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IMPACT OF MICROFINANCE INSTITUTION SERVICES ON YOUTH EMPOWERMENT IN KATSINA STATE NIGERIA: THE ROLE OF AGENCY BANKING

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Abstract

The services provide by microfinance institutions, such as account opening, loans offering, deposits acceptance, and bill payments facilitation, have the potential to enhance youth empowerment by fostering employment opportunities, raising income levels, improving living standards, and enhancing the overall quality of life. This study assesses this potential by examining the direct effects of microfinance institution services on youth empowerment and indirectly, through the activities of bank agents in Katsina state, Nigeria. The study employed a cross-sectional survey method to collect primary data from 360 youth who actively engage in bank agency services across three senatorial zones in the state. The collected data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. The results indicate that microfinance institution services have a positive direct effect on youth empowerment and also indirect effects through the activities of bank agents. Based on the findings, the study recommends strengthening agency banking activities, increasing access to microfinance institution services, promoting entrepreneurship development, and enhancing living standards to boost youth empowerment.

Keywords: Agency Banking, Microfinance Institutions, Youth Empowerment, PLS-SEM

***JEL Classification Codes*:** C51, C81, G21, J24

1. Introduction

Microfinance institutions (MFIs) are organizations that provide financial services, including credit, savings, and insurance, to low-income individuals or groups who do not have access to traditional banking services (Dang & Vu, 2020). These institutions are primarily established to support business development and community empowerment, especially owners of small business entities. MFIs can be nonprofit organizations, commercial banks, or other financial institutions. The goal of MFIs is to expand the accessibility of unbanked or underserved microfinance and enable economically disadvantaged individuals to obtain the small-scale capital they need to start up viable income-earning businesses (Ohize & Aliu, 2021).

The products and services of MFIs can be accessed through agency banking, which is a cost-effective way for banks and other financial institutions to extend their products and services in areas with lower penetration of banks (Mahmood & Sarker, 2015). Agency banking allows banks to bring their services directly to users rather than requiring them to visit a physical branch. In agency banking, banks or other financial institutions enter into a contract with banking agents who act as intermediaries between the bank and the customers. The agents are authorized to deliver financial services to customers in remote areas and beyond the reach of the traditional branch network. The services offered through agency banking include account opening, cash deposits, withdrawals, loan management, and fund transfers. The customers can perform various banking operations through these agents, such as withdrawing/depositing funds, paying bills, loan payments, and many more (Mwando, 2013).

Engaging in agency banking activities can positively influence the income, living standards, and overall empowerment of young individuals. As agents offer

banking services, their income potential and empowerment can increase. Additionally, the introduction of agency banking services can extend the reach of payment firms, particularly in rural regions inaccessible to most fintech businesses, as highlighted by Akighir et al. (2022). For Nigeria, the National Financial Inclusion Strategy (NFIS, 2022) indicates that among the 239,940 bank agents in the country by December 2021, approximately 2,596 agency banking outlets are situated in Katsina state. This scenario served as the impetus for this research, which endeavors to explore how agency banking services mediate the connection between microfinance institution services and the empowerment of youth in Katsina state, Nigeria.

2. Literature Review

2.1 Empirical Review

Alshebami and Khandare (2015) investigate the challenges faced by Yemeni women in accessing microfinance services for empowerment. The study identified obstacles including cultural norms, high interest rates, financial literacy, religious misconceptions, and collateral demands. However, women engaged in microfinance programs still experienced positive impacts on their households. Similarly, Jain (2020) examined the impact of microfinance services on women's empowerment in Nepal's eastern region, finding a positive link between credit and savings services and empowerment. Khatani et al. (2022) explored the influence of the entrepreneurial perspective on sustainable socio-economic growth in Karachi, using a quantitative approach and PLS-SEM analysis. Results supported the significance of financial, personal, governmental, and social factors in youth entrepreneurial perspectives.

In Africa, Ondoro and Omena (2012) explored microfinance services' effects on youth empowerment in Kenya's Migori County. Their ANOVA-based study found no significant link between microfinance and youth savings or investment. However, microfinance did enhance financial management skills among the youth in the region. Similarly, Ussif (2020) examined the challenges that microfinance institutions faced in trying to reduce poverty and create employment for the poor in Ghana. The results show that, some of the challenges micro-finance institutions faced are: Poor regulation and supervision, inadequate knowledge and skills and panic withdrawals yet, the study affirmed the positive impact of Microfinance Institutions on poverty reduction and employment.

