A CORRELATIONAL CROSS-SECTIONAL STUDY ON AGENCY BANKING AND FINANCIAL INCLUSION IN LIRA DISTRICT, UGANDA.

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Page | 1 ABSTRACT.

Background:

This study investigated the relationship between agency banking and financial inclusion in Lira District, Uganda. It examined the relationship between agency withdraws, agency deposits, agency transfers, and financial inclusion in Lira District.

Methods:

The study employed a descriptive, correlational, and cross-sectional research design with both qualitative and quantitative approaches, data was collected from employees of selected commercial banks, bank agents, bank customers, and opinion leaders. Convenience, purposive, and simple random sampling techniques were utilized to select 332 respondents. Primary data was gathered through self-administered questionnaires and interviews, while secondary data was obtained from documents and reports. Validity was ensured through expert judgment, while reliability was assessed using a test-retest method. Ethical considerations were addressed by obtaining permissions and ensuring confidentiality. Data was analyzed using SPSS software, including correlation and multiple regression analyses.

Results:

The overall number of male responses across all categories was 217 (67%), with 103 (32.2%) being female. The correlation coefficient for agency withdrawals and financial inclusion was 0.727. This suggests that the observed relationship between agency withdrawals and financial inclusion was statistically significant at the 0.01 level (2-tailed).

The correlation coefficient for agency deposits and financial inclusion was 0.673. with a moderately strong positive linear relationship between agency deposits and financial inclusion.

The correlation between agency transfers and financial inclusion was 0.728 with a strong positive correlation between agency transfers and financial inclusion. This significance value is below the commonly used threshold of 0.05, indicating that the correlation is statistically significant.

Conclusion:

The regression analysis indicated that agency banking activities including withdrawals, transfers, and deposits, were positively associated with financial inclusion in Lira District.

Recommendations:

There is a need to promote agency banking services, focusing on agency deposits, improving trust and confidence, enhancing convenience and flexibility, targeting underserved populations, and continuous monitoring and evaluation.

Keywords: Agency banking, Financial inclusion, Lira District

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BACKGROUND.

Agency banking has played a significant role in promoting financial inclusion in Uganda. This model allows banks to extend their services through third-party agents, such as retail shops or post offices, to reach customers in remote areas where traditional bank branches are limited (Alinda, 2021).

Agency banking has expanded the reach of formal financial services to underserved populations in rural and remote areas. People who previously had limited access to banking services can now perform basic transactions like deposits, withdrawals, and transfers through local agents (Olango, Museve, & Wu'Adongo, 2020). Agency banking has made financial services more convenient for customers by bringing banking services closer to their homes. This has

reduced the need for people to travel long distances to access a bank branch, saving time and money.

In Uganda, infrastructure challenges such as limited access to reliable telecommunications and internet connectivity, which are essential for conducting electronic transactions are still visible (Ndyamuhaki, 2020). Additionally, the lack of financial literacy and awareness among potential users may hinder the adoption of agency banking services. Regulatory barriers and compliance requirements can also pose challenges for agents and financial institutions, affecting the scalability and sustainability of agency banking models (Sporta & Muganda, 2021). Furthermore, concerns about security and trust in the formal financial system, particularly in rural and underserved areas, may impede the uptake of agency banking services. Addressing these constraints requires concerted efforts from regulatory authorities, financial institutions, and other stakeholders to improve infrastructure, enhance financial education, streamline regulatory processes, and build trust in agency banking as a viable and secure channel for financial services in Uganda (Mohere, 2023).

Financial inclusion in Uganda is still relatively low, only About 58% of Ugandan adults have an account at a financial institution, which indicates a significant portion of the population remains unbanked (Okello Candiya Bongomin, Munene, & Yourougou, 2020).

The Uganda Financial Inclusion Insights survey conducted in 2018 revealed that only 11% of adults in Uganda have access to formal credit, indicating limited access to credit facilities (Asongu, Nnanna, & Acha-Anyi, 2020). This includes the lira district where access to credit is relatively lower.

Financial literacy levels in Lira District are also low, with only 35% of adults having basic financial knowledge. Infrastructure challenges, such as limited banking infrastructure in rural areas, contribute to the low levels of financial inclusion. In Uganda, about 70% of the population lives in rural areas where access to financial services is limited (Eton, Mwosi, Okello-Obura, Turyehebwa, & Uwonda, 2021). Could all this be due to limited access to agency banking? This has prompted the researcher to examine the relationship between agency banking and financial inclusion in Lira District Uganda.

Specific Objectives.

- To examine the relationship between agency withdrawals and financial inclusion in Lira District.
- To assess the relationship between agency deposits and financial inclusion in Lira District.
- To establish the relationship between agency transfers and financial inclusion in Lira District.

RESEARCH METHODOLOGY.

Research Design.

The study used a descriptive, correlational, and crosssectional research design. Further, the study adopted both qualitative and quantitative research approaches hence a mixed research design. The study was descriptive because the researcher used frequency tables, graphs, and pie charts to describe the findings of the study. The research design was also correlational because the researcher established the relationship between study variables. The study was also cross-sectional because it was for a short period. After all, the researcher is a student with limited resources to make follow-ups on the study.

Lastly, the study was both qualitative and quantitative because the researcher used both words and figures to explain the findings of the study (Tumwine, Mbabazize, Shukla, & Cooperative Studies, 2015).

Study area.

Geographically, the study was carried out on agency banking outlets of commercial banks within the Lira District. The study will use selected commercial banks within the areas including Stanbic Bank Uganda Limited, Centenary Bank, Equity Bank Uganda Limited, KCB Bank Uganda Limited, Housing Finance Bank Uganda Limited, Orient Bank Uganda Limited, DFCU Bank Uganda Limited, and Post Bank Uganda Limited. Further, the area has a significant number of bank agents who will provide a substantial population for this study.

