoption models at the individual level are available, and to the best of Oliveira and Martin’s knowledge there are a smaller number at the firm level (Oliveira & Martins, 2011).

The Asian Development Bank (2014) reports on information and communication technologies (ICT) for women entrepreneurs, highlighted (ICT), particularly mobile phones, the internet, and computers, as playing an important role in accelerating business growth. Adaptation of ICT is vital because ICT particularly are suitable in to helping to overcome constraints that are unique to women entrepreneurs. Effects of adapting ICT are to a greater extent more to women than men. By women adapting ICT in their businesses gives WOE diversity and choices to change or enhance their management style (Idris, 2009) therefore improving they access to skills training; ease time (double time burden of family duties and business); improve mobility restrictions; faster access to information, markets, and finance; removing attitudinal and cultural barriers such as perceptions of the role of women and entrepreneurship (Idris, 2009).
The importance of adopting ICT, for example appear to have been recognised by the many governments for business and some are making significant investments in projects that improve ICT infrastructure. UN (2002) emphasizes IT as a complex and heterogeneous set of goods, applications and services used to produce, distribute process and transform information. Other segments are as diverse as telecommunications, television and radio broadcasting, computer hardware and software, computer services and electronic media. They include the internet, electronic mail, electronic commerce and computer games) as well as the content of these media. Similarly, they report on the impact on and use as an instrument for the advancement and empowerment of women. Mobile telephone, for example has become the most mode of telecommunication in developing countries (DC) with Kenya experiencing an explosive growth in this sector that is enabling flourishing rural enterprises (Simiyu & Oloko, 2015).

2.5.3 Promotional Approaches

Gituma (2016), observes that poor access to markets and marketing information has been a major constraint to Micro and MSEs in Kenya, and especially to women entrepreneurs. Women entrepreneurs’ access to markets should be enhanced through a number of promotional approaches and tools, such as exhibitions, trade fairs, catalogues of products produced by women, effective use of media and websites, as well as through the promotion of subcontracting linkages. The same states that among the factors expected to hinder the growth potential of MSEs is their limited access to business services (BSs) (that is, marketing information, networking, short-term training, counselling and consultancy services). Technology, such as mobile telephones, is playing an important enabling role in providing women entrepreneurs with access to finance and development. In addition to providing access to credit, innovative initiatives like the Village Phone program in Africa also provide entrepreneurs with the necessary training to set up phone service businesses, thereby increasing women’s economic participation and development, particularly in rural communities (Cantzler & Leijon, 2011). All of the above are expected to decrease MSEs’ transaction costs, increase their internal sources of finance for upgrading their assets, and raise their sales levels and productivity – hence leading to growth. Networking is a source of competitive edge.
2.5.4 The Advent of the Mobile Phone

World Economic Forum (2017) reports on mobile phones being great for catching up with friends, family or taking selfies and texting. For many people worldwide, especially women in developing nations rural areas, owning a mobile phone can mean far more: like, financial independence, employment, better family health and education; access to the Internet, government services, and information. The (‘40 Years of Progress in Kenya’, 2012) informs of the latest statistics that indicate nine 9 out of 10 Kenyans have a mobile phone. Progression in the digital era means customers’ demands also increase because of continuous technological development. Better satisfaction of customer needs can be achieved through the use of an appropriate IT services management system. Simiyu and Oloko (2015) acknowledge the increasing number of micro enterprises that use mobile phones in transacting their businesses to enhance performance. The owning of a mobile phone by a rural Kenyan women entrepreneur, means empowerment. The employed facility gives them the ability to open a mobile phone-based bank account. Its importance is not underestimated because it is a vital gateway to financial independence and development (Gituma, 2016). Having a private phone personal account gives women control over their money as well as the ability to put food on the family table. Mobile phones give women the ability to open businesses in remote villages, without having to trek to a distant city to register that business. Possessing a mobile phone is a revolution. Rural women can easily schedule a clinic appointment or register their children for school while continuing to run their businesses (Simiyu & Oloko, 2015).

2.5.5 Mobile Phone Technology and M-PESA Payment Platform

Mbogo (2010) reckons that due to aspects of convenience, accessibility, cost, support, and security of mobile phone payment systems, it has led to high usage by individuals and micro-business operators in Kenya. Furthermore ”M-PESA, a product of Safaricom mobile money platform, acts as the bottom of the pyramid’ (BOP) nearest bank, while the rural folks being the majority users and beneficiaries. Prior to M-PESA, there were few financial alternatives, especially for domestic remittances. The most common way of sending money around the country prior to M-PESA, cited by many respondents, was either through the bus system or the post office system, both of which were expensive, and inconvenient. Initially, due to the widespread uptake of the M-PESA application,
Kenyans incurred extensive cost and time expenses to send money to their relatives in the countryside, leave alone going to ATMs/banks, and transact business. Solomon, Marshall, Stuart, Barnes and Mitchell (2013) maintain that with the now widely available technology, even small firms are encouraged to develop. The effective use of customer databases gives micro businesses greater opportunities to their customers so as to develop a one-to-one communication programmes.

2.5.6 Global Competition in the Mobile Era

In today’s increased global competition and mobile era, customers are bombarded with lots of messages aided by computer, major television networks and the many more mushrooming sheer number of media outlets where marketers can choose from hundreds of radio, satellite and cable TV stations, and hand-held gadgets (mobile phones) (Solomon, Marshall, Barnes & Mitchell, 2013). Each of these technologies delivers its messages to a portion or targeted TV viewing audience. Customers have choices and are therefore less likely to be influenced by any single market generated messages. MEs therefore benefit as “technology gives customers the ability to communicate among themselves about products and companies and even viewing adverts on the web at their leisure” (Solomon et al., 2013). Assessing technology, like the use of mobile phones, especially the Kenya’s undisputed Safaricom M-Pesa facilities and dedicated websites, are some of those initiatives that enable WOEs to access, and helps tackle professional challenges and use to get legal advice (Mbogo, 2010). The right kind of learning is therefore needed that would make it easier for WOEs to access needed capital for business expansion. These are such initiatives that can determine easy capital access. The mentioned initiatives are in themselves promises already demonstrating promising results.

2.6 Chapter Summary

The Chapter provided a review and discussed the literature as per the objectives of the research whereby an introduction of the literature review was given. Empirical review was done on the study’s specific questions which investigated competition, capital accessibility, domestic attachment and information technology, as determinants of sustainability of women owned microenterprises and a summary of the research is given for the chapter. The following Chapter three (3) covers the research methodology and the study design which is used for the basis of collecting data.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This Chapter presents the methodology the researcher used. It included the research design, target population, sampling design, sample size, data collection methods and procedures, data analysis methods and the techniques employed to analyse the collected data used in the study. A questionnaire was the data collection instrument used.

3.2 Research Design

According to Cooper and Schindler (2014) a research design is a comprehensive plan, structure of investigation, or a strategy of data collection to obtain answers to the various research questions. A blue-print for collection, measurement and analysis of data, that includes experiments, interviews, observations, and analysis of records, simulation, or some combination of these. When collecting data, descriptive research design is applicable because it outlines and describes what the research is about, what the researcher will do; starting from writing the hypothesis, the reasons for the study, location, type of data required, sources of data, and their operational implications to the final analysis of the data and style of final report preparation. Research design serves a variety of objectives as in describing a particular situation or phenomena or characteristics associated with a subject population, estimates of proportions, people, materials, artefacts, records, events.

According to Saunders, Lewis and Thornhill (2016) research design is a framework for collection and analysis of data to answer research questions and meet research objectives providing reasoned justification for choice of data source, collection methods and analysing techniques. Bryman and Bell (2011) defines research design as providing a framework for the collection of and analysis of data. The choice of research design reflects decisions about the priority being given to a range of dimensions to the research process. Sekam and Bougie (2013) points out to three types of research design namely, descriptive, explanatory, and exploratory. A descriptive study describes systematically a problem or provides information about a situation aiming to show what is prevalent with respect to the issue. An explanatory research goes beyond descriptive observations, it
aims to clarify how and why there is a relationship between variables while exploratory research, a study is undertaken to explore an area about which little is known for feasibility, or pilot study in order assess if it is worth carrying out a full detailed investigation. Structured interviews may also be used (Saunders et al., 2016). According to Zikmund, Babin, Carr and Griffin (2013) exploratory research often involves qualitative methods that essential are a first step to a more conclusive, confirmatory, study, minimizing the chance of commencing with inadequate, incorrect or misleading set of research objectives. Included are socio-economic descriptive characteristics such as age, education, marital status, incomes, and more. The qualitative nature of the data is collected mostly on knowledge, attitude, people’s opinion and beliefs and their behaviours, a befitting research design of this study. The study adopted a descriptive research design to investigate the ‘Determinants of Sustainability of Women Owned Microenterprises in Vihiga County of Western Kenya’. According to (Kumar, 2011), a descriptive study aims to establish or even discover the existence of relationships or independence between two or more aspects of situations.

3.3 Target Population and Sampling Design

3.3.1 Population

According to Coopers and Schindler (2014), population refers to a total set of collection of elements or objects about which the researcher wishes to make some inferences. A study population is a well-defined set of things, which may include a group of people, artefacts, events, records, or organisations from which information (data) can be collected for investigation. Bryman and Bell (2011), describes population as a universe of units which a ‘sample’ is to be collected.

3.3.2 Target Population

A target population is the ‘target audience’ that the research space provides the researcher with clues as to the target population (O’Gorman & MacIntosh, 2014). Target population are “those individual people, particular groups, events, or records that contain the desired information for the study that determine whether a sample or a census should be selected.” (Cooper & Schindler, 2014). The study of this research targets the population that refers to group of individuals; therefore it can be a complete set of cases or group members. In normal circumstances, it is impossible to survey all members of a group.
A clearly well-defined research population is vital before starting to collect a sample. A target population for this study was derived from a composition of groups of women micro-businesses owners in the four Sub-Counties namely, (Hamisi, Emuhaya, Vihiga and Sabatia), who are registered with NISE.

