

Factors affecting the use of digital payments among Smallholder Tea Farmer in Kanungu District, Uganda

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Abstract: The agriculture sector has continued to provide sizeable crop payouts, mainly in the form of direct cash payments across the counter and smallholders have continued to shun adopting cashless e-financial ecosystems. In Uganda, fewer than 21% of rural smallholders have bank or mobile money accounts raises questions and supports the strongest case for creating the required infrastructure and a legal framework to reduce costs and uncertainty. Smallholder tea farmers in the Kanungu district have for the last 57 years preferred direct cash payments over banks or any electronic form of payment. Between, 1966 and 2017, all smallholder crop payouts, would be in the form of direct cash. However, by the close of 2021, several smallholder tea farmers had adopted the use of digital payments, and direct cash payments, considerably declined from Ugx.4,481,074,546bn to Ugx.3,895,759/= with Ugx.5,388,278,040bn being paid digitally, of which Ugx.2,887,452,150bn was paid through commercial banks, and Ugx.2,500,825,890bn, through mobile money, respectively. Digitizing payments enhances efficiency, transparency, and accountability, builds a trail of record for one's financial credit appraisal, and above all, lowers one's operation costs, along all value chains. The study aimed to assess the factors that have over time affected the use of digital payments among smallholder tea farmers in Kanungu District, Uganda. The study used a descriptive research design utilizing a quantitative approach. And, to address research objectives, descriptive and inferential statistics were used to analyze data using SPSS version 26. The correlation coefficient (-0.768) shows that there is a strong and significant negative relationship between digital payments and gross domestic product since the probability of 0.004 is less than 0.05. In other words, cash payments before the introduction of the digital payment ecosystem, constituted 86% of total payments. And now, digital ecosystem and bank payments constitute over 98%.

Keywords: Agriculture; Financial inclusion; Digital payment ecosystem; Smallholder tea farmer; Digitization.

1.0 Introduction and background to the study.

Digital payment denotes a modern form of payment for making payments electronically, by way of using digital devices, such as mobile phones, Automatic Teller Machines (ATMs), computers, and other electronic devices fixed at different Points of Sales (POS), agents, and kiosks. It is a conventional form of paying for goods, supplies, and services through a configured electronic medium that is not necessarily, though, use of direct hard cash or cheque (Hermanus Smidt and Jokonya 2022). In other words, it has become, one of the widely acceptable forms, legal, and binding ways of conducting financial transactions across the globe and via the internet portals and domains, domiciled in financial institutions to ease and facilitate transfer of funds and payments. In a nutshell, all e-related commerce, payments, wallets, and funds transfer transactions are interchangeably used, to imply, the use of information technology to transact financially in what is popularly called "FinTechs".

It is premised on a good command of data management etiquettes and domain protocols as regards the use of different electronic devices Porciello et al. 2022). It should be noted that, as different financial institutions, the world over, continue to grapple with cut-throat competition, growth, and coverage supervision challenges as well as investment and portfolio optimization, there is an inherent need, for effective operations risk mitigation. To this end, there are instantaneous, calls nationally, regionally, and internationally for financial institutions to embrace digital innovations, conduct infrastructure upgrades, and diversification, and call for the re-design of powering technologies to deliver competitive products, and services if they are to stay afloat in business.

Smallholder tea farmers are individuals or families who own and operate small tea farms, usually smaller than 2 hectares as a primary source of income (Rapsomanikis 2015). These smallholders, typically cultivate tea on a family-owned piece of land, using traditional methods that are often passed down through generations. Smallholder tea farmers, grow tea on their small pieces of land and sell their harvested tea leaves (raw materials) to the nearby tea processing factories, which process, the tea leaves and turn them into black tea for both local and international markets.

Tea is 3rd largest foreign exchange earner, coffee and fish in Uganda (MAIF, 2016). And, has maintained this 3rd position, since 1972 when it was next to coffee and cotton (Ubos, 2020). In Uganda, tea is classified by the Government's strategic and priority cash crop and envisioned tool to fight poverty, generate household income, create employment, and guard against food insecurity in rural areas. It is associated with several forward linkages that can steer several agro-based industries and improve the socioeconomic livelihoods of smallholder farmers in tea-growing communities (Ezra et al., 2014). The sub-sector, is known to employ close to 80,000 farming households and supports over 150,000 skilled and unskilled workers, and about 1,000,000 people, directly or indirectly, derive their livelihoods from tea growing MAAIF (2020). In F/Y 2009/2010, the tea sector alone employed more than 60,000 persons and was an indirect source of livelihood for close to 500,000 Ugandans (BoU, 2011).

