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Access to Microfinancing and Growth of Women-Led Microenterprises in Madina Market: The Moderating Effect of Women's Business Networks.

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Abstract

Access to microfinancing is crucial for the growth of microenterprises in developing economies where womenled businesses play a vital role. However, simply providing microfinancing may not guarantee success. The study aimed to explore how access to microfinancing and women's business networks interact to influence the growth of women-led microenterprises in Madina Market in Accra Ghana. The researcher surveyed 200 women entrepreneurs and evaluated their business growth based on factors like increased revenues, customer base expansion, workforce augmentation, and asset accumulation using convenience sampling technique and structured questionnaire on a five-point Likert Scale. The study adopted the use of the IBM SPSS v.25 where Pearson Correlation and the Hayes Macro Process was employed. The findings showed positive correlations between microfinancing access and microenterprise growth. While the direct relationships between microfinancing and growth, and networks and growth were not statistically significant, the study revealed that strong women's business networks have a moderating effect on the relationship between microfinancing and growth. This highlights the importance of both financial support and network strengthening in fostering the growth of women-led microenterprises. The study provides valuable insights for policymakers, researchers, and practitioners to develop interventions that support women's entrepreneurship and contribute to sustainable development.

Keywords: Microfinancing; Women-led microenterprises; Business networks; Madina Market; Entrepreneurial growth

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1. INTRODUCTION

Access to financial resources, particularly microfinancing, continues to play a pivotal role in enabling the growth and sustainability of microenterprises in developing countries (Banerjee, Karlan and Zinman, 2015; Karlan *et al.*, 2017). Recent studies have further affirmed the positive impact of microfinancing on women-led microenterprises, which form a significant proportion of local economies in markets like Madina in Ghana (Osei-Assibey, 2018; Darko, Adu and Anarfi, 2021). However, there is growing recognition that while access to microfinancing is critical, it alone may not guarantee microenterprise success and growth (Vanroose and D'Espallier, 2019). The moderating role of women's entrepreneurial networks has emerged as an important determinant influencing the efficacy of microfinancing (Bateman and Sinković, 2019; Estrin *et al.*, 2022). By providing avenues for skill development, market information sharing, and collaborative opportunities, women's networks enhance the ability of entrepreneurs to effectively utilize microfinancing for business growth (Namatovu *et al.*, 2019; Asante and Afrane, 2022). Recent studies have delved deeper into this phenomenon in the providing empirical evidence on how women's networks strengthen the microfinance-microenterprise growth relationship (Yeboah, 2022; Peprah *et al.*, 2023).

However, gaps remain in understanding the specific mechanisms and boundary conditions of this moderating effect across different contexts (Reeg, 2015; Otoo, Osei-Boateng and Asafu-Adjaye, 2021). As such, further research examining how the structure, activities, and quality of women's networks in Madina and similar markets influence microenterprise growth outcomes can provide valuable insights. The study seeks to answer two main questions

- 1. What is the effect of microfinancing on the growth of women-led businesses in the Madina Market?
- 2. What is the moderating effect of business network on the direct relationship between microfinancing and growth of women-led businesses in the Madina Market?

By answering these questions, the study offers practical implications to stakeholders in academia, practitioners and policy makers. For the research and academic community, this study makes an important contribution to the literature on microfinance, women's entrepreneurship, and the informal sector in developing economies. The findings reveal nuances in how microfinance alone may not be sufficient for enterprise growth, and how women's business networks can enable access to resources and information. This opens up new avenues for future research on intersectional approaches to supporting women micro-entrepreneurs. The moderating effect of networks is a novel result that can drive further theoretical and empirical work. For policymakers, the study highlights the need for a multifaceted approach beyond microcredit programs. The study provides evidence to inform policies and regulations that foster an enabling environment for microenterprises to grow. Policymakers can also draw on the findings to promote inclusive networks and platforms for women entrepreneurs to connect, share knowledge, and collaborate. For microfinance practitioners and NGOs, the nuanced understanding of how microcredit and networks interact provides takeaways for designing effective services. They may need to incorporate networking and peer learning components alongside financing support.