Table 3.1 Population Distribution

<table>
<thead>
<tr>
<th>Sub Counties</th>
<th>No. of NISE Chamas/SHGs in each Sub-County</th>
<th>Members per Chama @ 5 Members Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamisi</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>Emuhaya</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Vihiga</td>
<td>23</td>
<td>115</td>
</tr>
<tr>
<td>Sabatia</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>TOTAL POPULATION</td>
<td>60 Groups</td>
<td>300</td>
</tr>
</tbody>
</table>

Source: (NISE, 2017)

3.3.3 Sampling Design

The study used a stratified simple random sampling design to select the elements that represented the population. In this case, female only micro-business owners, registered in NISE’s Self-Help Groups owners, in the four (4) Sub-Counties of Vihiga County, who are registered in NISE, a local NGO. Cooper and Schindler (2014) describe sampling design as a method to find a specific population, incorporating a procedure that a researcher uses while selecting items for the study’s sample. Saunders, Lewis and Thornhill (2016) points out that research questions will require sample data to generalise about all the cases which sample has been selected. A sampling design helps a researcher to generate a concrete plan that guides the generation of a sample from any given population (Talbot 2004). Its presentation is based on the sample frame, sampling technique, and sample size.
3.3.3.1 Sample Frame

Saunders, Lewis and Thornhill (2016) defines a sampling frame as the complete list of all the cases in the target population from which a probability sample is to be drawn. A membership list is an example of a sample frame, listing all units in the population from which a sample is selected (Bryman & Bell, 2011). Based on the research population, the sampling frame adapted the NISE Membership Registration list. Incomplete, inaccurate, or out of date lists are examples of inadequate sampling frame that discards parts of the target population, and may cause poor research results. The composition in the sampling frame for conducting this study was from those participants on the membership registration record of NISE- (Table 3.1), derived from all the four Sub Counties in Vihiga.

3.3.3.2 Sampling Technique

Sampling technique is a method enabling a researcher to reduce the amount of data needed especially when considering only data from a subgroup rather than collecting from all possible cases (population). Saunders, Lewis and Thornhill (2016) define sampling technique in two folds:- Firstly, ‘probability sampling’ – a procedure often associated with surveys and experiment strategies to gather people, events, places, groups or things to study by selection such that the selected group contains elements representative of the characteristics found in the entire group to answer the questions or objectives. Secondly, ‘non probability’ sampling does the opposite. It uses full census and no selection technique. For this study, stratified and simple random stratified sample technique was adapted beginning with an update of all contact details was derived and up to date Membership List of all current female entrepreneurs in a group of 5 members registered of census of all group leaders conducted and their required information obtained.

3.3.3.3 Sample Size:

Cooper and Schindler (2014), defines sampling as the selecting of elements in a population to make a conclusion about the entire population. “Sample size is a smaller set of observation drawn from the population” (Keppel (1973). It is a vital feature of any empirical study to make inferences about the population. Data collecting expenses, the need to have sufficient statistical power, determines the sample size to use. Because
sampling error is likely to arise, precision is measured by standard margin of error estimation, with probability that some respondents may refuse to participate; others be difficult if not impossible to respond (Saunders et al., 2014). Sample size is needed for confidence levels and Saunders’ illustration of such Sample Size for different sizes of target population at a 95% confidence level with Margin of error variability 5%, is as table shown below – (Table 3.2).

Table 3.2: Sample Size for Different Sizes of Target Population at a 95% Variability 0.5 Confidence Level or Certainty - (assuming data are collected from all cases in the sample) -

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Margin of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>50</td>
<td>44</td>
</tr>
<tr>
<td>100</td>
<td>79</td>
</tr>
<tr>
<td>150</td>
<td>108</td>
</tr>
<tr>
<td>200</td>
<td>132</td>
</tr>
<tr>
<td>250</td>
<td>151</td>
</tr>
<tr>
<td>300</td>
<td>168</td>
</tr>
<tr>
<td>400</td>
<td>196</td>
</tr>
<tr>
<td>500</td>
<td>217</td>
</tr>
<tr>
<td>750</td>
<td>254</td>
</tr>
<tr>
<td>1000</td>
<td>278</td>
</tr>
</tbody>
</table>

Source: (Saunders, Lewis & Thornhill, 2016)

Adapting Saunders’s (2016) illustration table, this study drew a Sample Size of 168 respondents derived from a population of 300 as per Saunders’ list of sample size for different sizes of target population confidence level at 95% variability 0.5, which was adapted

3.4 Data Collection Methods

Data Collection is the gathering of specific information aimed at proving or disproving facts. Cooper and Schindler (2014) terms ‘data’ as information that includes attitudes, motivation, behaviour, collected from participants, respondents or observations – either direct or mechanical; or from secondary sources. The tool choice and instrument depends
mainly on the attributes of the subject, problem question, research topic, objectives, design, expected data and results. The researcher must have a clear vision of the instruments to be used; the target respondents and the selected area. O’Gorman and MacIntosh (2014) specify ‘primary data’ as being original data derived from transcripts, interviews or from a survey done by self. In this study, the primary data was gathered directly from respondents. For this study, the researcher administered a survey instrument (a structured questionnaire) to each member of the sample population. The research instruments were organised on the basis of the study’s objectives.

The questionnaires consisted of two parts, where the first section contained mainly personal background information like age; gender, marital status, level of education, enabling the research to know the nature of business, ownership and their operations. The second part focused on the factors that determined the sustainability of the enterprise. Using the Likart scale of 1-5 by circling the score number where: 1= Very great extent; 2= Great extent; 3= Moderate extent; 4= Low Extent and 5= Very Low Extent. This enabled the researcher to be in a position to analyse the determinants of sustainability in female (women) owned microenterprises in rural Kenya, plus any other determinants captured but not mentioned in the study. It is believed (Uma, 2006) that questionnaires are especially valuable and efficient in terms of researcher’s time, effort and financial resources.

The questionnaire method was more convenient, cost effective and attractive for this study. The researcher was accompanied for four (4) days by NISE Field Officers concerned touring the whole County, and administered the research instruments individually to a sample of 168 respondents. English, Kiswahili and at times the vernacular (‘Lulogooli’) were used for clarity because of various educational levels of respondents. During questions or interviews the researcher would at the point, identify Chama leaders among the respondents and request them to interpret or answer certain questions from their counterparts for clarity. A mobile phone voice recorder (on standby) was available for use to record the discussion if needed. This was to exercise care and control by the researcher and transverse the County to ensure questionnaires were issued to the respondents. Respondents filled in the required information before the researcher collected the forms with the completed information for those that were received.
3.5 Research Procedures

Research procedures commence when a management dilemma triggers the need for a response to make a decision (Saunders et al., 2016). The researcher sought permission to conduct the study initially from the research supervisor and the university after media was dominated by ‘necessity entrepreneurs’ talk. Approval was granted for researcher to write a letter for this purpose to NISE. Contact was made by the researcher as to the availability of the designated Field Officers of NISE in-charge of specific locations and groups. A date was set for the researcher to visit the various groups in their natural surroundings as a pre-warning of the intended survey since the groups and members are spread out in a radius of 531 Sq. Kilometres landmass (Vihiga County Development Profile, 2013). It is the Field Officer’s familiarity of the various SHGs/Chamas and knowledge of the members’ meeting locations, the days and times that they meet to engage. Furthermore, individual Chama members are always out and about ‘hustling’ or trading, trying to grow their businesses and fend for themselves.

Additional circumstances prompted the study. The researcher (as proprietor of NISE), received several complaints from Chama members together with unconfirmed reports (via word-of-mouth) that there existed ‘brief-case’ and other types of unauthorised credit givers – like ‘shylocks’ who operated in the main/major trading market centres in the County providing unauthorised funds with very high interest rates in the markets. These black market or underground money-lending cartels secretly operated in markets of major markets of Serem, Chavakali, Luanda and Mbale. Shylocks and cartels are unregistered; have no place of aboard, charge exorbitant interest rates, are not transparent, lack track records and are risky. Those lewd to such schemes are the rural micro entrepreneurs, who happen to be mostly women, some of the victims being NISE members. NISE envisaged a lost customer. NISE’s presence on the ground, establishes to serve the BOP cadre, through initiatives and micro trade/financial activities. Exorbitant interest rates can affect micro-owned ventures. It prompted NISE to research into customer satisfaction, management capabilities and their innovativeness to establish the catalyst for moving to next levels in their entrepreneurship.

Vihiga County was selected because of developmental activities, high population density and very high unemployment rate. Poverty is high and empowerment in any form financial or income generating activities is highly welcomed. Focus on micro enterprises
is special because micro ventures produce large numbers of self-employed business women and from novices. With own initiatives, creativity, lots of advice and sustainable microcredit, self-reliance can be realised. The micro enterprises need scaling up and so do the members’ confidence in order to promote growth. The researcher’s choice of study on Vihiga County is her familiarity with the Western Region as a whole and Vihiga women in particular, where she grew up. Furthermore, as a woman owning a microcredit outfit in a small NGO in Vihiga, the research spoke volumes, and NISE is a tester.

3.5.1 Reliability of the Instruments

Zikmund, Babin, Carr and Griffin (2013) points out that pre-testing the research instruments reduces biases that may be caused by measurement errors. Testing for Reliability of the research instrument however is paramount in research. Reliability seeks to determine if scores to items on a research instrument are internally consistent, stable, and if the test administration and scoring was consistent (Creswell, 2014). Zohrabi (2013) extensively categorizes reliability into two forms; namely: external and internal. External reliability focuses on the replication of the study. Internal reliability conversely constitutes the consistency in collection, analysis and interpretation of the data. It can be found when an independent researcher comes to similar findings as the original researcher after re-analysing the information.

According to Saunders, Lewis and Thornhill (2016), internal consistency involves correlating the responses to each question to the other questions in the questionnaire and measuring the consistency of responses, Cronbach’s alpha values range between 0 and 1 where a value of 0 indicates no reliability, while 1 indicates high reliability (Warrens, 2014). Moreover, the threshold for interpretation of reliability of the research instrument is Cronbach’s alpha value of 0.7. Thus Cronbach’s alpha values less than 0.7 indicate that the research instrument is unreliable while Cronbach’s alpha value equal to or greater than 0.7 indicates that the research instrument is reliable (Tavakol & Dennick, 2011). Warrens (2014) however posits that Cronbach’s alpha is the most commonly used coefficient for approximation of reliability of the test score for structured questionnaires and for calculating internal consistency.
3.5.2 Validity of the Instruments

Cooper and Schindler (2014) refer research validity to the correctness or truthfulness of the inference made from a research study, in that the results reflect the difference among the participants drawn from the population. Creswell (2013) informs that the validity of a research instrument is improved by the use of a Pilot study. Christensen, Johnson and Turner (2014) mentions four major types of validity, namely: Construct validity – the extent to which a construct is adequately represented by the measure used; Internal validity – the correctness of the inferences made about cause and effect in connecting with independent and dependent variables; and External validity – the degree to which results can be generalized to other people, settings and time.

3.5.3 Administration of the Instruments

Bryman and Bell (2011) emphasises the importance of a self-administered questionnaire (SAQ). Simply, the individual respondents respond to the questions by completing the questionnaires themselves. While (Saunders et al., 2016) points out that if there are no interviewers in the administration of the SAQ, then research instrument should be especially easy to follow and the questions should particularly be easy to answer. Several advantages described (Bryman & Bell, 2011) are when questionnaires are quicker to administer then there is the absence of interviewer effects; no interviewer variability; but convenience for respondents. The shortcomings of SCQ include:-there being no one present to prompt if needed; cannot probe the need to ensure questions are salient to respondents, the difficulties of asking questions in a different way; respondents can read all the questions before they begin to answer them, therefore they are not independent of each and cannot ask a lot of questions. There is the risk of missing data, also poor response rates (Bryman & Bell, 2011; Cooper & Schindler, 2014).

