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# **Assessing the Impact of E-Commerce Platforms on Retail Consumer Goods Brand Building**

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# **ABSTRACT**

The research examines how e-commerce platform marketing attributes affect customer satisfaction while building retail brands in Uzbekistan's developing digital economy. The research applies marketing theory to identify platform usability and information quality and delivery experience and service quality and security and customer review trust and perceived value for money as essential elements of the online marketing mix which affect consumer experience and brand perception. The research uses survey data from 1,000 Tashkent online shoppers to test and validate the relationships through Ordinary Least Squares (OLS) regression and Structural Equation Modelling (SEM). The OLS model demonstrates high explanatory power for customer satisfaction through its  $R^2$  value of 0.742. The SEM results demonstrate outstanding model performance through RMSEA = 0.000 and CFI = 1.000 and TLI = 1.000 while showing significant relationships between all attributes at P < 0.001. The study reveals that customer service quality ( $\gamma = 1.41$ ) and product information quality ( $\gamma = 1.39$ ) and platform usability ( $\gamma = 1.38$ ) have the most significant impact on customer satisfaction and brand loyalty. The research demonstrates that service quality and experience design in e-commerce markets function as fundamental marketing elements which create positive customer experiences and digital brand value. The research adds value to marketing science through its digital commerce service quality extension and provides operational guidance for e-commerce managers to build customer-focused strategies and market leadership in Uzbekistan's expanding digital retail sector.

Keywords: Marketing, Customer Satisfaction, Retail Brand Creation, Digital Economy, Emerging Markets

JEL Classifications: M30, M31, M39, C30, L81

# 1. INTRODUCTION

Digital commerce has brought about a complete revolution in how customers engage with retail brands and how businesses provide value to their customers. The growth of e-commerce platforms through rising internet access and mobile usage and digital payment systems has transformed retail markets across the world. The national "Digital Uzbekistan 2030" strategy in Uzbekistan has made it essential to study online customer satisfaction factors because digital transformation speeds up in this developing economy. Customer satisfaction functions as a vital performance metric for digital retail businesses because it leads to customer retention and brand commitment (Kotler and Keller, 2021; Mofokeng, 2025).

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E-commerce platforms operate as complex systems which unite technological elements with informational content and service delivery functions. Research shows that customer satisfaction depends on five main factors which include platform usability (Davis, 1989; Venkatesh and Bala, 2008) and security and trust mechanisms (Gefen, 2002) and product information quality (Liu and Kao, 2022) and delivery experience (Chiu et al., 2009) and customer service responsiveness (Parasuraman et al., 1988, Sikos et al., 2019) and review credibility (Filieri, 2015) and perceived value for money (Zeithaml, 1988). The importance of these factors for customer satisfaction varies between different market environments because digital infrastructure development and consumer behavior patterns change quickly in emerging markets. The worldwide growth of digital commerce has not led to sufficient academic research about Central Asian e-commerce consumer behavior assessment methods.

Recent research in marketing and information systems now supports using regression analysis and structural equation modeling (SEM) together to achieve both statistical accuracy and theoretical support (Hair et al., 2020; Fornell and Larcker, 1981). Regression models excel at finding essential predictors and measuring their direct impact but SEM provides a complete analysis of cause-and-effect relationships and model fit assessment. The combination of these research methods produces a strong method to evaluate how e-commerce platform attributes influence customer satisfaction and retail brand development.

The study investigates how seven e-commerce platform attributes affect customer satisfaction through online shopping in Tashkent City using OLS regression and SEM techniques. The research findings show that platform design elements together with service dimensions explain most of the variation in customer satisfaction through service quality and product information and usability as the leading factors. The study confirms a well-fitting SEM model (RMSEA = 0.000, CFI = 1.000) which demonstrates the stability of these relationships. This work investigates an emerging digital economy to enhance theoretical knowledge about online retail satisfaction factors while providing operational recommendations for Uzbekistan and comparable developing markets. The research design presented in this study provides a starting point for future investigations about how digital service quality affects consumer satisfaction and brand development in economies undergoing transition.

## 2. LITERATURE REVIEW

E-commerce success depends on customer satisfaction which has been established as its fundamental foundation. Online satisfaction operates differently from traditional retail because it depends on product performance and technological functionality and digital interaction quality. The research by Lian and Lin (2008) and Jahan et al. (2025) demonstrates that online satisfaction depends on three essential factors which include simple interfaces and fast navigation and smooth transaction processes. The platforms' user-friendly design serves as a competitive advantage for developing economies because it helps consumers who lack digital skills to use their platforms effectively. Research indicates that platforms which

focus on user needs can establish themselves as market leaders through customer retention strategies in developing markets.