In the specific context of Nigeria, Ananwude et al. (2018) explored the impact of microfinance banks' available products in rural communities on the empowerment of women in Imo State. Utilizing Pearson correlation and regression analysis techniques, the results reveal a significant and positive correlation between women's empowerment and the range of microfinance banks' offerings, including rent savings, child education, newborn support, and daily savings accounts. Similarly, Ejiogu and Villano (2020) investigated the impact of microfinance services on the empowerment of women and youth rural farmers in Anambra State. Employing descriptive statistics and content analysis, the authors found that microfinance services have a substantial effect on youth empowerment, especially among young women in Anambra State. Their findings disclosed that microfinance services have a significant role in creating employment opportunities, increasing income levels, improving living standards, and enhancing the overall quality of life among the youth, thereby contributing to heightened empowerment.

Audu et al. (2021) assessed the impact of services provide by microfinance institutions on the performance of small and medium scale enterprises (SMEs) in Gombe State. The research employed a cross-sectional survey approach, collecting primary data through a structured questionnaire administered to 360 SMEs. The data collected were analyzed using a regression model. The findings of the study reveal that microfinance services have a positive significant impact on SMEs' performance. In the same vein, Ohize and Aliu (2021) examined the effects of microfinance bank lending services on the development of youth entrepreneurs in Kaduna State of Nigeria. Multi – Stage random sampling technique was used to select respondents from 20 microfinance banks with over 200 youth entrepreneurs as customers. The data was analyzed using descriptive statistics as well as Foster Greer and Thorbeck (FGT) Model. The findings indicate that youth entrepreneurs who are customers of microfinance banks had easier access to

loans than their counterparts who are not microfinance bank customers.

In a more recent study, Anoke (2023) explored the impact of microfinance services on the growth of women entrepreneurial businesses in North Central Nigeria. The effect was determined using correlation and multiple regression analysis. The findings revealed that microfinance lending; saving and training services have positive and significant effects on the growth of women entrepreneurial businesses in Nigeria's North Central while microfinance management consultancy services recorded an inverse and insignificant impact on the women entrepreneurial businesses' growth in the zone.

A significant gap that has been identified in the existing literature pertains to the fact that, despite the considerable number of studies examined the impact of microfinance institution services on youth empowerment in Nigeria, these studies have generally overlooked the intermediary role played by agency banking activities in facilitating the connection between microfinance institutions and their customers. Neglecting the role of bank agents' activities could potentially undermine the credibility of the conclusions drawn from such studies. In response, this study aims to bridge this gap by investigating the direct and indirect effects of microfinance institution services on youth empowerment through agency banking activities in Katsina state, Nigeria.

3 Methodology

This section provides an overview of the study's methodology, detailing its research design, population and sample of the study, variables measurement, data collection procedures, and method of data analysis.

3.1 Research Design

This study employs a quantitative research design, collecting and analyzing primary quantitative data to draw conclusions about the impact of microfinance institution services on youth empowerment. It specifically focuses on the mediating role of agency banking in Katsina state. A cross-sectional survey method is utilized to gather data from a sample of youth actively engaged in agency banking services.

3.2 Population of the Study

The study's population is determined based on the data by National Financial Inclusion Strategy (NFIS) document released by the Central Bank of Nigeria (CBN, 2021). According to this data, there are 2,596 agency banking outlets in Katsina state, Nigeria. This suggests that, out of the total 239,940 bank agents in Nigeria as of December 2021, approximately 2,596 agents were operating in Katsina state. Therefore, the study's population encompasses all the 2,596 agency banking outlets located in Katsina state.

3.3 Sample Size and Sampling Technique

Sample is the sub-set or part of population from which information is collected. In this study, Yamane (1967) formula for sample size determination was adopted to arrive at a sample of 347 respondents. This was calculated as follows:

$$= \quad = \quad = \quad = \quad = 346.595 \approx 347$$

Where: is the sample size, N is the population of the study; e is the level of precision/significance which is (0.05) 5% confidence level. The researchers feared that the level of response may not be adequate; hence, an allowance of 13 extra representative samples was added to get a round figure of 360. Therefore, the optimal sample size is 360 operators.

To draw this sample, cluster sampling technique is used. This is one of the probability sampling techniques that involve the division of a population into smaller sub-groups known as strata. The sampling and a share of the overall sample was then randomly selected from each stratum. This offers each of the respondents in the population an equal chance of selection and fair representation as well as a basis for generalization.