3.5.4 Ethical Consideration

Business research particularly is concerned with professional ethics and misconduct. Research misconduct involves ‘fabrication, falsification or plagiarism in proposing, performing or reviewing research’ (Christensen et al., 2014). Research ethics, according to Christensen, are a set of guidance to assist the researcher in conducting ethical research. Ethical research comprises of three areas (i) relationship between society and science; (ii) professional issues; and (iii) treatment of research participants. Research
ethics (Saunders et al., 2016) maintains that are a critical part of formatting the research design. Ethics in research links to the appropriateness of the researcher’s behaviour in relation to the rights of those becoming the subject of a research project, or those who are affected by it. Impinging on the rights of individuals is often occurs in advancing knowledge and finding solutions to problems. It is essential therefore for the researcher to consider such ethical issues (Zikmund, Babin, Carr & Griffin, 2013). Confidentiality of members’ responses was paramount in the study, assured and expressed so, including confining information obtained for academic use only.

3.6 Data Analysis Methods

A questionnaire was used to collect data from the members of NISE in order to investigate the Determinant of Sustainability of Women Owned Microenterprises in Vihiga County in Western Kenya. Christensen, Johnson and Turner (2014) hold that questionnaires are the most commonly used methods of data collection as the researcher is enabled to save time, possibility of collecting a large amount of information in case of a large population. While (Saunders et al., 2016) argues questionnaires not usually being particularly good for exploratory or other research that requires large numbers of open-ended questions (Christensen et al, 2014) however cautions that questionnaires must be kept short. They are subject to non-response to selective items as well as reactive effects if long. However, for descriptive and explanatory research, questionnaires are very much recommended.

This study adapted the descriptive method, and the questionnaire was divided into various sections. The aim was to capture general information about respondents and to then solicit specific information arising from research objectives/questions. The questionnaires were self-administered on the respective respondents who were asked to indicate their responses on a five-level Likert scale ranging from 1-5 where (1) reflected Strongly Disagree, (2) reflected Disagree, (3) reflected Neutral, (4) reflected Agree and (5) reflected Strongly Agree. Operationalization and measurement of study variables provided the basis of analyzing all variables both Independent and Dependent together with their constructs to have a clear insight.
3.6.1 Data Preparation

According to Saunders, Lewis and Thornhill (2014), data display and analysis means a process for the collection and analysis of qualitative data that involves three concurrent sub processes of data reduction, data display, drawing and verifying conclusions. Data analysing means - the way how to organize, says (Polit et al., 2001), so as to providing structure and elicit meaning. The analysis of qualitative data is an active and interactive process. Data analysis commences after data collection. The researcher collected data through questionnaires and checked to ascertain any anomalies. Data so collected was then cleaned, coded and summarized via excel spread sheets, and eventually imported into data analysis software SPSS Version 24 for analysis.

3.6.2 Descriptive Statistics of Variables

According to Cleff (2011) descriptive statistics refers to “all techniques used to obtain information based on the description of data from a population. Saunders, Lewis and Thornhill (2014), maintains descriptive statistics enables the researcher to describe and compare variables numerically. The research questions and objectives should guide the choice of statistics. The statistics are to describe a variable, for instance, focus on two aspects, namely: the central tendency and the dispersion. The three major ways of measuring the central tendency mostly used in business research are: “The Mode: - value that occurs most frequently; The Median:- middle value or midpoint after the data has been ranked; The Mean:- value, often known as the average – includes data values in its calculation”.

3.6.3 Inferential Statistics

Saunders, Lewis and Thornhill (2016) posses’ inferential statistics as the process of coming to conclusions about population on the basis of data, describing a sample drawn from that population. Zikmund, Babin, Carr and Griffin (2013) refer to inferential statistics as those statistical methods for making inferences to data or project from a sample to a whole population. The researcher, normally, is aided by inferential statistics to calculate how probable the result is, given the sample size, if it has been obtained by chance. (Zikmund et al., 2013) adds that statistical analysis refers to ‘univariate’, when testing objective involving one variable; ‘bivariate’ when involving two variables and ‘multivariate’ (Hair, Black, Babin & Anderson, 2010) when testing models or objectives
that involve three or more variables. Inferential testing involves Correlation, Analysis of Variance, Regression, and Factor Analysis. Such probabilities are calculated automatically by statistical analysis software (Saunders et al., 2016). The study tested for Normality, Reliability and Validity.

3.7 Chapter Summary

The chapter described the research methodology used in the study, highlighting on the research design to derive valid answers to the research questions. Population involved female micro business owner/members of different Chama/SHGs registered with NISE and located in the County of Vihiga. The target population and the sampling techniques were described. A sample size of 168 respondents was used and a structured questionnaire adapted as the primary data source and collection instrument. Chapter Four (4) commences in the next pages, showing the data analysis and findings presented in pie-charts, graphs and tables, as collected from the respondents.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

The main purpose of the research was to explore the core determinants of sustainability in the growth of women owned microenterprises in the County of Vihiga, Western Kenya. This chapter consists of the results and findings of the study.

4.2 Response Rate

Table 4.1 indicates the response rate. The sample size was 168 respondents in which all of them were female since the study focused on the women enterprise and 85% response rate was achieved

Table 4.1: Response Rate

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responded</td>
<td>143</td>
<td>85.1</td>
</tr>
<tr>
<td>Not Responded</td>
<td>25</td>
<td>14.9</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100</td>
</tr>
</tbody>
</table>

4.3 General Information

General information was collected from the respondents based on Age, Education Level, Marital Status, Nature of Business, Business Ownership, Starting Capital and Current Capital Status of the Business.

4.3.1 Age

The respondents provided general information on their ages and it was found that 10% were of ages between 18-25 years, 23% were of ages 26-35 years, 43% were of ages 36-45 years, 16% were of age 46-55 and 8% were of age 55 years and above. Thus the majority of the entrepreneurs (43%) were of age 36-45 years as shown in figure 4.1.
4.3.2 Age at the Start of the Business

The research sought to investigate the age of the respondents at the time they started their businesses. It was found that 35% had 18-25 years when they started their businesses, 36% had 26-35 years of age, 20% had 36-45 years of age, 7% had 46-55 years of age and 2% had 55 years and above. Thus the majority of the entrepreneurs (36%) had 18-25 years when they were starting their businesses as shown in figure 4.2.
4.3.3 Education Level.

The research sought to investigate the highest level of education of the entrepreneurs. It was found that 17% had primary education, 58% had secondary education as the highest level of education, 23% had college as their highest level of education and 3% had university as their highest level of education. Thus the majority of the entrepreneurs (58%) had secondary education as their highest level of education as shown in figure 4.3.

![Education Levels](image)

**Figure 4.3: Highest Level of Education**

4.3.4 Marital Status.

The respondents provided information on their marital status and it was found that 74% were married, 14% were single, 4% were divorced and 8% were widowed. Thus the majority (74%) of the respondents were married as shown in figure 4.4.

![Marital status](image)

**Figure 4.4: Marital status.**
4.3.5 Nature of Business.

Research sought to investigate the nature of business that the respondents were doing, it was found that 4.8% were in transport business, 7.1% were in poultry business, 7.1% were in hotel and restaurant business, 8.3% were in rental business, 10.7% were in cosmetic business, 7.1% were in cereal business, 2.4% were in motor spares, 14.3% were in agri-business and 4.8 were in merchandise business as shown in the table 4.2.

Table 4.2: Nature of Business.

<table>
<thead>
<tr>
<th>Nature of business</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>8</td>
<td>4.8</td>
</tr>
<tr>
<td>Poultry Keeping</td>
<td>12</td>
<td>7.1</td>
</tr>
<tr>
<td>Hotel and Restaurant</td>
<td>12</td>
<td>7.1</td>
</tr>
<tr>
<td>Rental</td>
<td>14</td>
<td>8.3</td>
</tr>
<tr>
<td>Cosmetics/ Beauty</td>
<td>18</td>
<td>10.7</td>
</tr>
<tr>
<td>Cereals</td>
<td>12</td>
<td>7.1</td>
</tr>
<tr>
<td>Motor spares</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>Agri-business</td>
<td>24</td>
<td>14.3</td>
</tr>
<tr>
<td>Merchandise</td>
<td>8</td>
<td>4.8</td>
</tr>
<tr>
<td>others</td>
<td>56</td>
<td>33.3</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.3.6 Period the Business Has Been in Operation.

The respondents were asked the period in which their businesses have been operating. It was found that 10% have been operating for less than 2 years, 37% have been operating for 2-4 years, 35% have been operating for 5-8 years, 9% have been operating for 8-10 years and 10% have been operating for over 10 years. Thus majority (37%) of the businesses have been operating for 2-4 years as shown in figure 4.5.
4.3.7 Business Ownership

The research sought to investigate the type of ownership of the businesses. It was found that 72% were owned by individuals, 5% were owned in partnerships, 14% were owned by families, 8% were owned by managers. Thus majority (72%) of the businesses were owned individually as shown in the figure 4.6.

Figure 4.6: Business Ownership

4.3.8 Starting Capital.

The respondents were asked the amount of the starting capital of their enterprises. It was found that 43% started with 0-10000 Kenya shillings, 27% started with 10001-20000 shillings, 10% started with 20001-30000 shillings, 10% started with 30001-40000.
shillings, 8% started with 40001-50000 shillings and 10% started with above 50000. Thus the majority (43%) of the entrepreneurs started their business with 0-10000 shillings as shown in figure 4.7.

![Figure 4.7: Starting Capital](image)

**4.3.9 Current Capital Status**

Research sought to investigate the current capital status of the entrepreneurs. It was found that 17% had 0-10000 Kenya shillings, 47% had 10001-20000 shillings, 8% had 20001-30000 shillings, 4% had 30001-40000 shillings, 10% had 40001-50000 shillings and 15% had above 50000. Thus the majority (47%) of the entrepreneurs had 10001-20000 shillings as shown in figure 4.8.

![Figure 4.8: Current Capital Status](image)
4.4 Descriptive Statistics of Variables

The descriptive statistics of variables reveal the characteristics of distribution in comparison of variables – central tendency and the dispersion. The (central tendency – the Mode, Medium and Mean), are useful tools for summarizing distribution.

