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THE MEDIATING EFFECT OF CUSTOMER SATISFACTION ON FACTORS INFLUENCING POST-PURCHASE BEHAVIOR AMONG SMARTPHONE USERS: INSIGHTS FROM UNIVERSITY STUDENTS IN TANZANIA

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ABSTRACT

This study explored the mediating effect of customer satisfaction on factors influencing post-purchase behaviour among smartphone users in Tanzanian universities. The study was guided by the Expectation Confirmation Theory. A cross-sectional design and convenience sampling were used to select 700 participants, and data were collected through structured questionnaires, and analysed using SEM-PLS in SmartPLS 4.0. Findings showed that customer satisfaction significantly mediates the impact of product performance ($\beta = 0.084$; $T = 4.918$; $p = 0.000$), after-sales service ($\beta = 0.044$; $T = 3.490$; $p = 0.000$), and brand equity ($\beta = 0.194$; $T = 8.024$; $p = 0.000$) on post-purchase behaviour. The model exhibited strong explanatory power (R^2 : CS = 0.495; PPB = 0.557), good predictive relevance (Q^2 : CS = 0.487; PPB = 0.472), and acceptable fit (SRMR = 0.058). The study concludes that enhancing customer satisfaction through quality products, strong branding, and effective after-sales service fosters loyalty and repeat purchases. It recommends that firms prioritize these factors to strengthen customer retention.

KEYWORDS: Post-purchase behaviour, customer satisfaction, product performance, after-sales service, and brand equity.

1. INTRODUCTION

The global smartphone industry is among the fastest-growing and most competitive sectors, fuelled by continuous technological advancements, aggressive marketing strategies, and involving consumer expectations (Statista, 2023; Chatterjee & Nguyen, 2022; Rahman et al., 2021). Smartphones have become indispensable for daily life, providing tools for communication, education, productivity, and entertainment across diverse user groups (Çelik & Ataş, 2019). Although substantial research has

focused on the determinants of consumer purchase decisions, little or far less attention has been paid to users' post-purchase behaviours and experiences such as, satisfaction, continued usage, loyalty, and advocacy (Ali & Bhasin, 2021; Lee & Kim, 2022; Matarirano et al., 2023).

In the Tanzanian context, smartphone adoption has risen markedly in recent years, driven by increasing affordability of handsets and improved internet penetration in different regions (TCRA, 2024; Ismail & Machumu, 2023). University students, in particular, represent a highly engaged segment that relies on smartphones not only for academic work but also for social connectivity and entertainment. Despite this, most local studies still focus on purchase drivers such as brand, price, or advertising, with limited exploration into users' satisfaction and loyalty after the purchase (Lema & Mvungi, 2021). Moreover, generalizing findings from foreign markets can be problematic, as such markets may not reflect Tanzania's unique cultural and socio-economic context.

Tanzania's smartphone market has become more competitive between 2019 and 2024, as brands such as Tecno, Infinix, and Samsung have alternated in leading market share (IDC, 2024; TCRA, 2024; GSMA, 2023). Despite innovation and marketing efforts, companies continue to struggle with customer retention, highlighting the need to understand the factors driving continued product use. As brand switching becomes more frequent, customer satisfaction and loyalty, both shaped by post-purchase experiences, are emerging as critical components in maintaining competitive advantage (Munishi & Nkansah, 2023; Ogutu & Kinyanjui, 2022; Li et al., 2021).

Emerging research shows that approximately 79 per cent of dissatisfied smartphone users are unlikely to repurchase from the same brand (Gaudette et al., 2016; Ahmad & Srivastava, 2021; Workie, 2019). This aligns with the Expectation Confirmation Theory (ECT), emphasizing that satisfaction arises when perceived product performance matches or exceeds expectations, thereby enhancing repurchase intentions and fostering brand loyalty (Bhattacharjee, 2022; Kim et al., 2021; Ali & Bhasin, 2021), hence promoting positive word-of-mouth communication on the service or brand performance. When expectations are unmet, users experience negative disconfirmation, often resulting in dissatisfaction and defection to competing brands, and hence causing a switch of customers to other brands or service providers. As Workie (2019) puts it, and rightly so, acquiring customers without retaining them is like "filling water in a bucket without a bottom." Thus, in Tanzania's increasingly saturated smartphone landscape, investigating post-purchase dynamics, especially among university students, can offer strategic insights for brands aiming to cultivate long-term customer engagement and loyalty.

