

Contribution of Market Access Services on the Entrepreneurial Capacity of Businesswomen in Kenya

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Abstract

This study examined the effect of market access services on women entrepreneurial capabilities in Mbeere South Sub County of Embu County, Kenya. It addressed three key determinants: the development of market infrastructure, enterprise linkages, and digital inclusion. It adopted a mixed method approach utilizing convergent parallel design. Quantitative and qualitative data were gathered from the 244 women micro-entrepreneurs through semi-structured questionnaires, key informant interviews, and focus group discussions (FGDs). The study applied multiple regression to determine the effect of market access services on entrepreneurial capacity. The findings showed a strong positive relationship where market access services impact entrepreneurial capacity to a very large degree, with an R-square value of 0.876, indicating that the three predictors explained 87.6% of the variation in entrepreneurial capacity. Also, reinforcing the positive effect was the impact of each individual predictor with their coefficients being 0.335, 0.320 and, 0.291, respectively. The findings highlight the importance of initiatives that target the development of market infrastructure, the strengthening of enterprise linkages, and the promotion of digital inclusion. These measures enhance the competitiveness, productivity, and sustainability of women-owned businesses and, consequently, poverty reduction and socio-economic development improvements in rural areas. This study serves as a reference point for policymakers and a foundation for future investigations concerning women entrepreneurship in rural Kenya.

Keywords: *Market Access, Non-Financial Business Services, Entrepreneurial Capacity, Women Entrepreneurs*

INTRODUCTION

Globally, Micro, Small and Medium Enterprises (MSMEs) are recognized as an important part of the world economy and the ever growing role of women in this sector is undeniable as well. Women entrepreneurs play an important part in achieving the SDGs (Sustainable Development Goals) as set forth by the United Nations, especially SDG 1 (No poverty), SDG 5 (Gender equality), SDG 8 (Decent work and economic growth), and SDG 9 (Industry, innovation, and infrastructure)(World Bank, 2020). Women entrepreneurs, however, have inherent limitations which make it difficult for them to grow their enterprises at a rate equal to their male counterparts, more so in the developing world. These challenges include, among others, the limited access to technology, markets, and business networks which are important drivers in improving their resilience and productivity (Gallegos et al., 2025; World Bank, 2021). Women entrepreneurs are also economically more exposed to risks as the businesses they run usually fall within the service and hospitality sectors (Amanda et al., 2022; World Bank, 2020). In Sub Saharan Africa (SSA), Women entrepreneurs constitute a considerable share of the MSME sector, with some countries having a higher rate of female entrepreneurship, as compared to male (Asiedu et al., 2023)However, although the number of female entrepreneurs is rising, a large majority of their businesses are still in the less profitable retail and service sectors, where the profit levels remain much lower compared to businesses owned by men (Etikan, 2016). In fact, women in SSA are paid 34% less than men, illustrating the lack of equitable returns from economic activities (Asiedu et al., 2023). Although the entrepreneurship literature pertaining to SSA is significant, studies tend to underestimate the barriers of market access, corporate

technology, and linkage to other businesses, which are critical constraints to the expansion of women-owned enterprises (World Bank, 2020; (WTO), 2020). This research aims to focus on the lack/ limited access to markets and its impact on the entrepreneurial prowess of the affected women micro entrepreneurs and the potential of business linkages, infrastructural development and digital inclusion mechanisms in overcoming these market barriers to women entrepreneurship in Kenya.

In Kenya MSMEs constitute more than 30 percent of the GDP despite the fact that businesses that are owned by women constitute less than 30 percent. There are still limited opportunities in participating in business networks and being involved in larger value chains among women, even with such initiatives as devolution(Kabeer, 2021). The Kenya MSE Act (2012) focuses largely on the support of MSEs without paying much attention to critical non-financial aspects such as market access, which is critical in empowering the rural women entrepreneurs. Access to growing markets has been found to be one of the challenges to the competitiveness of women microenterprises(Njoki & Muthoni, 2020). Competition of SMEs and ICT challenges are also barriers to any progress(Gitonga, 2021). In addition, female owned enterprises are less likely to venture into exports, or get into corporate value chain or win public procurement contracts (IFC, 2021). The fact that many of the women owned MSEs in rural Kenya are informal and not registered or even officially legal, limits their ability to enter into formal market partnerships. Additionally, the need to cater to household demands has been shown to decrease the amount of work time women have, hence restricting their overall productivity and entrepreneurial choices(World Bank, 2021).

Despite the efforts made by the Kenyan government to connect MSMEs to available market opportunities, many of the rural women entrepreneurs encounter hurdles because of affordability issues and lack of awareness(FinAccess, 2023). Similarly, the COVID-19 crisis escalated stress factors for women-owned businesses making them more vulnerable(Goldstein, 2021). These challenges have resulted in growth stagnation that had largely impeded the shift from micro to larger enterprises and the stigma of failure and mortality amongst rural women businesses (GoK, 2020). To this end, extreme poverty and vulnerability among the rural Kenyan women entrepreneurs will continue to grow exponentially unless measures to these issues are adequately addressed.

Marchese et al. (2019), remarked that there is sparse evidence about the extent to which market network spillovers expand to the broader local economy beyond top cream enterprise beneficiaries. For instance, the literature is lacking in details surrounding the practicality of gender-specific linkages and market access mechanisms in rural areas (eg digital inclusion, enterprise linkages etc.) and their relative uptake and suitability for rural women businesses. This study attempts to fill this gap.

In the Embu County, women undertake entrepreneurial ventures to cope with the challenge of poverty and harsh extremities in climatic conditions in the semi-dry ecosystems. Their business growth, productivity and sustainability, however is hindered by lack of access to markets and institutional support that are needed to access and benefit from more productive markets (Embu CIDP, 2023-2027). These challenges have limited them to very competitive, saturated and unproductive markets with minimal profits hence sustaining their vulnerabilities on a progressive trajectory. As well, many women in Embu are delinked from the global business systems due to cultural, educational and technological barriers. Their limitation to the use of ICTs hinders their capabilities to establish functional online presence as to leverage on the expanding online customer base.