The 34 LGAs of Katsina state were divided into three strata (i.e.: three, 3 senatorial zones: Katsina, Daura & Funtua). The first stage in the sampling process is the selection of three (3) local governments with the highest agency banking outlets (to get enough samples) from each of the three (3) senatorial zones in the state, making the total of 9 LGAs. The second stage is the random selection of 40 bank agents as respondents from each of the selected local

government making the total sample to be 360 as determined by Yamane (1967) formula.

3.4 Variables Measurement

The dependent variable (youth empowerment) is measured as the difference between the status of the bank agents before and after the commencement of the agency banking business. Therefore, to capture youth empowerment status before and after the commencement of agency banking, four indicators were used: (i) Monthly income, (ii) ownership of landed properties/assets, (iii) ownership of motorized vehicles, and (iv) ability to meet basic necessities of life. On the other hand, the major independent variable (microfinance institution services) is measured by four indicators, namely: (i) number of new bank accounts opened; (ii) loan application processed; (iii) deposits accepted; and (iv) bill payments facilitated per month. Moreover, the mediating variable (agency banking activities) is measured by four indicators, namely: (i) number of customer transactions, (ii) liquidity of agency banking outlets, (iii) their security, and (iv) functionality of their equipment.

3.5 Method of Data Collection

Structured questionnaire was employed as an instrument of data collection. The instrument is administered to the respondents (i.e.: bank agents) by enumerators with the active collaboration and support of POS association of Katsina state. Similarly, to ease the process of data collection and to avoid missing information, this study used computer designed digital questionnaire in the form of Open Data Kit (ODK). The ODK Collect App is a free, open-source suite of tools that allows data collection using Android mobile devices and data submission to an online server, even without an internet connection or mobile carrier service at the time of data collection.

The instrument comprises four sections: socio-economic characteristics of the respondents, microfinance institution services, agency banking activities, and indicators of youth empowerment. The Likert scale used to measure the constructs, allowing participants to rate their agreement on a 5-point scale, range from strongly agree to strongly disagree.

3.6 Method of Data Analysis

Two main analyses were performed on the collected data: the measurement model analysis and the structural model analysis. These analyses were conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The measurement model analysis focused on assessing the reliability and validity of the measurement scales used in the questionnaire. This analysis examined the relationships between the observed indicators and the latent constructs, such as microfinance institution services, agency banking, and youth empowerment. It helped ensure that the measurement scales accurately captured the intended constructs (Idika et al., 2022).

On the other hand, the structural model analysis investigated the relationships between the latent constructs. It examined the direct and indirect effects of microfinance institution services and agency banking on youth empowerment. This analysis helped determine the strength and significance of these relationships, providing insights into the impact of microfinance institution services on youth empowerment in the context of agency banking.

The PLS-SEM analysis was conducted using specialized software (SmartPLS4). This software enabled the estimation of the measurement model and the structural model, providing statistical outputs that helped interpret the relationships between the constructs.

4 Results and Discussion

This section presents and discusses the results from the empirical analysis of the data. It starts with a summary of the socio-economic attributes of the respondents and subsequently proceeds to the analysis of the measurement model and structural model by utilizing PLS-SEM approach. The socio-economic features of the agents are presented in the following sub-section.

4.1: Socio-economic Characteristics of the Respondents

The socio-economic attributes of the respondents are presented in Table 1. The table illustrates the socio-economic attributes of the respondents. It provides information on different aspects such as age groups, duration of being an operator, gender, marital status,

business type prior to agency banking, highest educational qualification, and income levels before and after starting agency banking.

The results in Table 1 displaythe distribution of respondents across various age groups and their corresponding durations as operators: For instance, 5.28% of respondents are aged 15 to 19 years, and 6.94% have been operating for less than 1 year. Additionally, 9.72% are aged 20 to 24 years, with 83.61% having 1 to 2 years of experience as operators. Similarly, about a quarter (25.56%) of the respondents are between the ages of 25 and 29 with 2 to 3 years' experience as operators. Largest portion (59.44%) belongs to the 30 to 35 age group and has been operating for more than 3 years.