1.2 Research Hypotheses

H₀₁ Customer satisfaction significantly mediates product performance and post-purchase behaviour

H₀₂ Customer satisfaction significantly mediates the relationship between after-sales service and post-

purchase behaviour

H0₃ Customer satisfaction significantly mediates product performance and post-purchase behaviour

II. LITERATURE REVIEW

2.1 Theoretical Review

In this study, the Expectation Confirmation Theory was used as the main theoretical model originally developed by Oliver (1980).

2.1.1 Expectation Confirmation Theory

The theoretical framework under expectation Confirmation Theory (ECT), the model emphasizes the process by which consumers compare their pre-purchase expectations with the actual product or perceive performance, leading to either confirmation or disconfirmation of expectations, which in turn influences customer satisfaction, and a subsequent behavioural intention (Bhattacharjee, 2001; Kotler & Keller, 2016). Positive post-purchase behaviour arises when the performance of the product and services after purchase meets or exceeds the expectations that formed before the purchase (Reva et al., 2024). This part also discusses customer satisfaction as a metric of how well a product meets consumer expectations, emphasizing its role in fostering loyalty and repeat purchases.

Finally, post-purchase behaviour is explored, detailing consumer's actions following a purchase, which can lead to positive outcomes such as recommendations or negative consequences such as dissatisfaction. ECT is crucial in understanding consumer behaviour, as it emphasizes how pre-purchase expectations influence post-purchase attitudes and behaviours (Alshinwan et al, 2024). This theory is important because it is related to solving the problem in the smartphone market in Tanzania, as its objectives are based on offering guidance to marketers in retaining consumers by serving the cost of acquiring new customers (Shukla et al., 2024).

2.3 Empirical Literature Review

Product performance significantly shapes post-purchase behaviour, particularly in the smartphone industry, which first affects user satisfaction through key features such as battery life, pressing speed, and camera quality. Studies show that customer satisfaction partially mediates the link between product performance, attributes, quality, and repurchase intentions (Goh et al., 2016; Ngubelanga, 2020; Lemon et al., 2016). Reynaldi and Wuisan (2023) noted that combining product and service quality enhances perceived value and loyalty, supported by Lemon et al. (2016) and Hadi et al. (2019) who stressed that satisfaction helps to retain consumers even when there are low switching costs.

After-sales service is vital for shaping post-purchase behaviour, especially for high-involvement products such as smartphones. Services such as warranties, repairs, updates, and support enhance

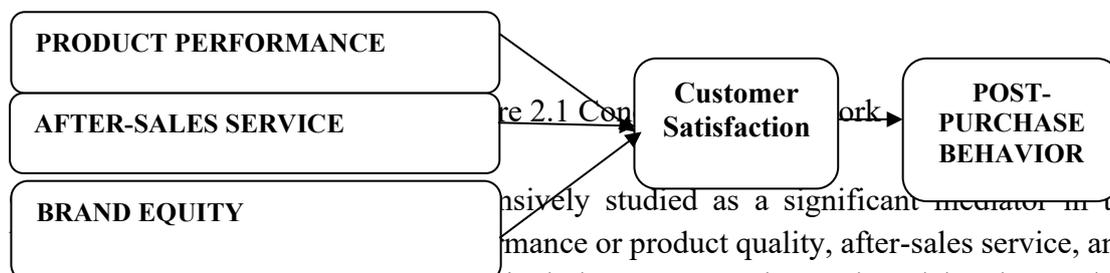
perceived value and foster customer satisfaction and loyalty. Studies (i.e., Bayu et al., 2019; Workie, 2019; Rahman et al., 2022) affirm that effective after-sales service functions as a strategic asset for enhancing customer engagement after their purchases.

Brand equity, shaped by awareness, perceived quality, loyalty, and associations, strongly impact post-purchase behaviour by fostering trust and emotional connection. Studies such as Melese (2020) found that brand awareness and perceived quality are key drivers of repeat purchases. Murugan and Kikubakaran (2025) linked brand awareness, built through media and word-of-mouth, to repurchase behaviour in electronics. Ono et al. (2021) demonstrated that loyalty and brand associations have a significant influence on post-purchase behaviour among university students in Nigeria. Collectively, these findings suggest that consumers are more likely to remain loyal.

The existing literature on consumer behaviour in smartphone purchases has largely focused on developed countries, leaving a gap in understanding post-purchase behaviour among university students in Tanzania. Implying empirical studies have overlooked how factors such as product performance, after-sales service, and brand equity influence post-purchase behaviour through customer satisfaction in this context, where brand perceptions and purchasing power differ. This study, therefore, aims to assess key factors shaping post-purchase behaviour through customer satisfaction for smartphones among Tanzanian university students.