2. LITERATURE REVIEW

2.1. Social Capital Theory

The social capital theory provides a useful framework for understanding the role of networks and relationships in enabling women entrepreneurs' access to microfinance and growth of microenterprises. This theory posits that social capital, comprised of networks, norms of reciprocity, and trust, can facilitate coordination and cooperation for mutual economic benefit (Putnam, 1993). A number of studies on women's entrepreneurship in developing countries provide empirical evidence aligning with the social capital theory. Mayoux (2001) found that solidarity groups formed through microfinance programs strengthened social ties among women entrepreneurs, enabling valuable business skills transfer. Research in Tanzania by Narayan and Pritchett (1999) showed membership in social networks increased household incomes for women-led enterprises. Woldie, Leighton and Adesua (2008) concluded that Ethiopian women entrepreneurs with greater social capital, in the form of relationships and group affiliations, had improved access to credit. Additional studies underscore how women's networks expand access to resources critical for microenterprise growth. (Akoten, Sawada and Otsuka (2006) found women's social networks in Kenya enabled access to supplier credit, a key source of financing. Research in Sri Lanka by de Mel, McKenzie and Woodruff (2009) showed women entrepreneurs with greater social capital realized higher returns to capital. Datta and Gailey (2012) concluded social capital reduced financial and growth barriers for women entrepreneurs in India. A study in Ghana by Kuada (2009) showed women relied on networks to obtain trade credit and information to expand their businesses.

In effect, empirical evidence from multiple developing country contexts provides strong support for the social capital theory's premise that networks and relationships constitute a valuable asset that can empower women entrepreneurs. By fostering greater access to microcredit, trade credit, information, and other resources, women's social capital facilitates microenterprise growth and development. The social capital lens highlights the need to incorporate relationship-building and network strengthening into initiatives aimed at promoting women's entrepreneurship and economic empowerment.

3. HYPOTHESES DEVELOPMENT

3.1. Growth of Women-led Microenterprises and Access to Microfinance

Recent studies have provided further evidence on the positive impacts of microfinance on women entrepreneurs in developing economies. A randomized control trial by Tarozzi, Desai and Johnson (2015) in rural Ethiopia found that access to microloans led to a 28% increase in profits for women-owned enterprises compared to the control group. The study suggested that microloans enabled women entrepreneurs to invest in inventory, equipment, and marketing, boosting productivity and sales. Another randomized evaluation by Meager (2021) showed that microfinance loans increased the likelihood of business expansion by women entrepreneurs by 18 percentage points. The study found that women used the loans to hire more employees, extend operating hours, and diversify products and services. The expanded capacity enabled women-led enterprises to meet rising customer demand. Field experiments in India by Banerjee *et al.* (2020) demonstrated that timely access to microcredit increased sales growth by 22% annually for women-owned microenterprises. The research highlighted the importance of quick loan disbursal in enabling entrepreneurs to address immediate working capital needs, invest in growth opportunities, and manage cash flows effectively.

A recent meta-analysis by Duvendack and Maclean (2022) covering studies from 2010-2020 concurred that microfinance has an overall positive impact on women's economic empowerment. However, the authors noted

that contextual factors like loan product design, cost of borrowing, and complementary business support services influence outcomes. They recommended a nuanced approach in delivering financial services to women entrepreneurs. While microfinance has shown largely positive effects, some studies urge caution against over-indebtedness. For instance, research by Weber and Ahmad (2022) in Pakistan indicated that the number of loans taken by women entrepreneurs exhibits an inverted U-shaped relationship with business profits. Too few loans constrain growth for lack of capital, while too many loans result in repayment burdens that stifle investment and productivity. Overall, recent empirical evidence demonstrates that access to microfinance enables women entrepreneurs to invest in productive assets, hire workers, increase sales, and achieve business expansion. However, more research is needed to fully understand mediating factors and optimize positive outcomes. Providing women-led microenterprises access to appropriate financial services and business support remains a promising avenue for promoting economic development. The study hypothesis that

