Factors Influencing the Acceptance of E-Wallet Mobile Money Services in Temeke District, Tanzania

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ABSTRACT

This study examined factors influencing acceptance of e-wallet mobile money services in Temeke District, Dar es Salaam, Tanzania. The analysis focused on consumer attitudes, community characteristics and user demographics, with particular attention to perceived usefulness, perceived ease of use, trust, perceived cost and perceived risk. A positivist, quantitative and cross-sectional design was adopted. A structured questionnaire using five-point Likert-scale items was administered to 200 active users of e-wallet mobile money services selected through purposive sampling. Multiple linear regression was used to examine the relationship between the explanatory variables and acceptance of e-wallet mobile money services. Perceived usefulness was the strongest significant positive predictor of acceptance ($\beta = 0.454$, $p < 0.001$), followed by trust ($\beta = 0.244$, $p = 0.006$) and perceived ease of use ($\beta = 0.159$, $p = 0.025$). Residential location was also significant, with respondents in urban settings reporting higher acceptance than those in peri-urban settings. Perceived cost, perceived risk, age, gender, education, occupation and income were not statistically significant in the reported model. The findings indicate that, in a comparatively mature mobile-money environment, usefulness, trust and ease of use remain central to acceptance, while cost and risk may exert less direct influence than predicted by early adoption models. The study recommends continued improvement of platform usability, trust-building measures, service accessibility and policy support for inclusive digital finance.

Keywords: e-wallet; mobile money services; Technology Acceptance Model; consumer adoption; digital financial inclusion; Tanzania

INTRODUCTION

The rapid development of information and communication technologies has accelerated the shift toward digital financial services and transformed traditional payment and banking practices. Across sub-Saharan Africa, mobile money has become an important mechanism for financial inclusion, particularly for users who have limited access to conventional banking services (GSMA, 2018; Paas, Eijdenberg, & Masurel, 2021). Tanzania has experienced extensive use of mobile-money services such as M-Pesa, Airtel Money and Tigo Pesa, which are now embedded in everyday transfers, airtime purchases, bill payments and other transactions.

Despite high national usage, acceptance patterns are not necessarily uniform across local communities. Temeke District in Dar es Salaam combines urban and peri-urban settings, varied income groups, different employment categories and uneven access to digital and financial infrastructure. This makes it a useful setting for examining how attitudes, location and demographic characteristics relate to acceptance of e-wallet mobile money services.

The Technology Acceptance Model (TAM) identifies perceived usefulness and perceived ease of use as central determinants of technology acceptance (Davis, 1989). For financial technologies, however, trust, perceived risk and perceived cost are also relevant because users are making decisions involving money, personal

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information and transaction reliability. This study therefore applies TAM while considering these additional consumer and contextual factors.

Objective of the Study

The general objective was to assess factors influencing acceptance of e-wallet mobile money services in Temeke District. The specific objectives were to assess consumer attitudes, examine the role of community factors, and evaluate the contribution of demographic characteristics to acceptance.

LITERATURE REVIEW

2.1 Technology Acceptance Model

The Technology Acceptance Model proposes that an individual's acceptance of a technology is strongly shaped by perceived usefulness and perceived ease of use (Davis, 1989). Perceived usefulness refers to the extent to which users believe that a technology improves the effectiveness or convenience of a task, while perceived ease of use concerns the effort required to learn and operate the technology.

In mobile-money settings, the TAM logic remains relevant because users are more likely to accept services they consider useful and straightforward. Nevertheless, a financial service also depends on confidence in the provider and the transaction process. This study therefore treats trust as a complementary construct and also considers perceived cost and perceived risk as potential inhibitors of acceptance.

2.2 Empirical Context

Evidence from digital-finance research consistently identifies convenience, usefulness, accessibility and trust as important drivers of mobile-finance adoption. GSMA (2018) highlights the role of mobile money in expanding financial access, while Paas et al. (2021) show the importance of mobile applications and services for micro-entrepreneurs in sub-Saharan Africa. More recent studies also indicate that adoption can vary across demographic and contextual groups, suggesting that localised evidence remains valuable even where mobile money is already widely established (Hornuf, Kück, & Lukas, 2025; Islam, Pitafi, & Wang, 2024).