4.4.1 Influence of Competition on Enterprise Sustainability

Research sought to investigate the extent to which competition factors influence the sustainability of enterprise. Table 4.3 indicates that majority (37%) of the respondent’s claim that the market survey influence is to a great and very great extent. 41% of the respondents indicated that Rivalry between Women and Men influenced enterprise sustainability to a low and very low extent. 44% claimed that advertisement techniques influenced to a low and very low extent.

Table 4.3: Influence of Competition on Enterprise Sustainability

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Competition</th>
<th>VGE (%)</th>
<th>GE (%)</th>
<th>ME (%)</th>
<th>LE (%)</th>
<th>VLE (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC1</td>
<td>Market survey</td>
<td>26</td>
<td>11</td>
<td>35</td>
<td>6</td>
<td>23</td>
<td>2.89</td>
<td>1.45</td>
</tr>
<tr>
<td>BC2</td>
<td>Rivalry between(Women and Men)</td>
<td>20</td>
<td>7</td>
<td>32</td>
<td>20</td>
<td>21</td>
<td>3.14</td>
<td>1.38</td>
</tr>
<tr>
<td>BC3</td>
<td>Advertisement techniques</td>
<td>21</td>
<td>8</td>
<td>26</td>
<td>11</td>
<td>33</td>
<td>3.28</td>
<td>1.52</td>
</tr>
</tbody>
</table>

KEY: VGE-very great extent, GE- great extent, ME-Moderate extent, LE- low extent, VLE-Very low extent

4.4.2 Influence of Capital Accessibility on Enterprise Sustainability

Research sought to investigate the extent to which capital accessibility influence the sustainability of an enterprise. Table 4.4 shows that majority (35%) claim that collaterals influence enterprise sustainability is to a low and very low extent. Majority (60%) claim that Government funding (Women and Youth Funds) influence is to a low and very low
extent. 43% of the entrepreneurs asserts that the influence of sources of finance is to a low and very low extent.

Table 4.4: Influence of Capital Accessibility on Enterprise Sustainability

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Capital accessibility</th>
<th>VGE (%)</th>
<th>GE (%)</th>
<th>ME (%)</th>
<th>LE (%)</th>
<th>VLE (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA1</td>
<td>Collaterals</td>
<td>17</td>
<td>10</td>
<td>38</td>
<td>8</td>
<td>27</td>
<td>3.17</td>
<td>1.39</td>
</tr>
<tr>
<td>CA2</td>
<td>Government funding ( Women and Youth Funds)</td>
<td>13</td>
<td>8</td>
<td>18</td>
<td>14</td>
<td>46</td>
<td>3.72</td>
<td>1.45</td>
</tr>
<tr>
<td>CA3</td>
<td>Sources of Finance</td>
<td>19</td>
<td>11</td>
<td>27</td>
<td>13</td>
<td>30</td>
<td>3.24</td>
<td>1.47</td>
</tr>
</tbody>
</table>

KEY: VGE-very great extent, GE- great extent, ME-Moderate extent, LE-low extent, VLE-Very low extent

4.4.3 Influence of Domestic Attachment on Enterprise Sustainability

Research sought to investigate the extent to which domestic attachment influences the sustainability of an enterprise. Table 4.5 indicates that majority of the entrepreneurs (45%) are of the opinion that support and assistance from relatives and spouse influence to a great and very great extent. Majority of the entrepreneurs (44%) claim that the form of enterprise ownership influence to a great and very great extent. Majority (64%) are of the opinion that the time devoted in enterprise management, influence to a great and very great extent.

Table 4.5: Influence of Domestic Attachment on Enterprise Sustainability

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Domestic Attachment</th>
<th>VGE (%)</th>
<th>GE (%)</th>
<th>ME (%)</th>
<th>LE (%)</th>
<th>VLE (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD1</td>
<td>Support and assistance from relatives and spouses</td>
<td>36</td>
<td>9</td>
<td>21</td>
<td>9</td>
<td>24</td>
<td>2.76</td>
<td>1.60</td>
</tr>
<tr>
<td>DD2</td>
<td>Form of enterprise ownership</td>
<td>31</td>
<td>12</td>
<td>36</td>
<td>10</td>
<td>11</td>
<td>2.59</td>
<td>1.32</td>
</tr>
<tr>
<td>DD3</td>
<td>Time devoted in enterprise management</td>
<td>48</td>
<td>16</td>
<td>15</td>
<td>7</td>
<td>14</td>
<td>2.21</td>
<td>1.45</td>
</tr>
</tbody>
</table>

KEY: VGE-very great extent, GE- great extent, ME-Moderate extent, LE-low extent, VLE-Very low extent

4.4.4 Influence of Information Technology on Enterprise Sustainability

Research sought to investigate the extent to which the information technology influences the sustainability of an enterprise. Table 4.6 shows that majority of the entrepreneurs (31%) claim that production techniques affects sustainability to a great and very great extent. 36% are of the opinion that gathering market information influences enterprise
sustainability to a great and very great extent. 39% of the respondents are of the opinion that the level of automation influences enterprise sustainability to a great and very great extent.

### Table 4.6: Influence of Information Technology on Enterprise Sustainability

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Information Technology</th>
<th>VGE (%)</th>
<th>GE (%)</th>
<th>ME (%)</th>
<th>LE (%)</th>
<th>VLE (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIT1</td>
<td>Production techniques</td>
<td>13</td>
<td>18</td>
<td>34</td>
<td>21</td>
<td>13</td>
<td>2.94</td>
<td>1.37</td>
</tr>
<tr>
<td>EIT2</td>
<td>Market information gathering</td>
<td>17</td>
<td>19</td>
<td>39</td>
<td>16</td>
<td>10</td>
<td>3.13</td>
<td>1.29</td>
</tr>
<tr>
<td>EIT3</td>
<td>Level of Automation</td>
<td>13</td>
<td>26</td>
<td>27</td>
<td>23</td>
<td>11</td>
<td>3.07</td>
<td>1.49</td>
</tr>
</tbody>
</table>

**KEY:** VGE-very great extent, GE-great extent, ME-Moderate extent, LE-low extent, VLE-Very low extent

#### 4.4.5 Microenterprise’s Sustainability

The study investigated factors of microenterprises sustainability. Table 4.7 indicates that 39% of the respondents were of the opinion that investment diversification influences to a great and very great extent. Majority of the entrepreneurs (40%) claim that industry leadership influences to a great and very great extent of sustainability. 67% of the respondents that future outlook influences to a great and very great extent of sustainability. 56% of the respondents claim that profit influences to a great and very great extent of sustainability. 53% of the respondents claim that profit growth influences to a great and very great extent of sustainability. 60% of the respondents claim that sales growth influences to a great and very great extent of sustainability.

### Table 4.7: Microenterprise’s Sustainability

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Microenterprise’s Sustainability</th>
<th>VGE (%)</th>
<th>GE (%)</th>
<th>ME (%)</th>
<th>LE (%)</th>
<th>VLE (%)</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS1</td>
<td>Investment diversification</td>
<td>20</td>
<td>19</td>
<td>39</td>
<td>14</td>
<td>8</td>
<td>3.22</td>
<td>1.24</td>
</tr>
<tr>
<td>FS2</td>
<td>Industry leadership</td>
<td>23</td>
<td>17</td>
<td>35</td>
<td>14</td>
<td>11</td>
<td>3.20</td>
<td>1.24</td>
</tr>
<tr>
<td>FS3</td>
<td>Future outlook</td>
<td>25</td>
<td>42</td>
<td>17</td>
<td>9</td>
<td>7</td>
<td>3.85</td>
<td>1.28</td>
</tr>
<tr>
<td>FS4</td>
<td>Profit</td>
<td>23</td>
<td>33</td>
<td>29</td>
<td>9</td>
<td>7</td>
<td>3.63</td>
<td>1.26</td>
</tr>
<tr>
<td>FS5</td>
<td>Profit growth</td>
<td>21</td>
<td>32</td>
<td>29</td>
<td>7</td>
<td>11</td>
<td>3.58</td>
<td>1.24</td>
</tr>
<tr>
<td>FS6</td>
<td>Sales growth</td>
<td>23</td>
<td>37</td>
<td>24</td>
<td>10</td>
<td>7</td>
<td>3.70</td>
<td>1.30</td>
</tr>
</tbody>
</table>
4.5 Normality Test

Skewness and kurtosis statistics were used to test normality and presented in table 4.8. Normality of the variable is assumed if its skewness and kurtosis have values between –1.0 and +1.0. All the items followed a normal distribution.

<table>
<thead>
<tr>
<th>ITEM code</th>
<th>Description</th>
<th>N</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC1</td>
<td>Market survey</td>
<td>168</td>
<td>.129</td>
<td>-.179</td>
</tr>
<tr>
<td>BC2</td>
<td>Rivalry between (Women and Men)</td>
<td>168</td>
<td>-.246</td>
<td>-.055</td>
</tr>
<tr>
<td>BC3</td>
<td>Advertisement techniques</td>
<td>168</td>
<td>-.266</td>
<td>-.317</td>
</tr>
<tr>
<td>CA1</td>
<td>Collaterals</td>
<td>168</td>
<td>-.096</td>
<td>-.073</td>
</tr>
<tr>
<td>CA2</td>
<td>Government funding (Women and Youth Funds)</td>
<td>168</td>
<td>-.723</td>
<td>-.870</td>
</tr>
<tr>
<td>CA3</td>
<td>Sources of Finance</td>
<td>168</td>
<td>-.213</td>
<td>-.266</td>
</tr>
<tr>
<td>DD1</td>
<td>Support and assistance from relatives and spouses</td>
<td>168</td>
<td>.219</td>
<td>-.492</td>
</tr>
<tr>
<td>DD2</td>
<td>Form of enterprise ownership</td>
<td>168</td>
<td>.275</td>
<td>-.943</td>
</tr>
<tr>
<td>DD3</td>
<td>Time devoted in</td>
<td>168</td>
<td>.852</td>
<td>-.680</td>
</tr>
<tr>
<td>EIT1</td>
<td>Production techniques</td>
<td>168</td>
<td>.037</td>
<td>-.068</td>
</tr>
<tr>
<td>EIT2</td>
<td>Market information gathering</td>
<td>168</td>
<td>-.162</td>
<td>-.824</td>
</tr>
<tr>
<td>EIT3</td>
<td>Level of Automation</td>
<td>168</td>
<td>-.069</td>
<td>-.327</td>
</tr>
<tr>
<td>FS1</td>
<td>Investment diversification</td>
<td>168</td>
<td>-.257</td>
<td>-.669</td>
</tr>
<tr>
<td>FS2</td>
<td>Industry leadership</td>
<td>168</td>
<td>-.266</td>
<td>-.735</td>
</tr>
<tr>
<td>FS3</td>
<td>Future outlook</td>
<td>168</td>
<td>-.938</td>
<td>-.178</td>
</tr>
<tr>
<td>FS4</td>
<td>Profit</td>
<td>168</td>
<td>-.595</td>
<td>-.541</td>
</tr>
<tr>
<td>FS5</td>
<td>Profit growth</td>
<td>168</td>
<td>-.441</td>
<td>-.761</td>
</tr>
<tr>
<td>FS6</td>
<td>Sales growth</td>
<td>168</td>
<td>-.718</td>
<td>-.517</td>
</tr>
</tbody>
</table>

4.6 Confirmatory Measurement Model

First phase involved Confirmatory factor analysis (CFA) that evaluates the measurement model on multiple criteria such as internal reliability, convergent, and discriminated validity. Prior to this was exploratory factor analysis (EFA) whose key steps included the computation of factor loading matrix, communalities and principal components analysis (PCA).
4.6.1 Exploratory Factor Analysis (EFA)

Exploratory factor analysis was used to refine the constructs. The data was first run tests to assess its factorability using these indicators (Kaiser Meyer-Olin Measure of Sampling Adequacy, Bartlett’s Test of Sphericity and communalities. The results of this test are presented in Table 4.9. The KMO measure of Sampling Adequacy varies between 0 and 1, and values closer to 1 are better. The KMO measure of sampling adequacy indicates an approximate score 0.754, well above 0.50 level, indicating an acceptable degree of sampling adequacy. Bartlett’s test of Sphericity show a Chi-Square of 1123.989 with associated P-value of 0.000<0.05 indicating that the items retained to measure competition, capital accessibility, domestic attachment, information technology and microenterprise sustainability were significant.