Table 1: Socio-economic Characteristics of the Respondents

Age Group	Frequency	Percentage	Duration	Frequency	Percentage
15 - 19 Years	19	5.28	Less than 1 Year	25	6.94
20- 24 Years	35	9.72	1- 2 Years	301	83.61
25 - 29 Years	92	25.56	2 - 3 Years	28	7.78
30 - 35 Years	214	59.44	Above 3 Years	6	1.67
Total	360	100.00	Total	360	100.00
Gender			Marital Status		
Male	353	98.06	Single	95	26.39
Female	7	1.94	Married	265	73.61
Total	360	100.00	Total	360	100.00
Business (Prior to Agency Banking)			Highest Educational Qualification		
Provision Store	141	39.17	Primary	63	17.50
Supermarket	24	6.67	Secondary	177	49.17
Electronic Shop	113	31.39	Diploma/NCE	64	17.78
Medicine Store	66	18.33	1st Degree/HND	53	14.72
POS Only	16	4.44	Masters/PhD	3	0.83
Total	360	100.00	Total	360	100.00
Income (Prior to Agency Banking)			Income (After starting Agency Banking)		
Below ₦ 10,000	138	38.33	Below ₦ 10,000	4	1.11
10,000 - 50,000	121	33.61	10,000 - 50,000	12	3.33
50,000 - 100,000	65	18.06	50,000 - 100,000	238	66.11
100,000 -150,000	28	7.78	100,000-150,000	53	14.72
Above ₦ 150,000	8	2.22	Above ₦150,000	53	14.72
Total	360	100.00	Total	360	100.00

Source: *Authors' Computation using Stata 14 software*

Furthermore, the results in Table 1 present the respondents' income levels before and after starting agency banking. Before starting agency banking, 38.33% of the respondents earned below ₦10,000, while 33.61% had an income ranging from ₦10,000 to ₦50,000. A smaller portion of respondents, 18.06%, fell within the income bracket of ₦50,000 to ₦100,000. Fewer respondents, 7.78%, earned between ₦100,000 and ₦150,000. The smallest group, comprising 2.22% of respondents, reported income levels above ₦150,000. However, after starting agency banking the number of respondents with income below ₦10,000 decreased significantly to 1.11%. A similar pattern is observed for those earning between ₦10,000 and ₦50,000, with their percentage dropping to 3.33%. Similarly, a substantial shift is noted in the income range of ₦50,000 to ₦100,000, where 66.11% of respondents now fall. Additionally, more respondents, constituting 14.72%, reported income levels between ₦100,000 and ₦150,000. Similarly, another group of respondents, also at 14.72%, now earn above ₦150,000. In general, the attributes of the respondents reveal their diverse socio-economic backgrounds,

which effectively minimize the likelihood of any significant bias.

4.2 Measurement Model Analysis

The analysis of the measurement model is conducted to assess the reliability and validity of the latent variables (constructs). To establish the reliability and validity of the constructs, this study employed the reliability coefficient as a measure of internal consistency. Additionally, convergent validity is evaluated to check how well the constructs are measured by their selected indicators. To evaluate convergent validity, the average variance extract (AVE) scores are utilized, and the results are presented in Table 2.

Table 2: Results of Reliability and Validity of the Latent Variables and Indicators

Latent Variables	Indicators	Factor Loadings	Cronbach's Alpha	Composite Reliability	AVE
Youth Empowerment	YE1	0.919	0.915	0.925	0.799
	YE2	0.820			
	YE3	0.928			
	YE4	0.903			
Microfinance Services	MS1	0.786	0.749	0.994	0.639
	MS2	0.729			
	MS3	0.760			
	MS4	0.858			
Agency Banking Activities	AB1	0.730	0.725	0.720	0.687
	AB2	0.861			
	AB3	0.796			
	AB4	0.871			

Source: *Authors' Computation using SmartPLS4 software*

The results presented in Table 2 indicate that all indicator factor loadings exceed 0.7, indicating that the construct accounts for over 50 percent of the variance in the indicators, thereby demonstrating satisfactory indicator reliability. Similarly, to ascertain the internal consistency and reliability of the constructs, both Cronbach's Alpha and Composite Reliability should be higher than the threshold of 0.7. It is evident from Table 2 that the latent indicators are all reliable, as their values exceed the threshold of 0.7. Furthermore, in evaluating convergent validity, the Average Variance Extracted (AVE) ought to surpass 0.5. Convergent validity pertains to the degree to which the construct aligns to elucidate the variance within its constituent items. As illustrated in Table 2, the AVE values for all constructs exceed 0.5, affirming that our constructs meet the criterion for convergent validity. This also underscores that all constructs account for 50 percent or more of the variance found within their respective indicators comprising the construct.