Digital commerce research has dedicated substantial attention to the study of trust as a fundamental construct. Research from the past shows that consumers need to feel their data is protected and their transactions are secure to finish online purchases (Al-Debei et al., 2015). Research from Zhao and Huang (2024) shows that privacy assurance mechanisms which include secure payment systems and authentication badges lead to better initial trust and higher repeat purchase rates. Research conducted in Southeast Asian and Middle Eastern markets shows that social proof elements such as customer reviews and ratings help consumers feel more secure about platform reliability (Alhumud and Elshaer, 2024). The combination of trust elements with technological protection systems explains why satisfaction levels differ between digital platforms (Gao et al., 2025).

The way customers evaluate their purchases after delivery depends heavily on how well the delivery process works and how quickly their items arrive (Balinado et al., 2021). The delivery process affects service quality through its three essential components which include delivery precision and package state and customer information access (Al-Adwan et al., 2022). The reliability of last-mile delivery operations in developing cities with their congested infrastructure directly affects how customers view brands and their willingness to return (Zaghloul et al., 2024). Businesses that implement real-time tracking systems and flexible delivery choices achieve superior customer satisfaction results than their competitors (Alshibly, 2014). The delivery experience serves as a connection between online shopping and physical product receipt.

The evaluation of online retailers by customers depends heavily on their perception of receiving good value for their money (Do et al., 2025). The evaluation of quality and price by consumers leads to emotional satisfaction through convenience and personalization (Fazel Dehkordi and Nasr, 2025). Research conducted in Eastern European and Latin American e-commerce markets shows that customers link fair prices to clear discount policies and successful loyalty programs (Le et al., 2024, Kincl et al., 2022). Digital consumers show strong sensitivity to price changes so businesses need to maintain fair pricing to stop customers from leaving. Research shows that online pricing strategies function as psychological indicators which strengthen brand trustworthiness (Hu et al., 2025).

The study now views e-commerce platforms as active partners who help build brand value instead of functioning as basic transaction facilitators. The combination of website design and service quality and social interaction elements during digital experiences creates the foundation for brand identity (Tuan and Doan, 2025). Research across different cultural settings shows that platforms which unite multiple channels and maintain active communication develop stronger bonds with their users (Agnihotri et al., 2009). The development of brand value depends on customer satisfaction which functions as both a result and a motivating factor. The literature shows that satisfaction functions as an active relationship-based construct which develops within digital systems.

This work on e-commerce satisfaction in developed markets has received substantial attention but Central Asia remains understudied because its digital infrastructure and trust systems and logistics networks continue to develop. The current research gap exists because few studies have used OLS regression with SEM validation to study how platform attributes affect customer satisfaction and retail brand development. The research uses primary survey data from Tashkent City to study digital consumer behavior in emerging markets through an integrated method that combines OLS regression with SEM validation.

# 3. DATA AND METHODOLOGY

#### 3.1. Data

The research used quantitative cross-sectional methods to collect survey data from 1,000 Tashkent City online consumers in Uzbekistan. The survey asked participants to rate their e-commerce platform experiences through seven essential factors which included usability and security and product information quality and delivery experience and customer service quality and customer review trust and perceived value for money using a five-point Likert scale from 1 to 5.

The variables used in this study are defined as follows:

- Platform Usability (PU)
- Platform Security (PS)
- Product Information Quality (PIQ)
- Delivery Experience (DE)
- Customer Service Quality (CSQ)
- Customer Review Trust (CRT)
- Perceived Value for Money (PVM).

Internal consistency was confirmed using Cronbach's alpha (Malkewitz et al., 2023), defined as:

$$\alpha = \frac{k}{k-1} \left(1 - \frac{\sum_{i=1}^{k} \sigma^2}{\sigma_T^2}\right) \tag{1}$$

Where k is the number of items,  $\sigma_i^2$  is the variance of each item, and  $\sigma_T^2$  is the total variance of the summed scale. The result of value of  $\alpha = 0.89$  indicates highly reliability.