2.5 Conceptual Framework

Based on the background of this study, the description of the previous research, theories, and the research gap are presented. The independent constructs used in this study include product performance, After-sales service, and brand equity. The dependent construct is post-purchase behaviour with the mediating role of customer satisfaction.



Customer satisfaction has been extensively studied as a significant mediator in the relationship between product performance or product quality, after-sales service, and brand equity, and post-purchase behaviour, which include repeat purchases, brand loyalty, and word-of-mouth communication or recommendation (Mahapatra et al., 2010). Satisfaction is a result of the quality of products or services, which can help to maintain the existing client base by building long-term customer loyalty behaviour, especially in repeat intention (Hadi et al., 2019). Satisfied customers in

terms of quality of the services or product, the cost, and issue resolution, but also cooperation with providers are more likely to return to the brand or product when they want to purchase the same product by considering their experience (Lemon et al., 2016). Customer satisfaction significantly impacts customers' willingness to recommend a service to others (Bayu et al., 2019), which can be crucial for the success of a brand in competitive markets. Findings of various previous studies such as Hsueh et al. (2016) and Halim et al. (2019) are supported by the theory of reasoned action (TRA), Planned Behaviour (TPB), and technological acceptance Model (TAM) which hold that a person's intention to use a product is strongly influenced by the satisfaction level received (Halim et al., 2021).

III. METHODOLOGY

3.1 Research Design

This study employed a cross-sectional research design, as it is particularly suited for collecting data from a specified group at a single point in time (Creswell, 2024). The choice of cross-sectional design, given the limited time, and available resources, is efficient, reduces costs, allows for a large sample size, and increases the generalizability of the findings. The research approach is quantitative in nature. By relying on numerical data and statistical analysis, the study provided a clear interpretation of results, which is essential for drawing reliable conclusions on the indirect effects of factors influencing post-purchase behaviour through customer satisfaction.

3.2 Area of the Study

The study was conducted in higher learning institutions located in Morogoro, including Mzumbe University, Sokoine University of Agriculture, and Jordan University College. Limited research exists in this area despite notable mobile usage, which indicates a substantial market presence. An increased use of smartphones in universities provides an opportunity to study what influences students' behaviours after purchases. Morogoro region ranks sixth nationally in mobile telecom subscriptions and penetration. The current study therefore aims to identify trends and offer insights applicable to both high and low telecom subscription regions (Çelik & Ataş, 2019).

3.3 Population of the study

The population of the research comprised all university students in the study area who own and use smartphones. This group is highly relevant due to its significant smartphone adoption within Tanzania (Shilla et al., 2023). With 96 per cent of the youth owning smartphones, their preferences and experiences play a crucial role in future purchasing decisions, particularly with regards to quality and satisfaction (Research Centre 2021; Çelik & Ataş, 2019).

3.4 Sample Size and Sampling Technique

3.4.1 Sample Size

As the exact number of smartphone users among university students is unknown, the sample size of 700 was determined by the requirements of Structural Equation Modelling (SEM), considering the theory of Hair et al. (2006). The 10 Rule \times Total number of items/Indicators Minimum sample ($10 \times 30 = 300$). Therefore, the minimum sample size required was 300 respondents. However, 700 respondents were selected for this study to increase the statistical power of the analysis and account for potentially incomplete responses.

3.4.2 Sampling Technique

The study employed a non-probability convenience sampling technique to select 700 respondents, focusing on HLIs where university students are readily accessible. This method allowed for efficient data collection by engaging students during their daily activities in their common areas, such as libraries, cafeterias, and student centres, where participants were recruited until the required sample size was achieved. Respondent were chosen based on their accessibility and willingness to participate, allowing for effective data collection within the limited time and resources (Tajik et al, 2022).

3.5 Data Collection

Data were collected through a structured questionnaire distributed to 700 respondents. The researcher collected data by distributing printed questionnaires in person on campus and allowing students to complete them on the spot. The study primarily consisted of data obtained directly from the respondents. Ethical protocols were strictly observed, including informed consent, voluntary participation, anonymity, confidentiality, and culturally sensitive interactions (Bryman & Bell, 2015).

3.6 Data Analysis

The data collected from smartphone users among university students were analysed using SPSS for descriptive statistics to assess demographic characteristics of respondents. For inferential analysis, the study employed SmartPLS to conduct Partial Least Squares Equation Modelling (PLS-SEM), which was suitable to analyse complex relationships between variables, assessing indirect effects (Hair et al., 2021). The model tested how the post-purchase behaviour of smartphone users was affected by different factors through customer satisfaction as a mediator. The researcher used Bootstrapping techniques to evaluate mediation effects through path coefficients, standard errors, and t-values (Hair et al., 2021). The use of SmartPLS software enabled the evaluation of model fit, validity, and reliability while accounting for measurement errors.

