

## Beyond one-way inclusion: Mapping backward and forward linkages between informal savings groups and formal financial service providers among Lusaka marketeers

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### ABSTRACT

This study examines financial inclusion as a bidirectional process by analyzing backward and forward linkages between informal savings and lending groups and formal financial service providers among marketeers in Lusaka, Zambia. While informal savings groups play a central role in the financial lives of marketeers, existing financial inclusion approaches largely frame integration as a one-way transition into formal finance. This study was anchored in financial dualism and the typology of institutional interaction developed by Helmke and Levitsky. Using a concurrent mixed-methods design, the study draws on survey data from 329 marketeers participating in informal savings groups, complemented by qualitative interviews and document analysis. Quantitative analysis using probit regression models shows that financial literacy, institutional trust, and group governance structures significantly influence adoption and use of formal financial services. However, the findings also reveal that existing linkages are limited in scope, largely transactional, and weakly institutionalized, delivering gains in access without translating into deeper financial inclusion outcomes. Evidence of backward linkages, where formal financial institutions adapt products or processes to informal savings group practices, is minimal. Bi-directional risks and constraints, including trust deficits, regulatory rigidity, and governance concerns, significantly undermine both forward and backward linkages. The study concludes that financial inclusion among Lusaka marketeers remains largely one-way and sustained by financial dualism. It recommends a shift toward bi-directional inclusion strategies that emphasize institutional adaptation, linkage depth, and negotiated engagement between informal and formal financial systems.

**Keywords:** Financial Dualism, Financial Inclusion, Forward and Backward Linkages, Informal Savings Groups, Institutional Interaction, Lusaka Marketeers

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### I. INTRODUCTION

Informal savings and lending groups continue to play a critical role in providing financial services to populations excluded from formal financial systems, particularly in developing economies where access to banks, microfinance institutions, and regulated digital finance remains uneven (Simatele et al., 2021; Sishumba & Mulonda, 2019). These community-based arrangements, including village banking groups, rotating savings and credit associations, and accumulating savings and credit associations, respond directly to the financial realities of informal sector workers who face structural barriers to formal finance such as irregular incomes, lack of collateral, and limited credit histories (Simatele et al., 2021; Mukulu & Qutieshat, 2021).

In Zambia, marketeers form a substantial segment of the informal economy and are central to urban livelihoods, yet they remain disproportionately financially excluded (Chibbonta & Chishimba, 2023). For many marketeers operating in Lusaka's markets, informal savings and lending groups function as primary financial institutions. These groups provide access to savings, credit, and informal insurance mechanisms that support business continuity, household stability, and responses to financial shocks. Their self-managed structures, member-defined rules, and reliance on trust and reciprocity make them well aligned with the income volatility and daily liquidity needs that characterise informal market activity (Sibeso, 2022; Sichilongo & Kakanda, 2021).

At policy level, financial inclusion strategies increasingly recognise informal finance as a potential pathway into the formal financial system. Globally, linkage initiatives such as the Self-Help Group-bank model in India sought to leverage informal group structures as conduits for formal financial services (Al-Kubati & Selvaratnam, 2023). In Zambia, the National Financial Inclusion Strategy II articulates a vision of a financial system that delivers accessible, affordable, and consumer protected products to all citizens (Ministry of Finance and National Planning, 2024). Consistent with this agenda, formal financial service providers have introduced group-based products targeting informal

savings groups, including dedicated savings accounts offered by commercial banks (ZANACO, 2024; Access Bank, 2025).

Despite these initiatives, engagement between informal savings groups and formal financial service providers in Zambia remains limited and weakly institutionalised. While some marketeer groups interact with banks or mobile money platforms, these interactions are largely transactional and episodic, delivering gains in access without translating into broader financial inclusion outcomes such as affordability, suitability, empowerment, or long-term financial resilience (Beckmann & Mare, 2017; Bateman et al., 2019). Informal savings groups therefore continue to operate alongside the formal financial system rather than within it, reflecting persistent financial dualism and institutional misalignment.

Much of the existing literature and policy discourse conceptualises financial inclusion as a one-way process, where informal actors are expected to transition into formal finance through account ownership or product uptake. Evidence from Lusaka's markets challenges this framing. Interactions between informal savings groups and formal financial institutions are better characterised by selective engagement, asymmetric learning, and reserved accommodation. Forward linkages, where formal institutions extend products and services to informal groups, tend to improve access but rarely address deeper inclusion dimensions. Backward linkages, where formal institutions adapt products, delivery channels, or governance requirements in response to informal financial practices, remain limited and underdeveloped (Alawattage et al., 2019; Mulenga & Muuka, 2024).

By focusing on marketeers in Lusaka, this study examines financial inclusion as a bi-directional process shaped by interaction between informal savings groups and formal financial service providers. Rather than treating informal finance as a temporary or inferior substitute, it analyses how both backward and forward linkages influence financial inclusion outcomes. In doing so, the study reframes financial inclusion as a negotiated and relational process, where institutional alignment, responsiveness, and symmetry matter as much as access.