Besides, the auxiliary services created around the tea factories; have over time, enhanced consumption patterns, and contributed to the enormous growth of the local markets, retail trade, housing sector, and transport, all of which have made tea growing attractive to smallholder farmers CIAT (2020). Tea provides the mechanism through which poverty and food insecurity could be minimized, and household incomes enhanced in the sub-region. Between 2018 and 2021, smallholders in the Kigezi-subregion region were supplying close to 80million Kg of green leaf to 5 nearby tea processing factories in Kanungu, Kabale, and Kisoro and earning approximately, 42bn from their green leaf tea sales. This, translates to a payment of Ugx.2.23bn per month in the sub-region, with smallholder farmers attached to Kayonza Growers Tea Factory in Kanungu, taking the lead, during the period, MAAIF Report (2021).

2.0 Smallholders Cash Payment Systems and Transition to Digital Payment Ecosystems

Kanungu is one of the gazetted hard-to-reach districts in South Western Uganda, situated on the borderline with the Democratic Republic of Congo, and smallholder tea growing for the last 57 years (since,1966) as the main economic activity in the district. (GOU/MOPs, 2017). The area has an estimated 15,600 smallholder tea farmers, distributed in 9 sub-counties served by Kayonza Growers, Kigezi Highland, and Bwindi, Tea Factories.

Kayonza Growers Tea Factory alone, has the last two decades, managed to triple its green leaf production from 7,489,319 million Kgs to 23,031,447 million Kgs recorded in 2021 from smallholder tea farmers. Resultantly, smallholders' green leaf (earnings) payments, have more than doubled from Ugx.5,196,814,614bn, recorded in 2016 to Ugx. 10,862,645,171bn in 2018 in addition to Ugx 8,725,363,688bn, paid in 2019, and Ugx 10,284,791,751bn in 2020. Kayonza Growers Tea Factory, AGM Audit Report, (2019). Like, all other hard-to-reach districts in Uganda, financial services in Kanungu district, are obviously limited, inaccessible, and affordable. And for the last four decades, smallholders had thrived on the operations of one commercial bank (Stanbic), with operations of the other two banks, (Centenary & Postbank), hardly operating in the area, until 2014. To this end, direct cash payment systems had only been a known form of settling smallholder's green leaf payments, for the last 57 years. Smallholder tea farmers, with Kayonza Growers Tea Factory, have for long been paid liquid cash, directly by the cashiers at the factory. Studies have shown, that by the close of 2017, only 14% of smallholders, were paid through banks. Smallholder resistance to being paid through financial institutions has significantly reigned, for over five decades, and this is what this study, is set to ascertain.

According to the study conducted by the Bank of Uganda, cash payments have long remained the most pronounced and common payment option for end-to-end low-cost transactions (BOU 2019). Although the Government of Uganda's strategic focus is on the promotion of digital financial services, as one of the critical pillars and objectives, of Financial Sector Development, the National Financial Inclusion Strategy (2017-2022) and the National Development Plan (NDPIII) as anchored on the Vision 2040, to transform Ugandan society from a peasant to a modern country within 30 years, apparently the country, will take long to fully transit into the envisaged, cashless economy. According to Kayonza Growers Tea Factory, annual reports for the years 2019 and 2020, it was reported, that the company paid a total of Ugx.13, 059,767,133bn to smallholder tea farmers. And, with only 14% of payments handled through formal banks, it implies that only 1,828,367,398bn was paid through the bank and the balance of Ugx. 11,231,399,734bn, paid by way of direct cash method. In Uganda, there are still a lot of cash payment transactions, under the watchful eye of policymakers.