These foregoing challenges do not allow women entrepreneurs in Embu to productively establish themselves in the few available markets and in venturing into new trade zones. An improved access into markets would increase their business returns and operational success. There is little empirical research on the role of market access programs to women entrepreneurs

in Embu, more so in the backdrop of the sustained business mortality rates. This study aims at filling this gap. Most importantly, the universal access to markets would capacitate women in rural Embu to be astute entrepreneurs, reverse their livelihood vulnerabilities and close the gender wealth gap. This study is timely, relevant and leads to the success of the current Embu development plan (2023-2027), Kenya Vision 2030, and the global Sustainable Development Goals.

RESEARCH METHODS

This study used a mixed-method approach involving both qualitative and quantitative techniques in order to gain a holistic understanding of the impact of market access services on the entrepreneurial capacity of women micro-entrepreneurs. A convergent parallel design was employed in which the two strands of data were collected simultaneously, analyzed independently, and compared at the interpretation stages. The convergent parallel design allows researchers to collect quantitative and qualitative data at the same time so that they can be used to validate one another and provide a more comprehensive answer to the research problem (Cresswell, 2014). The study provided weighted emphasis on both qualitative and quantitative data to ensure a balanced and thorough perspective on the research objectives. This balanced approach enhanced the confidence, credibility and validity of the study's findings.

The target population is defined as the total body of units or subjects from which data is to be collected and in this case refers to all female micro-entrepreneurs who had either benefitted or not benefitted from NF- BDS. This definition was borrowed from Orodho (2005). For this research, the target population comprised women micro-entrepreneurs conducting business in the three main markets of Mbeere South Sub county, which were Kiritiri, Gategi, and Mutuobare. These markets were selected based on their population size, diverse economic activities and their distribution across different geographical segments of the Sub county allowed for a wide, varied and generalizable sample. The three markets collectively had 813 women micro-entrepreneurs, which was used as the sampling frame for the research. Mbeere South Sub county was selected for this research as it had a large number of businesswomen relying on traditional narrow markets which were predominantly local and informal in outreach, suffering product glut issues, unreliable market channels, seasonality of goods and services as well as extreme competition arising from trading in similar goods. Therefore, this had necessitated the need for broadening their market outreaches, through leveraging on technology, business networks and collaborations as well on increased physical market infrastructure.

The three main markets of Kiritiri, Gategi, and Mutuobare were selected through purposive sampling, as they constitute a varied and well-distributed cross-section of the businesswomen populace within Mbeere South Sub County. These were selected based on size, economic importance, and geographic dispersion criteria. In this regard, purposive sampling as explained by Patton (2002) was appropriate, since it allowed the researcher to identify and select a particular group that meets specific criteria. This approach ensured that the selected markets highlighted the different perspectives of entrepreneurship within the sub county. In the case of the women micro-entrepreneurs, systematic random sampling was used. This technique, which Creswell (2014) cited as the selection of every nth person on a roster, allows each person to be considered for selection while providing a streamlined and structured method for sampling. This approach guaranteed that all women entrepreneurs were provided the same opportunity for selection, thereby minimizing bias in selection and enhanced the diversity and representativeness of the sample.

There was a total of 813 women micro-entrepreneurs across the three markets, so 30 % of this population was taken as the sample size, resulting in 244 respondents. For descriptive

studies, with populations under 10,000, a sample size of 10 % to 50 % is adequate to obtain dependable and valid results (Mugenda & Mugenda, 2003). This is to ensure the representativeness and the reliability of the findings and conclusions of the study. Also, based on their expertise and relevance to the study, 11 key informants were purposively selected who included, market chairpersons, sub-county officials, and BDS providers. The purposive selection of key informants is appropriate when specific, detailed information is needed from people with acute understanding of the area in study (Etikan, 2016). The sample was inclusive of market access service beneficiaries and non-beneficiaries, along with the participants of two focus group discussions (FGDs). This gave a balanced, rich and generalizable data set.

Table 1: Target Population and Sample Size

Market	Total Women Micro-Entrepreneurs	Sample Size	Percentage of Total Population
Kiritiri	417	125	30%
Gategi	231	69	30%
Mutuobare	165	51	30%
Total	813	244	30%

Source: Author (2025)

A multi- method approach was used in data collection with techniques that included surveys, key informant interviews, and focus groups. Semi- structured questionnaires were used to collect quantitative data from the women micro-entrepreneurs, with the details of the variables in question being examined through both open and closed questions. Key informant interviews were carried out via interview schedules that targeted BDS providers, market chairpersons and sub-county officials who provided context about the BDS ecosystem. Focus group discussions were held using a discussion guide with the market access beneficiaries and non BDS beneficiaries in order to further understand and validate their perceived experiences to corroborate the data acquired through the questionnaires and key informant interviews. The researcher was able to understand and analyze the juxtaposed statistical trends and contextual data that was acquired through these methods in a comprehensive manner.

A feasibility study was carried out at a cross border market that shares identical socio-economic and environmental conditions with Mbeere Sub County. It was intended to test the study tools for validity and reliability, with the eventual generalizability of the conclusions being a key end goal. The study had 20 women entrepreneur respondents, both with access to different market access services and without, on equal representation basis, and were sampled via systematic random sampling. This pilot study helped in refining the overall structure and content of the research tools so as to achieve the goals of the main study. Additionally, the Cronbach's Alpha coefficient, which was 0.858, (way above the minimum acceptable level of 0.7) further strengthened the internal inter item correlation of the research tools, hence enhancing their reliability in the research.