The research covered a period of 5 years that is from 2018-2023. This period was selected because, after 2018, the banking sector was affected by the COVID-19 pandemic and significantly invested in agency banking.

Population of the study.

The study population comprised employees of selected commercial banks, bank agents, bank customers, and opinion leaders. According to the Uganda Bankers Association (Mah'd Alloubani, Almatari, & Almukhtar) 2023, the selected commercial banks have 34 agent banking outlets and 46 permanent staff within the Lira District. In Lira District, there are 2345 bank customers. The study will also use 15 opinion leaders hence the study population will be 2440 people.

Sample size of the study.

The study was guided by Kreijcie and Morgan's (1970) sampling table at a 5% level of confidence in determining the sample size.

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	Tuble II Showing Su	inple Size of the Stat		
	Study participants	Population	Sample	Sampling technique
	Bank staff	46	42	Simple random sampling
	Bank agents	34	30	Purposive sampling
Page 3	Bank Customers	2345	250	Convenience sampling
1 460 5	Opinion leaders	15	10	Purposive sampling
	Total	2440	332	

Table 1: showing sample size of the study.

Therefore, the sample size of the study was 332 respondents. These comprised of 42 bank staff, 30 bank agents, 250 bank customers, and 10 opinion leaders.

Sampling technique.

The researcher used convenience sampling, purposive sampling techniques, and simple random sampling to select respondents for the study.

The researcher used purposive sampling to select bank agents and opinion leaders as respondents to the study. The researcher used the method to gain in-depth information relating to the study from the key respondents.

Simple random sampling was used to select bank staff of the selected commercial banks in the Lira District. The method was used to eliminate bias as the method gave a chance to everyone to participate in the study.

Convenience sampling was used to select only bank customers that were easily accessible (either at the bank premises or agent banking outlet).

Sources of data.

Data was collected from both primary and secondary sources for this study. Primary data was collected using Self-Administered Questionnaires (SAQ) and interviews.

The researcher used Self-Administered Questionnaires to obtain primary data from bank agents and the selected employees of the commercial banks in Lira District. The questions were open-ended to allow the respondents to provide detailed information relating to the study. Also, some questions were on a Likert scale.

Further, primary data was collected through interviews that were conducted with opinion leaders. This allowed the collection of detailed information about agency banking in particular transfers, withdraws deposits, and the level of financial inclusion in Lira District.

The researcher obtained secondary data from documents such as annual reports, financial statements, meeting proceedings, and files of selected commercial banks, Bank of Uganda publications, and the Uganda Bankers Association report. Additional secondary information was also collected from the Bank of Uganda website, commercial banks' websites, and other media that the researcher deemed relevant to the study.

Research instrument.

In carrying out this research, the researcher used Self-Administered Questionnaires and Interview guides as research instruments to collect relevant data for this study.

Questionnaires.

Validated questions were distributed to selected staff, bank customers, and bank agents to fill out and were collected two weeks from the date of issue. The questions were both openended and close-ended to allow respondents to add more relevant information that the researcher might have left out.

Interviews.

The study also used interviews to collect data from opinion leaders (key informants) who were knowledgeable on agency banking and financial inclusion in the Lira District.

Validity and Reliability.

Validity.

The researcher used the expert judgment method. After constructing the questionnaire, the researcher contacted the supervisor and experts in this area of study to ensure that the instruments were clear, relevant, specific, and logically arranged to fit the results needed for this study. The expert was requested to rate the validity of each item using the following cords SA, A, D, and SD. After the researcher had collected the questionnaires and established a content validity index using Excel to compute percentages by dividing the number of relevant questions by the total number of questions in the questionnaire (18/20) and comparing actual results of the content validity index with a cut-off point of 0.7.

 $CVI = \frac{Numer of relevant questions}{Numer of relevant questions}$

Total number of question $CVI = \frac{18}{18}$

20

CVI= 0.9

Since 0.9 is greater than 0.7, then the research instruments are valid for the study.

Reliability.

To ensure the reliability of the research instrument (questionnaire), the researcher used a test-retest method. The researcher pretested the questionnaire on a few respondents before administering it to other sample elements by giving it to a few respondents (5) to answer it again. Responses from the first time (test) were compared to the responses of the second test (retest) using Cronbach alpha of 0.7

Ethical Consideration.

The researcher did seek permission from the School of Graduate Studies and Research and obtained an introductory letter to go within the field. Thereafter, the researcher sought permission from the selected commercial banks to provide with necessary information for the study. The researcher proceeded and requested branch managers to act as key informants in identifying bank agents and staff relevant to the study. The researcher ensured that the information provided by the respondents was only used for academic purposes and that the provided data was treated with maximum confidentiality.

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After data was collected from the field by the researcher, it was coded, validated, organized, and harmonized using Microsoft Excel. After harmonizing the framework of variables of interest, the researcher added missing variables in the original MS Excel and exported them to Statistical Package for Social Scientist software.

Data analysis.

The processed data was then analyzed using SPSS software v20 to uniquely produce the results of the study. The analysis was done for individual variables of the study, bi-variate analysis as well as the multivariate analysis. Correlation analysis of the independent and dependent variables which are numeric was also carried out using Pearson's correlation. The study also used a multiple regression model to establish the relationship between the dependent variable (financial inclusion) and the independent variable agency banking.

FINDINGS.

Response rate.

The sample size of the study was 332 people within Lira District. These did not return the questionnaires hence reducing the sample size by 3.85% and bringing the response rate to 96.15% as shown in Table 2.

			D
	Questionnaire	Questionnaires Returned	Response rate
Participant category	Issued		in Percent
Bank Staff	42	42	100%
Bank Agents	30	30	100%
Bank customers	250	240	96%
Opinion leaders	10	8	80%
Total	332	320	96.15

Table 2: Showing response rate.

Source: Primary data (2024)

Data Processing.