### 1.1 Statement of the Problem

Financial inclusion frameworks increasingly position informal savings and lending groups as pathways into the formal financial system, particularly for populations excluded from conventional banking. In Zambia, these groups are central to the financial lives of marketeers, yet dominant policy and scholarly approaches continue to treat inclusion as a one-way transition into formal finance. Evidence from Lusaka's markets shows that although informal savings groups engage with banks and digital financial platforms, these linkages are largely transactional, weakly institutionalised, and produce limited gains beyond basic access (Beckmann & Mare, 2017; Bateman et al., 2019). Forward linkages dominate, while backward linkages that require formal institutions to adapt to informal financial practices remain minimal and under-examined (Alawattage et al., 2019; Mulenga & Muuka, 2024). This imbalance sustains financial dualism and obscures how informal and formal systems actually interact, revealing a critical gap in empirical understanding of the depth, direction, and institutional meaning of informal formal financial linkages among urban marketeers.

### 1.2 Research Objective(s)

- i. To assess the current extent and forms of linkages between informal savings and lending groups and formal financial service providers (FSPs) among marketeers in Lusaka.
- ii. To evaluate the effectiveness of existing backward and forward linkages in enhancing financial inclusion for marketeers.
- iii. To analyze the bi-directional risks and constraints associated with the engagement between marketeers' informal savings and lending groups and formal FSPs.

## II. LITERATURE REVIEW

### 2.1 Theoretical Review

This study is grounded in the Theory of Financial Dualism and Helmke and Levitsky (2004) typology of institutional interaction to explain the coexistence and interaction between the informal savings groups and the formal financial service providers among marketeers in Lusaka. Financial dualism originated from initial discussions in development economics regarding financial repression and liberalization, notably the contributions of McKinnon (1973) and Shaw (1973), who proposed that fragmented financial systems in developing economies mirrored structural distortions within formal banking systems. People thought that these distortions, such as controls on interest rates, strict rules, and differences in information, pushed savings and credit activity into informal markets. Liberalization was anticipated to integrate informal finance into the formal system, thereby diminishing dualism through convergence.

Dualism therefore sees formal and informal financial systems as separate but connected parts of the same whole. Informal finance endures not solely as a remnant of underdevelopment, but as a responsive adaptation to financial exclusion, inefficiency, and inflexibility within the formal financial institutions. In Zambia, informal savings and lending

groups function as structured, unregulated, and socially integrated financial systems that address income instability, insufficient collateral, and trust-based relationships that formal banking frequently fails to support. This corresponds with Professor Hla Myint's conceptualization of financial dualism, which underscores coexistence and incremental integration pathways between structured and unstructured financial markets (as cited in Coulibaly & Sirpe, 2023).

However, classical financial dualism is frequently construed as suggesting eventual convergence, in that enhanced formal sector performance and liberalization will progressively integrate informal systems. Recent empirical evidence, including results from this study, contests this assumption. Even though Zambians have more access to formal financial services, informal savings groups among marketeers are still strong and important parts of their financial lives (FinMark Trust, 2020). There are forward linkages, but they are mostly transactional and not very deep. Backward linkages, which necessitate formal institutions to modify products, risk models, or governance structures in reaction to informal practices, continue to be fragile.

This study thus enhances Financial Dualism by reconceptualizing the informal – formal engagement as a bidirectional and negotiated process instead of a linear transition. The results from the study indicate that integration does not inherently lead to convergence. Instead, interaction often settles into low-intensity equilibria, where informal groups adapt partially to formal requirements and formal institutions stick to standardized models that are based on compliance. This kind of uneven adaptation keeps dualism alive instead of breaking it down completely.

Helmke and Levitsky (2004) typology of institutional interaction further explains this dynamic by categorizing the relationships between formal and informal institutions as complementary, accommodative, substitutive, or competing. In the Lusaka markets, informal savings groups often serve as alternative institutions, aimed at addressing the functional deficiencies left by the formal financial service providers. When there are forward linkages, they show that there is only partial accommodation. Nonetheless, the restricted advancement of backward linkages signifies inadequate complementarity and negligible institutional learning among formal financial service providers.

This study therefore conceptualizes financial inclusion by integrating Financial Dualism with the Typology of Institutional Interaction theory, defining it not merely as account ownership or service uptake, but as the depth and symmetry of institutional adaptation between the informal and formal systems. Consequently, the outcomes of financial inclusion are contingent not solely on the expansion of access but also on the extent to which formal institutions acknowledge, assimilate, and react to the governance frameworks, trust dynamics, and risk-management methodologies inherent in informal savings groups. This study further enhances Financial Dualism by redirecting focus from coexistence and liberalization to institutional alignment, power asymmetry, and negotiated engagement. The bidirectional linkage framework articulated in this article enhances current discussions by illustrating that sustainable financial inclusion necessitates reciprocal adaptation rather than unilateral formalization.

## 2.2 Empirical Review

This section examines empirical evidence corresponding to the three objectives of the study: (1) the magnitude and types of informal–formal linkages, (2) the efficacy of backward and forward linkages in promoting financial inclusion, and (3) the reciprocal risks and limitations influencing these interactions.

### 2.2.1 Empirical Evidence on the Extent and Forms of Informal–Formal Linkages

Objective 1: To assess the current extent and forms of linkages between informal savings groups and formal financial service providers.