The collected data underwent both quantitative and qualitative analyses sequentially. For quantitative analysis, relationship testing and impact evaluation of market access on entrepreneurial capacity, descriptive statistics (such as frequencies, means and percentages) and inferential statistics (specifically multiple regression analysis) were used. This was conducted using Statistical Package for Social Sciences (SPSS- Version 27). For qualitative analysis, specifically data from key informant interviews and focus group discussions, thematic analysis was employed, where responses were coded and organized into identifiable themes. This method facilitated a more distinct analysis of the market access variable including service uptake, providers and contextual barriers encountered by women entrepreneurs.

The regression model adopted was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where:

Y = Entrepreneurial outcomes (enterprise growth and productivity, financial and managerial sustainability)

β_0 = Intercept (constant)

$\beta_1, \beta_2, \beta_3$ = Coefficients representing the influence of the independent variables on the dependent variable

X_1, X_2, X_3 = Independent variables

X_1 = Market infrastructure development

X_2 = Enterprise linkages

X_3 = Digital inclusion

ϵ = Error term

Employing this regression model, it was possible to estimate the extent to which the independent variables of market infrastructure, enterprise linkages, and digital inclusion shaped the entrepreneurial outcomes, thereby facilitating the establishment of predictive linkages between the variables.

Ethical principles, integrity and open communication were upheld throughout the research process by ensuring that the study results were faithfully and accountably documented. The researcher acquired ethical clearance from Mount Kenya University and the National Council for Science and Technology (NACOSTI) prior to the commencement of the study. A formal letter was used to introduce the interviewee for transparency and trust. All participants provided informed consent, and no private data was gathered so as to uphold participant confidentiality. The researcher guaranteed all participants of their voluntary engagement in the research and that their rights to withdraw their participation in the process at any point would be respected. The researcher actively participated in every level of the study, maintaining openness, and accountability so as to minimize subjectivity, and safeguard the study's overall credibility, for which the researcher bears full responsibility.

RESULT AND DISCUSSION

Contribution of Market Access Services to Micro Entrepreneurs' Capacity

a) Market Access Programme Uptake

Bhatia-Kalluri (2021) remarked that market access programs are essential for enhancing the growth and sustainability of small businesses that women in developing economies, like Kenya, own. Nevertheless, as observed by Chowdhury (2025) factors such as limited awareness and accessibility of the programs hinder the effectiveness of market access services. Data analyzed showed that 57% of the respondents had received services related to market access since starting their businesses, and on the contrary, 43% reported not having received any. This indicated that though a sizable percentage of businesswomen had benefitted from market access services, almost half of them were without access to such services. This corroborated the finding by MSME Report (2021) that majority of micro (33%) and small (27%) enterprises in Kenya were seriously constrained by market access challenges. This raises concerns that whereas these services could be available, many businesswomen do not have access to them. This was due to barriers like financial constraints, and/or lack of connections in rural, marginalized communities like Mbeere, among others. This service provision gap calls for better outreach or more inclusive programs because business growth and competitiveness in rural and underserved areas heavily depend on market access services, like market information, physical market sheds and trading zones, among other types of interventions.

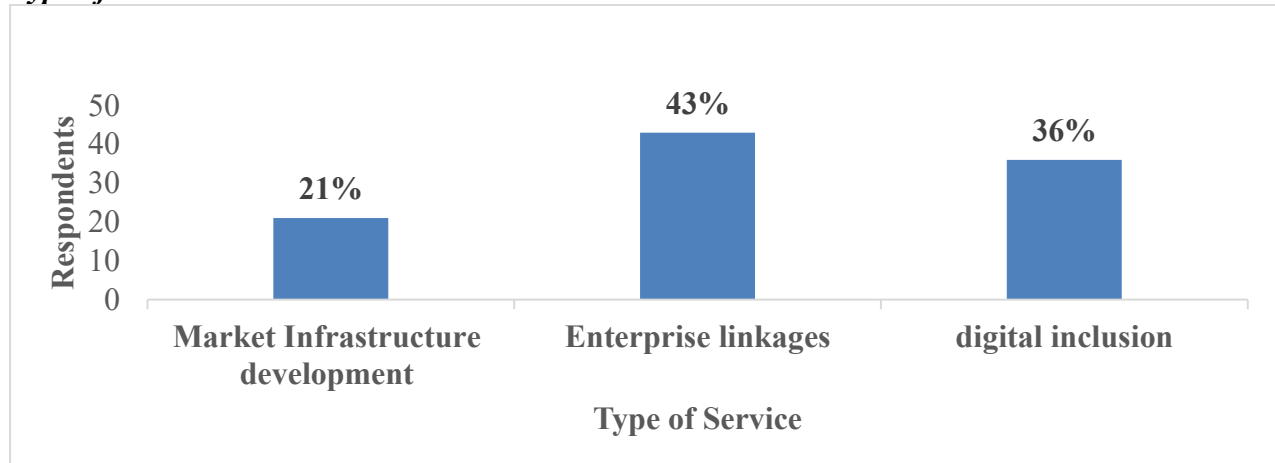
Type of Market Access Service

Figure 2: Types of Market Access Service

Source: Author (2025)

The study established that the majority (43%) accessed enterprise linkages which are key trade relationships and networks between the women micro enterprises and external markets, ensuring the leveraging of shared resources and expertise which significantly enhanced business growth and sustainability. Kazungu (2023) observed that these linkages were particularly important to women entrepreneurs in allowing opportunities for growth, innovation and technical expertise, and increased competitiveness. Those that had not accessed this service encountered difficulties in growing their businesses, for instance, in terms of market penetration, knowledge sharing, and collaborating and in scaling up their businesses. According to Sarker et al. (2025) businesses in this latent zone may face a challenge of visibility and can only grow locally. This evidences that enterprise linkages increase entrepreneurs' access to essential resources, thereby enhancing their ability to survive in competitive markets.