Countries, like Rwanda, have already adopted a national payment strategy that seeks to achieve a cashless economy by 2024. South Africa, banned the use of cheques and has put in place policies to guide it forward taking steps to become, a cashless society by 2030. Nigeria, in an effort to further its goal of transforming Africa's largest economy into a cashless society and saving the nation foreign transaction costs, Nigeria's Central Bank has moved on to launch an e-domestic card program (e-Naira) to compete with global cards like MasterCard and Visa Nigeria. Central Bank Report, 2023). Whereas in 2017, World Bank indicated that only between 28% -33% of Ugandans had access to a bank account or accounts in other financial institutions, still over 80% of payments, were still made by way of direct cash. In the same year, the total value of

cash transactions in the economy was estimated by the Bank of Uganda, to be at Ugx.1,600 trillion, with processed RTGS and mobile money payments combined, insignificantly, standing at Ugx.4trillion, much as it painted an impressive growth opportunity for justification of future digitization.

Cash transactions are very slow due to their physical nature, which requires one seeking to make payments to first travel to their bank, agent, or ATM to obtain cash before making payments, which increases the cost, limits credit accessibility, is risky, and increases vulnerability to theft for anyone holding it. And one wonders, why most people still favor this kind of inconvenience and why they can't switch to digital technology. This is evidenced by the fact that, by the close of June 2019, local cash payments rose above the annual average from Ugx. 423 billion to close to Ugx. 544 billion, depicting an unprecedented increase of 20% from June 2018. However, not all hope is lost. Bank of Uganda has already directed all commercial banks and Deposit-Taking Institutions, to embrace paperless transactions by reducing the amount to 50% of customers who can maximally transact by cheque – from an upper limit of US\$5,500 to US\$2,750, effective January 2022. Accordingly, there is reported tremendous growth in digital ecosystem transactions in Uganda as highlighted by the cross-section of selected financial institutions' performance Audit Reports (2022).

Relatedly, Postbank Uganda, the Government fully owned reported impressive digital growth performance of 60% on all her digital channels in 2022, compared to 10%, registered 3 years back. In a related development, Housing Finance Bank, which is government partially owned commercial bank, reported an impressive performance with over 80% of its total customer transactions in 2022, conducted through digital platforms. Centenary Bank, had her overall digital banking transactions in 2022, contributing 42.7% of her total transactions, with digital mobile money contributing 19.9%, Automatic Teller Machines contributing 22%, and ultimately lowering banking hall services by 13.8%. Agent banking increased by 13.8%, Digital micro-credit loans grew by 24.7%, Internet banking by 1.3%, while card credit loan platforms grew by 131%. This move reflects a strong resolve, by the Bank of Uganda, to a slow-rolling process, towards the promotion of a cashless economy and electronic payments. (BOU, 2019).

Uganda has 40% of the adult population unbanked, and in an environment dominated by the informal market. Unfortunately, this huge potential market base has been missed by the existing 25 commercial banks and 4 Microfinance Deposit-Taking Institutions (MDIs), 3 Credit Institutions, and thousands of Non-Deposit Taking Institutions and Money Lenders (MTN Uganda, Audit Report 2022). Results of a study conducted in 2018, under “*Banking the Unbanked*” and on Financial Inclusion, noted that only, 28% of Ugandans had active bank accounts, and with the rest depended on direct cash and barter transactions (Dupas et al. 2018). Unfortunately, the above gains, have reportedly been lost, according to the revelation of the subsequent study, undertaken by the National Bureau of Statistics in the National Labor Survey (2021), which established that by the close of 2021, only 12% Ugandans, had functional bank accounts, with 9% in formal commercial banks and 3% in Microfinance and Savings and Credit Institution (SACCO's). In Uganda, only 46% of adults (8.5 million) attempt to borrow money from financial institutions. And, 90% of those who attempt to borrow, do so, from informal lenders—mainly village savings and loan associations. Only 3% (0.3 million) borrows from formal lending institutions (FSD Report, 2018)

Smallholders in Uganda, make up 85% of farming households (Meharchand Robert 2018), and constitute, a significantly proportion than any comparable African nation, with average farm size ranging from 0.8 to 1.6 ha (Anderson, Leach, and Gardner 2016), although, only 58% of these are, financially included. Although the National Bureau of Statistics, put the number of Ugandans, financially excluded to over 15%, in rural areas, the percentage goes higher to 25% of the adult population (UBOS 2014), with the majority of smallholders, rated as financially excluded, as opposed to only 14% in urban centers, implying that smallholders in rural areas have lesser access to financial services. Smallholder farmers in Uganda, experience high levels of financial exclusion and there is no way, they can be financially included, if they continue to shun their enrolment or get captured into the mainstream national banking financial systems and above all, embrace new digital innovations and ecosystems, sweeping across the world.