Studies in Sub-Saharan Africa and South Asia show that informal savings groups and formal financial institutions work together in different ways. Group bank accounts, mobile money integration, microfinance partnerships, and facilitated transition models are all common ways to link things (Beckmann & Mare, 2017; Bateman et al., 2019). People often talk about these arrangements as ways to make it easier for people to get money.

The literature, on the other hand, makes a distinction between nominal linkage and institutional integration. In many cases, engagement is still limited to deposits, withdrawals, or digital transfers and doesn't change internal governance structures or lending practices (Demirguc-Kunt et al., 2018). Informal groups often have control over important savings and lending functions. While real-world research shows that linkages exist, fewer studies look into how deep they are in institutions, especially in urban informal markets like Lusaka. This shows that we don't fully understand whether linkages exist or how deeply they are built into the way informal groups work.

### 2.2.2 Empirical Evidence on the Effectiveness of Backward and Forward Linkages

Objective 2: To evaluate the effectiveness of existing backward and forward linkages in enhancing financial inclusion.

Empirical evidence indicates that forward linkages can enhance access to formal financial services and decrease transaction costs (Beckmann & Mare, 2017; Bateman et al., 2019). Digital platforms and group-based accounts have increased account ownership among populations that were previously left out.

But just because people have access doesn't mean that they will automatically have better outcomes in terms of affordability, suitability, empowerment, or long-term resilience. A number of studies show that people often think of formal products as being too rigid, too expensive, or not matching the irregular income patterns that are common in informal markets (Bateman et al., 2019). Consequently, informal participants may retain formal accounts while predominantly depending on informal systems.

Backward linkages are still not well understood. Current research indicates that formal financial institutions infrequently modify product design, risk assessment models, or governance frameworks in reaction to informal practices (Alawattage et al., 2019). The insufficient focus on institutional adaptation prompts inquiries regarding the overall efficacy of linkage strategies in mitigating financial dualism.

### 2.2.3 Empirical Evidence on Bi-Directional Risks and Constraints

Objective 3: To analyse the bi-directional risks and constraints associated with informal–formal engagement.

Empirical studies outline various obstacles influencing informal–formal interactions, encompassing trust deficits, regulatory inflexibility, compliance expenses, knowledge deficiencies, and limitations in digital literacy (Pensiri, 2023; Bateman et al., 2019). From the viewpoint of informal groups, interaction with formal institutions may jeopardize autonomy, enforce inflexible repayment terms, and undermine social cohesion.

Formal institutions see governance opacity, bad documentation, and compliance exposure as risks (Alawattage et al., 2019). These mutual apprehensions frequently lead to prudent, transactional interactions instead of enduring institutional integration.

Even though these risks are known, a lot of the writing treats informal–formal engagement as a one-way process that focuses on uptake and access. Only a small number of studies systematically combine the degree of linkages, their efficiency, and the institutional risks that influence them into one analytical framework, especially in urban informal markets like Lusaka.

This gap highlights the necessity for a bi-directional empirical methodology that concurrently investigates linkage depth, inclusion outcomes, and institutional limitation

## III. METHODOLOGY

### 3.1 Research Design

This study utilized a mixed-methods research design, specifically a concurrent triangulation approach, to investigate the backward and forward linkages between informal savings groups and formal financial service providers among marketers in Lusaka, Zambia (Saunders et al., 2023). The design facilitated the concurrent collection and analysis of quantitative and qualitative data, permitting the examination of quantifiable patterns of financial inclusion alongside institutional dynamics, perceptions, and risks influencing informal–formal financial interactions.

### 3.2 Study Area

The study was conducted in major markets within Lusaka's central business district, namely Soweto, COMESA, Kabwata, and Chilenje. These markets host a high concentration of informal sector traders and represent key sites of informal financial activity in urban Zambia.

### 3.3 Target Population

The target population consisted of marketers working in the chosen markets who engage in informal savings and lending groups. For the qualitative component, the population additionally encompassed leaders of informal savings and lending groups, as well as pertinent policy or regulatory stakeholders.

### 3.4 Sampling Procedure and Sample Size

The quantitative part used the Yamane (1967) formula for finite populations to find a sample size of 400 marketers:

$$n = N / (1 + Ne^2)$$

Where:

n=Sample Size

N=Target Population

e=level of precision (5%).

Out of the 400 questionnaires sent out, 329 valid responses were received. This means that 82.3% of the people who got the questionnaires answered them, which is enough for econometric analysis. For the qualitative aspect, participants were intentionally chosen due to their direct engagement in informal savings groups or their institutional

responsibilities in the provision and regulation of financial services (Yin, 2018). This method made it possible to look closely at governance practices, linkage mechanisms, risks, and institutional limits.

**Table 1**

*Response Rate*

Strand	Target Response	No Response	Actual Response	Invalid Response	Valid Response	Active Response Rate
Survey questionnaire	400	48	352	23	329	82.3%
Interviews	15	0	15	0	15	100.0%

### 3.5 Data Collection Instruments and Procedure

Structured questionnaires, semi-structured interviews, and document analysis were used to gather data. Questionnaires collected demographic information, savings and borrowing habits, levels of trust, perceived risks, governance structures, and use of formal financial services. Semi-structured interviews offered enhanced understanding of institutional perceptions, linkage experiences, and obstacles to integration. Analyzing group bylaws, financial service provider policies, and regulatory instruments helped put everything in context.