Alongside assessing the validity of the indicators, the validity of constructs at a higher level was evaluated employing the Fornell–Larcker criterion (Fornell & Larcker, 1981). According to this criterion, each construct's self-correlation should be higher. This self-correlation is represented by the square root of AVE. Moreover, these values concurrently indicate the interrelationships among the variables under study, and the positive or negative signs associated with them signify the direction of the relationship. The results of analysis in table 3 indicated that all constructs conformed to the Fornell–Larcker criterion.

Table 3: Results of Discriminant Validity (Fornell-larcker Criterion)

Latent Variables	Youth Empowerment	Microfinance Services	Agency Banking Activities
Youth Empowerment	0.753		
Microfinance Services	0.817	0.7.21	
Agency Banking Activities	0.768	0.672	0.825

Source: Authors' Computation using SmartPLS4 software

Furthermore, the explanatory power of the model is assessed using the coefficient of determination (R^2) and the results is presentenced in Table 4. This table provides two statistical parameters: R Square and Adjusted R Square, which are used to assess how effectively the model accounts for the variance observed in the latent variables. The results indicate that the coefficients of R^2 of all the constructs are above 0.75 which indicate a high explanatory power of the exogenous variables. For "Youth Empowerment," the R Square value is 0.823, indicating that the model explains approximately 82.3% of the variance in youth empowerment. For "Microfinance Services," the R Square value is 0.758, implying that the model accounts for around 75.8% of the variance in microfinance services. For "Agency Banking Activities," the R Square value is 0.810, suggesting that the model elucidates about 81.0% of the variance in agency banking activities.

Table 4: Results of the Explanatory Power of the Model

Latent Variables	R Square	Adjusted R Square
Youth Empowerment	0.823	0.801
Microfinance Services	0.758	0.711
Agency Banking Activities	0.810	0.793

Source: Authors' Computation using SmartPLS4 software

4.3: Structural Model Analysis

The analysis of the structural model involves evaluating its path coefficients, coefficient of determination (R^2), and sizes of direct and indirect effects. The PLS-SEM path model is visually represented in Figure 2, and the results of the model's direct and indirect effects are reported in Table 5.

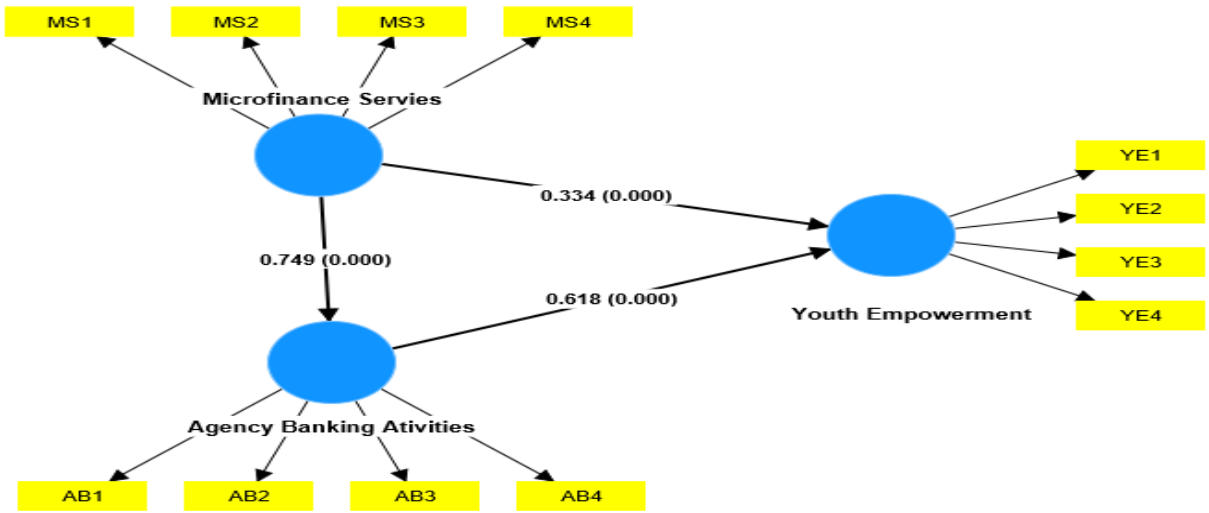

Figure 2: PLS-SEM Path Model: Microfinance Services - Youth Empowerment, mediated by Agency Banking Activities