Table 4.9: KMO and Bartlett's Test

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
<td>0.754</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td>1123.989</td>
</tr>
<tr>
<td>Approx. Chi-Square df</td>
<td>91</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>

4.6.2 Total Variance Explained

From Table 4.10, five factors out of a total 14 factors in the initial solution had Eigen values greater than 1. They were imputed based on Kaiser’s criterion. Together, they accounted for almost 76.688% of the variability in the original variables.
### Table 4.10: Total Variance Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigen Values</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Component</td>
<td>% of Variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>1</td>
<td>4.483</td>
<td>32.024</td>
<td>32.024</td>
</tr>
<tr>
<td>2</td>
<td>2.254</td>
<td>16.101</td>
<td>48.126</td>
</tr>
<tr>
<td>3</td>
<td>1.889</td>
<td>13.490</td>
<td>61.616</td>
</tr>
<tr>
<td>4</td>
<td>1.100</td>
<td>7.859</td>
<td>69.475</td>
</tr>
<tr>
<td>5</td>
<td>1.010</td>
<td>7.213</td>
<td>76.688</td>
</tr>
<tr>
<td>6</td>
<td>.675</td>
<td>4.820</td>
<td>81.508</td>
</tr>
<tr>
<td>7</td>
<td>.576</td>
<td>4.115</td>
<td>85.623</td>
</tr>
<tr>
<td>8</td>
<td>.484</td>
<td>3.458</td>
<td>89.081</td>
</tr>
<tr>
<td>9</td>
<td>.347</td>
<td>2.477</td>
<td>91.558</td>
</tr>
<tr>
<td>10</td>
<td>.293</td>
<td>2.094</td>
<td>93.651</td>
</tr>
<tr>
<td>11</td>
<td>.258</td>
<td>1.846</td>
<td>95.498</td>
</tr>
<tr>
<td>12</td>
<td>.245</td>
<td>1.750</td>
<td>97.248</td>
</tr>
<tr>
<td>13</td>
<td>.205</td>
<td>1.467</td>
<td>98.715</td>
</tr>
<tr>
<td>14</td>
<td>.180</td>
<td>1.285</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

#### 4.6.3 Pattern Matrix

Communality measures the percent of variance in a specified variable explained by all the combined factors and is interpreted as the reliability of the indicator. A low value for communality (less than 0.3) could indicate that the variable does not fit well with other variables in its component, and it is unwanted. Table 4.11 indicates that the values for communalities were above 0.5 demonstrating acceptable factorability for all items. Table 4.10 shows the factor loadings of the five components extracted with the first one been Micro enterprise Sustainability whose loadings ranged from 0.828 to 0.866, Competition was the second component with loadings ranging from 0.781 to 0.925, Information Technology was the third component with loadings ranging from 0.727 to 0.892, Domestic Attachment was the fourth component with loadings 0.865 and 0.902. The last
component was Capital accessibility with loadings 0.834 and 0.873. All the factor loadings were greater than 0.5, an indication that the measures were well loaded.

Table 4.11: Pattern Matrix

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Component Micro enterprise</th>
<th>Sustainability</th>
<th>Component</th>
<th>Information Technology</th>
<th>Domestic attachment</th>
<th>Capital accessibility</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC1</td>
<td>0.810</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.692</td>
</tr>
<tr>
<td>BC2</td>
<td>0.925</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.829</td>
</tr>
<tr>
<td>BC3</td>
<td>0.781</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.693</td>
</tr>
<tr>
<td>DD2</td>
<td></td>
<td>0.902</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.822</td>
</tr>
<tr>
<td>DD3</td>
<td></td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.772</td>
</tr>
<tr>
<td>EIT1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.662</td>
</tr>
<tr>
<td>EIT2</td>
<td></td>
<td>0.778</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.816</td>
</tr>
<tr>
<td>EIT3</td>
<td></td>
<td>0.727</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.683</td>
</tr>
<tr>
<td>CA1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.873</td>
<td></td>
<td>0.833</td>
</tr>
<tr>
<td>CA3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.834</td>
<td></td>
<td>0.803</td>
</tr>
<tr>
<td>FS3</td>
<td>0.847</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.717</td>
</tr>
<tr>
<td>FS4</td>
<td>0.840</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.790</td>
</tr>
<tr>
<td>FS5</td>
<td>0.828</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.822</td>
</tr>
<tr>
<td>FS6</td>
<td>0.866</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.803</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

4.6.4 Confirmatory Factor Analysis.

Confirmatory factor analysis (CFA) was then done to measure the reliability and validity of the item measurements before using them in the hypothesised model. CFA was also executed using IBM AMOS version 23 to measure the model fitness. The CFA model is shown in figure 4.9.
Figure 4.9: Confirmatory Factor Analysis Model for Study Variables

4.6.4.1 Model Fits for CFA Model

The model fit measurement statistics for the overall measurement model for study variables was extracted as presented in Table 4.12. The fit statistics indices were within the satisfactory range therefore the CFA model fit the data adequately.

Table 4.12: Model Fits for CFA Model

<table>
<thead>
<tr>
<th>Measure</th>
<th>CMIN</th>
<th>DF</th>
<th>CMIN/DF</th>
<th>CFI</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>PClose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>102.829</td>
<td>67</td>
<td>1.535</td>
<td>0.967</td>
<td>0.058</td>
<td>0.057</td>
<td>0.295</td>
</tr>
<tr>
<td>Threshold</td>
<td>--</td>
<td>--</td>
<td>Between 1 and 3</td>
<td>&gt;0.95</td>
<td>&lt;0.08</td>
<td>&lt;0.06</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>Interpretation</td>
<td>--</td>
<td>--</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
</tbody>
</table>
4.6.5 Construct Reliability

Composite reliability and the Cronbach’s alpha of the constructs was computed to assess construct reliability. The Cronbach’s alphas were all above the 0.6 threshold as specified for analysis (Hair et al., 2010). While composite reliability of manifest items were all above the satisfactory 0.7 threshold which means all the variables in the study demonstrated construct reliability as indicated in Table 4.13.

Table 4.13: Construct Reliability

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of items</th>
<th>Cronbach's Alpha</th>
<th>Composite reliability (CR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Attachment</td>
<td>2</td>
<td>0.727</td>
<td>0.759</td>
</tr>
<tr>
<td>Microenterprise sustainability</td>
<td>4</td>
<td>0.909</td>
<td>0.910</td>
</tr>
<tr>
<td>Competition</td>
<td>3</td>
<td>0.796</td>
<td>0.815</td>
</tr>
<tr>
<td>Information Technology</td>
<td>3</td>
<td>0.727</td>
<td>0.773</td>
</tr>
<tr>
<td>Capital Accessibility</td>
<td>2</td>
<td>0.82</td>
<td>0.820</td>
</tr>
</tbody>
</table>

4.6.6 Convergent Validity

Convergent Validity was measured by three measures: factor loadings, composite reliability (CR) and average variance extracted (AVE). Degree to which scores on one scale correlate with scores on other scales designed to assess same construct (Christensen et al., 2014). It is achieved if composite reliability values for the construct are least 0.7 and the AVE is at least 0.5 (Hair et al., 2010). Average variance extracted (AVE) was used to assess convergent validity. Table 4.14 indicates that AVE of all factors were above the 0.5 threshold indicating that the latent constructs account for at least fifty percent of the variance in the items. This indicates that the measurement scales revealed satisfactory measurement validity.

4.6.7 Discriminant Validity

Two criteria assess the Discriminant Validity. It is the extent to which items measuring one construct differentiate from items measuring other constructs. First criterion is the inter-construct correlation should not be higher than 0.9. Second criterion is the square root of the (AVE) of the construct should be larger than its correlation with other constructs. Table 4.14 shows the correlation matrix and the AVEs of the constructs. The
bold elements in the diagonal are the square root of the average variance extracted (AVE) of all the latent constructs. If the diagonal elements are higher than other off-diagonal elements in their rows and columns then discriminant validity is assumed. Discriminant validity was confirmed for the measurement model.

Table 4.14: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Domestic Attachment</th>
<th>Microenterprise sustainability</th>
<th>Competition</th>
<th>Information Technology</th>
<th>Capital Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic Attachment</td>
<td>0.612</td>
<td>0.782</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microenterprise sustainability</td>
<td>0.717</td>
<td>-0.251</td>
<td>0.847</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition</td>
<td>0.600</td>
<td>0.309</td>
<td>-0.183</td>
<td>0.775</td>
<td></td>
</tr>
<tr>
<td>Information Technology</td>
<td>0.548</td>
<td>0.056</td>
<td>0.238</td>
<td>-0.276</td>
<td>0.740</td>
</tr>
<tr>
<td>Capital Accessibility</td>
<td>0.695</td>
<td>-0.199</td>
<td>0.645</td>
<td>-0.140</td>
<td>0.149</td>
</tr>
</tbody>
</table>
4.7 Structural Model Estimation

Figure 4.10: Structural Model for the Relationship of the Study Variables

4.7.1 Model Fits for Structural Model

The model fit measurement statistics for the overall structural model for study variables was extracted as presented in Table 4.15. The fit statistics indices were within the satisfactory range therefore the CFA model fit the data adequately.