### 3.6 Data Analysis

Descriptive statistics and Probit regression models were used to test hypotheses about the adoption of formal financial services and the effectiveness of backward and forward linkages (Rahman & Muktadir, 2021). The Probit model was suitable due to the dichotomous characteristics of essential financial inclusion outcomes.

Thematic analysis was used to look at qualitative data and find patterns that kept coming up about trust, governance, institutional divergence, and risk perception. The results from both strands were synthesized to yield a thorough and empirically substantiated comprehension of informal and formal financial interactions.

### 3.7 Ethical Consideration

The University of Zambia's Directorate of Research, Innovation and Development, Humanities and Social Sciences Research Ethics Committee gave the project the go-ahead. Participation in the study was voluntary, and informed consent was secured from all respondents prior to data collection. Participants were promised that their names and other identifying information would not be shared, and the analysis and reporting of the results did not include any identifying information. Data were stored safely and only used for academic reasons.

## IV. FINDINGS & DISCUSSIONS

### 4.1 Findings

#### 4.1.1 To Assess the Current Extent and Forms of Linkages between Informal Savings and Lending Groups and Formal Financial Service Providers among Marketeers in Lusaka

The results show that there are still few connections between formal financial service providers and informal savings and lending organizations, both in terms of institutional depth and coverage. 60.8% of the 329 marketers who participated in the survey said they had no affiliation with a formal financial institution, whereas 39.2% said their group had some kind of affiliation. Engagement among those with links was mostly limited to transactional arrangements like using mobile money or group savings accounts. The mean scores for all indicators of sustained institutional interaction are consistently low, according to descriptive statistics (Table 2). Formal agreements like memoranda of understanding ( $M = 2.24$ ), regular deposits or withdrawals ( $M = 2.22$ ), and the maintenance of a formal group account ( $M = 2.17$ ), all demonstrate sporadic and inadequately institutionalized engagement.

These conclusions are supported by qualitative interviews. The majority of unofficial savings organizations run independently and mostly use internal lending and saving procedures. Formal accounts, when they exist, are frequently used more for storage than as integrated platforms for financial management. According to these findings, forward links do exist, but they are episodic and superficial rather than structurally embedded.

**Table 2***Current Extent of Linkages between Informal Savings Groups and Formal FSPs*

Statement	Mean	Std. Dev.
Our informal savings group maintains an account with a formal financial institution such as a bank, MFI, or mobile money platform.	2.17	1.183
The group regularly deposits or withdraws funds through a formal financial institution.	2.22	1.198
Representatives from formal financial institutions engage or meet with our group to discuss financial products or services.	2.09	1.110
Our group has received financial training or capacity-building support from a formal financial service provider.	2.30	1.218
There is a formal or informal agreement (such as an MoU or partnership) between our group and a bank, MFI, or mobile money operator.	2.24	1.195
Members of our group use formal financial services (for instance, bank accounts, loans, digital payments) as part of their group activities.	2.19	1.146
Our group has accessed credit or loan facilities from a formal financial institution.	2.21	1.177
The use of formal financial institutions has improved the safety and management of our group's funds.	2.19	1.159
There is regular communication or reporting between our group and formal financial service providers.	2.25	1.224
Overall, our group is strongly linked to and supported by formal financial institutions in its savings and lending activities.	2.15	1.128

N=329

**4.1.2 To Evaluate the Effectiveness of Existing Backward and Forward Linkages in Enhancing Financial Inclusion for Marketeers**

A Probit regression model was estimated in order to investigate the variables affecting the uptake and utilization of formal financial services. In accordance with the presumptions of the Probit model, which calculates the likelihood of a binary outcome under a conventional normal distribution, the dependent variable was binary (1 = uses formal financial services; 0 = otherwise). The model's explanatory variables included gender, education, group governance structure, financial literacy, and institutional trust.

**Table 3***Tests of Model Effects*

Source	Type III		
	Wald Chi-Square	df	Sig.
(Intercept)	23.606	1	.000
Trust	54.512	1	.000
Financial literacy	54.863	1	.000
Governance structure	33.017	1	.000
Education	9.925	1	.002
Gender	5.035	1	.025

Formal financial service adoption is jointly predicted by the explanatory variables, according to the statistically significant overall model (Likelihood Ratio  $\chi^2 = 198.980$ ,  $p < 0.001$ ).

**Table 4***Omnibus Test Results*

Likelihood Ratio Chi-Square	Df	Sig.
198.980	5	.000

Dependent Variable: Formal financial services usage

Model: (Intercept), Trust, Financial literacy, Governance structure, Education, Gender

a. Compares the fitted model against the intercept-only model.

At the 5% level, all of the main explanatory factors were statistically significant. Higher financial knowledge increases the likelihood of using formal financial services, according to the positive and significant effect of financial literacy. Additionally, adoption showed a positive and statistically significant correlation with institutional trust, indicating that trust in formal institutions is a key factor in engagement. Similar significance was found for group governance structure, suggesting that formal connections are more likely to form in well-organized and rule-bound groups. Diagnostics for multicollinearity show no indication of problematic intercorrelation between predictors (VIF values close to 1).