## 3.2. Methodology

The following linear regression model was used to estimate how platform attributes affect customer satisfaction (Huang, 2022).

$$CS_{i} = \beta_{0} + \beta_{1}PU_{i} + \beta_{2}PS_{i} + \beta_{3}PIQ_{i} + \beta_{4}DE_{i} + \beta_{5}CSQ_{i} + \beta_{6}CRT_{i} + \beta_{7}PVM_{i} + \varepsilon_{i}$$
(2)

Where:

CS, denotes the satisfaction score of respondent i;

PU., PS., PIQ., DE., CSQ., CRT., PVM. are independent variables;

 $\varepsilon_i$  represents the random disturbance term, assumed to follow N  $(0, \sigma^2)$ .

The least-squares estimator minimizes the sum of squared residuals (Poojari et al., 2025):

$$\min_{\beta} \sum_{i=1}^{n} (CS_{i} - CS_{i})^{2} = \min_{\beta} \sum_{i=1}^{n} (CS_{i} - X_{i}^{\beta})^{2}$$

and the parameter estimates are given by:

$$\hat{\beta} = (XX)^{-1}XY \tag{4}$$

Where X is the matrix of explanatory variables and Y is the vector of observed dependent values.

To ensure independent variables are not linearly dependent, the Variance Inflation Factor (VIF) (Vu et al., 2015) was computed as:

$$VIF_j = \frac{1}{1 - R_j^2} \tag{5}$$

Here  $R_j^2$  is the coefficient of determination from an auxiliary regression of the jij-th variable on all others. A mean VIF<5 confirms the absence of multicollinearity.

In this model,  $\overline{VIF} = 1.00$ , indicating no collinearity issues.

The Breusch–Pagan/Cook–Weisberg test served to confirm that error variances remained homogeneous (Waldman, 1983).

$$x^2 = \frac{(nR^2)}{2} \tag{6}$$

The Breusch-Pagan/Cook-Weisberg test served to confirm that error variances remained homogeneous.

Residuals were tested for normality using the Shapiro-Wilk statistic:

$$W = \frac{\sum_{i=1}^{n} {i \cdot y^{i} \cdot y^{2}}}{\sum_{i=1}^{n} {(y - y)^{2}}}$$
(7)

Where  $y_{ij}$  are ordered residuals and  $a_i$  are tabulated constants. The test yielded W = 0.999 and P = 0.8825, confirming residuals are normally distributed.

The Ramsey RESET test was used to detect omitted variables or model misspecification (Bronk Ramsey et al., 2015). The test

augments the regression with higher powers of fitted values:

$$CS = \beta + {7 \atop i} \beta X + CS_{2} + CS_{3} + u$$

$$(8)$$

$${1 \atop i} \sum_{j=1}^{j-1} {1 \atop j} {1 \atop j} {1 \atop i} {2 \atop j} {i}$$

Under the null hypothesis  $H_0$ : $\lambda_1 = \lambda_2 = 0$ , the model is correctly specified. The computed value F(3,989) = 0.48 with P = 0.6987 confirms proper specification.

To validate the structural consistency and global fit of the relationships identified in the OLS model, a Structural Equation Model (SEM) was estimated as follows:

$$CS = \gamma_1 PU + \gamma_2 PS + \gamma_3 PIQ + \gamma_4 DE + \gamma_5 CSQ + \gamma_6 CRT + \gamma_7 PCM + \zeta$$
(9)

Where  $\zeta$  denotes the residual disturbance.

The estimation used Maximum Likelihood (ML), maximazing the log-likelihood function:

$$\ln L(\theta) = -\frac{n}{2} \ln (2\pi) - \frac{1}{2} \ln \left| \sum_{n} (\theta) \right| - \frac{1}{2} (y - \mu)^{n} \sum_{n} (\theta)^{-1} (y - \mu)$$
(10)

Model fit was assessed via multiple global indices:

$$RMSEA = \sqrt{\frac{x^2}{\frac{df}{n-1}}}$$
 (11)

$$CFI = 1 - \frac{\max(x^2 - df, 0)}{\max(x_{baseline}^2 - df_{baseline}, 0)}$$
(12)

$$TLI = \frac{\frac{x^2}{df} - 1}{\frac{x_{baseline}^2}{df_{baseline}} - 1}$$
(13)

$$SRMR = \sqrt{\frac{1}{p(p+1)} \sum_{i \neq j} (r_{ij} - \hat{r_{ij}})^2}$$
 (14)

The SEM achieved excellent fit statistics:

RMSEA = 0.000, CFI = 1.000, TLI = 1.000, SRMR = 0.000.

