E-Payment and Performance of Transaction of Goods and Services in Rice Growers' Cooperative: A Case of Cooproriz Ntende in Gatsibo District, Rwanda

Ndayisenga Innocent & Mburamatare Daniel
University of Kigali
https://orcid.org/0009-0002-9617-2271
Email: ndayisengainnocent1@gmail.com

Abstract: *Researcher established an ideal on E-payment and performance of transaction of goods and services in rice growers' cooperative. A case study of Cooproriz Ntende in Gatsibo District, Rwanda. The study targeted a population of 3,867 beneficiaries, with a sample size consisting of 362 respondents. A combination of descriptive and inferential statistical methods was utilized for data analysis, which was conducted using SPSS software version 25.0. Descriptive statistics were employed to generate frequency tables, percentages, means, and standard deviations, while inferential statistics facilitated the use of Pearson correlation and a multiple regression model to examine the relationship between independent and dependent variables. The findings demonstrated significant relationships between e-payment prospects, e-payment promotion efficiency, and the performance of goods and services transactions, with correlation coefficients of 0.701, 0.584, and 0.679, respectively. Statistical analysis confirmed that e-payment prospects (p-value = 0.000) and e-payment promotion efficiency (p-value = 0.000) were significant predictors of performance. However, the relationship between the prospects and challenges of e-payment adoption and performance was not statistically significant (p-value = 0.084). The study concluded that e-payment significantly influences the performance of goods and services transactions in the rice growers' cooperative. It recommended that the Ministry of Agriculture and Animal Resources (MINAGRI) and the Ministry of Trade and Industry (MINICOM) should provide ongoing professional guidance to farmers to enhance farming practices and encourage active participation in e-payment systems, thereby supporting economic growth and improving their financial well-being.*

Keywords: *E-Payment, Prospect, Promotion Efficiency, Adoption, Challenges, Performance, Transaction of Goods and Services*

1. Introduction

The adoption of electronic payment systems and electronic accounting practices is widely perceived as a way to enhance efficiency in fund transfers, payments, reporting, invoicing, and receipting within organizations, as noted by Chau and Lai (2015). In the broader context of Africa, despite significant advancements in electronic payment systems, particularly in South Africa and certain other nations, the continent remains handicapped by a low average Digital Opportunity Index (DOI) score of 0.22 compared to the global average of 0.40 (Charles, 2010).

Key factors contributing to this digital divide include infrastructural deficiencies, regulatory challenges, and sociocultural barriers. In Kenya, similar patterns are observed within the Savings and Credit Cooperative Organizations (SACCOs). While 68% of these organizations have integrated technology into their operations, only 34% exhibit effective reporting, record-keeping, and fund management (Nalyanya *et al.*, 2022).

Furthermore, a study in Nyagatare District, Rwanda, indicated that although Information and Communication Technology (ICT) positively impacts strategic management and operational efficiency in SACCOs,

challenges stemming from limited infrastructure and a need for staff training persist (RCA, 2018).

The 2016 FinMark Trust Survey Rwanda revealed a significant reliance on cash for financial transactions. According to the report, 54% of adults are not engaged in the Digital Financial Services (DFS) ecosystem, meaning they neither use DFS nor participate in Over the counter (OTC) transactions. Additionally, 89% of respondents expressed a preference for paying for goods and services in cash, rather than using electronic payment methods, and 74% favoured interacting with people over machines, even if the latter were faster. The Survey highlighted significant barriers such as a strong preference for cash transactions, which affects the adoption and utilization of Digital Financial Services (DFS). The survey found that 54% of adults were not engaged in DFS, 89% preferred cash payments, and many lacked basic knowledge about mobile money and digital transactions.

Despite these challenges, there is a notable gap in empirical research exploring the relationship between electronic payment systems and the performance of goods and services transactions in cooperatives. This research intends to address this knowledge gap by focusing specifically on the Ntende Cooperative in Gatsibo District, Rwanda. The emphasis will be placed on examining how the integration of electronic payment systems can potentially enhance transaction performance within this cooperative, thereby contributing to a better understanding of the dynamics between technology adoption and operational effectiveness in the African context. Consequently, this study is vital in identifying actionable insights that can facilitate the transition from cash-based transactions to more efficient electronic payment practices, ultimately contributing to improved service delivery and economic growth within the study area**.**

The general objective of the study was to examine the effect of E-payment and performance of transaction of goods and services in rice growers' cooperative in Gatsibo District, Rwanda.