IV. FINDINGS AND DISCUSSION

4.1 Findings

4.1.1 Profile of the Respondents

The profile of the respondents was analysed to provide critical insight into the dynamics of

demographic characteristics of respondents and factors influencing post-purchase behaviour among smartphone users through mediating effect on customer satisfaction.

Table 4.1 Demographic Characteristics of Respondents (n=700)

Variable	Observable Items	Frequency	Percentage
Age of Respondents	18-35 (Youth)	669	95.6
	36-55 (Adult)	30	4.3
	56and above (Old)	1	0.1
Gender of Respondents	Male	399	57
	Female	301	43
Selected Universities	Mzumbe University	283	40.4
	Sokoine University of Agriculture	250	35.7
	Jordan University College	167	23.9
Education Level of Respondents	Diploma	92	13.1
	Bachelor Degree	536	76.6
	Master Degree	69	9.9
	PhD Degree	3	0.4

Findings in Table 4.1 show that most of the respondents, that is, 669 or 95.6 per cent were aged 18-35 years, followed by the age group of 36-55 years, which were 30, and accounted for 4.3per cent and 1 respondent, equals 0.1 per cent was 55 years and above. Thus, the respondents' age ranged from 18 to 35 years, aligning with the targeted demographic of university students of different behaviours who are likely tech-savvy and engaged with modern digital platforms using smartphones (Shilla et al., 2023). Understanding post-purchase behaviour in these age groups can help marketers focus on satisfaction.

According to findings in Table 4.1, gender distribution is relatively imbalanced, with 399 (57%) males and 301 (43%) females. This imbalance may suggest that male students have a higher engagement with smartphone-related activities or may be more inclined to participate in technology-focused studies. Similar findings are reported by Muya et al. (2023) indicating that there were more male than female participants engaged in Mobile Phone Internet usage and had higher students' achievements in Tanzania's Higher Learning Institutions.

Findings show that respondents from three selected universities, included 283 from Mzumbe University, which is equal to 40.4per cent; Sokoine University, 250, which is equal to 35.7per cent; and Jordan University College, 167 respondents represented by 23.9per cent. The variation in

institutional representation might be attributable to the technique, time spent, and the location used to select the respondents.

Educational level, findings indicate that the majority of respondents, that is, 536 accounting for 76.6 per cent, were Bachelor's Degree students followed by Diploma students, 92 (13.1%), Master's Degree students 69 (9.9%), and only 3 were PhD students, representing 0.4 per cent. The predominance of Bachelor's students suggests that this level of education or study (Undergraduate studies) is where smartphone usage is most critical for academic purposes and success, as supported by Dobre et al. (2023).

The distribution across current years of study shows that 1st year were 198 (28.3%), 2nd year were 253 (36.1%), 3rd year were 242 (34.6%), and e 4th year and above were 7 (1.0%). Findings revealed that the majority (36.1%) of respondents were in their 2nd year, followed closely by 34.6 per cent of 3rd year university students. This distribution indicates that students in their second and third years have established more defined smartphone usage patterns compared to first-year students. As the students' progress, their academic and social needs evolve, potentially influencing their smartphone preferences and post-purchase behaviours.

4.1.2 Measurement Model Assessment

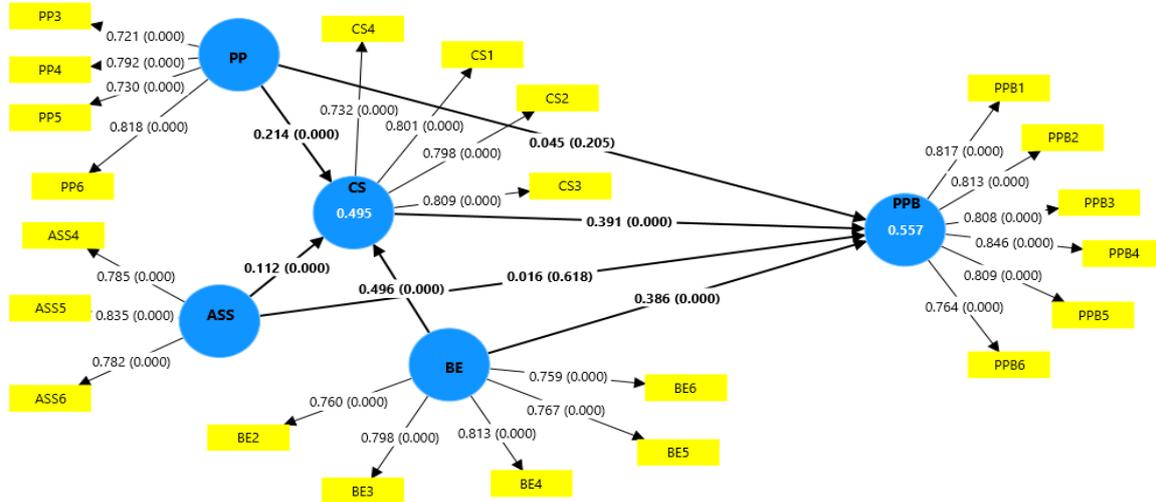
The first step in evaluating PLS-SEM results involves examining the measurement models (Hair et al., 2019). In this particular case, the assessment of the PLS-SEM model begins with the assessment of the reliability and validity of the measurement model for quality guarantee (Makorere, 2025). The variables for the current study were reflective of these five criteria used in assessing the measurement model, as presented in Table 4.2.