Shockingly in Uganda, only 10% of smallholder farmers, have bank accounts from formal financial institutions (Stutley et al. 2019). Cash payments are risky and costly for agribusinesses and for farmers. A cash economy not only prevents smallholder farmers from accessing credit and insurance but also those with business acumen GSMA (2017). However, Kayonza Growers Tea Factory, Annual Audit Report (2020), on the progressive trend of smallholder tea farmers' cash payments, present a grey picture. The company, by the close of 2017, had paid overall smallholder tea farmers Ugx.7,862,952,519billions, out of which, only Ugx.618,832,715 was paid through banks, and the balance of Ugx.7,244,119,804billions paid cash as shown below;

Table: 1 Shows, Kayonza Growers Tea Factory smallholder tea farmers' payments in 2017 before the introduction of digital payments through banks and mobile money payments.

Stanbic Bank	Postbank	Centenary Bank	Total Banks	Total Cash	Gross Payments
63,005,111	226,532,647	329,295,137	618,832,715	7,244,119,804	7,862,952,519

Source: Kayonza Growers Tea Factory payments before the introduction of digital payments.

Table: 2 Shows, Kayonza Growers Tea Factory smallholder tea farmers' payments in 2020 after the introduction of digital payments through banks and mobile money payments

Stanbic Bank	Postbank	Centenary	Total Banks	Total Cash	Total Mobile Money	Gross Payments
1,483,803,725	1,108,244,040	2,043,234,987	4,635,282,754	783,547,643	4,865,961,353	10,284,791,751

Source: Kayonza Growers Tea Factory payments after the introduction of digital payments.

Kayonza Growers Tea Factory controls a significant proportion of smallholder tea farmers in Kanungu District. And in 2017, direct cash payments to this segment amounted to Ugx.7, 244,199,804bn out of Ugx.7, 862, 952,519bn total payments made. Relatedly, during the period, total green leaf payments made through financial institutions (banks), stood at a paltry Ugx. 618,832,715 million, with Centenary Bank taking the lead with Ugx. 329,295,137million, followed by Postbank with Ugx.226,532,647million and Stanbic with Ugx.63,005,111, respectively. After the introduction of digital payments and largely driven by the Covid-19 pandemic, smallholder tea farmers' bank payments, began to shoot up. And from Ugx 618,832,715m registered in 2017, the amount skyrocketed to Ugx 4,635,282,754bn, with mobile money payments growing from zero to Ugx.4,865,961,353bn in 2020; as direct cash payments to smallholders immensely dropped and dwindled from Ugx 7,244,119,804bn in 2017 to Ugx 783,547,643m in 2020 out of total Ugx.10,284,791,751bn, paid to smallholders in 2020.

Globally, 76% of adults have an account in a bank, financial institution, or mobile money provider, up from 68% in 2017 and 51% in 2011, with China and India, taking the lead in digital online payments World Bank Global Fundex database (2021). Fast forward, over, over \$3.45 billion, are transacted daily, through different digital platforms, with mobile money platforms alone, reaching \$1.26 trillion daily (GSMA Report,2022). In 2022, 41 million new digital mobile accounts, were registered in East Africa, and digital transactions grew to the tune of US\$ 491 billion, higher than 2021 transactions by 23%. Kenya, currently leads all East African countries in the digital payment revolution, with mobile money transfers and e-commerce, growing from US\$ 5 billion in 2016 to US\$ 14.6 billion in 2020, virtually tripling.

With financial services and products expanding in Kenya, from 82.9% in 2019 to 83.7% in 2021 Kenya National Bureau of Statistics Survey (2021) & Fin Access Household Survey (2021). Interestingly, Uganda's mobile money digital revolution in 2020 reached US\$46 billion, with commercial banks accounting for 58% of the mobile transactions (US\$26.7 billion), up from zero level in 2010 to US\$12.5 billion in 2016. Volumes transacted through digital channels in Uganda have rapidly grown, with daily turnover increasing to more than US\$ 105,263,157 million, with 34 million subscribers across different platforms BOU (2022).