The contribution of the present study lies in its district-level focus. Rather than treating Tanzanian mobile-money users as a homogeneous national population, it examines the combination of attitudes, residential location and demographic characteristics within Temeke District.

METHODOLOGY

3.1 Research Design

A positivist philosophy and quantitative cross-sectional survey design were adopted. The design was suitable for measuring respondent perceptions at a single point in time and testing statistical relationships between the explanatory variables and acceptance of e-wallet mobile money services.

3.2 Population and Sampling

The target population consisted of adult consumers in Temeke District who owned registered mobile phones and had experience using e-wallet mobile money services. An estimated accessible population of 408 users was used for sample-size determination. Using Yamane's formula at a 95% confidence level, the target sample was set at 200 respondents. Purposive sampling was used to recruit respondents who met the study's eligibility criteria and were available to participate.

Because purposive sampling is non-probabilistic, the findings should not be interpreted as statistically representative of all mobile-money users in Temeke or Tanzania. The design is more appropriately understood as providing context-specific explanatory evidence from active users.

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3.3 Data Collection

Primary data were collected using a structured, self-administered questionnaire. Items measuring perceived usefulness, perceived ease of use, trust, perceived cost, perceived risk and acceptance used a five-point Likert scale ranging from strong disagreement to strong agreement. The instrument was pre-tested and content was reviewed before administration.

3.4 Data Analysis

Data were analysed using SPSS. Descriptive statistics were used to summarise respondent characteristics and usage patterns, while multiple linear regression was used to examine associations between the explanatory variables and acceptance of e-wallet mobile money services. Statistical significance was interpreted at the 5% level.

The source manuscript reports regression coefficients and significance levels for the principal predictors. However, the retained paper materials available for this final version do not provide the complete model-fit output, including R-squared, adjusted R-squared, the overall F-statistic and its degrees of freedom. Those statistics are therefore not fabricated or reconstructed in this paper. Future reporting should retain and present the complete regression output.

3.5 Reliability, Validity and Ethical Procedures

The questionnaire was pre-tested and subjected to expert review to support content validity. The source materials available for this final paper do not report construct-level Cronbach's alpha coefficients or factor-analysis results; consequently, no reliability values are invented here. Future studies should report internal-consistency statistics for each multi-item construct and, where appropriate, factor-analytic evidence.

Participation was voluntary. Respondents were informed about the purpose of the study, consent was obtained before participation, and responses were treated confidentially. The retained source manuscript does not provide a formal institutional ethics-approval reference number; accordingly, no approval number is claimed in this final version.

FINDINGS

4.1 Respondent and Usage Profile

The sample was predominantly young and economically active. Forty-one percent of respondents were aged 21-30 years and 48% were employed. A majority (59%) resided in urban areas, while 84% reported monthly income below TZS 500,000. Among common uses of e-wallet mobile money, sending and receiving funds recorded the highest mean score (M = 4.33), followed by airtime purchases (M = 4.29). General purchases recorded a lower mean score (M = 2.91).

4.2 Regression Findings

The reported multiple-regression results identified three significant positive predictors of acceptance. Perceived usefulness had the strongest effect ($\beta = 0.454$, $p < 0.001$), followed by trust ($\beta = 0.244$, $p = 0.006$) and perceived ease of use ($\beta = 0.159$, $p = 0.025$). Residential location was also significant, with users in urban areas showing higher acceptance than those in peri-urban areas.

Perceived cost, perceived risk and the reported demographic variables - age, gender, education, occupation and income - were not statistically significant in the reported model.

Predictor	Reported relationship with acceptance	Statistical result
Perceived usefulness	Positive	$\beta = 0.454$; $p < 0.001$

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Trust	Positive	$\beta = 0.244$; $p = 0.006$
Perceived ease of use	Positive	$\beta = 0.159$; $p = 0.025$
Residential location	Urban users reported higher acceptance	Significant
Perceived cost	No significant direct effect reported	Not significant
Perceived risk	No significant direct effect reported	Not significant
Age, gender, education, occupation, income	No significant direct effect reported	Not significant

DISCUSSION

The findings broadly support TAM because perceived usefulness and perceived ease of use were significant predictors of acceptance. The stronger coefficient for perceived usefulness suggests that respondents primarily value e-wallet services for the practical benefits they deliver in everyday financial transactions.