On digital inclusion, only 36% of the women micro entrepreneurs had accessed this service which was critical in maintaining an online visibility, marketing and advertisements, real time financial transactions and in overall communication with clients. This segment of the respondents had adopted diverse digital tools and platforms to optimize their business processes, enhance efficiency and productivity and ultimately maintaining a competitive edge over their peers who had not transitioned from traditional systems of management, transactions and production. This was unsettling especially now that the global entrepreneurial spaces are adopting digital technologies to expand their market reaches through effectively and accurately leveraging on diverse marketing strategies to harness customers beyond their traditional and narrow marketing spaces. Gallegos et al. (2025) opined that digital financial inclusion is very important in non-cash transactions, in mobile and electronic wallets use, among others, as it simplified financial transactions and was convenient to business clients. The foregoing points to the enormous potential of digital inclusion in economic processes so as to improve the efficiency and productivity of women enterprises, encourage innovations, expand trade zones and contribute to reduced vulnerabilities among the women in rural areas of the developing world. Market Infrastructure is fundamental because all the women enterprises' products and services need markets to trade. Data analyzed showed that only 21% of the population accessed market infrastructure development which encompassed physical or logistical support such as access to physical marketplaces, distribution networks and aggregation or industrial zones. This showed that there was need for market infrastructural support considering that most of these micro entrepreneurs relied on physical market sheds for their wares, compared to those with access to online marketing channels. This indicated a gap in this critical infrastructural service provision by the County government as the stakeholder primarily taxed with its provision as well as the

accompanying amenities for the entrepreneurs. The widespread low provision and access of this service in the study area contributed to lack of sufficient markets, which reduced overall enterprise growth performance. The concerned stakeholders needed to address this barrier as a matter of urgency considering the inherent arid and semi-arid climatic conditions, as well as the high poverty rates in Mbeere South Sub county. The foregoing therefore calls for remedial actions with an off-farm approach which provides better entry points into reversing this situation. MSEs development is a key income strategy in this regard for livelihood, poverty alleviation and viable coping mechanisms for the poor and vulnerable rural women micro entrepreneurs in Mbeere South Sub county

b) Market Access Service Provider

The findings, showed that 48% of the respondents obtained market access services from private individuals, 38% from NGO or MFI, and 14% from government agencies (Figure 3).

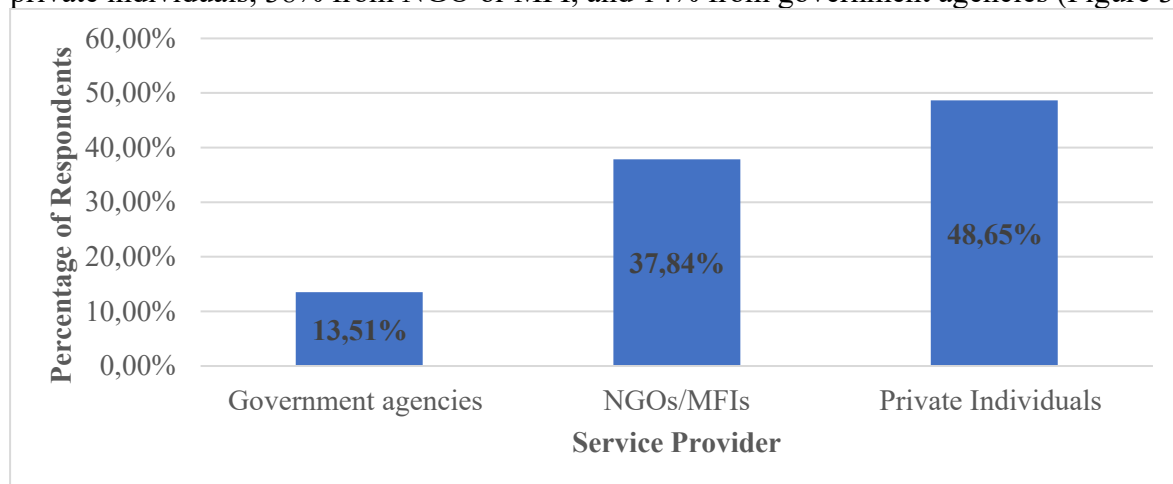


Figure 3: Market Access Service Providers

Source: Author (2025)

The results indicated that private individuals were the main source of market supply services and drew attention to the centrality of informal networks in assisting their counterpart businesswomen. In addition, NGOs and MFIs had a key role in providing market services, specifically indicating a strong nongovernmental contribution to entrepreneurship in the region. However, the participation of government agencies (14%) was low due to bureaucratic hurdles or other constraints that hindered their domestic outreach and effective addressing of the businesswomen's needs, indicating a key gap in mainstream service provision. This scenario needed to be urgently addressed as the effective implementation of digital inclusion infrastructure and projects in support of women entrepreneurs in the remote rural areas of the developing world requires a multi stakeholder funding from national and county governments, NGOs, Private sector and community groups.

c) Reasons for No Market Access Service

The reasons for not accessing market services were tabulated in Figure 4;