Table 4.2 Measurement Model Assessment

Latent Variable	Convergent Validity			Internal Consistence		
	Observable Items	Outer Loadings	Average Variance Extracted (AVE)	Cronbach's alpha	Reliability (rho_a)	Reliability (rho_c)
		>0.708	>0.50	>0.708-0.90	>0.708-0.95	>0.708-0.95
Product Performance (PP)	Camera Quality (PP3)	0.721	0.588	0.	0.767	0.850
	System Performance (PP4)	0.792				
	Operating System Usability (PP5)	0.730				
	Speed Responsiveness (PP6)	0.818				
After-Sale Service (ASS)	Response Promptness (ASS4)	0.785	0.641	0.722	0.722	0.843
	Support Satisfaction (ASS5)	0.835				
	Information Accessibility (ASS6)	0.782				
Brand	Brand Reputation	0.760	0.608	0.839	0.840	0.886

Latent Variable	Convergent Validity			Internal Consistence		
	Observable Items	Outer Loadings	Average Variance Extracted (AVE)	Cronbach's alpha	Reliability (rho_a)	Reliability (rho_c)
		>0.708	>0.50	>0.708-0.90	>0.708-0.95	>0.708-0.95
Equity (BE)	(BE2)					
	Emotional Attachment (BE3)	0.798				
	Brand Trust (BE4)	0.813				
	Perceived Innovation (BE5)	0.767				
	Brand Preference (BE6)	0.759				
Customer Satisfaction (CS)	Overall Satisfaction (CS1)	0.801	0.617	0.793	0.795	0.866
	Perceived Value (CS2)	0.798				
	Expectation Fulfilment (CS3)	0.804				
	Complaint Resolution (CS4)	0.732				
Post-Purchase	Repurchase Intention (PPB1)	0.817	0.656	0.895	0.897	0.920

Latent Variable	Convergent Validity			Internal Consistence		
	Observable Items	Outer Loadings	Average Variance Extracted (AVE)	Cronbach's alpha	Reliability (rho_a)	Reliability (rho_c)
		>0.708	>0.50	>0.708-0.90	>0.708-0.95	>0.708-0.95
Behaviour	Brand Advocacy (PPB2)	0.813				
	Positive Words of Mouth (PPB3)	0.808				
	Brand Loyalty (PPB4)	0.846				
	Brand Preference (PPB5)	0.809				
	Brand Engagement (PPB6)	0.764				



In this study, the observable items relating to Product Performance, specifically Battery Performance (PP2) and Storage Adequacy (PP1), as well as those under Customer Satisfaction, including Post-Purchase Support (CS5) and Overall User Satisfaction (CS6), were excluded for similar reasons. Additionally, within the Brand Equity construct, Brand Engagement (PPB6) and Brand Preference (PPB5) were removed, along with the After-Sale Service indicators: Warranty Clarity (ASS1), Accessory Provision (ASS2), and Setup Assistance (ASS3). These items were eliminated due to low standardised factor loadings, falling below the commonly accepted threshold of 0.5 or 0.7, which can undermine reliability and convergent validity (Hair et al., 2019). The removal of these underperforming indicators enhanced the construct validity, internal consistency, and overall model fit, thereby improving the accuracy and clarity of the study’s findings (Hair et al., 2019; Fornell & Larcker, 1981).