However, much as the Government of Uganda has taken significant steps to improve the country's financial inclusion rating, from 28% in 2009 to 54% in 2013, mainly through increased uptake of digital mobile money transactions in the rural areas, the financial capability of most Ugandans, has not significantly improved. Over, 60% of total Ugandan adults, still store their money and savings under the poles of their beds and in tangible possessions, like domestic animals, World Bank Report (2017). The aim of the study is to assess the factors that affect digital payment ecosystems among smallholder tea farmers.

3.0 Problem Statement

The adoption of digital payment solutions among smallholder farmers involved in agricultural production in developing countries continues to lag despite the well-documented potential advantages for broadening financial inclusion, improving transaction efficiencies, and augmenting household welfare and poverty reduction outcomes, as evidenced by a growing body of research evaluating digital finance interventions targeting rural communities dependent on rain-fed cultivation for their livelihoods (Aker, Ksoll, & Lybbert, 2016; Mekonnen, 2017).

In Uganda specifically, where over four-fifths of domestic tea production is attributed to approximately 400,000 smallholder farmers cultivating plots of less than 5 acres in size, customary payment practices for delivered harvests are carried out through cash-based exchanges, a process that introduces inefficiencies from a time and security standpoint for both supplier and buyer stakeholders along the tea value chain (Buss et al., 2018; Abigaba et al., 2017). The Kanungu District within Uganda's southwestern region represents one of the primary tea-growing locales nationwide, annually delivering over 30,000 metric tons to the market, though adoption of digital payment alternatives for financial settlements without growers remains limited compared to continued reliance on physical currency (Uganda Tea Development Agency, 2020; Kaijuka, 2018). Transitioning to digital payment approaches could help address inconveniences faced by farmers and purchasing firms in Kanungu District.

However, key implementation barriers include low digital and financial literacy restricting the ability of smallholder families with little education to appropriately engage emerging finance technologies due to insufficient exposure (Pshenichnaya, 2022), inadequate digital infrastructure from unreliable or non-existent mobile networks and internet connectivity impeding access (Bagirwa et al., 2020), high initial and ongoing transaction costs discouraging subscription by capital-constrained rural farmers (Nalukenge et al., 2019), lack of awareness surrounding benefits versus traditional cash-based processes (Muhinda, 2018), and concerns regarding security, complexity and usability dampening acceptance of unfamiliar digital alternatives in contrast to the status quo (Katongole et al., 2021). Overcoming these principal constraints through targeted interventions may help unlock anticipated advantages of digital payments for smallholder tea farmers in Kanungu District, Uganda though further exploratory research is still needed to properly diagnose farmer perspectives and inform effective technical solutions.

3.1 Specific Objectives

- i. To determine the relationship between physical cash and the transition to Digital Payment Ecosystems
- ii. To determine the relationship between financial literacy and the transition to Digital Payment Ecosystems
- iii. To determine the relationship between the Covid-19 pandemic occurrence and the transition to Digital Payment Ecosystems
- iv. To determine the relationship between Smallholders' Cash Payment Systems and the transition to Digital Payment Ecosystems

4.0 Methodology

In order to thoroughly examine the key factors inhibiting greater adoption of digital payment solutions among smallholder tea farmers within Kanungu District, Uganda, a mixed methods research approach was undertaken incorporating both qualitative and quantitative data collection techniques.

Semi-structured interviews using an interview guide informed by relevant academic literature (Aker et al., 2016; Bagirwa et al., 2020; Pshenichnaya, 2022) were conducted with 30 farmers across 3 parishes to gain in-depth insights into their perceptions and experiences related to existing cash-based payment systems as well as barriers and motivators associated with alternate digital models.

Additionally, 4 focus group discussions including 6-8 participants each was facilitated to stimulate group dialogue on issues like access and awareness, costs, and trust pertaining to new financial technologies (Muhinda, 2018; Nalukenge et al., 2019; Katongole et al., 2021). On the quantitative side, a survey was administered to 150 smallholder tea producers encompassing sections evaluating demographic characteristics, digital and financial literacy levels (Bagirwa et al., 2020; Pshenichnaya, 2022), farm operations specifics, current payment processes and sentiments towards transitioning as well as technology acceptance (Davis, 1989). Basic descriptive and inferential statistics were employed to analyze responses.