The study on "Agency banking and financial Inclusion in Lira District" conducted a survey to assess the response rate among different participant categories, namely bank staff, bank agents, bank customers, and opinion leaders. Here are the findings on the response rate:

Of the 42 Questionnaires Issued to bank staff, 42 were returned hence the Response Rate was 100%. Of the 30 Questionnaires that were issued to bank agents, 30 Questionnaires were returned bringing a response rate of 100%. 250 questionnaires were issued to bank customers but only 240 were returned resulting in a response rate of 96%. Of the 10 questionnaires issued to opinion leaders, only 8 were returned hence a response rate of 80%.

Overall, the total number of questionnaires issued was 332, out of which 320 were returned. Therefore, the overall response rate for the study was calculated as 96.15%. These findings indicate a high level of participation from bank staff

and bank agents, with a 100% response rate from both groups. Bank customers also showed a strong response rate, with 96% of the questionnaires returned. However, opinion leaders had a slightly lower response rate at 80%, although still relatively high.

Overall, the study's findings suggest a generally positive engagement and willingness to participate from the surveyed groups, providing valuable insights into agency banking and financial inclusion in Lira District.

Demographic characteristics of the respondents.

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	Gender	Male	Female	Total				
	Bank staff	28	14	42				
	Bank Agents	4	26	30				
	Bank customers	180	60	240				
5	Opinion leaders	5	3	8				
	Total	217	103	320				
	Percent	67.8%	32.2%	100%				
	G D (2024)							

Gender of the Respondents. Table 3. Gender of the Respondents

Page |

Source: Primary (2024).

The study findings on the gender of the respondents provide insight into the gender distribution among different participant categories, including bank staff, bank agents, bank customers, and opinion leaders.

Overall, the total number of male respondents across all categories was 217 (67%), while the total number of female respondents was 103 (32.2%), making up the total sample size of 320 respondents.

Among bank staff, there were more male respondents (28) compared to female respondents (14), with males comprising approximately two-thirds of the total staff respondents. In contrast, among bank agents, there were significantly more female respondents (26) compared to male respondents (4), indicating a predominantly female representation among bank agents.

Among bank customers, the gender distribution showed a notable difference, with a higher number of male customers (180) compared to female customers (60), suggesting a higher proportion of male customers utilizing banking services.

Opinion leaders also exhibited a higher representation of male respondents (5) compared to female respondents (Tumwine et al., 2015), albeit with a smaller sample size.

Overall, the study demonstrates varying gender compositions across different participant categories within the banking sector in Lira District.

The level of education of the respondents.

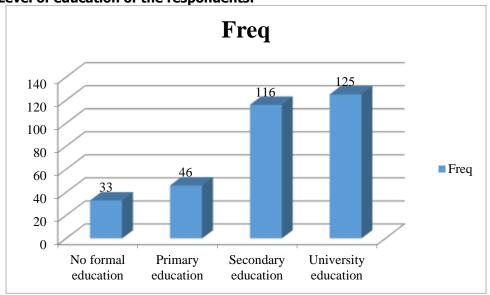


Figure 1: Level of education of the respondents.

Source: Primary (2024)

According to the findings in Figure 1, 10.3% of the respondents reported having no formal education. This suggests a minority of respondents who did not receive any formal schooling.

Around 14.4% of the respondents indicated having completed only primary education. This group represents individuals who have completed basic schooling up to the primary level.

The majority of respondents, accounting for 36.3%, reported having completed secondary education. This indicates a significant proportion of respondents with education beyond

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the primary level, suggesting a relatively high level of educational attainment among the participants.

A substantial portion of respondents, comprising 39.1%, reported having attained a university education. This suggests a considerable number of participants with higher education qualifications, such as bachelor's degrees or higher.

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Overall, the educational distribution among the respondents indicates a diverse range of educational backgrounds, with a

significant proportion having attained secondary and university education levels. This suggests that the surveyed population in the study has relatively high levels of formal education, which may influence their perspectives and engagement with agency banking and financial inclusion initiatives.

Length of time using agency banking.

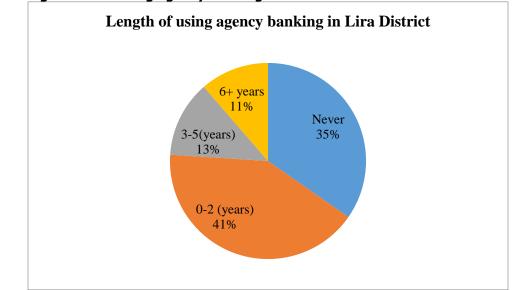


Figure 2: length of time using agency banking services.

These findings revealed that 35% of respondents reported that they have never been engaged with agency banking or financial services. This suggests a significant portion of individuals who have not yet utilized these services.

The largest proportion of respondents, comprising 40.9%, reported having been engaged with agency banking or financial services for 0-2 years. This indicates a substantial number of relatively new users or individuals who have recently started using these services.

Around 13% of respondents reported having been engaged with agency banking or financial services for 3-5 years. This suggests a smaller but still notable portion of respondents who have been using these services for a moderate duration. 11% of respondents reported having been engaged with agency banking or financial services for 6 or more years. This indicates a smaller yet significant proportion of long-term users who have been utilizing these services for an extended period.

Overall, the findings indicate a diverse range of engagement durations among the respondents, with a considerable portion being relatively new users and smaller yet significant portions being moderate and long-term users of agency banking or financial services.

Agency withdraws and financial inclusion in Lira District.

Descriptive Findings on Agency Withdrawals and Financial Inclusion in Lira District.

The researcher used a Likert scale where the answers were on a scale of 1 to 5. Where 5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree and 1= Strongly Disagree. The table also includes the summary of the participant's responses based on percentages (P), frequency (F), standard deviation (Std), and mean.