**Table 5***Results for Multilinearity*

Variable	Tolerance	VIF
Trust	.954	1.048
Financial literacy	.942	1.062
Governance structure	.978	1.022
Educational level	.939	1.064
Gender	.985	1.016

These results lend credence to Hypotheses 1, 2, and 3. The model does not, however, suggest that adoption will result in greater institutional integration, even though it does explain the likelihood of adoption.

#### 4.1.3 To Analyse the Bi-Directional Risks and Constraints Associated with Engagement between Informal Savings Groups and Formal FSPs

Four extracted barrier dimensions were used as explanatory variables in the model that looked at bi-directional risks and constraints: operational and access risks, trust-related risks, knowledge-gap risks, and regulatory and compliance risks. Construct validity and suitability for factor extraction were verified before regression analysis.

**Table 6***KMO and Bartlett's Test Results*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.838
Bartlett's Test of Sphericity	Approx. Chi-Square	3323.18
	Df	120
	Sig.	.000

The data were suitable for factor analysis, according to the statistically significant Bartlett's Test of Sphericity ( $p < 0.001$ ) and the Kaiser–Meyer–Olkin measure of sampling adequacy (KMO = 0.838).

**Table 7***Total Variance Explained*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.936	24.598	24.598	3.936	24.598	24.598	3.711	23.195	23.195
2	3.081	19.259	43.857	3.081	19.259	43.857	3.172	19.828	43.023
3	3.005	18.781	62.639	3.005	18.781	62.639	3.115	19.469	62.492
4	2.402	15.010	77.648	2.402	15.010	77.648	2.425	15.156	77.648
5	.397	2.480	80.128						
6	.374	2.336	82.464						
7	.357	2.234	84.698						
8	.343	2.141	86.840						
9	.326	2.036	88.876						
10	.301	1.880	90.755						
11	.287	1.797	92.552						
12	.282	1.763	94.315						
13	.250	1.562	95.877						
14	.244	1.525	97.402						
15	.233	1.457	98.858						
16	.183	1.142	100.000						

Extraction Method: Principal Component Analysis.

The bi-directional risk construct appears to have a strong dimensional representation, as the four extracted factors collectively explained 77.6% of the total variance.

**Table 8***Rotated Component Matrix*

Risk/constraint	Component			
	1	2	3	4
Formal FSPs fear compliance issues when dealing with informal groups	.860			
Lack of sufficient documentation and collateral requirements	.832			
Complex rules and procedures by formal FSPs	.868			
Know-the-customer (KYC) and anti-money-laundering (AML) rules make it difficult to open joint/group accounts	.874			
Absence of clear policy or regulations that guide engagement of informal savings groups and formal FSPs	.863			
Lack of trust in formal financial institutions		.884		
Financial institutions do not trust the financial discipline of informal groups		.880		
Previous bad experience with formal financial service providers (FSPs)		.883		
Formal FSPs consider informal savings groups as high-risk clients		.904		
Limited knowledge by formal FSPs about how informal savings groups operate				.897
Formal banks do not understand or value how marketeers manage their money				.889
There is fear that linking to formal institutions exposes our group to taxation, penalties, or unwanted regulation				.902
Lack of tailored financial products and services for marketeers			.860	
Formal FSPs process transactions too slowly for marketeers' business needs			.890	
Transaction costs and fees charged by formal FSPs make linking unattractive			.877	
Limited physical presence (branches/agents) of formal financial service providers close to marketeers			.898	
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 4 iterations.				

The internal coherence of the four barrier dimensions, operational and access risks, trust-related risks, knowledge-gap risks, and regulatory and compliance risks, is confirmed by the rotated component matrix, which displays factor loadings greater than 0.5. A Probit regression model was estimated to investigate how these barriers affected linkage depth.

**Table 9***Goodness for Fit*

Statistic	Value	df	Value/df
Deviance	135.438	267	.507
Scaled Deviance	135.438	267	
Pearson Chi-Square	132.075	267	.495
Scaled Pearson Chi-Square	132.075	267	
Log Likelihood <sup>b</sup>	-74.793		
Akaike's Information Criterion (AIC)	159.586		
Finite Sample Corrected AIC (AICC)	159.771		
Bayesian Information Criterion (BIC)	178.566		
Consistent AIC (CAIC)	183.566		
McFadden R <sup>2</sup>	0.234		

Dependent Variable: Formal-informal financial linkages

Model: (Intercept), Trust-related barriers, Regulatory and compliance barriers, Operational and access barriers, Knowledge gap barriers

a. Information criteria are in smaller-is-better form.

b. The full log likelihood function is displayed and used in computing information criteria.



**Table 10**

*Omnibus Test Results*

Likelihood Ratio Chi-Square	df	Sig.
264.072	4	.000

Dependent Variable: Formal-informal financial linkages

Model: (Intercept), Trust-related barriers, Regulatory and compliance barriers, Operational and access barriers, Knowledge gap barriers

a. Compares the fitted model against the intercept-only model.

The statistical significance of the overall model ( $p < 0.05$ ) suggests that linkage intensity is jointly predicted by the four barrier dimensions. Diagnostics for multicollinearity show no signs of problematic predictor intercorrelation.