Table 4.15: Model Fits for Structural Model

<table>
<thead>
<tr>
<th>Measure</th>
<th>CMIN</th>
<th>DF</th>
<th>CMIN/DF</th>
<th>CFI</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>P Close</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>132.467</td>
<td>73</td>
<td>1.815</td>
<td>0.944</td>
<td>0.065</td>
<td>0.058</td>
<td>0.089</td>
</tr>
<tr>
<td>Threshold</td>
<td>--</td>
<td>--</td>
<td>Between 1 and 3</td>
<td>&gt;0.95</td>
<td>&lt;0.08</td>
<td>&lt;0.06</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>Interpretation</td>
<td>--</td>
<td>--</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
</tbody>
</table>
4.8 Regression Weights

4.8.1 Influence of Competition and Microenterprise Sustainability

Table 4.16 and figure 4.10 indicates that the path coefficient for the relationship between competition and microenterprise sustainability was negative and significant at the 0.05 level ($\beta=-0.192$, T-value $=2.743$, p<0.05). The negative relationship indicates that one unit increase in competition will result in 0.192 decreases in microenterprise sustainability.

4.8.2 Influence of Capital Accessibility and Microenterprise Sustainability

Table 4.16 and figure 4.10 indicates that the path coefficient for the relationship between capital accessibility and microenterprise sustainability was positive and significant at the 0.05 level ($\beta=0.572$, T-value $=6.535$, p<0.05). The positive relationship indicates that one unit increase in capital accessibility will result in 0.572 increases in microenterprise sustainability.

4.8.3 Influence of Domestic Attachment and Microenterprise Sustainability

Table 4.16 and figure 4.10 indicates that the path coefficient for the relationship between domestic attachment and microenterprise sustainability was positive and significant at the 0.05 level ($\beta=0.168$, T-value $=2.100$, p<0.05). The negative relationship indicates that one unit increase in domestic attachment will result in 0.168 decreases in microenterprise sustainability.

4.8.4 Influence of Information Technology and Microenterprise Sustainability

Table 4.16 and figure 4.10 indicates that the path coefficient for the relationship between information technology and microenterprise sustainability was positive and significant at the 0.05 level ($\beta=0.211$, T-value $=2.185$, p<0.05). The positive relationship indicates that one unit increase in information technology will result in 0.211 increases in microenterprise sustainability.
### Table 4.16: Regression Weights

<table>
<thead>
<tr>
<th>Path</th>
<th>Unstandardized estimate</th>
<th>Standardized estimate</th>
<th>Standard Error</th>
<th>T value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microenterprise sustainability &lt; Competition</td>
<td>-0.192</td>
<td>-0.231</td>
<td>0.07</td>
<td>-2.743</td>
<td>0.007</td>
</tr>
<tr>
<td>Microenterprise sustainability &lt; Capital Accessibility</td>
<td>0.572</td>
<td>0.615</td>
<td>0.088</td>
<td>6.535</td>
<td>***</td>
</tr>
<tr>
<td>Microenterprise sustainability &lt; Domestic Attachment</td>
<td>-0.168</td>
<td>-0.158</td>
<td>0.08</td>
<td>-2.100</td>
<td>0.037</td>
</tr>
<tr>
<td>Microenterprise sustainability &lt; Information Technology</td>
<td>0.211</td>
<td>0.201</td>
<td>0.097</td>
<td>2.185</td>
<td>0.029</td>
</tr>
</tbody>
</table>

### 4.9 Predictive Relevance of the Model

The quality of the structural model can be assessed by $R^2$ which shows the variance in the endogenous variable that is explained by the exogenous variables. Based on the results reported in figure 4.10, the $R^2$ was found to be 0.434 indicating that competition, capital accessibility, domestic attachment and information technology can account for 43.4% of the variance in the Microenterprise sustainability.

### 4.10 Results and Findings

As presented and discussed it is revealed that Competition, Capital Accessibility, Domestic Attachment and Information Technology are among the factors that influence the sustainability of women owned microenterprises in Kenya. Furthermore, the study indicated that Competition and Domestic Attachment influenced microenterprise sustainability negatively, while Capital Accessibility and Information Technology influenced microenterprise sustainability positively.

### 4.11 Chapter Summary

This chapter presents the results and findings of the study. Findings are presented in pie-charts, graphs and figures. The presentation is aligned to the research objectives and covers the reports on the extent to which competition is a determinant of sustainability of
women-owned microenterprises in Vihiga County; the extent to which capital accessibility is a determinant of sustainability of women-owned microenterprises in Vihiga County; the extent to which women’s domestic attachment determines the sustainability of women-owned microenterprises in Vihiga County; the extent to which information technology is a determinant of sustainability of women-owned microenterprises in Vihiga County and lastly the correlation and regression analysis testing of statistical significant relationship between the dependent variable and independent variables. The next Chapter Five (5), presents the summary discussion of findings, conclusions and recommendations.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary discussions of the findings established from investigating the determinants of sustainability of women owned microenterprises in the County of Vihiga, Western Kenya. Sustainability of any enterprise is a challenge to many rural women. The findings are guided by specific research questions. Conclusions will be drawn and recommendations highlighted for further studies.

5.2 Summary

The study explored the core determinants of sustainability by examining the constraints and challenges that hinder micro entrepreneurial growth experienced by rural women entrepreneurs in the County of Vihiga, Western Kenya. The study investigated the extent to which competition, capital accessibility, domestic attachment, and information technology determine the sustainability of women owned microenterprises in rural Kenya.

A descriptive research design was employed in conducting this study and addressed the questions as per research questions. Questionnaires were drawn up and used as data collection instruments. The study participants were issued with the structured questionnaires as part of the data collection exercise. Majorly the study sought to find out the respondents’ opinion on the identified determinants as factors that influence the sustainability of women owned microenterprises in Vihiga County.

The study population consisted of 300 women. A sample size of 168 respondents was derived from a group of 60Chamas/SHGs registering 5-10 members each with NISE/NGO. These members are either unemployed, under-employed (“necessity-driven”) or self-employed (“opportunity-driven”) with desire to pursuing income generating activities. Probability sampling approach was utilized to arrive at the final sample for the study of 168 respondents. Collected data was analysed using descriptive statistics, as well as correlation and regression analysis. Descriptive statistics described and
summarized the data, whereas correlation and regression analysis was applied to determine the relationship between the dependent variables – namely (Competition, Capital Accessibility, Domestic Attachment, Information Technology (dependent variables) and independent variable – (Sustainability).

From the analysis, it showed Competition to have a negative and statistically significant relationship with Microenterprise Sustainability. The path coefficient was negative and significant at the 0.05 level (β=-0.192, T-value =-2.743, p<0.05). The negative relationship means that if Competition increases by 1, Microenterprise Sustainability of the respondents will decrease by 0.192. Capital Accessibility was found to have a positive and statistically significant relationship with Microenterprise Sustainability. The path coefficient was positive and significant at the 0.05 level (β=0.572, T-value =6.535, p<0.05). The positive relationship means that if capital accessibility increases by 1, Microenterprise Sustainability of the respondents will increase by 0.572.

Domestic Attachment was found to have a positive and significant relationship with Microenterprise Sustainability. The path coefficient was positive and significant at the 0.05 level (β=0.168, T-value =-2.100, p<0.05). The negative relationship means that if Domestic Attachment increases by 1, Microenterprise Sustainability of the respondents will decreases by 0.168. Information Technology was found to have a positive and significant relationship with Microenterprise Sustainability. The path coefficient was positive and significant at the 0.05 level (β=0.211, T-value =2.185, p<0.05). The positive relationship indicates that if Information Technology increased by 1, Microenterprise Sustainability of the respondents will increase by 0.211.

In regression analysis, the R\(^2\) value which indicated a 43.4% of the variance in Microenterprise Sustainability of the women owned enterprises is explained by factors of Competition, Capital Accessibility, Domestic Attachment and Information Technology. It therefore, suggests that other factors not included in this study contribute to 56.6% of the variation in the Microenterprise Sustainability of women owned Microenterprises in the County of Vihiga. Capital accessibility has the biggest influence on the sustainability of women owned enterprises.

70
The correlation analysis revealed that the relationship between competition and the sustainability of women owned enterprises was significant at a level of 0.05. The regression analysis showed that domestic attachment, competition, and capital accessibility can influence the sustainability of women owned enterprises.

5.3 Discussion

5.3.1 Competition is a Determinant of Sustainability of Women-owned Microenterprises in Vihiga County

According to the study findings, majority of the study respondents alleged that the rivalry between men and women has a low influence on the sustainability of an enterprise. On the same note, the correlation analysis revealed a significant relationship between the sustainability of women-owned microenterprises and competition. This means that competition influences the sustainability of women-owned enterprises.

Edgcomb, Klein, and Thetford (2017) referred to sustainability as a crucial factor for any microenterprise, implying that the business has a strong future. A sustainable business has the ability to access capital, capability to serve customers, and deal with all the challenges without comprising its ability to survive. Gaining a competitive advantage in the market puts a business in a position to reap more benefits compared to its rivals. Some of the well-known sources of competition include technology, quality customer service, and unique products and services. Barney (1991) alleges that an enterprise that enjoys a sustainable competitive advantage is focused on implementing value adding strategy that is not being implemented by other players in the industry. Grant (1995) insists that the sustainability of a competitive advantage cannot be discussed without considering factors like replicability, durability and mobility. The competitiveness of women owned microenterprises can be examined from this perspective.

Based on the study findings, most of the respondent entrepreneurs are in agribusiness. It is likely that a significant number of these enterprises are selling more less the same kind of products, which brings up the issue of replicability. The durability of these women-owned enterprises is very low, which might be connected to the fact that most of the business used a relatively low capital and the lack of creativity on the part of the entrepreneur. A micro enterprise maintains a competitive advantage by adapting to the
marketing environment and providing goods that majority of the customers find important. It explains why majority of the study respondents agreed that gathering information has a great influence on the sustainability of an enterprise. Furthermore, it helps improve the competitive advantage of the business because the enterprise has the opportunity to take actions before competitors. Understanding the market provides the enterprise with the opportunity to take advantage and get ahead of competitors.

The influence of competition on the sustainability of women owned microenterprises might be due to the fact that all the enterprises in the area are operating on the same standard. The chances of a business going burst as a result of competition are if they are serving a large market. There is always someone who will keep buying to help keep the enterprise operational. However, a low influence does not mean no influence at all because some enterprises have been pushed out of business because they lacked a key competitive advantage. Women owned enterprises should consider manipulating mobility, durability and replicability to gain a competitive advantage in the market. The findings of the study imply the sustainability of an enterprise is influenced by competition but there are more factors to consider. Gathering of market information facilitates the development of key strategies that helps the business to stay ahead of competitors.