Origin	al Article

1001	e H Ageney Menalars and Infancial Inclusion							
	Statements	SA	Α	Ν	D	SD	Mn	std
	Agency withdrawals enable individuals to have easy	114	150	34	22	0	4.1	0.36
	access to their funds							
	Agency withdrawals save customers from traveling long	210	96	14			4.6	0.14
	distances to traditional bank branches.							
	Agency withdraws create a sense of trust and familiarity	65	98	56	101		3.4	0.86
	between customers and bank agents							
	Agency withdrawal reduces the reliance on informal	12	75	24	126	83	2.4	0.54
	channels for banking services							
	Access to agency withdrawals empowers individuals to	99	176	45			4.2	0.22
	manage their finances more effectively							
	Agency withdrawals facilitate access to other financial	120	186	14			4.3	0.13
	products and services							
	Agency withdrawals provide regulated and secure	187	113	20			4.5	0.25
	alternatives that are potentially risky							
	Agency withdraws are cheaper to conduct than over-the-	230	90				4.7	0.21
	counter withdraws							
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Table 4: Agency withdraws and financial inclusion in Lira District.

Source: Primary (2024).

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Based on Table 4, on agency withdrawals and financial inclusion in Lira District, we can observe the following descriptive findings:

In the statement "Agency withdrawals enable individuals to have easy access to their funds", the majority of participants either strongly agreed (SA) or agreed (A) with this statement, with 114 participants strongly agreeing and 150 agreeing. The mean score for this statement was relatively high at 4.1, indicating a generally positive perception among participants. The standard deviation was relatively low (0.36), suggesting a relatively high level of agreement among respondents.

On the statement "Agency withdrawals save customers from traveling long distances to traditional bank branches", a significant majority of participants strongly agreed with this statement, with 210 participants selecting strongly agreeing. The mean response for this statement was quite high at 4.6, indicating strong agreement among participants. The standard deviation was low (0.14), indicating a high level of consensus among respondents.

On the statement "Agency withdrawals create a sense of trust and familiarity between customers and bank agents", responses to this statement were more varied compared to the previous ones, with a significant number of participants selecting neutral (N) or disagree (D). The mean score was relatively lower at 3.4, suggesting a more mixed perception among participants. The standard deviation is higher (0.86), indicating greater variability in responses.

On the statement "Agency withdrawals reduce the reliance on informal channels for banking services". The majority of participants disagreed with this statement, with 126 participants selecting disagree and 83 selecting strongly disagree. The mean score was relatively low at 2.4, indicating a general disagreement among participants. The

standard deviation was moderate (0.54), indicating some variability in responses.

On the statement "Access to agency withdrawals empowers individuals to manage their finances more effectively". Similar to the first statement, there was a strong agreement among participants, with 99 participants strongly agreeing and 176 agreeing. The mean score was relatively high at 4.2, indicating a positive perception among participants. The standard deviation was low (0.22), suggesting a high level of agreement among respondents.

Findings on the statement "Agency withdrawals facilitate access to other financial products and services" showed that the majority of participants either strongly agreed or agreed with this statement, with 120 participants strongly agreeing and 186 agreeing. The mean score was relatively high at 4.3, indicating a generally positive perception among participants. The standard deviation was low (0.13), suggesting a high level of agreement among respondents.

Also, the findings on the statement "Agency withdrawals provide regulated and secure alternatives that are potentially risky" showed that the majority of participants strongly agreed with this statement, with 187 participants selecting strongly agree. The mean score was high at 4.5, indicating a strong agreement among participants. The standard deviation was moderate (0.25), indicating some variability in responses.

On the statement "Agency withdrawals are cheaper to conduct than over-the-counter withdrawals", findings revealed that the vast majority of participants strongly agreed with this statement, with 230 participants selecting strongly agreeing. The mean score was very high at 4.7, indicating a strong agreement among participants. The

standard deviation was relatively low (0.21), suggesting a high level of agreement among respondents.

In summary, the findings suggest that agency withdrawals are generally perceived positively by participants in terms of accessibility, convenience, cost-effectiveness, and security. However, there are mixed perceptions regarding their impact on trust and reliance on informal channels for banking services.

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Pearson Correlation Findings on Agency Withdrawals and Financial Inclusion in Lira District.

Table 5: Correlation between agency withdraws and financial inclusion in Lira District.
Correlations

		Agency withdraws	Financial inclusion
Agency withdraws	Pearson Correlation	1	.727**
	Sig. (2-tailed)		.000
	N	320	320
Financial inclusion	Pearson Correlation	.727**	1
	Sig. (2-tailed)	.000	
	N	320	320
**. Correlation is significar	nt at the 0.01 level (2-tailed).		

According to the findings in Table 5, the correlation coefficient between agency withdrawals and financial inclusion was 0.727. This indicates a strong positive linear relationship between agency withdrawals and financial inclusion in Lira District. This indicates that the observed correlation between agency withdrawals and financial inclusion was statistically significant at the 0.01 level (2-tailed).

Therefore, there was a strong positive correlation of 0.727 between agency withdrawals and financial inclusion suggesting that as agency withdrawals increase, financial inclusion also increases, and vice versa. This implies that there was a robust relationship between the availability of agency withdrawals and the level of financial inclusion in Lira District. The statistically significant correlation suggests that this relationship is unlikely to be due to random chance but reflects a meaningful association between the two variables.

In summary, the findings indicate that there is a strong positive relationship between agency withdrawals and

financial inclusion in Lira District, and this relationship is statistically significant. This suggests that promoting agency withdrawals may contribute to enhancing financial inclusion in the region.

Agency deposits and financial inclusion in Lira District.

Descriptive findings on agency deposits and financial inclusion in Lira District.

The researcher used a Likert scale for this particular section of the study where the responses were on a scale of 1-5. Where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 =Disagree and 1 = Strongly Disagree. The table below shows a summary of the participant's responses based on percentages (P), frequency (F), standard deviation (Std), and mean;

Table 6: Descriptive findings on agency deposits and financial inclusion in Lira District.