**Table 11**

*Results for Multilinearity*

Variable	Tolerance	VIF
Regulatory and compliance barriers	.986	1.014
Trust-related barriers	.988	1.012
Knowledge-related barriers	.998	1.002
Operational and access barriers	.996	1.004

According to the findings of the Probit regression, linkage formation and depth are negatively impacted by the four barrier dimensions in a statistically significant way.

**Table 12**

*Results from the Probit Model*

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test		
			Lower	Upper	Wald Chi-Square	df	Sig.
(Intercept)	27.405	3.1314	21.268	33.543	76.593	1	.000**
Regulatory and compliance barriers	-2.368	.3225	-3.000	-1.736	53.901	1	.000**
Trust-related barriers	-2.375	.3045	-2.972	-1.778	60.840	1	.000**
Knowledge-related barriers	-2.248	.3393	-2.913	-1.583	43.902	1	.000**
Operational and access barriers	-2.020	.2751	-2.560	-1.481	53.951	1	.000**
(Scale)	1 <sup>a</sup>						

Dependent Variable: Formal-informal financial linkages

Model: (Intercept), Trust-related barriers, Regulatory and compliance barriers, Operational and access barriers, Knowledge gap barriers

a. Fixed at the displayed value.

The coefficients show that the likelihood of deeper informal–formal institutional engagement is significantly decreased by higher perceived regulatory rigidity, governance opacity, trust deficits, and operational constraints. These results suggest that both forward and backward linkages are structurally inhibited by institutional risks.

These statistical results are further contextualized by qualitative findings.

**Table 13***Emerging Themes on Bi-Directional Risks and Constraints*

Theme	Category	Codes
Mutual distrust	Trust-related barriers	Distrust of formal FSPs (Participant 2) Fear of losing control over funds (Participant 3) Perception that FSPs exploit through hidden charges (Participant 6) Trust based on face-to-face accountability (Participant 7) Negative past experiences (Participant 5)
Perceived bureaucratic processes	Institutional and regulatory barriers	Rigidity at institutional level (Participant 10) Excessive paperwork requirements (Participant 9) Long and stressful application process (Participant 4)
Accessibility concerns	Operational and accessibility barriers	Loss of business time due to queuing at banks (Participant 5) High transaction costs (Participant 12) High withdrawal and maintenance fees (Participant 8)
Limited knowledge and awareness	Knowledge gaps	Lack of understanding of benefits of integration (Participant 1) Inadequate stakeholder sensitization (Participant 4) Lack of awareness (Participant 13)

When interacting with formal institutions, informal savings and lending groups voiced concerns about losing their autonomy, rigid repayment plans, the expense of regulations, and the breakdown of social cohesiveness. In response, formal financial service providers listed reputational risks, compliance burdens, governance opacity, and poor record-keeping as obstacles to adaptation. When combined, the quantitative and qualitative results show that institutional constraints and bi-directional risks erode both forward and backward linkages. Because the extracted barrier dimensions considerably lower the likelihood of deeper institutional integration between formal financial service providers and informal savings groups, Hypothesis 4 is thus supported.

## 4.2 Findings by Research Hypothesis

### 4.2.1. Objective 1: Extent and Forms of Informal–Formal Linkages

This objective assessed the existing extent and modalities of linkages between informal savings groups and formal financial service providers among marketers in Lusaka. According to descriptive results, 60.8% of groups said they had no formal connection, while 39.2% said they were involved in some way. But the average scores for institutional interaction indicators are still low (Table 2). For example, maintaining a formal account ( $M = 2.17$ ), making regular deposits or withdrawals ( $M = 2.22$ ), and signing formal agreements like memoranda of understanding ( $M = 2.24$ ).

These results show that there are some connections, but they are mostly transactional and not very well-established. Engagement is sporadic and does not signify enduring institutional integration. The evidence indicates a lack of structural depth in informal–formal financial relationships within Lusaka’s markets.

### 4.2.2. Objective 2: Effectiveness of Backward and Forward Linkages

This objective evaluated the effectiveness of the current backward and forward linkages in promoting financial inclusion. We used a Probit regression model to look at the factors that affect the use of formal financial services (Tables 3 and 4). Financial literacy (Wald  $\chi^2 = 54.863$ ,  $p < 0.001$ ), institutional trust (Wald  $\chi^2 = 54.512$ ,  $p < 0.001$ ), and governance structure (Wald  $\chi^2 = 33.017$ ,  $p < 0.001$ ) were statistically significant and positively correlated with the utilization of formal services. Gender and education were also important at normal levels.

These results show that groups with better financial literacy, more trust in formal institutions, and more structured governance systems are more likely to have forward linkages. Even though the chances of adoption go up in these situations, there is still not enough proof of backward institutional adaptation. It seems that formal engagement is more about access and selectivity than deep integration. Adoption does not inherently result in institutional symmetry or structural transformation of informal-formal relations.

### 4.2.3. Objective 3: Bi-Directional Risks and Constraints

This objective analysed the bi-directional risks and constraints shaping engagement between informal savings groups and formal financial service providers. Factor analysis revealed four dimensions of barriers: regulatory and compliance barriers, trust-related barriers, knowledge-related barriers, and operational and access barriers (Tables 6–8).