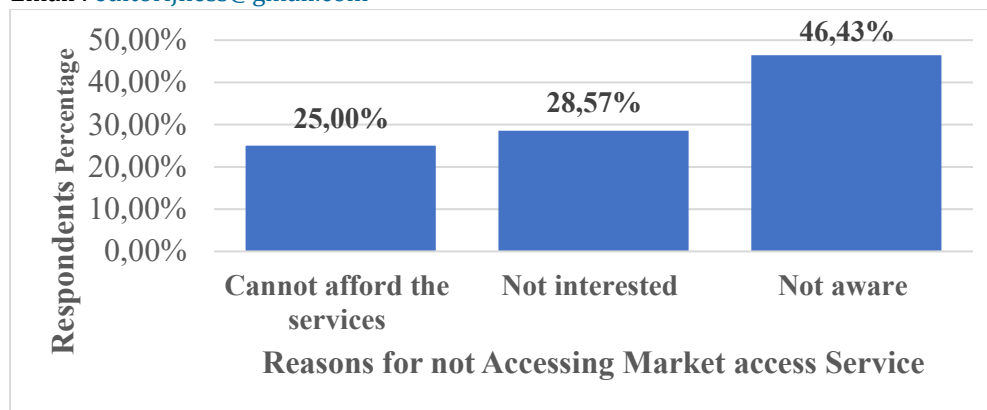


Figure 4: Reasons for not accessing Markets

Source: Author (2025)

The availability of any service or product, determines the degree of physical access and interaction to the same. The findings demonstrated that 46% of those that hadn't accessed the service did not know about it and this was in agreement with previous studies that found that while market support services were important to the development of MSMEs, limited access to information about their availability and usage was one of the reasons why they were not used. This showed the essential need for better communication initiatives and outreach programs for these services and more so in rural areas. (Donga & Chimucheka, 2024). This was even more critical given that the KNBS Survey (2016) highlighted market access as a key challenge among those that contributed to the high SME mortality rates past the first year of enterprise operation in Kenya.

25% of the participants were unable to pay for market access services with the findings agreeing with those by Sospeter & Nchimbi (2018) in their study on women micro entrepreneurs in Tanzania who found that market access services like trade fairs had been reported to be very useful in exposing these businesswomen to ideas, as well as in creating awareness and increasing the sales of their products. However, they were dissatisfied by the lengthy duration of the fairs and the costly nature of access. These outcomes demonstrated specific difficulties that affect female entrepreneurs' access to market services and are in agreement with previous research showing how money-related problems restrict small businesses in developing economies from accessing essential business services. Tubastuvi & Purwidiyanti (2023) established that financial constraints stand as the basic cause blocking women entrepreneurs in rural areas from obtaining market expansion services. For instance, considering that digital economic inclusion is key in the modern business world, the issue of affordability in terms of cost of digital devices and services like internet subscription are key influencing factors that should be addressed. This is so because it can be a barrier for accessibility for those with low incomes and in informal economies like Mbeere.

The 29% of respondents who did not engage in market access services indicated a fundamental belief about service usefulness and relevance. This relates to how some businesswomen might perceive these services as not automatically providing immediate benefits to them hence their unclear understanding of how these services promote their business growth. This showed that limited knowledge about business networks and collaborations, for instance, drive women entrepreneurs to focus on present business activities instead of long-term expansion potential. Kandolo & Ngibe (2024) argued that market access services must adapt specifically for women business owners from rural settings, given their restricted path to market opportunities. Further to this, digital literacy, a key aspect in the use of digital technologies for instance, can be a contributing factor to the lack of interest among rural women entrepreneurs, a substantial majority who usually have basic literacy levels. To ensure Social justice and gender equality in rural entrepreneurship, there is need to facilitate equal opportunities for all.

d) Level of Satisfaction with Market Access Service Provision

The satisfaction rates with Market access services were as shown in Figure 5.

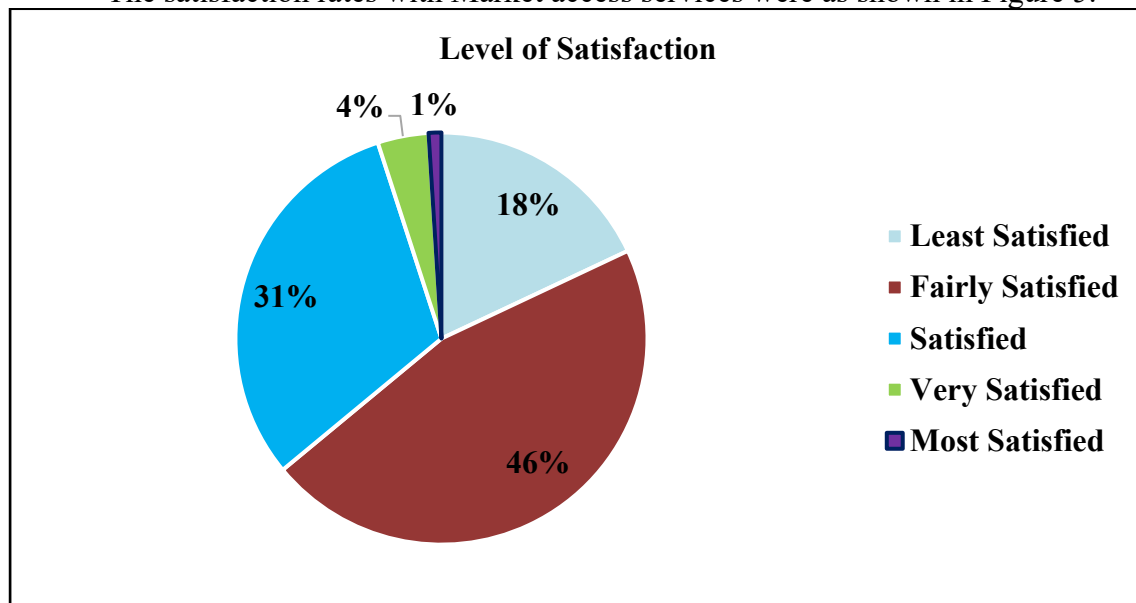


Figure 5: Level of Satisfaction with Market Access Service Provision

Source: Author (2025)

Majority of the respondents (51%) were satisfied with market access services, though to different levels, however, 18% of respondents were not satisfied at all, thus indicating some gaps in the services provided and the need for NF BDS providers to optimize service provision. This study found the extent of satisfaction to be consistent with the broader literature findings as to the influence of market access services on women entrepreneurs. Zilwa (2020) in accordance with our findings, argued that market access services play an important role in the growth of women-owned businesses, but they are only effective if these services are relevant, customized to the stage the business has attained as well as the quality of service delivery. This shows that market access services are essential but in often cases, do not align perfectly with rural women entrepreneurs' challenges. Other barriers that such entrepreneurs face include a lack of digital literacy and a lack of or poor market infrastructural facilities that may even limit their full use of market access services.