Table 4.3 Discriminant Validity (HTMT)

	ASS	BE	CS	PP	PPB
ASS	0.565				
BE	0.553	0.818			
CS	0.551	0.713	0.697		
PP	0.453	0.782	0.805	0.585	
PPB					

The measurement model in Table 2 demonstrates strong construct validity and internal consistency across all latent variables. Outer loadings for all items exceed the recommended 0.708 threshold, and AVE values for constructs such as Product Performance (0.588), After-Sale Service (0.641), Brand Equity (0.608), Customer Satisfaction (0.617), and Post-Purchase Behaviour (0.656) all surpass the

0.50 benchmark, confirming convergent validity. Additionally, internal consistency is supported by Cronbach’s alpha, rho_A, and composite reliability (rho_C) values, all ranging from 0.722 to 0.920, well above the accepted threshold of 0.70. Notably, Post-Purchase Behaviour demonstrates the highest reliability with $\alpha = 0.895$ and $\rho_C = 0.920$. These results validate the robustness of the measurement model, supporting its theoretical foundation and highlighting the significance of product quality, service experience, and brand-related factors in influencing customer satisfaction and loyalty.

Discriminant validity is well supported through both the Heterotrait-Monotrait (HTMT) ratio and the Fornell-Larcker criterion. As shown in Table 3, all HTMT values fall below the 0.85 threshold, confirming that the constructs are empirically distinct (Henseler et al., 2015). The Fornell-Larcker analysis further supports this, with each construct’s square root of AVE exceeding its inter-construct correlations, thereby reinforcing the conceptual distinctiveness of constructs such as Product Performance, After-Sale Service, Brand Equity, Customer Satisfaction, and Post-Purchase Behaviour (Fornell & Larcker, 1981).

Internal consistency is also well established across all constructs. For instance, Post-Purchase Behaviour demonstrates excellent reliability with Cronbach’s alpha = 0.895, rho_A = 0.897, and composite reliability = 0.920. Similarly, all other constructs report Cronbach’s alpha values above 0.722 and AVE values above 0.588, exceeding the recommended thresholds (Hair et al., 2017). These results confirm that the measurement model is both valid and reliable, providing a robust foundation for advancing to structural model assessment.

4.1.3 Structural Model Assessment

When the measurement model assessment is satisfactory, the next step in evaluating PLS-SEM results is assessing the structural model (Hair et al., 2019). In this context, after confirming the reliability and validity of the measurement model, the structural model assessment was conducted next. The assessment model covers the collinearity, R2, PLS prediction, and path coefficient (Sarstedt et al., 2022).

Table 4.4 Model Fit Indices

	Saturated model	Estimated model
SRMR	0.058	0.058
d_ ULS	0.843	0.843
d_ G	0.276	0.276
Chi-square	1144.865	1144.865
NFI	0.845	0.845

The Standardized Root Mean Square Residual (SRMR) is 0.058 for the saturated model and the estimated model. An SRMR value below 0.08 indicates an acceptable level of fitness, suggesting that the difference between the observed and predicted correlations is minimal. This value indicates that the model represents the data well and supports its validity. Unweighted Least Squares (d_{ULS}) value is 0.843, and Geodesic Discrepancy (d_G) value is 0.276. The Chi-Square is 1144.865, which is high and assesses the overall model fit. The Normed Fit Index (NFI) is 0.845, which means that the model explains approximately 84.5 per cent of the variance in the data. Reva et al. (2024) revealed that values closer to 1.0 indicate a better fit; however, values above 0.75 are generally considered reasonable.

4.1.4 Established Special Indirect Effects Relationships

Bootstrapping was employed to test the study's hypotheses by assessing the level of significance in order to determine the mediating effect of customer satisfaction on the factors influencing post-purchase behaviour among smartphone users: insights from university students in Tanzania. The structural (inner) model was used to represent the hypotheses developed in the study, which were then tested accordingly.

Table 4 Established Special Indirect Effects Relationships

<i>Hypotheses</i>	<i>Standard Coefficient</i>	<i>T-Statistics</i>	<i>P- Values</i>	<i>Decision</i>
H ₀₁ :PP -> CS -> PPB	0.017	0.017	0.000	<i>Supported</i>
H ₀₁ :ASS -> CS -> PPB	0.013	0.017	0.000	<i>Supported</i>
H ₀₁ :BE -> CS -> PPB	0.024	0.024	0.000	<i>Supported</i>

Relationships are significant at $p < .05$, β : Beta Coefficient; T: t-t-statistic; P: Probability (P) value. Q²: CS (0.487); PPB (0.472); R²: CS (0.495); PPB (0.557); Model fit: SRMR = 0.058.

