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

Flavian Ephraim Kalongole<sup>1</sup>, Dr.Blandina Kisawike, Phd<sup>2</sup>, Dr. Haji Ng'elenge, Phd<sup>3</sup>

<sup>1,2,3</sup>(Department Of Business Studies, University of Iringa, Tanzania)

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

# 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.,

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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

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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. Findings and Discussion

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	frequency	8	1	7	26	46	88
provider.	(%)	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	frequency	27	13	5	24	19	88
service.	(%)	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	frequency	4	3	6	31	4	48
consuming the service	(%)	4.5	3.4	6.8	35.2	4.5	54.4
I rarely experience payment difficulties, which	frequency	8	15	10	33	22	88
positively affects my decision to keep using							
the fiber internet service.	(%)	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."

These findings align with Rasyidah et al (2024), who emphasise that flexible payment models enhance satisfaction by aligning service consumption with household financial realities. Their findings show that consumers in emerging markets favour incremental spending through prepaid models, which reduces financial stress and fosters long-term commitment to the provider.

Together, the evidence suggests that TTCL's prepaid system is a strategic retention tool. By enabling transparency and expenditure control, it appeals strongly to cost-sensitive consumers in Iringa, where irregular incomes are common. Expanding prepaid options such as through micro-bundles or flexible data plans would therefore consolidate TTCL's market position, whereas neglecting this payment model risks alienating a substantial portion of its customer base.

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.

These findings align with Soltaninejad & Shaghaghi (2024), who emphasise that tailoring billing options to specific consumer profiles improves retention outcomes. Their findings show that while deferred payment models appeal to some segments, they create financial anxiety for others, requiring providers to align billing strategies with consumer characteristics.

Interview evidence reinforced this perspective. One TTCL employee explained: 'We have a section of consumers, especially business users, who prefer postpaid because it supports cash flow. But for household consumers,

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prepaid is still more popular. These findings align with Matonya & Amba (2023), who emphasise that alignment with local consumer behaviour is critical in sustaining loyalty. Their findings show that in contexts where incomes are irregular, prepaid options remain dominant, whereas postpaid appeals more to enterprises and salaried individuals.

The findings suggest that postpaid billing is not a universal retention tool but a niche option suitable for consumer groups. For TTCL, this implies that positioning postpaid as a premium service with value-added features such as priority support or bundled services could strengthen loyalty among businesses and professionals, while prepaid remains the preferred model for households. More broadly, these findings underscore that retention does not stem from a single payment model but from recognising the heterogeneity of consumer needs. Developing hybrid billing models, such as capped postpaid packages that mitigate bill shock, could help TTCL bridge the gap between prepaid and postpaid users and reduce the polarisation observed in the data.

## **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."

These findings align withKoomson et al (2023), who emphasise that mobile financial services enhance service continuity by removing geographical and logistical barriers. Their findings show that when consumers can make payments remotely, delays are minimised and retention is strengthened. Also these findings align with Geebren et al (2021), who emphasise that accessible payment channels foster consumer satisfaction and trust by reducing friction in transactions. Their findings show that multiple payment platforms act as both retention and acquisition tools, appealing especially to digitally adept consumers who prioritise convenience.

This highlights that TTCL's investment in diversifying payment channels directly contributes to consumer satisfaction and loyalty. The reliance on mobile money in particular reflects broader East African financial habits, where mobile payments dominate daily transactions. For TTCL, this implies that continued integration with leading mobile money providers and ensuring transaction reliability are critical for sustaining retention. Conversely, lapses or failure to expand digital payment platforms could quickly erode consumer trust and weaken TTCL's competitive advantage in a market where rival providers also depend on mobile ecosystems.

# 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.

These findings align with Capponi et al (2021), who emphasise that reliable payment systems are essential in reducing churn risk by preventing interruptions in service delivery. Their findings show that failures in transaction processing directly undermine consumer trust and increase the likelihood of switching behaviour. Also these findings align with Soltaninejad & Shaghaghi (2024), who emphasise that minimising transaction friction is critical for sustaining loyalty in competitive markets. Their findings show that when system downtimes persist,

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the benefits of flexible and multi-platform payment options are eroded, leading consumers to reconsider their provider choices.

This highlights that smooth and reliable payment systems create a sense of stability, reduce consumer stress, and strengthen loyalty, whereas persistent challenges whether linked to TTCL's internal systems or third-party providers threaten retention. For TTCL, this means that ensuring system reliability and strengthening partnerships with mobile money operators and banks is just as important as diversifying payment channels. More broadly, these findings suggest that in competitive telecommunications markets, payment reliability has become a differentiating factor. Consumers may tolerate occasional network disruptions, but repeated frustrations with payment systems directly threaten both revenue and loyalty. By investing in resilient digital infrastructure, offering real-time transaction confirmations, and creating backup systems to minimise downtime, TTCL can reinforce consumer confidence and strengthen its long-term retention strategy.

#### V. Conclusion and Recommendations

This study concludes that TTCL's flexible payment options are not peripheral conveniences but strategic levers of consumer retention in semi-urban Tanzania. The findings show that prepaid billing provides households with irregular incomes greater financial control, reducing the likelihood of disconnection during periods of constraint, while post-paid arrangements appeal to salaried and business clients seeking continuity. By accommodating both ends of the income spectrum, TTCL embeds resilience in its retention strategy, aligning service provision with diverse economic realities.

Multiple payment channels particularly the integration of mobile money services further strengthen loyalty by embedding internet payments into consumers' everyday financial routines. Beyond convenience, payment diversity reinforces perceptions of reliability and fairness, mitigating service-interruption anxiety and reducing operational strain for the provider. This relational dimension of trust highlights that payment flexibility is not only a transactional feature but also a psychological signal of responsiveness and respect, which sustains loyalty even when technical shortcomings occur.

For TTCL, the strategic value of payment flexibility lies in its dual effect: supporting consumer satisfaction while enhancing operational efficiency. However, untapped opportunities remain in developing hybrid models that combine pre- and post-paid elements, as well as linking payment behaviour to loyalty incentives such as discounts or bonus data. By evolving towards such innovations, TTCL can transform payment flexibility from a mechanism of accommodation into a source of competitive differentiation in Tanzania's increasingly contested broadband market.

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