

# The Perceived Contribution of Fiber Internet Service Customization in Enhancing Consumer Retention: A Case of Tanzania Telecommunication Corporation (TTCL) Iringa Municipality

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**ABSTRACT:** This paper examines the perceived contribution of fiber internet service customization in enhancing consumer retention at Tanzania Telecommunications Corporation (TTCL) Iringa Municipality. Specifically, the study aimed to identify the perceived contribution of flexible payment options in enhancing consumer retention at Tanzania Telecommunications Corporation (TTCL) Iringa Municipality. While infrastructure expansion has enabled broader access, sustaining consumer loyalty remains a challenge, particularly in affordability-sensitive markets. Using a mixed-methods cross-sectional design, the study surveyed 88 subscribers and interviewed five TTCL commercial staff. Findings reveal that flexible payment structures offering both prepaid and post-paid options, alongside multiple payment channels such as mobile money, are central to enhancing retention. Quantitative data show strong consumer agreement that payment flexibility reduces financial strain and supports continuity, while qualitative insights highlight how payment diversity aligns with fluctuating income patterns. Interpreted through the Technology Acceptance Model (TAM) and Customer-Centric Theory, the findings suggest that perceived ease of use in payment and fairness in affordability significantly shape long-term loyalty. The study provides new evidence from Tanzania on the role of financial flexibility as a consumer-centred retention mechanism in semi-urban broadband markets.

**KEYWORDS**-Broadband retention, consumer retention, flexible payment, Tanzania, TTCL

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## I. Introduction

The telecommunications industry has long recognised that beyond infrastructure and service quality, payment mechanisms play a decisive role in shaping consumer behaviour. In semi-urban contexts such as Iringa Municipality, where income flows are often irregular, the ability to adjust payment modalities directly influences subscription continuity. For Tanzania Telecommunications Corporation (TTCL), which is mandated to provide accessible national fiber infrastructure, designing flexible payment systems is not only a business strategy but also a public service imperative.

Globally, flexible payments are increasingly linked to consumer retention because they reduce switching barriers, accommodate diverse financial circumstances, and enhance perceptions of fairness (Wahl, 2023; Zhou et al.,

2024). In African broadband markets, mobile money platforms have expanded access to services, offering consumers the ability to pay in smaller, manageable increments. In Tanzania, where mobile money penetration is high, the integration of such platforms into internet payment systems has become vital.

This study investigates the perceived contribution of flexible payment options in enhancing consumer retention at TTCL Iringa Municipality. It identifies how prepaid and post-paid structures, as well as the use of diverse payment channels, enhance consumer retention. By combining quantitative evidence from subscribers with insights from TTCL commercial staff, the research demonstrates how financial flexibility reduces churn and strengthens consumer trust.

The contribution of the paper lies in extending understanding of consumer retention mechanisms within affordability-sensitive, semi-urban broadband markets, an area where empirical evidence remains limited. By situating the analysis within the Technology Acceptance Model and Customer-Centric Theory, the study highlights the dual role of flexible payments as both functional and relational drivers of loyalty.

The remainder of this paper is organised as follows: Section 2 reviews the theoretical and empirical literature, Section 3 outlines the methodology, Section 4 presents the results, Section 5 provides the discussion, and Section 6 concludes with recommendations for practice and policy.

## **II. Literature Review**

### **2.1 Theoretical Perspectives**

The Technology Acceptance Model (TAM), developed by Davis (1989), has been widely applied to explain how users adopt and continue using technological services. It proposes that behaviour is influenced by two central perceptions: perceived usefulness and perceived ease of use. In broadband services, perceived usefulness can be understood as the degree to which consumers believe that flexible payment systems enhance their ability to maintain uninterrupted internet access. For example, prepaid bundles allow households with irregular income cycles to control expenditure and avoid disconnection. Perceived ease of use relates to the simplicity and convenience of the payment process, which is heightened when consumers have access to mobile money, bank transfers, and balance transfers. When payments are both easy and beneficial, loyalty is more likely to be sustained (Lin et al., 2023; Singh et al., 2024).

However, while TAM provides a useful explanatory lens, it has been criticised for placing too much emphasis on the individual's cognitive perceptions and not fully addressing the wider institutional or social context (Aburbeian et al., 2022). In markets such as Tanzania, where consumer behaviour is shaped not only by technology design but also by income instability and digital infrastructure gaps, TAM may offer only a partial explanation.