The probit regression results (Table 12) indicate statistically significant negative effects in all four dimensions: regulatory and compliance barriers ( $B = -2.368$ ,  $p < 0.001$ ), trust-related barriers ( $B = -2.375$ ,  $p < 0.001$ ), knowledge-related barriers ( $B = -2.248$ ,  $p < 0.001$ ), and operational and access barriers ( $B = -2.020$ ,  $p < 0.001$ ).

These results show that perceived institutional risk greatly lowers the chances of forming deeper informal-formal links. Informal groups and formal institutions both avoid risk, which leads to careful and low-intensity participation. Institutional constraints thus function as structural impediments to both forward and backward linkages.

### 4.3 Discussion

#### 4.3.1 Extent and Forms of Linkages

Prior empirical findings that informal and formal financial systems frequently coexist without substantive integration are supported by the shallow institutional depth and limited coverage of informal–formal linkages seen in Lusaka's markets (Beckmann & Mare, 2017; Bateman et al., 2019). Similar research conducted in Sub-Saharan Africa shows that linkage initiatives often take the form of transactional arrangements, like digital payment access or group accounts, without changing the financial logic or internal governance of informal groups (Demirguc-Kunt et al., 2018; Simatele et al., 2021). This pattern is supported by the current findings. The low mean scores across institutional interaction indicators show that these connections lack structural depth, even though 39.2% of groups report some linkage. However, by empirically differentiating between institutional integration and nominal linkage, this study adds to the body of existing literature. Previous research frequently uses account ownership or access metrics to gauge linkage. This study demonstrates that the mere existence of linkage does not imply institutional alignment by including measures of communication frequency, formal agreements, institutional support, and perceived depth of engagement. This improves on popular measures of financial inclusion that link integration and access.

These results also support the existence of parallel systems from the standpoint of financial dualism. In Lusaka, Zambia, informal savings and lending groups remain the main source of funding for marketers even with the expansion of formal financial access (FinMark Trust, 2020). This calls into question the classical dualism premise that informal systems will progressively disintegrate through convergence as a result of liberalization and access expansion (McKinnon, 1973; Shaw, 1973). Rather, coexistence endures.

#### 4.3.2 Forward Linkages

The noteworthy benefits of group governance structure, institutional trust, and financial literacy are consistent with earlier research showing these elements to be facilitators of formal service uptake (Mukulu & Qutieshat, 2022; Simatele et al., 2021). The results demonstrate that forward linkages are influenced by relational, cognitive, and institutional readiness factors rather than being random. However, by highlighting the selective nature of this engagement, this study departs from a large portion of the literature on financial inclusion. Groups that already demonstrate traits consistent with formal institutional expectations, structured governance, documentation discipline, and greater financial knowledge, benefit disproportionately from forward linkages. Access-led inclusion may stratify the informal sector, giving preference to better-organized groups while marginalizing others, instead of integrating informal actors broadly.

This research casts doubt on the linear inclusion narratives found in many policy frameworks, such as national strategies that link inclusion and account ownership. The Probit results demonstrate that although adoption is more likely to occur when literacy and trust are high, deeper inclusion outcomes like affordability, resilience, or empowerment are not always the result of such adoption. This pattern indicates accommodative rather than complementary interaction, according to the perspective of institutional interaction (Helmke & Levitsky, 2004). While informal groups adjust to formal requirements, formal institutions do not do the same. Instead of encouraging institutional learning, this asymmetry stabilizes transactional engagement.

#### 4.3.3 Bi-Directional Risks and Constraints

The significant negative effects of regulatory and compliance barriers, trust-related barriers, knowledge gaps, and operational constraints confirm the importance of institutional misalignment in shaping linkage depth. These findings are consistent with Alawattage et al. (2019), who argue that formal institutions often perceive informal actors through risk and compliance lenses, limiting adaptive engagement. However, this study advances existing literature by modelling these barriers quantitatively and integrating them with qualitative evidence. While previous studies describe risk perceptions narratively, this research demonstrates empirically that higher perceived institutional risk significantly reduces the probability of deeper formal – informal integration. The magnitude and consistency of negative coefficients across all four barrier dimensions indicate that risk operates as a structural inhibitor rather than a peripheral constraint.

Qualitative findings further reveal that distrust is mutual rather than unilateral. Informal groups fear loss of autonomy and bureaucratic rigidity, while formal institutions fear compliance exposure and governance opacity. This reciprocity of suspicion sustains cautious, transactional engagement and prevents backward linkages. From the perspective of Financial Dualism, these findings suggest that dualism is not merely a structural outcome of underdevelopment, but a relational equilibrium maintained by institutional asymmetry and risk aversion. Rather than converging, informal and formal systems settle into low-intensity coexistence. Within Helmke and Levitsky (2004)

typology, the interaction observed in Lusaka most closely resembles substitutive and accommodative dynamics rather than complementary integration. Informal groups continue to fulfil functions unmet by the formal financial institutions, while formal providers selectively extend services without altering their compliance-driven operating models.