5.0 Results

Table 1: Relationship between physical cash and Transition to Digital Payment Ecosystems

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.593	.354	.345	.64001
a. Predictors: (Constant), physical cash				

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	1.505	.567	2.656	.010
	physical cash	.613	.152	.561	.000

a. Dependent Variable: **Transition to Digital Payment Ecosystems**

Source: Primary Data.

The R-value of 0.593 indicates a moderate to strong positive correlation between physical cash and the transition to digital payment ecosystems. This shows that physical cash is correlated with transitioning to digital payments.

The R Square value of 0.354 means that 35.4% of the variation in transitioning to digital payments can be explained by physical cash usage. The standard error of 0.567 represents the standard deviation of the residuals from the regression line. The coefficient value for physical cash is 0.613.

This suggests that a one-unit increase in physical cash usage leads to a 0.613 unit increase in transitioning to digital payments on average, holding other factors constant.

The standardized beta value of 0.561 measures the relationship in terms of standard deviations and shows physical cash has a moderately strong effect.

Table 2: The relationship between financial literacy and the transition to Digital Payment Ecosystems

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.573	.357	.345	.66021

a. Predictors: (Constant), **financial literacy**

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	1.4455	.167	4.656	.010
	financial literacy	.523	.072	.582	.000

a. Dependent Variable: **Transition to Digital Payment Ecosystems**

Source: **Primary Data.**

The R-value of 0.573 indicates a moderate positive correlation between financial literacy and transitioning to digital payment ecosystems. The R Square value of 0.357 means that 35.7% of the variability in transitioning to digital payments can be explained by financial literacy levels. The adjusted R square value of 0.345 accounts for the number of predictors in the model. The standard error of 0.167 represents the standard deviation of the residuals.

The B coefficient of 0.523 suggests that for every one-unit increase in financial literacy, there is a 0.523 unit increase in transitioning to digital payments on average while controlling for other factors. The standardized beta coefficient of 0.582 shows the relationship in terms of standard deviations, signifying financial literacy has a moderately strong effect.

The significance of the model and positive correlation indicates that increased financial literacy is positively associated with greater adoption of digital payment ecosystems. Those with higher financial knowledge may be more comfortable navigating new digital financial tools and services.

Table 3: The relationship between the Covid-19 pandemic occurrence and the transition to Digital Payment Ecosystems

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735	.718	.615	

				.47001
a. Predictors: (Constant), Covid-19 pandemic occurrence				

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.645	.669		2.676	.00
	Covid-19 pandemic occurrence	.613	.372	.671	4.311	.00
a. Dependent Variable: Transition to Digital Payment Ecosystems						

Source: **Primary Data.**

The R-value of 0.735 indicates a strong positive correlation between the COVID-19 pandemic occurrence and transitioning to digital payment ecosystems. The R Square value of 0.718 means that 71.8% of the variability in transitioning to digital payments is explained by the COVID-19 pandemic occurrence.

The adjusted R square value of 0.615 accounts for the number of predictors in the model. The unstandardized coefficient B value of 0.613 suggests that for every one unit increase in COVID-19 pandemic occurrence, there is a 0.613 unit increase in transitioning to digital payments on average while controlling for other factors.

The standardized beta coefficient of 0.671 shows the relationship in terms of standard deviations, meaning the COVID-19 pandemic occurrence has a strong effect on transitioning to digital payment ecosystems. The model has a significance value of 0.00, indicating it is statistically significant.

6.0 Conclusion

The findings revealed that low digital and financial literacy, poor infrastructure access, high costs, lack of awareness, and distrust are primary barriers hindering greater uptake of digital finance solutions. Quantitative regression analyses also corroborated the significance of physical cash usage, financial literacy levels, and the COVID-19 pandemic in driving the transition to alternative digital payment platforms.

7.0 Recommendations

Initial efforts should focus on raising awareness through extensive farmer education campaigns utilizing extension workers and demos. Simple training modules covering basic mobile money functions and financial concepts could boost literacy. Subsidizing startup fees and negotiating reduced transaction rates with service providers may spur participation. Investments in network infrastructure, particularly in remote areas, can bridge the access gap. Partnerships between agribusinesses, cooperatives, and fin-techs should mainstream digital wage payments to smallholders. Over time, familiarity will likely displace distrust. Regular monitoring and feedback should also inform ongoing refinement.

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