To complement this, the Customer-Centric Theory (CCT) highlights that value creation occurs when service providers align their practices with consumer realities (Drucker, 2012; Prahalad & Ramaswamy, 2004). CCT views consumers as co-creators of value rather than passive recipients. In the case of TTCL, this perspective is relevant because payment mechanisms are designed to reflect the diversity of subscribers, ranging from salaried professionals to informal workers. By offering both prepaid and post-paid options, alongside integration with mobile money, TTCL signals responsiveness and fairness, which strengthens trust and retention.

Yet, it should be noted that customer centricity is not without limitations. Critics argue that while firms may adopt the language of co-creation, in practice they often retain control over decision-making, which can dilute the intended inclusivity. In affordability-sensitive markets, consumer input may be considered, but the structural constraints of pricing and infrastructure still rest largely with providers.

Taken together, TAM and CCT provide complementary insights. TAM frames payment flexibility as a functional determinant of loyalty, while CCT underscores its role as a relational determinant rooted in fairness and

responsiveness. At the same time, acknowledging the limitations of both theories prevents an overly deterministic interpretation and reinforces the importance of situating them in the realities of semi-urban broadband markets in Tanzania.

## 2.2 Empirical Evidence

A growing body of research highlights that payment structures significantly shape consumer loyalty in telecommunications and broadband markets. Lin et al. (2023) demonstrate that reducing upfront financial barriers directly lowers the likelihood of service downgrading, as consumers perceive affordability to be fair and sustainable. Similarly, Wahl (2023) argues that perceptions of fairness in pricing and payment arrangements foster satisfaction and strengthen long-term retention. These studies emphasise that payment mechanisms are not only transactional but also carry symbolic value in signalling fairness and inclusivity.

In addition, scholars have examined the importance of payment convenience as a driver of loyalty. Mohaimin et al (2025) show that consumers are more likely to maintain services when upgrade pathways are visible and supported by convenient payment systems. This finding resonates with Koomson et al (2023), who, in the African context, establish that mobile money integration reduces service interruptions by removing logistical barriers to payment. In Tanzania, Mwalongo & Kilavo (2023) also underscore that consumer loyalty depends not only on service quality but also on tailoring packages and payment options to diverse financial realities. Together, these findings suggest that payment diversity and reliability are essential for sustaining loyalty in competitive broadband markets.

Despite these insights, empirical studies directly linking payment flexibility and retention in semi-urban Tanzania remain limited. Much of the existing literature originates from contexts where income flows are regular and payment through credit or debit systems is common. In contrast, Tanzanian households often rely on irregular earnings and mobile money platforms, which necessitate different mechanisms of affordability and convenience. Addressing this gap, the present study situates flexible payments at the centre of TTCL's fiber broadband model in Iringa Municipality, examining how prepaid and post-paid options, alongside diverse payment channels, contribute to consumer retention in semi-urban settings.

## III. Methodology

This study adopted a mixed-methods cross-sectional design to capture both quantitative and qualitative insights on payment flexibility and consumer retention. The population comprised 710 fiber subscribers and 28 commercial staff of TTCL in Iringa Municipality. From this, 88 subscribers were selected using Slovin's formula at a 10 per cent margin of error, while five TTCL commercial staff were purposively included for interviews due to their direct role in billing and customer service. Data were collected through structured questionnaires, which measured perceptions of prepaid and post-paid options and payment convenience, and in-depth interviews that explored organisational perspectives. Quantitative data were analysed using descriptive statistics, while qualitative responses were thematically coded and triangulated with survey findings. Reliability was tested with Cronbach's alpha (0.757), and validity was confirmed by a KMO measure of 0.728 and a significant Bartlett's Test of Sphericity ( $p < 0.001$ ). Ethical considerations, including informed consent and confidentiality, were observed throughout the study.

## IV. Results

The findings of the study are presented in line with the research objective. Table 1 summarises subscriber responses on the perceived contribution of payment flexibility in enhancing consumer retention at TTCL Iringa Municipality.

Table 1: Subscriber perceptions of flexible payment options in enhancing consumer retention.

Statement		SD	D	N	A	SA	Total
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Paying for my internet on a prepaid basis helps me manage my budget better, it encourages me to continue using TTCL as my internet provider.	frequency	8	1	7	26	46	88
	(%)	9.1	1.1	8	29.5	52.3	100
I prefer receiving the internet service bill at the end of the month and paying afterward which increases my likelihood of continuing with the service.	frequency	27	13	5	24	19	88
	(%)	30.6	14.8	5.7	27.3	21.6	100
The availability of multiple payment platforms (e.g., mobile money, bank payment, balance transfer) makes it easier for me to renew my subscription which encourages me to keep consuming the service	frequency	4	3	6	31	4	48
	(%)	4.5	3.4	6.8	35.2	4.5	54.4
I rarely experience payment difficulties, which positively affects my decision to keep using the fiber internet service.	frequency	8	15	10	33	22	88
	(%)	9.1	17	11.4	37.5	25	100

#### 4.1 Preference for Prepaid and Post-paid Options

The findings reveal that prepaid payment options are strongly preferred by TTCL fiber subscribers in Iringa Municipality. A large majority (81.8%) agreed or strongly agreed that prepaid billing helped them manage their budgets more effectively and encouraged loyalty, while only 10.2% disagreed. This suggests that prepaid systems align closely with the financial realities of semi-urban households where income flows are often irregular.