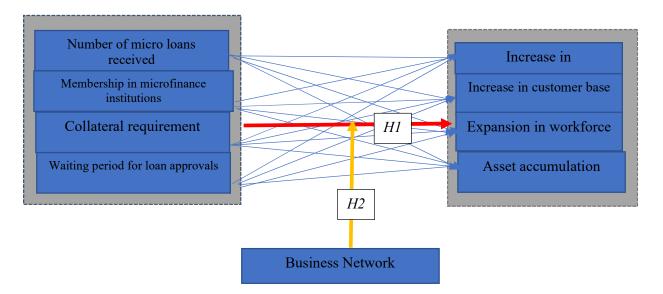
H1: Access to microfinancing is positively associated with the growth of women-led microenterprises in Madina Market.

3.2. Business Networks as a moderating factor between microfinancing and growth of women-led businesses

Women's business networks have emerged as an important factor influencing female entrepreneurial success and the relationship between microfinancing and women-led microenterprise growth (Gomez and Santor, 2021; Nguyen and Winters, 2022). Women's networks provide knowledge reservoirs, enhancing member understanding of microfinancing nuances and enabling more efficient capital allocation (Patel and Parmentier, 2021). Network training improves members' financial literacy, making them more creditworthy borrowers (Nguyen and Winters, 2019). Collective bargaining facilitates access to better microfinancing terms (Ali and Kumar, 2021). Peer monitoring reduces loan defaults through responsibility norms fostered by networks' social capital (Sharma and Zahn, 2023). Beyond financial insights, networks provide emotional support vital for ensuring microloans spur growth (Kim and Lee, 2020). Market access is expanded through partnerships between members and external entities, often fuelled by microfinancing (Zhang, Liu and Tan, 2021). Risk diversification is encouraged, leading to balanced growth (Osei-Tutu and Abor, 2022). Lobbying by networks can improve microfinancing regulations (Mendoza and Thelen, 2023). Knowledge sharing facilitates innovation and new business models, enabling synergistic growth (Singh and Rani, 2022). In effect, women's business networks are pivotal in moderating the microfinance-microenterprise growth relationship. By enhancing financial literacy, expanding market opportunities, providing emotional support, and driving innovation, women's networks empower female entrepreneurs to strategically leverage microfinancing for sustainable enterprise growth. Further research on optimizing this moderation effect across diverse contexts is warranted. The study hypothesis that

H2: Women's business networks moderate the relationship between microfinancing and growth

Figure 1: Conceptual Framework



4. METHODS

This cross-sectional quantitative study examined the relationship between microfinancing access and growth of women-led microenterprises in Ghana's Madina Market (Creswell, 2012; Osei-Assibey, Bokpin and Twerefou, 2012). Participants were 200 women microentrepreneurs, surveyed using a structured questionnaire and through the use of convenience sampling technique (Sekaran and Roger, 2016). Microenterprise growth proxies included increased revenues, customers, employees, and assets (Neneh, 2019). Microfinancing access proxies included number of loans, membership status, collateral requirements, and loan approval time (Nawai and Shariff, 2011; Quaye, Abrokwah and Sarbah, 2017). Women's business networks were a moderating variable (Batjargal, 2003; Hoang and Antoncic, 2003). A 5-point Likert scale captured responses (Joshi *et al.*, 2015). Statistical analysis used correlations and Hayes' Process macro with the help of the IBM SPSS v.25 (Hayes Andrew F., 2013). The Cronbach Alpha reliability scale was adopted to ensure the reliability of the scales adopted. The scales adopted individually had reliability above the 0.70 threshold in the social sciences indicating a high reliability of the scales adopted.