Specific Objectives:

1. To assess the effect of E-payment prospect on performance of transaction of goods and services in rice growers' Cooproriz Ntende in Gatsibo District.
2. To investigate the influence of E-payment promotion efficiency on performance of transaction of goods and services in rice growers' Cooproriz Ntende in Gatsibo District.
3. Examine the relationship between prospects and challenges E-payment adoption and performance of E-payment for goods and services within rice growers' Cooproriz Ntende in Gatsibo District.

Research Hypotheses

H$_{01}$: There is no significant effect of E-payment prospect on performance of transaction of goods and services in rice growers' Cooproriz Ntende in Gatsibo District

H$_{02}$: There is no significant the influence of E-payment promotion efficiency on performance of transaction of goods and services in rice growers' Cooproriz Ntende in Gatsibo District

H$_{03}$: There is no significant t relationship between prospects and challenges E-payment adoption and performance of E-payment for goods and services within rice growers' Cooproriz Ntende in Gatsibo District

2. Literature Review

2.1 Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA), developed by Ajzen and Fishbein, posits that an individual's behavior can be largely predicted by their attitudes toward engaging in the specific behavior, mediated by their behavioral intentions. According to this framework, the attitudes most relevant to this process are those directly related to the behavior under consideration, rather than generalized attitudes (Ajzen, 1988; Fishbein & Ajzen, 1975).

Additionally, the theory emphasizes that an individual's intention to perform a behaviour which ultimately determines whether they proceed with the action is shaped by social influences or "subjective norms." These norms arise from the individual's perception of how others view their engagement in the behavior in question (Vallerand, Deshaies, Cuerrier, Pelletier, & Mongeau, 1991).

This theoretical framework posits that both individual attitudes and social or "normative" factors directly influence behavioral intentions, which serve as the strongest predictor of actual behavior. External environmental factors impact behavior only indirectly by shaping attitudes and subjective norms. The Theory of Reasoned Action (TRA) has been validated across numerous studies in diverse fields and scenarios. It can be expanded to model human behavioral patterns in decision-making strategies related to adopting new innovations or technologies.

The theory effectively explains whether individual behaviors, such as the adoption of new technologies, are driven by behavioral intentions. These intentions are influenced by an individual's attitude toward the behavior, the subjective norms associated with performing the behavior, and their perceived ease of executing the behavior. In the context of Information Systems research, TRA has been utilized to understand

user behavior and attitudes concerning activities like internet usage, online shopping, household computer adoption, and issues surrounding online privacy, security, and trust. Social psychologists argue that attitude encompasses both behavior and cognition and highlight a positive correlation between attitude and behavior. This rationale supports the application of TRA in exploring the adoption of mobile money services (Tsai, Chen, & Chien, 2012).

2.2 The Developer-Based (Determinist) Theory

The developer-based theory aims to enhance the diffusion of innovations by optimizing their efficiency, effectiveness, and overall quality. This theory concentrates on the technical attributes of an innovation to promote its adoption. In this context, the developer or creator of advanced technology is considered the primary driver of change. The foundational assumption of this theory is deterministic, suggesting that superior technological products and systems will inherently replace inferior ones due to their inherent advantages. The theory views technological change as a direct consequence of major innovations or breakthroughs.

The rise of the Internet, advancements in Information Technology, and the rapid expansion of wireless communication between organizations and individuals have significantly transformed financial systems. These changes have also fuelled the adoption of electronic payments (E-payments) both locally and globally. E-payment systems have not only impacted businesses and individual consumers but also reshaped trading relationships. In today's competitive global economy, organizations must adopt new technologies to improve operational efficiency, secure a competitive edge, and thrive in the global market. One of the emerging challenges in this evolving economy is E-finance, particularly electronic payment systems (Magutu *et al.*, 2011). Consequently, this research draws upon the developer-based theory to explore the relationship between E-payment systems and the performance of transactions in a rice growers' cooperative, specifically focusing on Cooproriz Ntende in Gatsibo District, Rwanda.