Statement	SA	Α	Ν	D	SD	Mean	std
Agency deposits allow individuals to deposit money into their bank accounts	98	197	25			4.2	0.34
Agency deposits are convenient and flexible	121	104	50	42		3.9	0.62
Agency deposits often involve lower transaction costs compared to visiting traditional bank branches	230	49	41			4.6	0.27
Access to agency deposits encourages individuals to save	211	109				4.7	0.11
Agency deposits create opportunities for individuals to interact with the bank's local communities building trust and confidence in formal financial institutions	34	121	85	80		3.3	0.76
Agency deposit services often come with educational initiatives aimed at enhancing financial literacy and awareness.		76	43	123	78	2.3	0.54
Agency deposit systems are integrated with mobile banking or electronic funds transfer hence access to other banking services	256	64				4.8	0.02
Agency deposit helps banking institutions reach underserved populations	8	65	52	105	90	2.3	0.23

Source: Primary (2024).

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Based on the findings in Table 6, on the statement "Agency deposits allow individuals to deposit money into their bank accounts", the majority of participants either strongly agreed (SA) or agreed (A) with this statement, with 98 participants strongly agreeing and 197 agreeing. The mean score for this statement was relatively high at 4.2, indicating a generally positive perception among participants. The standard deviation is relatively low (0.34), suggesting a relatively high level of agreement among respondents.

On the statement "Agency deposits are convenient and flexible", the responses to this statement were somewhat varied, with a significant number of participants selecting strongly agree (SA) and disagree (D). The mean score was 3.9, suggesting a moderate level of agreement among participants. The standard deviation was moderate (0.62), indicating variability in responses.

On the statement "Agency deposits often involve lower transaction costs compared to visiting traditional bank branches", findings show that the vast majority of participants strongly agreed with this statement, with 230 participants selecting strongly agree. The mean score was very high at 4.6, indicating a strong agreement among participants. The standard deviation was relatively low (0.27), suggesting a high level of agreement among respondents.

On the statement "Access to agency deposits encourages individuals to save", findings show that the majority of participants strongly agreed with this statement, with 211 participants selecting strongly agreeing. The mean score was very high at 4.7, indicating a strong agreement among participants. The standard deviation was very low (0.11), suggesting a high level of agreement among respondents.

On the statement "Agency deposits create opportunities for individuals to interact with the bank local communities building trust and confidence in formal financial institutions", the responses to this statement were somewhat mixed, with significant numbers of participants selecting agree (A) and disagree (D). The mean score was 3.3, indicating a moderate level of agreement among participants. The standard deviation was relatively high (0.76), indicating greater variability in responses.

On the statement "Agency deposit services often come with educational initiatives aimed at enhancing financial literacy and awareness", responses to this statement were also mixed, with significant numbers of participants selecting neutral (N) and disagree (D). The mean score was relatively low at 2.3, indicating a general disagreement among participants. The standard deviation was moderate (0.54), indicating variability in responses.

On the statement "Agency deposit systems are integrated with mobile banking or electronic funds transfer hence access to other banking services", findings showed that the vast majority of participants strongly agreed with this statement, with 256 participants selecting strongly agree. The mean score was very high at 4.8, indicating a strong agreement among participants. The standard deviation was extremely low (0.02), suggesting a very high level of agreement among respondents.

On the statement "Agency deposit helps banking institutions to reach underserved populations", the responses to this statement were mixed, with significant numbers of

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participants selecting disagree (D) and strongly disagree (Purwanto, Bernarto, Asbari, Wijayanti, & Hyun). The mean score was relatively low at 2.3, indicating a general disagreement among participants. The standard deviation was relatively low (0.23), suggesting some level of agreement among respondents, but with noticeable variability.

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In summary, the findings suggest that agency deposits were generally perceived positively in terms of facilitating access to banking services, reducing transaction costs, encouraging savings, and integrating with other banking services such as mobile banking. However, there were mixed perceptions regarding their convenience, impact on trust and confidence in formal financial institutions, and effectiveness in reaching underserved populations. Additionally, there was a disagreement regarding the presence of educational initiatives aimed at enhancing financial literacy through agency deposit services.

Correlation between agency deposits and financial inclusion in Lira District.

		Agency deposits	Financial Inclusion
Agency deposits	Correlation Coefficient	1.000	.673 [*]
	Sig. (2-tailed)		.001
	N	320	320
Financial inclusion	Correlation Coefficient	.673*	1.000
	Sig. (2-tailed)	.001	
	N	320	320

Table 7: Correlation findings on agency deposits and financial inclusion in Lira District.

Source: Primary data (2024)

Based on the correlation findings presented in Table 7 regarding agency deposits and financial inclusion in Lira District, the correlation coefficient between agency deposits and financial inclusion was 0.673. This indicates a moderately strong positive linear relationship between agency deposits and financial inclusion in Lira District.

The correlation coefficient of 0.673 between agency deposits and financial inclusion suggests that as agency deposits increase, financial inclusion also tends to increase, and vice versa. This implies that there is a positive relationship between the availability of agency deposits and the level of financial inclusion in Lira District. The statistically significant correlation suggests that this relationship is unlikely to be due to random chance but reflects a meaningful association between the two variables. In summary, the findings indicate that there was a moderately strong positive relationship between agency deposits and financial inclusion in Lira District, and this relationship was statistically significant. This suggests that promoting agency deposits contributed to enhancing

financial inclusion in the region, aligning with the descriptive findings that generally show positive perceptions of agency deposits and their role in facilitating access to banking services.

Agency transfers and financial inclusion in Lira District.

Descriptive findings on agency transfers and financial inclusion in Lira District.