To this end, there was need for improvement in the quality and relevance of the services provided as indicated by the 18% who rated their satisfaction very lowly. Nurwahida Binti Fuad (2023) noted that the effectiveness of service delivery like market access in rural settings is often in question, and dissatisfaction often arise from service delivery gaps. In particular, the service offered can be of poor quality in comparison to the real needs of women entrepreneurs, which can cause low satisfaction levels. Studies show that women entrepreneurs who participate in specialized and targeted business development support programmes develop enhanced business proficiencies alongside better decision-making aptitudes and amplified confidence (Ibid).

e) Regression Analysis Results for Market Access Services and Entrepreneurial Capacity

This study analyzed Market infrastructural development, Enterprise linkages and Digital inclusion as the three key determinants of market access in the study area. The findings are as here below;

Market Infrastructure Development

Markets are unique economic and social development drivers which are increasingly embraced as tools for achieving wider development goals in both urban and rural areas. According to GoK (2021) Kenyan markets are key in enhancing local economic development and are central to driving the country towards achieving an economic growth rate of 10% per annum as well increase Kenya's global competitiveness. However, A. Gitonga & Musamali

(2022) noted that majority of the women businesses in Kenya suffer market saturation and offer a narrow range of goods and services in highly crowded markets due to the increased competition from transnational SMEs offering similar products and services both in physical and online markets. The resultant scenario, consequently has been loss of clients, negligible profits and limited business growth, if any. This calls for the expansion of market infrastructure as a prerequisite for the entrepreneurial success of businesswomen especially in rural areas like Mbeere South Sub County.

A regression model was used to establish the extent of the impact of market infrastructure development (Mid) on women entrepreneurial capacity. The results are shown in table 2.

Table 2: Model Summary

Model Summary					
Model	R	R Square	Adjusted Square	R	Std. Error Of The Estimate
1	.908	.824	.823		.26788
a					
Predictors: (Constant), Mid					

The regression analysis results showed an R-value of 0.908 indicating a strong positive correlation which between market infrastructure development and entrepreneurial capacity. Consequently, the R² value of 0.824 indicates that 82.4% of the entrepreneurial capacity variation can be explained by market development, all other factors held constant.

Table 3: Analysis of Variance(ANOVA)

ANOVAa						
Model		Sum Of Squares	Df	Mean Square	F	Sig.
1	Regression	72.357	1	72.357	1008.344	.000b
	Residual	15.428	215	.072		
	Total	87.784	216			
A. Dependent Variable: Entrepreneurial Capacity						
B. Predictors: (Constant), Mid						

ANOVA table 3 showed that the model was statistically significant, with the F-statistic of 1008.344 and P <0.05 showing strong evidence that universal development of market infrastructure was an important determinant of business success in the study area.

Table 4: Regression Coefficient for Market Infrastructure Development

Coefficients					
Model		Unstandardized Coefficients	Standardized Coefficients	T	Sig.
		B	Beta		
		Std. Error			
1	(Constant)	.340		3.100	.002
	Mid	.907	.908	31.754	.000
A. Dependent Variable: Entrepreneurial Capacity					

The regression coefficients table shown implied that holding other factors constant, as the market infrastructure was further developed, it would be predicted that entrepreneurial capacity would increase by 0.907 units, meaning that it is highly influenced by enhancement in market infrastructure. A p-value of 0.000 confirmed that this influence was unlikely due to a random chance.

Enterprise Linkages

Business linkages are key in the development of women's entrepreneurship, especially in rural contexts, where they help in reducing transaction costs, improving market access and acting

as gateways to new resources that women entrepreneurs cannot access without. Schilirò (2020) submitted that business linkages play a role in synchronizing and bridging the gap between micro-enterprises and bigger market players in rural areas and hence increasing access to technology, markets, and finance. This evidences that access to these collaborations can be significant determinants of business success and particularly for women entrepreneurs who have smaller business networks than men. This is more so because when women entrepreneurs gain access to business networks, their businesses grow well and have more market share. However, rural businesswomen also encounter challenges in the formation, access and maintenance of business linkages. For example, a study conducted by Schilirò (2020) on rural women entrepreneurs in India showed that they faced difficulties linking up with larger businesses due to a lack of market knowledge, low levels of formal education, and restrictions to obtaining credit. In rural Kenya, most women entrepreneurs use informal networks as a source of business support, which strongly affects their abilities to access to bigger markets. The low literacy levels, coupled with other patriarchal challenges in Mbeere South Sub county often hinder these businesswomen from establishing strategic partnerships and inter-firm networking with large companies. Rajeshwari Desai et al. (2024) on the same breadth argued that rural women entrepreneurs should be provided with skills in strategic networking, partnership building, and digital literacy so that they can connect with bigger enterprises especially in the modern digitalized market economy. From the foregoing, it can be noted that business linkages are critical for the growth of small and micro-enterprises, but extant literature is lacking in details surrounding the practicality of gender-specific connections and business partnership interventions in rural areas and their relative uptake and suitability for rural women businesses. The County government of Embu has also stressed the need to develop policies that enhance access to business networks for women SMEs. But despite some progress, the percentage of female participation in formal business networks and their integration into larger value chains in Mbeere South Sub county remain challenged (Embu-CIDP, 2019), Simple regression findings on enterprise linkages and their impact on entrepreneurial capacity.