In general, competition has a positive relationship with the sustainability of women-owned enterprises in Vihiga County. The impact of competition is not very high because of the market size compared to the number of sellers. In addition, most of the sellers are doing more or less the same thing, which means no one has a significant competitive advantage in the market.

5.3.2 Capital Accessibility is a Determinant of Sustainability of Women-Owned Microenterprises in Vihiga County

Capital accessibility is a crucial component of any microenterprise because it facilities access to other resources to operate an enterprise. Women owned enterprises face significant challenges when it comes to accessing financial resources. If one factors in the fact that they are women then the challenges become specific (Wole, 2009). The collateral demanded by financial institutions to facilitate accessibility to funds for the initial capital is a big challenge for women doing business in Africa. The study sought to explore how access to capital affects the sustainability of women-owned microenterprises
in Vihiga County. According to the study findings, access to women and youth funds and collaterals has a relatively low influence on the sustainability of an enterprise. Access to collaterals and government improve the chances of an entrepreneur to access substantial funds. The opinion given by majority of the study respondents can be explained by the fact that most of them started their microenterprises with a capital of approximately 10,000 Kenya shillings (US$100) and below. This kind of money can be obtained from relatives and friends eliminating the need to deal with financial institutions that require collateral to give loans, and therefore, the strong domestic attachment for support.

The influence of capital on the sustainability of a business should extent to how capital enhances access to new technology, high quality products and other factors that might give a business a slight advantage. In an industry where most enterprises are operating on relatively low capital, as analysed in Vihiga County, the inability to access a bigger amount of capital does not have a big impact on the ability of the business to survive. The low influence of capital accessibility on sustainability of these microenterprises implies that most entrepreneurs are satisfied with the size, which is, operating small enterprises. They do not think about accessing additional capital to expand. In previous studies done by (Ijaza, Mwangi & Ngetich, 2014) (Kiraka, Kobia & Katwalo, 2013; Stevenson, 2005) pointed out microfinance institutions as having issues in addressing the access to credit. That the focus largely had been on poverty eradication (short term) rather than enterprise development and their sustainability; with their loan sizes tending to be too small to support enterprise growth. In addition, it is possible that impact of capital is low compared to other factors, as expressed elsewhere in this thesis that might be influencing the sustainability of women owned microenterprises in Vihiga County.

The regression analysis revealed that capital accessibility has the biggest impact on sustainability compared to competition and domestic attachment. It echoes the findings of Wole (2009) and Shinozaki (2012) who emphasize the importance of capital accessibility for all enterprises. (Ijaza et al, 2014) lists accessibility to capital as one of the challenges that face microenterprises in their study. Therefore, there is a need for relevant stakeholders to find ways to improve capital accessibility to women as a way of facilitating the growth of women owned microenterprises.
Interestingly, most of the study respondents alleged that capital accessibility has a low to very low influence on the sustainability of women-owned microenterprises. It is an opinion that can be explained by the fact that most of these microenterprises do not bother to expand. They have no need for the extra capital that would facilitate their growth to the next level. Vihiga is comparatively a unique area in terms of lifestyle and family unity. The community’s general mentality, for example, is of the notion that the ‘well-off’ have an obligation to sharing with the underprivileged and the extended members of the family. Vihiga community generally are socialists by culture and nature. They were amongst the first people in the area to welcome Christianity, specifically Quakerism in the region. Quakerism or “Friends” Church (Gilpin, 1976; Hardley, 1991; Khaemba, 2011) which is a society by creation has become part of their not only values, but virtues too. Vihiga is a County where many working people (‘salaried earners’) are their ‘brother’s keeper’. It also must be the leading rural County in terms of receiving remittances from other urban areas, the Diasporas and abroad. One would argue it an excellent way of community fostering, however even with such good intentions, more often than not, the gifts/remittances’ so given, may go to those undeserving in the process. Wilber Ottichilo, the newly appointed Governor laments that “Vihigans suffer from handout/dependency culture - the ‘Mbe Khu Kindu’ syndrome”. Micro/SMEs must be embraced to uplift the community from poverty to eliminate dependency.

Expectations of the extended family may also hamper women’s zeal and business acumen to expansion, and therefore, the more reasons to confine oneself in the survival business mode. A drunkard husband, for example, who constantly demands the proceeds of the day’s sales on the threat of a cane or the behaviour of an unruly, un-married 45yr old dependant son, may cause stagnation of the business expansion. Women empowerment in Vihiga is yet to be actualized in some marginal areas. The lack of growth is a factor that is influenced by a myriad of factors, which include access to capital. There is need for policies and structures to be put in place to address the issue of growth and development of microenterprises. Equal firm statements were echoed by the newly elected County Governor, Hon Wilber Ottichilo, on the launch of “SME Awards Vihiga County” on 22 December 2017 at Hermoso Lounge, Tigoi, Maragoli. Capital accessibility therefore has a much bigger impact on the sustainability of a business than the other predictors.
5.3.3 Domestic Attachment is a Determinant of Sustainability of Women Owned Microenterprises in Vihiga County

Domestic attachment is a vital factor for women in business due to the sentimental value and responsibilities associated with marriage. According to the study findings, improving domestic attachment by a single unit the sustainability of a business is improved by 0.168 units. Most of the study respondents are married, which puts a lot of weight in their opinion. A significant number of them are of the opinion that support from relatives and spouses has a great impact on the sustainability of a business. They believe of the form of enterprise ownership will also have a great influence on the sustainability of the business. The time devoted to the enterprise has a significant impact on the sustainability of the business.

Under domestic attachment as an objective, the three factors examined are support from relatives and spouses, time devoted to the business, and the form of enterprise. All these factors have a significant influence on the sustainability of the business. The study findings show that majority of the study respondents believe that support from relatives and spouses, time devoted to the management of the business and the form of enterprise ownership have a great effect on the sustainability of a business. The findings echo the serious discussion by Brush (2009) that insists that domestic attachment has a special effect on women in particular. Mupedzswa and Gumbo (2001) acknowledge the impact of domestic attachment on the economic development of women. It affects the nature of enterprises have the ability to start and manage without interfering with their domestic responsibilities. Understanding the role of domestic attachment in the economic empowerment of women goes a long way in finding the solution to the challenges that women face in the pursuit for economic growth and development.

The study findings confirm that support from relatives and spouse has a great impact on the sustainability of a business. The support can be in the form of finance or other ways that makes it easy for the woman to dedicate time to the management of the business. The lack of adequate time in the management of the business has a significant impact on the sustainability of the business. Mupedzswa and Gumbo (2001) lists support from relatives and spouses as one of the key factors that can influence the success or failure of women entrepreneurs. The case is not different for women entrepreneurs who operate microenterprises in Vihiga County. The lack of support from relatives and spouses limits...
the time one spends in the management of the business and the funds that one can access as capital. As a result, they have to rely on starting small businesses using the lowest amount of capital available and accessible to them and spending little time in the management of the business, which makes the business less competitive. Furthermore, banks are charging high interest rates and sometimes demand collateral that is not accessible to the women entrepreneurs who run these microenterprises. Getting financial backing from spouse or relatives makes it relatively easier to maintain and manage these enterprises.

Manning, Ahearne, and Reece (2014) discuss the role of culture in shaping the way people act and behaviour. It defines what is considered good or bad in a society. The cultural domestic roles of women have a bearing on how they manage their enterprises, which includes the time and money dedicated to the business. It is pertinent to understand that these factors prevent many women entrepreneurs from achieving their full potential. They held back by domestic attachments that determine the course of action one takes in any situation. Domestic attachment can have a positive effect if relatives and spouses understand the value of the business and provide the much needed support to the women entrepreneur (Mupedzswa & Gumbo, 2001). The support can be in the form of finance or alleviation of responsibilities that might hold the woman back from achieving her full potential.

5.3.4 Information Technology is a Determinant of Sustainability of Women-Owned Microenterprises in Vihiga County

Snyder (2000) alleges information technology has turned the world into a small village with very few remote areas remaining. Access to information has improved with the introduction of information technology. The study examines the influence of information technology on the sustainability of women-owned enterprises in Vihiga County. The aspects of information technology examined in the study include production techniques, market information gathering and level of automation. As much as the majority of the entrepreneurs (31%) claim that the production techniques have a very low influence on the sustainability of microenterprises owned by women in Vihiga County, most of the respondents agree that the level of automation and the gathering of market information have a significant impact on the sustainability of microenterprises.
Mobile phone ownership goes a long way in facilitating communication for women entrepreneurs. It aids in the management of different aspects of the business including finances. The Asian Development Bank (2014) insists that mobile ownership can help women entrepreneurs accelerate their business growth. It facilitates access to information that is crucial to the growth and development of any business. Poor access to information technology in Vihiga County hampers the growth of microenterprise. The study findings agree with the report from the Asian Development Bank that emphasizes the significance of ICT for women entrepreneurs. The improvement of ICT infrastructure in all parts of the country can go a long way in helping women entrepreneurs overcome the challenges that hinder the growth of a business. Mbogo (2012) states some of the benefits of increasing access to information technology (IT) that includes improved accessibility, convenience and support for the woman entrepreneur. Furthermore, an entrepreneur can have the option of receiving payment through MPesa (a Safaricom mobile money platform), which is safer, faster and makes it easy for women to manage finances.

ICT increases access to information that can help a woman entrepreneur to expand business or learn something new about the management of a business. It makes it easy to seek advice and ask questions to entrepreneurs in different areas who are handling the product. Understanding the market starts with gathering crucial information. Technology has made it relatively easy to gather and manage information, which makes it easy to manage the different aspects of the business. Women entrepreneurs with the right king of learning can access the capital needed for growth and expansion. Encouraging the application of technology in the management of some microenterprises can make it easy for women enterprises. The level of automation increases efficiency and the amount of time one has to dedicate to the management of the business (Solomon et al, 2013). Barraita (2004) points out the role of innovation in the helping microenterprises gain a competitive advantage. The right channels can be the avenue to find the information needed to inform the next strategy of an enterprise. The impact of information technology on the sustainability of women owned enterprises cannot be overlooked as the world moves towards a technology laden society. Access to important information can be achieved if one is trained how to use technology to get information and develop new strategies.
5.4 Conclusions

5.4.1 Competition is a Determinant of Sustainability of Women-Owned Microenterprises in Vihiga County

Competition has a significant relationship with the sustainability of microenterprises owned by women in Vihiga County. Typically, women in rural setup tend to engage in businesses of the same nature. Such duplication leads to high competition. Obtaining a competitive advantage should be the focus of every entrepreneur because it has a direct impact on the ability of the business to survive. Businesses that keep solving problems of those at the bottom of the pyramid can withstand the test of time. Creativity is encouraged as one of the best ways to achieve a significant competitive advantage. Innovativeness beats competition. The goal of any micro entrepreneur is to be unique and different from other sellers in the market. Competition provides the pressure and the desire to become better, knowledgeable, which then, inspires growth and development.