The researcher used a Likert scale for this particular section of the study where the responses were on a scale of 1-5. Where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 =Disagree and 1 = Strongly Disagree. The table below shows a summary of the participant's responses based on percentages (Tumwine et al., 2015), frequency (F), standard deviation (Std), and mean;

Table of Descriptive mange on agency transfers						21041144	
Statements	SA	Α	Ν	D	SD	Mean	std
Agency transfers enable individuals to access remittance services conveniently.	117	132	71			4.1	0.32
Agency transfers leverage a network of non-bank retail outlets as transfer points.	212	103	5			4.6	0.08
Agency transfers often involve lower transaction fees	243	54	23			4.7	0.12
Agency transfers provide greater convenience and flexibility.	76	98	56	100		3.6	0.65
Access to agency transfers also encourages recipients to save money in formal financial institutions.	67	125	75	53		3.6	0.33
Agency transfer services create opportunities for individuals to interact with agents in their local communities.	98	194	28			4.2	0.46
Many agency transfer systems are integrated with digital financial services	215	105				4.6	0.28
By facilitating the flow of money across regions and countries, agency transfers contribute to economic development and poverty reduction	198	58	64			4.4	0.33

Table 8: Descriptive findings on agency transfers and financial inclusion in Lira District.

Source: Primary data (2024).

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Based on the Likert scale responses provided in Table 8, findings on the statement "agency transfers enable individuals to access remittance services conveniently" showed a mean response of 4.1 and a standard deviation of 0.32. Further, findings show that the majority of participants (49%) strongly agree (117) and 52.8% agree (132), indicating a high level of consensus that agency transfers facilitate convenient access to remittance services in the Lira District.

The statement "Agency transfers leverage a network of nonbank retail outlets as transfer points" had a mean response of 4.6 with a standard deviation of 0.08. Overwhelmingly, participants strongly agreed (80.8%) with this statement (212), suggesting that there is a strong belief in the utilization of non-bank retail outlets for agency transfers.

Also, the statement "Agency transfers often involve lower transaction fees" had a mean response of 4.7 and a standard deviation of 0.12. A large majority of participants (77.6%) strongly agree (243), indicating a consensus that agency transfers typically come with lower transaction fees.

Findings on the statement "Agency transfers provide greater convenience and flexibility" had a mean response of 3.6 and a standard deviation of 0.65. There was a more diverse range of responses to this statement. While a significant portion agrees (39.2%, 98), a substantial portion also disagrees (25%, 100). This suggests mixed perceptions regarding the convenience and flexibility of agency transfers.

The statement "Access to agency transfers also encourages recipients to save money in formal financial institutions" had a mean response of 3.6 with a standard deviation of 0.33. Similar to the previous statement, opinions were varied. While there was agreement (49.6%, 125) and strong agreement (26.8%, 67), there was also disagreement

(21.2%, 53) and strong disagreement (21.2%, 53), indicating mixed perceptions.

The statement "Agency transfer services create opportunities for individuals to interact with agents in their local communities" had a mean response of 4.2 with a standard deviation of 0.46. A majority agree (77.6%, 194), with a significant portion strongly agreeing (39.2%, 98), suggesting that agency transfer services foster local community interactions.

The statement "Many agency transfer systems are integrated with digital financial services" had a mean response of 4.6 with a standard deviation of 0.28. The majority of participants (67%, 215) strongly agree, indicating widespread belief in the integration of agency transfer systems with digital financial services.

The statement "By facilitating the flow of money across regions and countries, agency transfers contribute to economic development and poverty reduction" had a mean response of 4.4 with a standard deviation of 0.33. A significant majority agreed (63.2%, 198), with some disagreement (23.2%, 58), and neutrality (25.6%, 64), suggesting a generally positive perception of the contribution of agency transfers to economic development and poverty reduction.

Overall, the findings suggest that agency transfers are viewed positively in Lira District, with perceptions generally favorable towards their convenience, affordability, and potential impact on economic development and poverty reduction. However, there are some areas, such as the encouragement of saving in formal financial institutions and the perceived convenience and flexibility, where opinions are more mixed.

Correlation findings on agency transfers and financial inclusion in Lira District.

Table 9: Correlational findings on agency transfers and financial inclusion in Lira District.

			Agency transfers	Financial inclusion
Page 12	Agency transfers	Correlation Coefficient	1.000	0.728*
		Sig. (2-tailed)	•	.005
		N	320	320
	Financial inclusion	Correlation Coefficient	0.728*	1.000
		Sig. (2-tailed)	.005	
		N	320	320

Source: Primary (2024)

The correlational findings presented in Table 9 indicate the relationship between agency transfers and financial inclusion in Lira District. The correlation between agency transfers and financial inclusion was 0.728. This coefficient indicates a strong positive correlation between agency transfers and financial inclusion in Lira District. This significance value is below the commonly used threshold of 0.05, indicating that the correlation is statistically significant.

The correlation coefficient of 0.728 suggests that there is a strong positive linear relationship between agency transfers and financial inclusion in Lira District. This means that as

the utilization of agency transfers increases, there is a corresponding increase in financial inclusion.

Overall, these findings suggest that there was a strong and statistically significant positive correlation between agency transfers and financial inclusion in Lira District. This implies that efforts to promote agency transfers may also have a positive impact on enhancing financial inclusion within the community.

Regression analysis for agency banking and financial inclusion in Lira District.

Table 10: Regression analysis for agency banking and financial inclusion in Lira DistrictBank.

Model	R]	R Square	Adjusted R So	Adjusted R Square		
Withdraws	vs .565 ^a		0.319	0.320	0.320		
Transfers .439 ^b		(0.193	0.190	0.190		
Deposits	.632°		0.399	0.400			
d. Dependent V	/ariable: Financial i	nclusion					
	Unst			Standardized Coefficients			
		Unstanda	rdized Coefficients	Coefficients			
Model		Unstanda B	rdized Coefficients Std. Error	Coefficients Beta	T	Sig.	
Model (Eto	n et al.)				T 4.234	Sig.	
(Eto)	n et al.) ncy withdraws	В	Std. Error				
1 (Eton Agen	,	B 3.037	Std. Error .029	Beta	4.234	.000	

The regression analysis presented in Table 10 explores the relationship between agency banking activities (withdrawals, transfers, and deposits) and financial inclusion in Lira District.