The specific indirect effect of product performance on Post-purchase behaviour through customer satisfaction is 0.084, suggesting that this indirect effect is moderate, indicating that good product performance contributes positively to customer satisfaction, which in turn enhances post-purchase behaviour. The T statistic 4.918 far exceeds the critical value, and the P value is 0.000, demonstrating high statistical significance. After-sales service on post-purchase behaviour through customer satisfaction is significant, with the coefficient of 0.044 indicating a small but positive mediated relationship. The T statistic is 3.490, also exceeding the critical value, and the P-value is 0.000, confirming strong statistical significance. The path coefficient of brand equity is 0.194, indicating a strong positive relationship. The T statistic is 8.024, exceeding the critical value, and the P value is 0.000.

4.2 DISCUSSION

The positive and significant effects of ASS, PP, and BE Customer satisfaction highlight the importance of focusing on these areas to enhance overall CS, which in turn leads to increased positive post-purchase behaviours such as repeat purchases. Customer satisfaction as an intermediary construct between PP, ASS, and BE on PPB directly contributes to post-purchase behaviour, thus, reinforcing the idea that satisfied customers are more likely to engage in repeat purchases. The findings indicate that the higher levels of customer satisfaction significantly drive consumers' post-purchase behaviour, thus, confirming its role in the study's model (Reva et al., 2024). The path coefficient of CS and PPB is 0.391, showing a positive relationship. The T statistic is 9.605, and the P-value is 0.000, indicating that the strong and positive relationship is statistically significant. The study's emphasis on the role of customer satisfaction in influencing post-purchase behaviour supports findings from Kotler and Keller (2016), which underscore the significance of understanding post-purchase behaviour as an essential way of retaining consumers.

4.2.1 Customer Satisfaction and the Relationship between Product Performance, After-Sales Service, Brand Equity, and Post-Purchase Behaviour

The findings demonstrate a significant indirect effect of product performance on post-purchase behaviour, mediated by customer satisfaction through a path coefficient of 0.084, T-statistic of 4.918, and a p-value of 0.000. This indicates that when product performance meets or exceeds customer expectations, it leads to higher satisfaction levels and positive subsequent behaviour (Alshinwan et al., 2024). The relationship between product performance and post-purchase behaviour, such as repeating purchases, depends on customer satisfaction levels (Reva et al., 2024). This suggests that high product performance may enhance satisfaction, which in turn influences post-purchase behaviour. Enhancing product performance not only directly influences repurchase behaviour but also enhances customer satisfaction, which in turn encourages future behaviour such as repeat purchases and customer retention by influencing the continuation of product usage (Goh et al., 2016; Reva et al., 2024; Kim et al., 2023). Service quality and perceived value increase customer satisfaction when a product performs its function effectively, thus, positively influencing smartphone post-purchase intention (Reynaldi & Wuisan, 2023). ECT suggests that subsequent consumer behaviour is influenced by pre-purchase experiences, perceived performance, satisfaction, or dissatisfaction (Alshinwan et al., 2024).

4.2.2 Customer Satisfaction and the Relationship between After-Sales Service and Post-Purchase Behaviour

The results indicate that after-sales service has a significant indirect effect on post-purchase behaviour, mediated by customer satisfaction, with a path coefficient of 0.044, a T-statistic of 3.490, and a P-value of 0.000. This supports the findings of Bayu et al. (2019), who noted that effective after-sales service significantly enhances customer satisfaction, fostering loyalty and encouraging repeat

purchases. Binyamin et al. (2022) found that product quality and after-sales service are pivotal in shaping customer perceptions and satisfaction, leading to positive post-purchase behaviours. Companies should prioritize investing in high-quality services to improve customer satisfaction, which in turn encourages positive post-purchase behaviour, such as repeating purchases and positive word-of-mouth recommendations.

The aim of providing after-sales service is to influence consumer return to the brand for future purchases by ensuring that they are satisfied with the services even after payment. Various strategies can help manufacturers or marketers retain customers. Rahman et al. (2022) highlighted that the provision of after-sales service to consumers is crucial, significantly influencing customer satisfaction and loyalty. A study by Workie (2019) assessed the effect of after-sales service on customer retention and found that many Tecno users were moderately satisfied with several aspects. After-sales service, such as warranty, online support, provision of accessories, and maintenance and repair, are shown to relate positively to customer retention. For consumers to exhibit positive post-purchase behaviour, mobile phone manufacturers must provide various dimensions that cater for their customers (Rahman et al., 2022).