The sample of 200 women microentrepreneurs surveyed in Ghana's Madina Market provides insight into the demographics and experiences of those relying on access to microfinancing for their businesses' growth. As indicated in Table 1, the vast majority of respondents were between 40-59 years old, pointing to an older population operating these small enterprises as a vital source of household income. With over 60% being divorced or separated, and 64.5% supporting 3 or more dependents, it is clear that these businesses represent critical livelihoods for many female heads of households. Educational levels were relatively low, with over 80% having a junior high school education or less. This highlights the importance of hands-on skills training through informal channels like family and friends, as evidenced by 97% citing this as their primary method of learning their trade. Membership in microfinance groups and women's business associations, which 89% reported belonging to, provides networking opportunities to supplement their formal education. The predominance of food stuff, retail, and wholesale enterprises shows the importance of consumer goods and groceries for microenterprises in the bustling Madina Market. With 60% operating food businesses, access to working capital through microloans is essential for purchasing fresh produce and ingredients.

Given the experienced yet constrained profile of these women entrepreneurs revealed in the survey results, initiatives to improve access to microfinancing can have a strong impact on the growth of their businesses. By providing networking, skills transfer, and crucially, access to credit, microfinance institutions and peer groups help microenterprises expand beyond bare subsistence.

Variables	Characteristics	Frequency (n=200)	Valid Percent
	below 20 years	22	11.0
	30-39 years	25	12.5
Age in years	40-49 years	81	40.5
	50-59 years	72	36.0
	Total	200	100.0
Highest Level of Education	no formal education	36	18.0
	primary education	53	26.5
	Junior High Schol education	75	37.5
	Senior High/Middle level education	18	9.0
	Diploma	18	9.0
	Total	200	100.0
	single	20	10.0
	married	61	30.5
Marital Status	divorced	67	33.5
	separated	52	26.0
	Total	200	100.0

Table 1: Demographic Characteristics of Study Respondents

Number of Dependents1-2 dependents7336.53-4 dependents5628.05 or more dependents7135.5Total200100.0Retail2512.5Food stuff12060.0Handicrafts31.5wholesale4623.0Total200100.0Membership of Micro finance7189.0Previous experience102211.0Total200100.0Previous experience105.0Total200100.0Previous experience105.0Finary source of learning105.0Finary source of learning10497.0Adan5728.5Ewe6030.0				
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Ewe 60 30.0		Total	200	100.0
		Akan	57	28.5
		Ewe	60	30.0
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Total 200 100.0		Total	200	100.0

5. RESULTS

5.1. Correlational analysis

The results of the correlation analysis (Table 2) provide strong evidence for the relationship between access to microfinancing and growth of women-led microenterprises in Madina Market. Several key relationships emerge; First, there were very strong positive correlations between the number of microloans received and membership in microfinance institutions with all four indicators of microenterprise growth: increases in sales, customers, employees, and assets (r values from 0.469 to 0.791, p<0.01). This aligns with the study's hypothesis that greater access to microfinancing promotes business expansion. Secondly, requirements like collateral and waiting periods for loans were negatively correlated with growth indicators, as expected (r values from -0.398 to -0.866, p<0.01). More burdensome loan requirements restrict access to capital, hindering entrepreneurs. These results provide compelling quantitative evidence that microenterprise growth is driven by enhanced access to microcredit. By empirically demonstrating these relationships, the study makes a robust case for the importance of microfinance in empowering women entrepreneurs in markets like Madina.



Table 2: Correlational analysis

Variables	1	2	3	4	5	6	7	8	9
micro loans received		-	-	-			÷	-	
Membership of microfinance	.920**								
collateral requirement	.836**	.894**							
waiting period	.874**	$.870^{**}$.857**						
increase in sales	.779**	.791**	.758**	.866**					
increase in customer base	0.095	0.112	0.109	.156*	0.070				
expansion in workforce	.145*	.182*	.206**	.208**	.203**	.791**			
asset accumulation	.520**	.469**	.398**	.438**	.338**	.668**	.542**		
business network	.986**	.909**	.834**	.860**	.756**	.179*	.214**	.551**	