The overall models for all three regression analyses were statistically significant, indicating that at least one of the independent variables (agency withdraws, transfers, or deposits) significantly predicts financial inclusion in Lira District. Model 3 (with agency deposits) has the highest R Square value (0.399), indicating that it explains the most variance in financial inclusion compared to the other models. The Adjusted R Square values were quite close to the R Square values, indicating that the models were not overfitting.

In Model 1, the coefficient for agency withdraws (0.581) suggests that for every unit increase in agency withdraws, financial inclusion increases by 0.581 units. Similarly, in Model 2, the coefficient for agency transfers (0.427)suggests that for every unit increase in agency transfers, financial inclusion increases by 0.427 units. In Model 3, the coefficient for agency deposits (0.313) suggests that for every unit increase in agency deposits, financial inclusion increases by 0.313 units.

> The regression analysis indicates that agency banking activities, including withdrawals, transfers, and deposits, are positively associated with financial inclusion in Lira District. Particularly, agency deposits show the strongest relationship with financial inclusion, followed by agency withdrawals and transfers. This suggests that promoting agency banking services, especially deposit services, can potentially enhance financial inclusion in the region.

DISCUSSIONS OF THE STUDY.

Dotun et al.,2022 carried out a study on the impact of agent banking and the performance of deposit transactions. His findings revealed a positive relationship between deposit transaction volumes and the financial performance of banks in Nigeria. He also noted that agent banking affects profitability of the commercial banks. However, he used the content analysis method to explain the findings hence his study lacked numerical evidence on the extent to which agency banking influences and financial inclusion of commercial bank customers in rural areas.

The estimated average agency volume of transactions is 16 per day in Bangladesh. This differs from the findings of this study which found that agency transactions influence financial inclusion in Uganda. The difference in the volume of transactions might be due to differences in regions, population size, and other demographic factors. Further, the findings revealed 0.334 as the correlation coefficient using the Pearson correlation method. This also shows a significant difference in findings as the correlation between the volume of transactions and financial inclusions was positive 0.7 using the Pearson correlation method hence the difference in findings could be due to the difference in data analysis methods used.

agent banking is mostly used in the underserved population. However, there was no single piece of evidence from the respondents that showed that agency banking is used in underserved areas. In Lira where the study was carried out, agency banking is used to supplement the commercial bank's services to reduce the number of customers waiting in line for bank services.

Mbugua (2015) suggested central bank regulations and low transaction costs have a significant contribution to the use of agency banking to boost financial inclusion. Mbgua (2015) did not establish any numerical value supporting the effect of agency banking and financial inclusion.

SUMMARY OF FINDINGS.

Summary of Findings on Agency withdrawals and Financial Inclusion in Lira District.

The findings suggest that agency withdrawals are generally perceived positively by participants in terms of accessibility, convenience, cost-effectiveness, and security. However, there are mixed perceptions regarding their impact on trust and reliance on informal channels for banking services.

The correlation coefficient between agency withdrawals and financial inclusion was 0.727. This indicates a strong positive linear relationship between agency withdrawals and financial inclusion in the Lira District. This indicates that the observed correlation between agency withdrawals and financial inclusion was statistically significant at the 0.01 level (2-tailed).

The findings indicate that there was a strong positive relationship between agency withdrawals and financial inclusion in Lira District and this relationship is statistically significant. This suggests that promoting agency withdrawals may contribute to enhancing financial inclusion in the region.

Summary of findings on agency deposits and financial inclusion in Lira District.

The findings suggest that agency deposits were generally perceived positively in terms of facilitating access to banking services, reducing transaction costs, encouraging savings, and integrating with other banking services such as mobile banking. However, there were mixed perceptions regarding their convenience, impact on trust and confidence in formal financial institutions, and effectiveness in reaching underserved populations. Additionally, there was a disagreement regarding the presence of educational initiatives aimed at enhancing financial literacy through agency deposit services.

The correlation coefficient between agency deposits and financial inclusion was 0.673. This indicates a moderately strong positive linear relationship between agency deposits and financial inclusion in Lira District.

The findings indicate that there was a moderately strong positive relationship between agency deposits and financial inclusion in Lira District, and this relationship was statistically significant. This suggests that promoting agency deposits contributed to enhancing financial inclusion in the region, aligning with the descriptive findings that generally

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show positive perceptions of agency deposits and their role in facilitating access to banking services.

Summary of findings on agency transfers and financial inclusion in Lira District.

Page | 14 The findings suggest that agency transfers were viewed positively in Lira District, with perceptions generally favorable towards their convenience, affordability, and potential impact on economic development and poverty reduction. However, there were some areas, such as the encouragement of saving in formal financial institutions and the perceived convenience and flexibility, where opinions are more mixed.

The correlation coefficient of 0.728 suggests that there is a strong positive linear relationship between agency transfers and financial inclusion in Lira District. This means that as the utilization of agency transfers increases, there is a corresponding increase in financial inclusion.

These findings suggest that there was a strong and statistically significant positive correlation between agency transfers and financial inclusion in Lira District. This implies that efforts to promote agency transfers may also have a positive impact on enhancing financial inclusion within the community.

Summary of findings on regression analysis for agency banking and financial inclusion in Lira District.

The overall models for all three regression analyses were statistically significant, indicating that at least one of the independent variables (agency withdraws, transfers, or deposits) significantly predicts financial inclusion in Lira District.

Model 3 (with agency deposits) has the highest R Square value (0.399), indicating that it explains the most variance in financial inclusion compared to the other models. The Adjusted R Square values were quite close to the R Square values, indicating that the models were not overfitting.