2.3 Empirical Review

In a study by Ugbede *et al.* (2019), the impact of electronic payments on the financial performance of deposit money banks in Nigeria was examined. The researchers collected data from secondary sources, including annual reports and the statistical bulletin of the Central Bank of Nigeria. Using multiple regression analysis, the findings indicated that automated teller machines (ATMs) did not significantly contribute to bank profitability. In contrast, point-of-sale (POS)

systems and internet banking both had a positive and statistically significant impact on bank profitability.

In Rwanda, Kamana (2016) explored the impact of e-filing and e-payment on revenue collection by the Rwanda Revenue Authority (RRA). The study revealed that the introduction of electronic systems led to an increase in revenue collection by 48.1% in 2012 and 42.9% in 2013. Although the research primarily focused on the RRA, its findings are relevant to other government entities such as the National Water and Sewerage Corporation (NWSC).

A study conducted by Kessy (2019) on electronic payment and revenue collection in local government authorities in Tanzania established a positive relationship between the two. However, the study also noted that poor connectivity and limited awareness of e-payment services could undermine their effectiveness in revenue collection. Similarly, Mukai and Phiri (2020) investigated the impact of e-services on revenue collection and tax compliance in Zambia. The study, which focused on small and medium-sized enterprises in urban Zambia, found that the adoption of e-services was influenced by social factors, performance expectations, and ease of use. Based on these findings, it can be concluded that while e-payments generally have a positive impact on revenue collection, individual business characteristics also play a crucial role in determining the adoption of e-payment systems.

Nwadialor and Emiezi (2020) examined the impact of e-payment systems on the business efficiency of publicly listed banks in Nigeria. The study revealed that automated teller machines (ATMs) and mobile transactions had a positive and significant influence on the operational efficiency of these banks. Conversely, point-of-sale (POS) and internet transactions were found to have a negative and statistically insignificant effect on the banks' business performance.

Similarly, Nwakoby *et al.* (2020) investigated the relationship between electronic banking and the profitability of deposit money banks in Nigeria, focusing on data from 2009 to 2018. The study utilized an ex post facto research design and regression analysis with E-View 9.0 to test the hypotheses. The results indicated that the ATM payment method negatively impacted the return on equity of Nigerian deposit money banks, although this effect was not statistically significant. Likewise, while the POS payment method positively affected return on equity, it was also not statistically significant. The mobile banking payment method similarly showed a positive effect on return on equity, but this effect, too, was not statistically significant.

Similarly, Oyewole *et al.* (2013) contend that technological advancements have led to the development of efficient payment systems that eliminate the traditional 'cash and carry' model. Electronic payment systems enable economic exchanges to occur without the

need for physical visits to banks or the physical presence of the parties involved. Their study, conducted in Nigeria, found a significant positive relationship between e-payment systems and economic growth, as measured by real GDP per capita and trade per capita. While automated teller machines (ATMs) were found to contribute positively to economic growth, other e-payment methods were associated with negative contributions. As a result, they recommend that Nigeria's cashless policy should focus on enhancing the effectiveness of e-payment systems, alongside addressing other factors critical to the successful transition to a cashless economy.

3. Methodology

This section explains the methods that are to be employed in the research study, it is with this regard that several methods were applied in this study to ensure a thorough data collection with respect to the data source encompassing instruments for undertaking the highlighted processes, sampling size, sampling techniques, data processing and analysis.

3.1 Research Design

This study employs both descriptive and correlational research designs, utilizing both qualitative and quantitative approaches. The descriptive design was chosen to examine the relationship between e-payment systems and the performance of goods and services transactions in rice growers' cooperatives, as these variables are measured on a nominal scale and cannot be quantitatively analysed but instead are better understood through descriptive methods. The correlational research design was employed to explore the relationship between the dependent and independent variables.

3.2. Study Population

The target population for this study consisted of individual farmers and the management staff of COOPRORIZ-Ntenede, a primary rice-growing cooperative based in Gatsibo district, which comprises 3,761 farmers and 106 permanent staff members, totalling a target population of 3,867 individuals.