The diagnostic and structural validation results show that:

The OLS assumptions are fulfilled because there is no multicollinearity and the errors are homoskedastic and the residuals follow a normal distribution.

The SEM analysis shows an excellent model fit through its significant and positive path coefficients (P < 0.001).

The integrated modeling approach which uses OLS estimation together with SEM validation provides both precise empirical results and theoretically sound models. The dual modeling structure can be summarized as: OLS and SEM. This approach provides a robust analytical basis for identifying the main determinants of customer satisfaction and assessing their structural coherence in shaping retail brand creation across Uzbekistan's digital economy.

# 4. RESULTS AND DISCUSSION

The observed variables receive their descriptive summary in Table 1. The customer satisfaction scores show a mean value of 53.27 while the standard deviation reaches 4.38 which indicates moderate variation between respondents. The platform attributes of usability and security and product information quality and delivery experience receive average ratings between 3.37 and 3.43 which indicates respondents view Uzbekistan's e-commerce platforms as dependable yet needing improvement in functionality.

**Table 1: Descriptive statistics of variables** 

Variable	Obs	Mean	Standard	Min	Max
			Deviation		
Customer Satisfact~n	1000	53.274	4.38	39.6	65.5
Platform Usability	1000	3.425	1.142	1	5
Platform Security	1000	3.382	1.148	1	5
Product Info Quality	1000	3.37	1.113	1	5
Delivery Experience	1000	3.417	1.107	1	5
Customer Service Q~y	1000	3.383	1.138	1	5
Customer Review Tr~t	1000	3.404	1.136	1	5
Perceived Value fo~y	1000	3.355	1.127	1	5

The correlation matrix (Table 2) demonstrates that all independent variables have positive relationships with customer satisfaction through coefficients between 0.61 and 0.77 (P < 0.01). The correlation values between all pairs of variables stay below 0.80 which proves no multicollinearity exists according to the mean VIF value of 1.00.

The ordinary least squares (OLS) regression results appear in Table 3. The model shows high explanatory power because it explains 74% of customer satisfaction variation through its seven e-commerce platform attributes.

All coefficients show positive values which achieve statistical significance at P<0.001 to support the proposed relationships. The three attributes which affect customer satisfaction the most are Customer Service Quality ( $\beta=1.4107$ ) and Product Information Quality ( $\beta=1.3888$ ) and Platform Usability ( $\beta=1.3828$ ). The attributes show a direct relationship with customer satisfaction because each unit increase results in a 1.4-point satisfaction boost.

The three factors of delivery experience ( $\beta$  = 1.2321) and perceived value for money ( $\beta$  = 1.2782) and platform security ( $\beta$  = 1.0232) demonstrate strong effects which prove operational reliability and trust mechanisms matter. The positive relationship between Customer Review Trust ( $\beta$  = 1.1463) demonstrates that trustworthy peer reviews build digital transaction confidence which becomes crucial in markets with developing consumer protection regulations.

The Breusch–Pagan test ( $\chi^2 = 0.49$ , P = 0.4853) supports homoskedasticity while the Shapiro–Wilk statistic (W = 0.999, P = 0.8825) validates normality and the Ramsey RESET test (F = 0.48, P = 0.6987) rejects model misspecification.

The kernel density plot of standardized residuals in Figure 1 shows symmetry and minimal deviation while the Q–Q plot in Figure 2 confirms that residuals follow a normal distribution.

The same variables underwent Structural Equation Model (SEM) analysis through maximum-likelihood estimation to verify relationship stability (Table 4). The SEM validation process demonstrates that the linear model maintains its reliability while delivering additional insights about structural patterns.

The OLS results match the SEM analysis because all path coefficients show positive values with statistical significance at P < 0.001. The three most significant standardized paths in the model show the following relationships: Customer Service Quality directly affects

Table 2: Correlation matrix of model variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Customer_Satis~n	1.000							
(2) Platform Usabi~y	0.370	1.000						
(3) Platform Secur~y	0.238	-0.006	1.000					
(4) Product Info Q~y	0.347	-0.003	0.006	1.000				
(5) Delivery_Exper~e	0.302	0.017	-0.051	-0.016	1.000			
(6) Customer_Servi~y	0.354	-0.009	-0.036	-0.008	0.018	1.000		
(7) Customer_Revie~t	0.304	0.022	0.027	-0.008	0.007	-0.021	1.000	
(8) Perceived_Valu~y	0.330	0.010	-0.025	0.014	-0.015	0.011	-0.001	1.000