In Model 1, the coefficient for agency withdraws (0.581) suggests that for every unit increase in agency withdraws, financial inclusion increases by 0.581 units. Similarly, in Model 2, the coefficient for agency transfers (0.427) suggests that for every unit increase in agency transfers, financial inclusion increases by 0.427 units. In Model 3, the coefficient for agency deposits (0.313) suggests that for every unit increase in agency deposits, financial inclusion increases by 0.313 units.

The regression analysis indicated that agency banking activities including withdrawals, transfers, and deposits, were positively associated with financial inclusion in Lira District. Particularly, agency deposits show the strongest relationship with financial inclusion, followed by agency withdrawals and transfers. This suggests that promoting agency banking services, especially deposit services, can potentially enhance financial inclusion in the region.

CONCLUSIONS.

The regression analysis indicated that agency banking activities including withdrawals, transfers, and deposits, were positively associated with financial inclusion in Lira District. Particularly, agency deposits show the strongest relationship with financial inclusion, followed by agency withdrawals and transfers. This suggests that promoting agency banking services, especially deposit services, can potentially enhance financial inclusion in the region.

RECOMMENDATIONS.

Promotion of Agency Banking Services.

Given the strong positive correlation between agency banking activities (withdrawals, transfers, and deposits) and financial inclusion, it's advisable for financial institutions and policymakers in the Lira District to actively promote agency banking services. This should involve awareness campaigns highlighting the benefits of agency banking, such as accessibility, affordability, and convenience.

Focus on Agency Deposits.

The regression analysis suggests that agency deposits have the strongest relationship with financial inclusion compared to withdrawals and transfers. Therefore, efforts should be concentrated on encouraging more individuals to utilize agency deposit services. Financial literacy programs should be implemented to educate the community about the benefits of saving through formal financial institutions and the safety of depositing money through agency banking.

Improving Trust and Confidence

Mixed perceptions regarding the impact of agency banking on trust and confidence in formal financial institutions highlight the need for initiatives aimed at building trust. This could involve implementing transparent practices, providing excellent customer service, and ensuring the security of transactions. Collaborative efforts between financial institutions and regulatory bodies can help in this regard.

Enhancing Convenience and Flexibility.

Addressing mixed perceptions regarding the convenience and flexibility of agency banking services, particularly transfers should involve technological advancements. Introducing features such as mobile banking apps, improved transaction processing times, and extended service hours can make agency banking more convenient and flexible for users.

Target Underserved Populations.

Efforts should be made to ensure that agency banking services reach underserved populations effectively. This should involve setting up agencies in remote areas, offering incentives for agents to operate in these areas, and tailoring services to meet the specific needs of marginalized communities.

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Continuous Monitoring and Evaluation.

It's essential to continuously monitor the impact of agency banking initiatives on financial inclusion in Lira District. Regular evaluations can help identify any challenges or areas for improvement and inform future strategies and interventions.

Areas for further research.

Long-Term Impact Assessment.

There is a need to conduct a longitudinal study to assess the long-term impact of agency banking on financial inclusion in Lira District. This should involve tracking changes in financial behavior, savings patterns, and access to credit over several years to understand the sustained effects of agency banking initiatives.

Qualitative Analysis of Trust Dynamics.

There is a need to explore the qualitative aspects of trust and confidence in formal financial institutions among users of agency banking services. Conducting in-depth interviews or focus group discussions can provide insights into the factors influencing trust perceptions and how they evolve.

Geospatial Analysis.

There is a need to utilize geospatial data to analyze the spatial distribution of agency banking agents and their accessibility to different communities within Lira District. This will help identify areas with limited access to banking services and inform the strategic placement of new agency banking outlets.

Impact on Socioeconomic Development.

There is a need to investigate the broader socioeconomic impacts of enhanced financial inclusion facilitated by agency banking. This could include assessing changes in poverty levels, employment opportunities, and income distribution attributable to increased access to formal financial services.

Comparative Study with Other Districts.

There is a need to compare the findings from Lira District with those from neighboring districts or regions with different levels of agency banking penetration. This comparative analysis can help identify contextual factors influencing the effectiveness of agency banking in promoting financial inclusion.

Customer Satisfaction and Preferences.

Explore customer satisfaction levels and preferences regarding different aspects of agency banking services, such as transaction fees, service quality, and technological interfaces. Understanding customer preferences can inform service improvements and marketing strategies for greater adoption.

Effectiveness of Financial Literacy Programs.

Evaluate the effectiveness of existing financial literacy initiatives aimed at promoting agency banking services. Assessing the impact of educational interventions on financial knowledge, attitudes, and behaviors can provide valuable insights for designing more targeted and impactful programs.

Regulatory and Policy Analysis.

Examine the regulatory environment and policy frameworks governing agency banking in Lira District and their implications for financial inclusion. Assessing the alignment of regulations with the needs of underserved populations and identifying regulatory barriers to expansion can inform policy recommendations for fostering inclusive financial systems.

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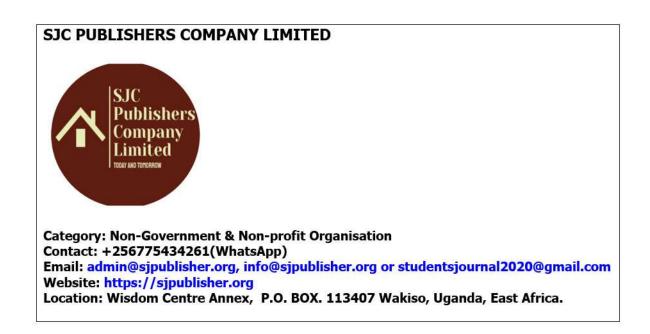
LIST OF ABBREVIATIONS.

SPSS: Statistical Package for Social Scientists

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