3.3 Sampling Size and Sampling

Simple size was used to determine the number of employees to be undertaken as respondents from Cooproriz Ntende to ensure this study achieved the research intention, it is in this regard, to determine the sample size , the study was use (Slovin, 1980)formula to calculate sample size of which included (95% confidence level and α= 0.05) for questionnaires to be dispatched among the respondents including members of cooperative who are farmers and managerial staff , in

this regard a confidence level of interval was 95%, the sample size was calculated by using (Slovin ,1980) as it was quoted by (Omar, 2017).

$$n = \frac{N}{1 + N * (e^2)} = \frac{3867}{1 + 3867 * (0.05^2)} \approx 362$$

Where denoted n is the sample size and denoted N is the total population and denoted e was the margin error of (5% or 0.05) generated from the significance level taken from 95%. A purposive sampling method was employed in this study to allow the researcher to gather pertinent data from the entire population (Creswell, 2021).

3.4 Data collection methods and Instruments

The research employed both primary and secondary data collection methods to gather firsthand and secondary information. In the course of the research, primary data was gathered from the sample elements to acquire relevant information about the entire population under study. The methods employed included questionnaires, interviews, and checklists. The questionnaire, which was directed at selected staff members and farmer representatives from the designated zones in the marshlands of COOPRORIZ-NTENDE, incorporated both closed-ended and open-ended questions.

The secondary data for this study were sourced from various libraries and documents provided by the office of COOPRORIZ-NTENDE, which served as the case study. A comprehensive review of both published and unpublished materials, including reports, journals, magazines, and policy documents pertinent to the research, was conducted.

3.5 Data Analysis

Descriptive statistics were used to generate frequency tables, percentages, and means, which helped to summarize the data characteristics. To assess the significance of the study, inferential statistics were employed to examine the relationships and correlations between the elements of E-payment and the performance of transactions in the rice growers' cooperative. Multiple correlation and regression models were utilized for data analysis, with SPSS (Version 25.0) software processing the results. Inferential statistics, including Pearson's correlation test and multiple regression analysis, were used to investigate the relationship between variables. Regression analysis, a technique for identifying linear relationships between variables, was primarily applied for prediction and causal inference, determining the statistical connections among the variables.

Researcher presents the regression model as follow

Y= β0 + β₁X₁ + β₂X₂ + β₃X₃ + ε

Where: Y = performance of transaction of goods and services

; β0 = constant; $\beta_1\beta_2\beta_3$ = regression coefficients; X_1 = E-payment prospect, X_2 = E-payment promotion efficiency; X_3 = prospects and challenges E-payment adoption; ε = error term

3.6 Measurement of Variables

The measurements of variables, means the formula or Likert scale to be employed in the study during data collection process to ensure measured variables are attained through using a five Likert scale points as follow 5= Strongly agree, 4= Agree ,3= Neutral, 2=Disagree, 1= Strongly disagree.

3.7 Ethical Consideration

Researcher was also keeping confidentiality for the data collected as was used only for academic purpose and all information collected from other documentation were cited in order to maintain the originality of the researcher work.

4. Results and Discussion

The analysis was based on specified objectives. Data was collected from 362 respondents over a two-week period, during which they completed the questionnaire. The findings revealed a 100% response rate. The data was subsequently analyzed using SPSS IBM Version 25.0 software for quantitative analysis.

This section presents the results derived from inferential statistical tests, including the correlation coefficient and multiple linear regression analysis, to examine the relationships between the independent and dependent variables in this research study.

4.1 Correlation Analysis

Table 1: Correlation between variables of E-Payment and performance of transaction of goods and services in rice growers' cooperative

		E-Payment Prospect	E-Payment Promotion Efficiency	Prospects and Challenges E-Payment Adoption	Performance of Transaction of Goods and Services
E-Payment Prospect	Pearson Correlation	1	.917**	.979**	.701**
	Sig. (2-tailed)		.000	.000	.000
	N	362	362	362	362
E-Payment Promotion Efficiency	Pearson Correlation	.917**	1	.947**	.584**
	Sig. (2-tailed)	.000		.000	.000
	N	362	362	362	362
Prospects and Challenges E-Payment Adoption	Pearson Correlation	.979**	.947**	1	.679**
	Sig. (2-tailed)	.000	.000		.000
	N	362	362	362	362
Performance of Transaction of Goods and Services	Pearson Correlation	.701**	.584**	.679**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	362	362	362	362