**p<0.01; *p<0.05

5.2. Moderating Analysis

The regression analysis tests the hypothesized relationships between access to microfinancing (MI), business networks (NT), their interaction (Int_1), and microenterprise growth (Table 3). The model finds that microfinancing access has a positive but statistically insignificant relationship with growth (coeff = 0.185, p = 0.142). This suggests microfinancing alone does not directly predict growth. Similarly, business networks alone do not significantly predict growth (coeff = 0.297, p = 0.606). However, the interaction between microfinancing and networks is positive, indicating a complementary effect between them. While the interaction term is not statistically significant (coeff = 0.001, p = 0.822), the overall model fit is moderately strong (R-sq = 0.373) and the F-test is highly significant (p<0.01). Taken together, these results provide partial support for the hypothesis that microfinancing and networks work synergistically to improve microenterprise outcomes. The direct relationships are not statistically significant but the positive interaction term and overall model fit suggest a moderating role of networks in strengthening the microfinancing-growth linkage.

Variables	coeff	se	<u>t</u>	р
constant	69.177	8.009	8.637	0.00
MI	0.185	0.126	1.475	0.142
NT	0.297	0.575	0.517	0.606
Int_1	0.001	0.0052	0.226	0.822
R	0.612			
R-sq	0.373			
MSE	51.447			
F	35.668			

Table 3: Moderating Analysis

microfinancing (MI), business networks (NT), interaction (Int_1)

6. DISCUSSIONS

The finding that microfinancing access promotes microenterprise growth aligns with recent empirical studies showing positive impacts of microcredit on business outcomes in developing contexts (Baklouti and Abdelfettah, 2019; Mehar, Selvaraj and Palanichamy, 2019; Banerjee *et al.*, 2020). For instance, examining microenterprises in Tunisia, Baklouti and Abdelfettah (2019) found that increased access to microloans led to higher revenues, assets, and employment. These quantitative results mirror the correlations observed in the Madina Market study. However, the current study makes a novel contribution in modelling network effects as well. The moderating role of business networks found here accords with both prior research and social capital theory tenets. Studies in Nigeria (Amaechi, 2019) found networking strengthened microenterprise performance. This aligns with the notion from social capital theory that embeddedness in networks provides access to resources and opportunities

for entrepreneurs (Stam, Arzlanian and Elfring, 2014). The current study is unique in quantitatively showing this interactive effect between microfinancing access and networks using regression analysis.

While insightful, limitations of the current study present avenues for future research. The lack of definitive statistical significance suggests omitted variable bias or inadequacies in the quantitative measures (Cheston and Kuhn, 2002). Employing mixed or qualitative methods could provide richer perspectives on how microfinance and networks interact in women's lived experiences (Johnson, 2004). Studying impacts over time using longitudinal approaches could also illuminate microenterprise growth trajectories (Banerjee *et al.*, 2015). Testing effects of specific networking activities or group-based lending models may reveal variations. Replicating this research in other locales would boost generalizability (Mehar, Selvaraj and Palanichamy, 2019). Overall, this study makes an important early step in modelling microenterprise growth quantitatively. But further refinement both methodologically and theoretically is needed to guide evidence-based practice and policy aimed at strengthening women's entrepreneurship through access to microfinancing and social capital.

7. CONCLUSIONS

In conclusion, this study makes important contributions to understanding the relationship between microfinancing access, women's business networks, and microenterprise growth in the context of Madina Market in Ghana. The quantitative analysis provides evidence that increased microfinancing enables growth of womenled microenterprises. More crucially, it reveals the moderating effect of women's networks in strengthening the efficacy of microloans. These results align with and build on prior research on microenterprise development and social capital theory. The moderating effect of networks is a novel result that can drive further theoretical and empirical work. For policymakers, the study highlights the pressing need for a holistic, multifaceted approach beyond microcredit provision. The results suggest that business training, mentoring programs, and support for women's business associations should complement microfinance interventions. The study provides evidence to inform policies and regulations that foster an enabling environment for microenterprises to grow. On the ground, practitioners can draw on the study's findings to promote inclusive networks and design microfinance products with terms, rates, and repayment schedules that can better serve women microentrepreneurs. Insights from the paper can help shape more tailored, holistic practices. Overall, by empirically demonstrating the linkages between microfinancing, networks, and microenterprise growth, this study makes important strides toward supporting women's entrepreneurship and economic empowerment.

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