Table 5: Model Summary for Enterprise linkages

Model	R	R Square	Adjusted R Square	Std. Error Of The Estimate
1	.910a	.827	.827	.26551

A. Predictors: (Constant), Enterprise Linkages

The summary outlines principal fragments of data concerning the efficacy of the proposed regression analysis model in terms of the impact of enterprise linkages on entrepreneurship potentials. An R value of 0.910 shows a strong positive correlation, meaning that these linkages have a positive and significant impact on the entrepreneurial potential of women even in the remote-country set ups such as the Mbeere South Sub County in rural Kenya.

Table 6: Analysis of Analysis (ANOVA) for Enterprise Linkages

Model		Sum Of Squares	Df	Mean Square	F	Sig.
1	Regression	72.628	1	72.628	1030.270	.000b
	Residual	15.156	215	.070		
	Total	87.784	216			

A. Dependent Variable: Entrepreneurial Capacity

Predictors: (Constant), Enterprise Linkages

With an F-value of 1030.270 and a corresponding p-value 0.000, the ANOVA results confirmed the conclusion that the enterprise linkages have a substantial effect on entrepreneurial capacity and that the regression model as a whole was effective.

Table 7: Regression Coefficients for Enterprise Linkages

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.
	B	Std. Error			
1 (Constant)	.418	.106		3.937	.000
Enterprise Linkages	.888	.028	.910	32.09	.000
Dependent Variable: Entrepreneurial Capacity				8	

The table showed that for a unit change in Enterprise linkages, entrepreneurial capacity improved with 0.888 units. This significant positive relationship revealed the within-rural commonality significance of business linkages on the entrepreneurial potentiality of the women.

Digital inclusion

The assimilation of technology and digital services in providing solutions to modern day business demands cannot be overemphasized. To be able to compete effectively, increase operational efficiency, penetrate new markets and have rapid growth in a technologically advanced business world, economies need to embrace and make use of requisite technologies. This is especially so for rural women entrepreneurs who have to work twice as hard to become more tactical, access broader markets, and become more productive compared to their competitors (Eze et al., 2020; Kamberidou, 2020)

Digital Inclusion among rural women entrepreneurs enables their enterprises to improve on competitiveness, productivity and efficiency by stimulating innovations in their businesses as well as in broadening their customer catchment bases. However, for the larger portion of the developing world, female businesses are not able to gainfully leverage technology to increase market share as there are myriad challenges that affect its assimilation into their enterprises. Key among these obstacles include the limited digital facilities, infrastructure and affordability, which negatively affect human capital development among the concerned women entrepreneurs. In rural Morocco, a research by Bouichou (2024) showed that male entrepreneurs interacted with digital technologies more than the women entrepreneurs. The Kenya SME Finance Survey (2021) equally observed that that rural female business owners in Kenya adopt technology at a slower pace than in urban regions due to gender biases, monetary barriers, and substandard digital networks. These disparities in digital inclusion and access to digital skills for and by women entrepreneurs constrain them more than male entrepreneurs in terms of effective competition, visibility of women-led firms in e-commerce and in expansion of their market segments. Therefore, there is the undisputed need to address this digital asymmetry and the related barriers that limit the propensities of rural women entrepreneurs to adopt technologies in their businesses. To achieve this calls for multi stakeholder financing and investments in infrastructure, equipment and modern technological software as well as broadband internet connectivity in rural areas.

Table 8: Model Summary for Digital Inclusion

Model	R	R Square	Adjusted R Square	Std. Error Of The Estimate
1	.912 ^a	.832	.831	.26210

A. Predictors: (Constant), Digital Inclusion

The model summary displayed a strong positive correlation between digital inclusion and entrepreneurial capacity, indicated by an R-value of 0.912. This implied that as women's business ventures become more digitally inclusive, there is a corresponding increase in entrepreneurial growth. The R² value of 0.832 suggested that 83.2 percent of entrepreneurial capacity is attributed to digital inclusion, evidencing that technology adoption is a crucial business component.

Table 9: Analysis of Variance (ANOVA) for Digital Inclusion

Model	Sum Of Squares	Df	Mean Square	F	Sig.
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1	Regression	73.015	1	73.015	1062.879	.000b
	Residual	14.770	215	.069		
	Total	87.784	216			

A. Dependent Variable: Entrepreneurial Capacity

B. Predictors: (Constant), Digital Inclusion

The ANOVA showed an F-value of 1062.879 and a p-value of 0.000. This confirms that digital inclusion is a very important predictor of entrepreneurial capacity, and that the model is statistically significant.

Table 10: Regression Coefficients for Digital Inclusion

Model	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	
1 (Constant)	.430	.104		
Digital Inclusion	.886	.027	.912	

A. Dependent Variable: Entrepreneurial Capacity

The table showed that a one-unit increase in digital inclusion resulted in an increase of 0.886 units in the entrepreneurial capacity with all other factors remaining constant. This indicated that the significance of the role that digital inclusion played in improving the capacity of women entrepreneurs was substantial, and it was improbable that such an effect would take place randomly. Moreover, the relationship's p-value of 0.000 established its statistical significance, and underscored the fact that the effect of digital inclusion on entrepreneurial capacity was significantly substantial.

Joint Market Access Regression Model on Entrepreneurial Capacity

The aim of this analysis was to understand how various parameters of market access expressed through market development in terms of infrastructure, enterprise networks and digital inclusion influenced the entrepreneurial potential of women entrepreneurs in the Mbeere South Sub County. The study sought to test the null hypothesis with the help of multiple regression analysis to gain insights into the possible contribution of these factors to the rural entrepreneurial capacity of women.