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data,2024

The results demonstrate the relationship between E-Payment and the performance of transactions involving goods and services within the rice growers' cooperative, specifically COOPRORIZ Ntende in Gatsibo District, Rwanda. The E-Payment factors considered in this study include E-payment prospects, E-payment promotion efficiency, and the prospects and challenges of E-payment adoption. The Pearson correlation coefficients were calculated using the Statistical Package for Social Sciences (SPSS) software version 25.0. The Pearson correlation coefficient ranges from -1 to 1, where values between -1 and 0 indicate a negative correlation (-1 to -0.5 representing a high negative correlation and -0.5 to 0 indicating a low negative correlation), and values between 0 and 1 signify a positive correlation (0 to 0.5 indicating a low positive correlation and 0.5 to 1 indicating a high positive correlation). The findings revealed that the correlations between E-payment prospects, E-payment promotion efficiency, prospects and challenges of E-payment adoption, and the performance of transactions in goods and services in rice growers were 0.701, 0.584, and 0.679, respectively.

These results indicate a significant positive relationship between E-payment and the performance of transactions within the rice growers' cooperative.

4.2 Regression Analysis

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.720[a]	.518	.514	3.05505

a. Predictors: (Constant), Prospects And Challenges E-Payment Adoption , E-Payment Promotion Efficiency, E-Payment Prospect

Source: Primary data 2024

The results presented in the Model Summary aimed to assess the relationship between E-Payment and the performance of transactions involving goods and services within the rice growers' cooperative, COOPRORIZ Ntende in Gatsibo District, Rwanda. To measure this, the researcher employed regression analysis to examine the impact of E-payment prospects on the performance of transactions, the influence of E-payment promotion efficiency on performance, and the relationship between the prospects and challenges of E-payment adoption and performance. The correlation coefficient (R = 0.720a) indicates a significant relationship between E-payment and the performance of transactions in the cooperative. Furthermore, the results show that the R Square value is 0.518, suggesting that 51.8% of the variability in the performance of transactions can be explained by the variables related to E-payment and supplier relationship management. This finding is statistically significant, highlighting the importance of these variables in explaining transaction performance.

Table 3: ANOVA of E-Payment and performance of transaction of goods and services in rice growers' cooperative

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3590.500	3	1196.833	128.233	.000[b]
	Residual	3341.323	358	9.333		
	Total	6931.823	361			

a. Dependent Variable: Performance Of Transaction Of Goods and Services
b. Predictors: (Constant), Prospects and Challenges E-Payment Adoption , E-Payment Promotion Efficiency, E-Payment Prospect

Source: Primary data 2024

The results of the ANOVA analysis reveal that the variables under consideration were statistically significant, with an F value of 128.233 and a p-value of 0.000. This indicates that there is a significant relationship between E-payment and the performance of transactions involving goods and services in the rice growers' cooperative.

Table 4: Coefficients of E-Payment and performance of transaction of goods and services in rice growers' cooperative

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	10.047	2.690		3.734	.000
	E-Payment Prospect	1.412	.338	.769	4.182	.000
	E-Payment Promotion Efficiency	-.856	.200	-.494	-4.290	.000
	Prospects and Challenges E-Payment Adoption	.606	.350	.394	1.732	.084

a. Dependent Variable: Performance of Transaction of Goods and Services

Source: Primary data 2024

The results indicate that the constant of the independent variables related to E-payment was statistically significant, as the p-value is less than **0.05.** Specifically, the variables of E-payment, such as E-payment prospect (p-value = 0.000) and E-payment promotion efficiency (p-value = 0.000), were statistically significant. However, the variable of prospects and challenges in E-

payment adoption was not statistically significant, with a p-value of 0.084.