Table 5: Direct, indirect and total effects of the Model

Type	Effect	B	SE	t-Statistics	p-values
Direct	MS ⇒ YE	0.334	0.062	5.370	0.000
	MS ⇒ AB	0.749	0.023	32.323	0.000
	AB ⇒ YE	0.618	0.057	10.803	0.000
Indirect	MS ⇒ AB ⇒ YE	0.463	0.047	9.875	0.000
Total	MS ⇒ YE	0.797	0.025	31.775	0.000

Source: Authors' Computation using SmartPLS4 software

Note: β = standardized path coefficient; SE = Standard Error; MS = Microfinance Services; AB = Agency Banking Activities; and YE = Youth Empowerment

The results presented in Table 5 reveal the direct, indirect, and total effects of microfinance services (MS) on youth empowerment (YE) through agency banking activities (AB). Regarding the direct effect (i.e., MS ⇒ YE), the results indicate that microfinance services have a direct, positive, and statistically significant effect (β = 0.334, p = 0.000) on youth empowerment. Similarly, the indirect effect of microfinance services on youth empowerment through agency banking activities (i.e., MS ⇒ AB ⇒ YE) is also positive and statistically significant (β = 0.463, p = 0.000). This indicates that microfinance services mediate indirect effect on youth empowerment through agency banking activities. Moreover, the total effect of microfinance services on youth empowerment is also significant (β = 0.797, p = 0.000). This signifies that microfinance services yield a substantial overall impact on youth empowerment, encompassing both their direct and indirect impacts.

The findings from this study prove that microfinance services have a multi-faceted impact on youth empowerment. The direct, indirect, and total effects collectively emphasize the significance of microfinance services in enhancing youth empowerment. These findings offer insights into the multifarious ways microfinance services influence agency banking activities and ultimately contribute to empowering the youth, thereby supporting the hypothesis that they have a pivotal role in this regard.

This result is consistent with previous studies on the impact of microfinance services on youth empowerment. A study by Ejiogu and Villano (2020) found that microfinance services have a significant impact on youth empowerment, particularly for young women in Anambara state, Nigeria. Their study unveiled that microfinance services play a crucial role in fostering employment opportunities, boosting income, enhancing living standards, and overall well-being among the youth, ultimately culminating in heightened empowerment.

5. Conclusion and Recommendations

The services offer by microfinance institutions, such as account opening, loans provision, deposits acceptance, and bill payments facilitation, have the potential to enhance youth empowerment by promoting employment opportunities, increasing income levels, raising living standards, and improving the overall quality of life. This study assesses this potential by examining the direct effects of microfinance institution services on youth empowerment and, indirectly, through the activities of bank agents in Katsina State, Nigeria. The study employed a cross-sectional survey method to collect primary data from 360 youth who actively engage in bank agency services across three senatorial zones in the state. The Partial Least Squares Structural Equation Modeling (PLS-SEM) method was used to analyze the collected data. The findings show that the services provide by microfinance institutions have a positive and significant direct effect on youth empowerment and also indirect effects through the activities of bank agents. In light of the results presented and analyzed it is concluded that agency banking services play a vital role in mediating the impact of microfinance institution services on youth empowerment in Katsina state, Nigeria. Drawing from this conclusion, the following recommendations are put forward:

i. Strengthen Agency Banking Services: The study results suggest that agency banking plays a significant mediating role in the impact

of microfinance institution services on youth empowerment. Therefore, policymakers and microfinance institutions should focus on strengthening agency banking services to enhance the impact of microfinance institution services on youth empowerment.

ii. Increase Access to Microfinance Institution Services: The study results indicate that microfinance institution services have a positive direct effect on youth empowerment. Therefore, policymakers and microfinance institutions should focus on increasing access to microfinance institution services for youth. This can be achieved through the establishment of more microfinance institutions and the expansion of existing ones.

iii. Promote Entrepreneurship Development: The study results suggest that microfinance institution services have a positive impact on entrepreneurial success. Therefore, policymakers and microfinance institutions should focus on promoting entrepreneurship development among youth in Katsina state. This can be achieved through the provision of training and mentorship programs that equip youth with the necessary skills and knowledge to start and grow their businesses.

iv. Further Research: The study results provide valuable insights into the impact of microfinance institution services on youth empowerment in the context of agency banking. However, further research is needed to explore the long-term impact of microfinance institution services on youth empowerment and to identify other factors that may influence the relationship between microfinance institution services and youth empowerment in Katsina state.

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