5.4.2 Capital Accessibility is a Determinant of Sustainability of Women-owned Microenterprises in Vihiga County

Capital accessibility has the biggest effect on the sustainability of women owned enterprises. Collaterals are difficult to get, which makes it challenging for anyone and specifically women, to access capital. Relatives, friends, and spouses can improve the accessibility of capital by contributing funds for expanding and managing the business.

5.4.3 Domestic Attachment Determines the Sustainability of Women-Owned Microenterprises in Vihiga County

The study concludes that domestic attachment determines the sustainability of women owned enterprises. The influence of domestic attachment includes the support from relatives and friends, the form of enterprise ownership, and the time one dedicates to the management of the business. Creating a balance between domestic responsibilities and management of the business can of course be challenging.
5.4.4 Information Technology is a Determinant of Sustainability of Women-Owned Microenterprises in Vihiga County

Information technology affects access to information, the communication itself, the management of finance and quality of information that one can gather about the market. According to the study findings, information technology affects the sustainability of women owned enterprises. Women entrepreneurs should be facilitated to access IT and utilize information technology in their day to day running of the business if it is possible.

5.5 Recommendations

5.5.1 Recommendations for Improvement

The following recommendations should be implemented to help women entrepreneurs overcome many of entrepreneurial challenges.

5.5.1.1 Information Technology

Firstly, women entrepreneurs in rural areas should be trained on how to use IT/ICT to improve efficiency and reduce the workload. It will make it easy for them to gather information about the market and be well equipped and informed. IT is commonly accepted today as having significant effects on organisations’ productivity. However, these effects will only be fully realized if, and when, IT are widely spread and used. It is crucial, therefore, to understand the determinants of IT adoption and the theoretical models that have arisen in addressing IT adoption for women to take control and empower themselves via IT. The internet, social media, the use of mobile phones and personal networks also provide vital information and cannot be overlooked.

5.5.1.2 Competition

Innovation and creativity should be encouraged to avoid scenarios where most of the sellers know about each other. There is no competition where innovation and creativity is constantly being channelled out. Creativity for these women, for example, may lie in the traditional cottage industries particularly brick making, pottery, tinsmiths, rope making and basketry, and more.
5.5.1.3 Domestic Attachment

The relevant stakeholders should consider training women entrepreneurs and their spouses about the importance of support from family for anyone venturing into business. The emerging ‘Mumpreneurs’ should equally be supported as they strive to both nurture their children and make important decisions on the household/(domestic) front and continue running their businesses. Furthermore, the attainment of relevant skills can help women entrepreneurs to rely on domestic attachment so as to facilitate the growth and development of the business. Such domestic support by extended family can strengthen women’s roles and increase decision making authority in the household as well as in the community; promoting economic independence and doubling on participation in good governance in the communities where they domicile.

5.5.1.4 Capital Accessibility

There is need for Central and County Governments to develop specific ways to increase access to funds. The Women Enterprise Fund, Uwezo Fund and Youths Fund introduced in Kenya, for example, has been a disaster in the way the programs have been administered and managed. Corruption was cited especially, was as amongst the issues involved. Despite such calamities, the importance and availability of these Fund(s) should be emphasized and continued. Women should be made aware of their existence and educated to access more money. The joint liability lending initiative of forming SHGs, the peer groups and Chamas be encouraged because, somehow the method of peer guaranteeing, tends to eliminate the traditional collateral requirement to access microcredit. Improving access to capital means the enterprises can grow and develop sustainably. Increased access to credit means women’s increased contribution to household incomes that then leads to tangible gains in achieving a more balanced economic contribution. Women’s participation in MF groups again increases individual capacity, confidence, and widens their own and their households social networks and business growth. For these reasons, the targeted women begin to play much larger roles in family, rural and village-level decision-making that may elevate them to national participation platform. Access to credit overall empowers and participation of the micro trading women, is far greater in villages where these groups are present. In empowering rural women through access to credit, the political voice of women is also strengthened with business sustainability in view.
5.5.2 Recommendations for Further Research

Based on stated research findings, this study presents some of the key issues that could enhance the sustainability of women owned micro enterprises. Each market is unique, and each women entrepreneur’s demands are not universal; instead, they need customized solutions. The following recommendations are offered for discussion:

- The study recommends that other researches be carried out on the same or similar topic that evaluates specific Kenyan communities/counties or regional on microenterprise sustainability of women owned businesses. The study findings can be utilized for additional studies focusing on the specific role of the mobile phone in enhancing success of microenterprises, the challenges facing women entrepreneurs, and any other factors that influences the sustainability of women owned micro businesses. The study also can be a source to guide the development of new studies on related topics, the emerging challenges and opportunities.
REFERENCES


APPENDICES

APPENDIX I: QUESTIONNAIRE

INSTRUCTIONS

I am Neccy F M Kikaya, a student at United States International University (USIU-Africa), pursuing a Masters of Business Administration (MBA) degree of in Entrepreneurship. The purpose of this questionnaire is to investigate the Determinants of Sustainability of Women Owned Microenterprises in the County of Vihiga in Western Kenya. Your participation is entirely voluntary. The information given will be confidentiality and used for research purpose only. Please answer all questions and select your responses by ticking from those given the answer that best represents your views.

SECTION (A): GENERAL INFORMATION

1. **Age:**
   - (a) 18-25 [ ]
   - (b) 26-35 [ ]
   - (c) 36-45 [ ]
   - (d) 46-55 [ ]
   - (e) 55 & above [ ]

2. **Your Age at Start of the Business:**
   - (a) 18-25 [ ]
   - (b) 26-35 [ ]
   - (c) 36-45 [ ]
   - (d) 46-55 [ ]
   - (e) 55 &above [ ]

3. **Highest Level of Education:**
   - (a) Primary [ ]
   - (b) Secondary [ ]
   - (c) College [ ]
   - (d) University [ ]
   - (e) Others [ ]

4. **Marital Status:**
   - Married [ ]
   - Single [ ]
   - Divorced [ ]
   - Widow [ ]

5. **Nature of Business:**
   - (a) Transport [ ]
   - (b) Poultry Keeping [ ]
   - (c) Hotel & restaurant [ ]
   - (d) Rental [ ]
   - (e) Cosmetics/Beauty [ ]
   - (f) Cereals [ ]
   - (g) Motor spares [ ]
   - (h) Agri-business [ ]
   - (i) Merchandise [ ]
   - (i) Others....................... (Specify)

6. **Period the Business has been in Operation?**
   - (a) Less than 2 yrs [ ]
   - (b) 2–4 yrs [ ]
   - (c) 5-8 yrs [ ]
   - (d) 8-10 yrs [ ]
   - (e) Over 10 years [ ]

7. **Business Ownership:**
   - Owner [ ]
   - Partnership [ ]
   - Family [ ]
   - Manager [ ]

8. **Kindly tick the box which explains your starting capital for your enterprise.**
   - (a) KSh 0 - 10000 [ ]
   - (b) KSh 10001-20000 [ ]
   - (c) KSh 20001-30000 [ ]
   - (d) KSh30001-40000 [ ]
   - (e) KSh 40001-50000 [ ]
   - (f) Above KSh 50001 [ ]
(9) Kindly tick the box which explains your current capital in your enterprise.

(a) KSh 0 - 10000  [ ]  (b) KSh 10001-20000  [ ]  (c) KSh 20001-30000  [ ]
(d) KSh30001-40000  [ ]  (e) KSh 40001-50000  [ ]  (f) Above KSh50001  [ ]

SECTION (B): COMPETITION

(12). To what extent do the following competition factors influence the sustainability of your enterprise? Use a scale of 1-5 by circling the number where 1= Very great extent; 2 = Great extent; 3= Moderate extent; 4= Low Extent and 5= Very Low Extent.

<table>
<thead>
<tr>
<th></th>
<th>BC1</th>
<th>BC2</th>
<th>BC3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Survey</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Rivalry between (Women and Men)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Advertisement Techniques</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

SECTION (C): CAPITAL ACCESSIBILITY

(13). To what extent do the following capital accessibility factors influence the sustainability of your enterprise? Use a scale of 1-5 by circling the number where 1= Very great extent; 2 = Great extent; 3= Moderate extent; 4= Low Extent and 5= Very Low Extent.

<table>
<thead>
<tr>
<th></th>
<th>CA1</th>
<th>CA2</th>
<th>CA3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaterals</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Government funding (Women &amp; Youth Funds)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Sources of finance</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

SECTION (D): DOMESTIC ATTACHMENT

(14). To what extent do the following factors of domestic attachment influence the sustainability of your enterprise? Use a scale of 1-5 by circling the number where 1= Very great extent; 2 = Great extent; 3= Moderate extent; 4= Low Extent and 5= Very Low Extent.

<table>
<thead>
<tr>
<th></th>
<th>DD1</th>
<th>DD2</th>
<th>DD3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support and assistance from relatives and spouses</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Form of enterprise ownership</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Time devoted in enterprise management</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
SECTION (E) INFORMATION TECHNOLOGY

(15). To what extent do the following IT factors influence the sustainability of women owned Microenterprises? Use a scale of 1-5 by circling the number where 5= Very great extent; 4 Great extent; 3= Moderate extent; 2= Low extent and 1= Very low extent. Tick as appropriate.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EIT1</td>
<td>Production Techniques</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>EIT2</td>
<td>Market Information Gathering</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>EIT3</td>
<td>Level of Automation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

SECTION (F) MICROENTERPRISE’s SUSTAINABILITY

(16). To what extent do the following factors indicate sustainability of the Micro/SMEs? Use a scale of 1-5 by circling the number where 5= Very great extent; 4 Great extent; 3= Moderate extent; 2= Low extent and 1= Very low extent.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FS1</td>
<td>Investment diversification</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>FS2</td>
<td>Industry leadership</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>FS3</td>
<td>Future outlook</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>FS4</td>
<td>Profit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>FS5</td>
<td>Profit growth</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>FS6</td>
<td>Sales growth</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Thank you very much for your co-operation
APPENDIX II: TRANSMITTAL LETTER

Letter to Respondent

Dear sir/ Madam,

I am Neccy Florence Munagi Kikaya from United States International University (USIU-Africa). I am carrying out a research on the Determinants of Sustainability of Women Owned Micro-Enterprises in rural Kenya. The research will be submitted for partial fulfilment for the degree of Masters of Business (MBA) at the United States International University.

I request that your organisation allows me to conduct this research through your esteemed registered members that run microenterprises, through your Field Officers, to answer the attached questionnaires as honestly as possible. This information gathered will be kept completely confidential and will not be used for any other purpose apart from academic.

Thank you so much for your time and cooperation