Based on the regression equation $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$, where Y represents the performance of transactions of goods and services, the equation derived was as follows:

$$Y = 10.047 + 1.412X_1 - 0.856X_2 + 0.606X_3$$

This equation suggests that the performance of transactions in the rice growers' cooperative is influenced by E-payment prospects, promotion efficiency, and the challenges related to E-payment adoption. A constant value of 10.047 indicates that, to achieve effective performance in transactions, it is essential to address and implement E-payment prospect, E-payment promotion efficiency, and the prospects and challenges of E-payment adoption.

The SPSS software calculated the t-statistics, with the values of t-test being 4.182, -4.290, and 1.732 for the respective variables. The t-statistics for E-payment prospect, E-payment promotion efficiency, and the prospects and challenges of E-payment adoption were 4.182, -4.290, and 1.732, respectively, indicating varying levels of significance.

To obtain the t-statistics, the unstandardized coefficients were used, with each B value being divided by its standard error. For instance, dividing the constant (10.047) by 2.690 resulted in a value of 3.734, while dividing the coefficient for E-payment prospect (1.412) by its standard error (0.338) resulted in a t-statistic of 4.182. Similarly, dividing the coefficient for E-payment promotion efficiency (-0.856) by its standard error (0.200) resulted in -4.290, and dividing the coefficient for prospects and challenges in E-payment adoption (0.606) by its standard error (0.350) yielded a t-statistic of 1.732.

4.3 Hypothesis testing

To test the four hypotheses formulated for the study, the t-statistic was used to assess whether the B value significantly differed from zero (H_O: β=0). Simple regression analysis was performed to test the study's hypotheses. A p-value of less than 0.05 led to the rejection of H0, while H3 was accepted.

4.3.1 Testing research hypothesis one

H_{01}: There is no significant effect of e-payment prospect on the performance of transaction of goods and services in the rice growers' cooperative, Cooproriz Ntende, in Gatsibo district. As shown in Table 4, the unstandardized beta value for the effect of e-payment prospect on performance was significantly greater than zero ($\beta1$=1.412, p-value=0.000<0.05, t=4.182). Since the p-value is less than the 5% significance level, the null hypothesis was rejected, indicating that e-payment

prospect has a significant effect on the performance of transaction of goods and services in the rice growers' cooperative, Cooproriz Ntende, in Gatsibo district.

4.3.2 Testing research hypothesis two

H_{02}: There is no significant influence of e-payment promotion efficiency on the performance of transaction of goods and services in the rice growers' cooperative, Cooproriz Ntende, in Gatsibo district. As demonstrated in Table 4, the unstandardized beta value for the influence of e-payment promotion efficiency on performance was significantly greater than zero ($\beta2$=-0.856, p-value=0.000<0.05, t=-4.290). Given that the p-value is less than the 5% significance level, the null hypothesis was rejected, indicating that e-payment promotion efficiency has a statistically significant influence on the performance of transaction of goods and services in the rice growers' cooperative, Cooproriz Ntende, in Gatsibo district.

4.3.3 Testing research hypothesis three

H_{03}: There is no significant relationship between the prospects and challenges of e-payment adoption and the performance of E-payment for goods and services within the rice growers' cooperative, Cooproriz Ntende, in Gatsibo district. As shown in Table 4, the unstandardized beta value for the relationship between the prospects and challenges of e-payment adoption and performance was insignificantly greater than zero ($\beta3$=0.606, p-value=0.084>0.05, t=1.732). Since the p-value (0.084) exceeds the 5% significance level, the null hypothesis was accepted. This indicates that the relationship between the prospects and challenges of E-payment adoption and the performance of E-payment for goods and services within the rice growers' cooperative, Cooproriz Ntende, in Gatsibo district is not statistically significant.

5. Conclusion and recommendations

5.1 Conclusion

The researcher drew conclusions based on the findings. The analysis revealed that the relationship between E-payment prospect, E-payment promotion efficiency, and the prospects and challenges of E-payment adoption were 0.701, 0.584, and 0.679, respectively. The results indicated that all variables were statistically significant, with a p-value of 0.000. Consequently, it was concluded that there is a significant relationship between E-payment and the performance of transactions involving goods and services within the rice growers' cooperative in the Ntende cooperative, Gatsibo District, Rwanda.