Trust also emerged as a significant predictor, extending the basic TAM logic. This is important in digital financial services because users must believe that transactions will be executed reliably and that the service provider will protect their funds and information. The result therefore supports the view that, in financial technologies, acceptance depends not only on usability and usefulness but also on confidence in the service environment.

The non-significance of perceived cost and perceived risk deserves careful interpretation. It should not be taken to mean that cost and risk are unimportant in all mobile-money decisions. Rather, in a mature mobile-money market such as Dar es Salaam, users may have normalised routine transaction fees and familiarised themselves with common operational risks, reducing the direct statistical influence of these factors on general acceptance.

The significance of residential location indicates that context still matters. Urban users may benefit from denser agent networks, stronger connectivity, greater merchant acceptance and more frequent opportunities to transact digitally. This suggests that the benefits of mature mobile-money ecosystems may still be unevenly distributed within the same district.

The results refine rather than replace TAM. Perceived usefulness and ease of use remain relevant, but trust and local service conditions add explanatory value in an established mobile-money environment. Future models should therefore examine whether trust mediates the relationship between perceived usefulness and acceptance, whether user experience moderates the effect of ease of use, and whether cost or risk effects vary by income, transaction frequency or residential location.

LIMITATIONS AND FUTURE RESEARCH

The study has several limitations. First, purposive sampling restricts the generalisability of the findings. Second, the retained source materials do not document the number of questionnaires distributed, returned and excluded separately from the final analysed sample, nor do they preserve detailed missing-data and data-cleaning procedures. Third, construct-level Cronbach's alpha coefficients, factor-analysis results and the full model-fit statistics are not available in the retained paper materials.

The study is also entirely quantitative. A small qualitative component could have helped explain why perceived cost and perceived risk were not significant and why urban location was associated with higher acceptance. Future research should use probability-based sampling where feasible, retain a complete audit trail of data screening and response rates, report reliability and model-fit statistics, examine mediation and moderation effects, and combine survey evidence with interviews or focus groups. Multi-district studies would also help establish whether the Temeke pattern generalises to other Tanzanian settings.

CONCLUSION AND RECOMMENDATIONS

The study concludes that acceptance of e-wallet mobile money services in Temeke District is driven primarily by perceived usefulness, trust and perceived ease of use. Residential location also matters, while perceived cost, perceived risk and the reported demographic characteristics did not show statistically significant direct effects in the reported model.

For service providers, the results support continued investment in intuitive interfaces, reliable transaction processing, customer support, fraud prevention and trust-building communication. Agent and service coverage should remain a priority in peri-urban and underserved areas.

For policymakers and regulators, the findings support measures that promote interoperability, consumer protection, affordable digital transactions and broader use of secure e-wallet channels for public and commercial services. Future research should replicate the study across multiple districts and use stronger probability-based and mixed-method designs.

REFERENCES

1. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319-340.
2. GSMA. (2018). State of the Industry Report on Mobile Money. GSM Association.
3. Hornuf, L., Kück, T., & Lukas, M. (2025). Demographic heterogeneity in fintech adoption: Evidence from Sub-Saharan Africa. Small Business Economics, 64(2), 451-478.
4. Islam, T., Pitafi, A. H., & Wang, Y. (2024). Moderating role of demographic factors in QR and mobile payment adoption. Technology in Society, 71, 102204.
5. Lema, A. (2014). Factors Influencing the Adoption of Mobile Financial Services in the Unbanked Population.
6. Paas, L. J., Eijdenberg, E. L., & Masurel, E. (2021). Adoption of services and apps on mobile phones by microentrepreneurs in Sub-Saharan Africa. International Journal of Market Research, 63(1), 27-42.
7. Yamane, T. (1967). Statistics: An Introductory Analysis (2nd ed.). Harper & Row.