Interview evidence reinforced this perspective, with one TTCL staff member noting: *“Most consumers prefer prepaid because it removes the worry of unexpected monthly bills; they can top-up when they are ready, and that control makes them stay longer.”*

In contrast, post-paid billing elicited a more divided response, with 48.9% in favour and 45.4% against. These findings indicate that while post-paid arrangements appeal to salaried consumers and business clients, prepaid remains the dominant retention tool for household subscribers.

#### 4.2 Multiple Payment Platforms

The availability of diverse payment platforms emerged as a significant enabler of retention. A strong majority (85.2%) of respondents agreed that mobile money, bank transfers, and balance transfers made subscription renewal easier and encouraged continued use of TTCL services.

Qualitative evidence supported this finding, with staff interviewees emphasising that consumers valued remote payment options. As one explained: *“Consumers like that they can pay from anywhere using mobile money or bank transfer without coming to the office. This convenience keeps them from delaying renewals.”*

#### 4.3 Payment Reliability

The results further show that payment reliability plays a critical role in shaping loyalty. While 62.5% of respondents reported rarely experiencing difficulties, 26.1% expressed disagreement, pointing to occasional system downtimes and delays in reconciling mobile money payments. Although the majority of consumers were satisfied, these disruptions remain a potential risk to retention. Staff interviews clarified these frustrations, noting that challenges were usually linked to temporary system interruptions rather than the payment methods themselves.

## V. Discussion

The findings indicate that consumer retention in semi-urban broadband markets is shaped by three dimensions: financial control, convenience, and trust. Prepaid billing was the most effective retention mechanism because it gave households with irregular incomes greater predictability and reduced financial risk. This extends the Technology Acceptance Model (TAM) by showing that perceived usefulness is not limited to technical service quality but also includes financial accessibility. It also reflects the Customer-Centric Theory (CCT), where services that are structured around consumer realities signal fairness and responsiveness. In contrast, the divided views on post-paid billing demonstrate that retention strategies must be segmented rather than universal, as households and business clients exhibit different financial behaviours. This challenges the assumption of homogeneity often implied in TAM studies and underscores the importance of tailoring retention approaches to diverse consumer groups.

Convenience and trust also emerged as critical to loyalty. The widespread reliance on mobile money illustrates how ease of use extends beyond service interfaces to payment processes, embedding broadband subscriptions within everyday financial practices. However, occasional system downtimes and payment disruptions revealed that affordability and convenience are insufficient if reliability is not consistently assured. This nuance highlights the limitations of TAM, which often assumes stable systems of use, and reinforces CCT's emphasis on relational value, where trust can be undermined when responsiveness falters. Overall, the study contributes by situating global theories in the Tanzanian context, showing that retention is shaped not only by technology adoption but also by socio-economic conditions such as irregular incomes and dependence on mobile money platforms factors that are often overlooked in studies from higher-income or urbanised settings.

## VI. Conclusion and Recommendations

This study concludes that flexible payment options are a decisive factor in consumer retention for TTCL in Iringa Municipality. Prepaid billing provides financial control for households with irregular incomes, while post-paid serves niche segments such as businesses and salaried workers. Multiple payment platforms, especially mobile money, embed subscription renewals into everyday financial practices, while reliability remains critical to sustaining consumer trust. These findings extend the Technology Acceptance Model by showing that ease of use encompasses financial accessibility, and reinforce Customer-Centric Theory by demonstrating how responsiveness to consumer realities fosters loyalty.

To strengthen retention, TTCL should continue expanding prepaid models with innovations such as micro-bundles, while positioning post-paid as a premium service for specific market segments. Greater integration with mobile money providers is needed to maximise convenience, alongside sustained investment in system resilience to ensure reliable transactions. Policymakers should encourage inclusive payment frameworks within the telecommunications sector to promote digital inclusion, while providers should treat payment systems not merely as administrative tools but as strategic enablers of consumer loyalty in affordability-sensitive markets.

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