5.2 Recommendations

It is essential for government bodies, such as MINAGRI and MINICOM, to recognize the significance of these

findings and their potential impact on farmers. This understanding should encourage greater participation by farmers in agricultural activities, enabling them to create their own employment opportunities. Furthermore, MINAGRI and MINICOM should regularly provide professional guidelines to farmers, ensuring they adhere to best practices in their farming activities.

5.3 Suggestions for Further Research

Based on the findings, the researcher recommends the following areas for further investigation: Analyzing the effect of E-payment prospects on the performance of transactions for goods and services in rice-growing cooperatives. Investigating the influence of E-payment promotion efficiency on the performance of transactions within these cooperatives. Exploring the relationship between the prospects and challenges of E-payment adoption and the performance of E-payment systems for goods and services in rice-growing cooperatives.

References

Ab Hamid, N. R. & Cheng, A.Y. (2020). "A risk perception analysis on the use of e-payment systems by young adult", *WSEAS Transactions on Information Science and Applications, Vol. 10, No. 1, 26-35.*

Ahanger, R. G. (2011). An Investigation into the Determinants of Customers' Preferences and Satisfaction of Internet Banking (Empirical Study of Iranian Banking Industry). *Journal of Applies Sciences, 11*(3), 426-437.

Ajzen, I. & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior.* Englewood Cliffs, NJ, Prentice-Hall Inc.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-221.

Chau, S. (2013). The use of E-commerce amongst thirty-four Australian SMEs: An experiment or a strategic business tool? *Journal of Systems and Information Technology, 7(1), 4-13.*

Cheng, S. W., Cheong, M., Lee, J. L., Lim, J. T. & Mok, W.K. (2018), "*Curbs on modern technology: barriers of resistance towards e-wallet in Malaysia*", Doctoral dissertation, UTAR.

Creswell, J. W. (2021). *Research Design: Qualitative, quantitative, mixed methods approach.* (2nd ed. London: ed. ed.). Sage Publications.

Fishbein, M. (1968). An investigation of relationships between beliefs about an object and the attitude towards that object. *Human Relationships, 16,* 233-240.

Kamana, D. (2016). *Influence of electronic tax management system on effectiveness of tax collection in Rwanda.* A case study of Rwanda Revenue Authority. University of Rwanda.

Kessy, S. S. (2019). Electronic payment and revenue collection in local government authorities in Tanzania: Evidence from Kinondoni Municipality. *Tanzanian Economic Review, 89-106.*

Ming-Yen T., W., Choy C., S., Lin, B. & Wei C., J. (2013), "Factors affecting consumers' perception of electronic payment: an empirical analysis", *Internet Research, Vol. 23* No. 4, 465-485.

Nwadialor, E. O. & Emiezi, O. F. (2020), "Effect of E - payment transaction system on business efficiency of banks in Nigeria" *Journal of Accounting, Business and Social Sciences, Volume 3 number 3; ISSN 2672- 4235*

Nwakoby, N. P., Okoye, J. A., Ezejiofor, R. A., Anukwu, C. C., & Ihediwa, A. (2020), "Electronic banking and profitability: An empirical study on selected banks in Nigeria". *The Asian Institute of Research Journal of Economics and Business. 3*(2): 637-649 ISSN 2615-3726

Odi, N. & Richard, E. O. (2013). Electronic Payment in Cashless Economy of Nigeria: Problems and Prospects. *Journal of Management Research, 5*(1), 138-151.

Özkan, S., Bindusara, G., & Hackney, R. (2010). Facilitating the adoption of e-payment systems: theoretical constructs and empirical analysis. *Journal of Enterprise Information Management, 23(3), 305–325.*

Premchand, A. & Choudhry, A. (2015). Future of Payments – ePayments. *International Journal of Emerging Technology and Advanced Engineering, 5,* 110-115

Ugbede, J. T., Yahaya, A. & Edicha, M. J. (2019), "Effect of electronic payment on financial performance of deposit money banks in Nigeria". *Lafia Journal of Economics and Management Sciences 4(1)*. ISSN: 2550 -732X 114

Weigert, M. (2017). *Jumia travel in Africa: expanding the boundaries of the online travel agency business model.* Lagos: Juma.