Table 11: Overall Model Summary

Model	R	R Square	Adjusted Square	R Std. Error Of The Estimate
1	.936 ^a	.876	.875	.22575

A. Predictors: (Constant), Digital Inclusion, Mid, Enterprise Linkages

The model summary gives the overall effectiveness of the regression analysis with regard to the variation in entrepreneurial capacity. The positive correlation between market infrastructure development, enterprise linkages, and digital inclusion and entrepreneurship capacity was very strong as indicated by the R-value of 0.936. This implied that a combination of these three factors was highly significant in determining the entrepreneurial potential amongst women in Mbeere South Sub County. The R-squared value of 0.876 explained 87.6% of the variation of the entrepreneurial capacity based on these three predictors.

Table 12: Analysis of Analysis Variance (ANOVA) for the overall model

Model		Sum Of Squares	Df	Mean Square	F	Sig.
1	Regression	76.929	3	25.643	503.177	.000b
	Residual	10.855	213	.051		
	Total	87.784	216			

A. Dependent Variable: Entrepreneurial Capacity

 B. Predictors: (Constant), Digital Inclusion, Mid, Enterprise Linkages

The significance of the model is outlined by the F-value of 503.177 and the p-value of 0.000, implying that market infrastructural development, enterprise linkages and digital inclusion substantially impact the entrepreneurial capacity of women entrepreneurs in Mbeere South Sub-County.

Table 13: Regression Coefficients of the overall model

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1	(Constant)	.195	.094	2.086	.038
	Mid	.335	.065	.335	.000
	Enterprise Linkages	.320	.067	.328	.000
	Digital Inclusion	.291	.072	.300	.000

 A. Dependent Variable: Entrepreneurial Capacity

The Unstandardized Beta Coefficients of .335, .320 and .291 for Market infrastructural development, Enterprise linkages and Digital inclusion respectively showed that the aggregate model positively influenced the entrepreneurial capacity of women in rural Kenya.

The obtained coefficients values were included in the regression model as below:

$$\text{entrepreneurial Capacity} = 0.195 + 0.335\text{Mid} + 0.320\text{EL} + 0.291\text{DI}$$

The hypothesis for the study was as follows: **H₀**: Market Access has no statistically significant impact on the entrepreneurial capacity of women micro entrepreneurs in Mbeere South Sub-County, Embu County, Kenya

This statistically significant positive relationship effectively justified the rejection of the null hypothesis (H₀), since the model confirmed that market access does make a positive contribution to the entrepreneurial potential of the businesswomen in the area as supported by the findings.

CONCLUSION

This study investigated the impact of market access on entrepreneurial capacity of women entrepreneurs in Mbeere South Sub-County, Embu County, and rural Kenya. The findings showed that market access services were a key contributor to enhancing the entrepreneurial capacity of these women, by diversifying their customer bases and increasing their sales, hence contributing to business growth and operational longevity. This was demonstrated by the statistical significance of the service accounting for 87.6% of the variance in entrepreneurial capacity, indicating a strong and direct relationship between the two variables. This showed that Women MSEs in rural Embu need more than just finance, they need diverse market access services that are quite profound in overcoming systemic barriers to their growth, productivity and resilience. Equally, the 57% market access adopters in the study area had better products and services and broader customer catchments due to their diversified markets leading to increased sales and profitability. Market access was critical in cushioning the rural businesswomen against the volatility of local markets, which perennially suffered seasonality demands and recurrent product glut. The study, however, while acknowledging the importance of market access, found

that 47% of the entrepreneurs had not accessed this service, and hence struggled with the complexities of understanding new market trends.

43% and 36% of the women entrepreneurs had leveraged enterprise linkages and digital inclusion in their enterprises respectively. The facilitation of enterprise linkages and networks as well as leveraging on the revolutionizing role of technology, helped with market viability and acquisition of new competencies, effectively harnessing profitability for their businesses. These business strategies and benefits would otherwise be hard to find or implement locally without market access avenues. For instance, Digital tools enable businesswomen to respond to the dynamic requirements of customers, to access suppliers, market their wares and to manage competition. The findings also showed that only 21% of the businesswomen accessed physical markets for their goods and services. This showed that the level of infrastructure development and government provision of these services also affected the effectiveness of market access services in Mbeere, where only 21% had access to infrastructural installations like markets sheds, incubation centers, centers of excellence etc. This service provision gap by the national and county governments called for sustained outreach and the provision of more inclusive programs that targeted the businesswomen in this underserved area who heavily needed market access services to overcome local market saturations. However, cost, awareness sensitization as well provision of quality and relevant market access services remained key barriers to the widespread access to markets in the study area. The substantial percentage of women who hadn't accessed this service felt that they were limited in scope, and not offering practical and actionable strategies that could influence the day-to-day operations of their businesses. This disconnect between the offered services and the actual needs of the entrepreneurs reiterated the need to customize market access programs that were more suited for the particular challenges the women entrepreneurs faced. To fully exploit and leverage market access services, providers needed to adequately address the various barriers and gaps that constrained their effectiveness. Policymakers should, as a matter of priority, devise programs and avenues that would connect local women entrepreneurs to larger and reliable markets that are not limited in scope and dynamism within and beyond their borders. This can be through setting up local trade fairs, centers of excellence, business incubation centers and aggregation zones, virtual and physical marketplaces, or export-related incentives exclusively for women entrepreneurs to market their products and services so as to reduce barriers that impede access to such markets. The County government of Embu should make digital inclusion policies a priority through investment in affordable and reliable internet access, subsidization of necessary technology tools and services, creation of simplified digital platforms for women SMEs to access sector based information, and provision of grants for digital skills training. All these measures can help bridge the gap in the digital divide and support small businesses to become digitally literate and embrace the technology needed to enhance their competitiveness and grow their businesses. Ultimately, this research offers invaluable insights into how targeted and customized market access services can capacitate women entrepreneurs, lessen gender gaps, and contribute to inclusive socio-economic development.

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