4.2.3 Customer Satisfaction versus Product Performance and Post-Purchase Behaviour

The study findings revealed a significant and strong indirect effect of brand equity on post-purchase behaviour, mediated by customer satisfaction, with a path coefficient of 0.194, T-statistics of 8.046, and a P-value of 0.000. These findings align with findings of similar previous studies, indicating that brand trust significantly affects customer loyalty through satisfaction. In agreement with findings of the current study, Aydin et al. (2021) have shown that strong brand equity leads to higher customer satisfaction, which drives loyalty and positive repurchase intentions. This underscores the importance of building a strong brand equity through effective branding strategies, which can significantly enhance customer satisfaction and loyalty. According to Hussein and Ahmad (2020), the repurchase intention for smartphone devices can be triggered through brand experience, brand equity, and customer satisfaction, where brand equity makes a significant contribution. Consumers who are attached to the brand are likely to repeat purchases from the same brand, where manufacturers have to ensure customer satisfaction (Ono et al., 2021). Additionally, manufacturers should utilize both traditional and digital communication channels to keep consumers informed about new or innovative products from the brand (Murugan & Kirubakaran, 2025).

Customer satisfaction plays a key mediating role in this study, confirming its importance in consumer purchasing behaviour in the context of technologically advanced products such as smartphones (Reva et al., 2024). These findings, which are supported by the Expectation disconfirmation model used by Reva et al. (2024), underscore the mediating role of customer satisfaction in cognitive judgements and

purchase decisions. This study adds to the growing body of knowledge on smartphone users' behaviour in the context of a developing country, particularly among university students.

V. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study confirmed that customer satisfaction plays a significant mediating role in the relationship between product performance, after-sales service, brand equity, and post-purchase behaviour among smartphone users, particularly university students in Tanzania. The results demonstrated that when product performance meets or exceeds expectations, it enhances customer satisfaction, which in turn fosters repeat purchases and customer loyalty. Similarly, effective after-sales service positively influences customer satisfaction, reinforcing consumer trust and encouraging continued patronage. Furthermore, strong brand equity not only builds consumer confidence but also enhances satisfaction, leading to favourable post-purchase behaviours such as repeat buying and brand advocacy. These findings validate the Expectation Confirmation Theory (ECT) by demonstrating that perceived performance, service quality, and brand value significantly influence post-purchase behaviour through the mediating effect of satisfaction. Ultimately, this study highlights the critical importance of customer satisfaction in shaping consumer behaviour in the smartphone market within a developing country context.

5.2 Recommendations

Based on the findings, smartphone manufacturers and marketers should prioritise strategies that directly enhance customer satisfaction as a pathway to improving post-purchase behaviours such as loyalty, repurchase intentions, and positive word-of-mouth. First, firms must invest in product quality and innovation, ensuring that performance aligns with or surpasses customer expectations. Second, after-sales service systems should be strengthened providing prompt technical support, warranties, repairs, and user-friendly customer service channels that cater for post-purchase needs. Third, building a strong brand equity through consistent brand messaging, transparency, and engaging both traditional and digital platforms is essential for creating emotional attachment and trust among users. Special focus should be directed to the youth and university demographic, as their preferences and behaviours offer valuable insights into future market trends. Finally, policy makers and mobile service providers in Tanzania could support initiatives that promote fair competition and service quality in the smartphone industry, further enhancing consumer satisfaction and overall market efficiency.

5.3 Contribution of the Study

5.3.1 Contribution to Theory

This study reinforces the Expectation Confirmation Theory (ECT) by empirically validating customer satisfaction as a mediating variable between product-related factors and post-purchase behaviour. The

study extends the theoretical framework by applying it to the smartphone market in a developing country context, offering insights into how satisfaction influences consumer decision-making in technologically driven purchases.

5.3.2 Contribution to Empirical Studies

The study contributes to the existing empirical literature by providing evidence from university students in Tanzania, which is a relatively underexplored demographic. The study highlights how product performance, after-sales service, and brand equity influence post-purchase behaviour through customer satisfaction, supporting and expanding prior findings in different geographic and market contexts. This enhances understanding of consumer behaviour in the emerging markets.

Ethical Approval

The ethical approval for this study was obtained from the Directorate of Research and Postgraduate Studies at Mzumbe University, under reference number MU/DPGS/INT/38/VOL.IV/439.

Disclosure Statement

The authors declare no conflict of interest.

Declaration of AI Usage

The authors acknowledged that the AI tool for academic (Trinka) was used only for grammar checking, not for generating research findings. The author would like to take full responsibility for the content, analysis, and conclusions presented in this paper.

Informed Consent

All participants in the study provided written informed consent.

Authors' Contributions

Credit: **Martha Samwel**: Conceptualization, Funding acquisition, Investigation, Methodology, Software, and Writing – original draft, Writing – review & editing; **Robert Makorere**: Supervision, Formal analysis, Validation, Writing – review & editing.

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