When combined, the results reframe financial inclusion as a negotiated institutional process rather than a one-way shift. Three empirical contributions to theoretical discussions are made by this study by first showing that the continuation of informal finance in urban Lusaka, Zambia is a result of asymmetric institutional adaptation rather than merely a byproduct of financial repression, it first improves on Financial Dualism. Dual systems cannot be eliminated by liberalization and increased access alone. Second, by empirically modeling forward and backward linkages, it operationalizes the theory of institutional interaction within the context of financial inclusion. The study shows that rather than relying solely on informal actors' compliance, inclusion outcomes rely on institutional symmetry and reciprocal adaptation. Third, it demonstrates that adoption probability and institutional depth are analytically different, challenging popular access-based inclusion metrics. It is possible to increase access without changing structural dualism.

These contributions posit that intentional mechanisms that encourage backward linkages, specifically, institutional dialogue, flexible compliance frameworks, contextual risk assessment, and product redesign, are necessary for sustainable financial inclusion. Inclusion strategies run the risk of strengthening parallel financial systems under the guise of integration if they are not modified in this way.

## V. CONCLUSIONS & RECOMMENDATIONS

### 5.1 Conclusions

The study aimed to analyze the reciprocal relationship between marketers in Lusaka, Zambia's informal savings and lending groups and formal financial service providers, highlighting the risks and institutional constraints affecting these interactions. It revealed three main realities: Informal-formal ties are weak and superficial; while some groups interact with formal services, these relationships are often episodic, leading marketers to rely more on informal savings for funding. Adoption of formal financial services is selective, influenced by financial literacy, institutional trust, and group governance, but does not always lead to deeper inclusion outcomes such as affordability or empowerment; groups aligned with formal expectations benefit more from engagement. Integration is hindered by institutional limitations and mutual risks, where formal institutions fear compliance issues while informal savings and lending groups worry about autonomy loss. This reciprocity of caution stabilizes low-intensity engagement and limits institutional adaptation.

The results challenge linear financial inclusion models, suggesting that increased access does not eliminate financial dualism but leads to a negotiated balance characterized by institutional asymmetry. The study contributes theoretically by: Promoting Financial Dualism as a relational result of asymmetric institutional adaptation rather than mere underdevelopment. Operationalizing Helmke and Levitsky's typology of institutional interactions within financial inclusion contexts to show that outcomes depend on institutional symmetry. Distinguishing deep inclusion from access-based inclusion, indicating that increased access does not equate to effective integration as long as structural dualism persists. The findings advocate for tailored policies that support backward adaptation, such as flexible compliance and structured dialogue between formal and informal systems, to avoid reinforcing parallel financial systems. Future research should explore this framework in varied contexts and focus on mechanisms that reduce compliance asymmetry without undermining financial integrity. Financial inclusion is ultimately a negotiated institutional process influenced by the adjustments of both sides.

### 5.2 Recommendations

This article presents a set of theoretical and practical suggestions based on the study's findings that are intended to advance financial inclusion beyond access-led, one-way models and to strengthen the reciprocal relationships between informal savings and lending groups and formal financial service providers. In order to adapt their products, documentation requirements, risk assessment frameworks, and repayment structures to the operational realities of informal savings groups, formal financial service providers should first strengthen backward linkages. Deeper institutional engagement is impeded by standardized product designs and strict compliance-driven models, according to the evidence. Flexible risk assessment, streamlined documentation procedures, and delivery systems that take into account the cash flow patterns and governance procedures of informal marketeers are all necessary for sustainable inclusion. Second, policy frameworks for financial inclusion should specifically acknowledge that inclusion is a two-way process. Policy strategies should include institutional adaptation by formal providers as a fundamental inclusion mechanism, rather than presuming a linear progression of informal actors into formal finance. By promoting proportionate compliance standards and fostering innovation that is suited to the dynamics of the informal sector, regulatory and supervisory bodies can act as a catalyst.

Third, rather than being viewed as stand-alone interventions that are solely concerned with account uptake, financial literacy and institutional trust should be used as facilitators of long-term engagement. The results show that

although adoption by itself does not ensure deep inclusion, literacy and trust greatly raise the likelihood of adoption. Therefore, it is important to incorporate literacy programs with organized engagement platforms that foster mutual understanding between informal groups and formal institutions. Fourth, initiatives to strengthen governance that target informal savings groups should refrain from becoming overly formalized. Although formal engagement is more likely under structured governance, autonomy and accessibility may be compromised by overly formal requirements. Instead of enforcing strict institutional templates that undermine the social underpinnings of informal finance, support mechanisms should concentrate on enhancing transparency, fundamental record-keeping, and accountability procedures.

Fifth, structured dialogue platforms involving regulators, financial service providers, and informal savings groups should be used to address bi-directional risks. The study demonstrates that perceived risk and mistrust are reciprocal. Institutionalized engagement platforms can help foster gradual institutional learning, enhance mutual understanding, and lessen misaligned risk perceptions. Lastly, access-based metrics should not be the only focus of financial inclusion research and practice. Indicators of institutional reciprocity, adaptive capacity, and linkage depth should all be included in measurement frameworks. Both theoretical clarity and the efficacy of policy will increase when inclusion is acknowledged as a negotiated and relational process. When combined, these suggestions highlight the need for mutual institutional adaptation rather than one-sided formalization for sustainable financial inclusion. Reducing financial dualism and facilitating greater integration between the informal and formal financial systems require strengthening both forward and backward links.

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