Table 3: OLS regression results for determinants of customer satisfaction

Customer_Satisfact~n	Coefficient	Standard error	t-value	P-value	[95% Conf	<b>Interval</b> ]	Significant	
Platform Usability	1.383	0.062	22.35	0	1.261	1.504	***	
Platform_Security	1.023	0.062	16.59	0	0.902	1.144	***	
Product_Info_Quality	1.389	0.063	21.88	0	1.264	1.513	***	
Delivery Experience	1.232	0.064	19.29	0	1.107	1.357	***	
Customer_Service_Q~y	1.411	0.062	22.71	0	1.289	1.533	***	
Customer_Review_Tr~t	1.146	0.062	18.42	0	1.024	1.268	***	
Perceived_Value_fo~y	1.278	0.063	20.39	0	1.155	1.401	***	
Constant	23.225	0.571	40.67	0	22.104	24.345	***	
Mean dependent var		53.274		SD dependent var		4.380		
R-squared		0.742		Number of	obs	1000		
F-test		408.001		Prob > F		0.000		
Akaike crit. (AIC)		4451.530	)	Bayesian ci	Bayesian crit. (BIC)		4490.792	

<sup>\*\*\*</sup>P<0.01, \*\*P<0.05, \*P<0.1

Table 4: Structural equation model results

Variables	OIM						
	Coefficient	Standard error	Z	P>z	[95% conf.	interval]	
Structural							
Customer_Satisfaction							
Platform_Usability	1.383	0.062	22.440	0.000	1.262	1.504	
Platform Security	1.023	0.061	16.650	0.000	0.903	1.144	
Product Info Quality	1.389	0.063	21.970	0.000	1.265	1.513	
Delivery_Experience	1.232	0.064	19.360	0.000	1.107	1.357	
Customer_Service_Quality	1.411	0.062	22.810	0.000	1.289	1.532	
Customer_Review_Trust	1.146	0.062	18.500	0.000	1.025	1.268	
Perceived Value for Money	1.278	0.062	20.470	0.000	1.156	1.401	
_cons	23.225	0.569	40.840	0.000	22.110	24.339	
var (e.Customer_Satisfaction)	4.941	0.221		4.527	5.39	94	

Figure 1: Standardized residuals distribution (Kernel density plot)

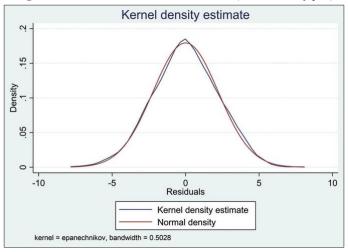
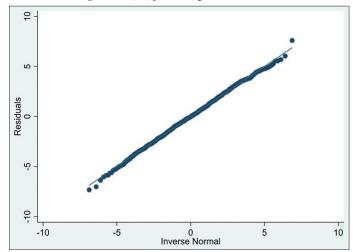


Figure 2: Q-Q plot of regression residuals



Platform\_Usability 3.4 
Platform\_Security 3.4 
Product\_Info\_Quality 3.4 
Delivery\_Experience 3.4 
Customer\_Service\_Quality 3.4 

Customer\_Review\_Trust 3.4 

Perceived\_Value\_for\_Money 
Platform\_Usability 3.4 

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Customer\_Satisfaction 23 

En 4.5 

Customer\_Satisfaction 23 

En 4.5 

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Figure 3: Structural equation model diagram of customer satisfaction determinants

Customer Satisfaction ( $\gamma=1.41$ ); Product Information Quality directly affects Customer Satisfaction ( $\gamma=1.39$ ); Platform Usability directly affects Customer Satisfaction ( $\gamma=1.39$ ). The model fit statistics demonstrate an excellent match between the observed data and the proposed model structure because RMSEA = 0.000 and CFI = 1.000 and TLI = 1.000 and SRMR=0.000. The model fit indices surpass the established thresholds of CFI/TLI  $\geq 0.95$  and RMSEA  $\leq 0.05$  which demonstrates perfect alignment between theoretical and actual data structures. The SEM path diagram in Figure 3 shows all seven observed variables directly influencing customer satisfaction. The thickness of the arrows shows the strength of the standardized coefficients.

The analysis of OLS and SEM results produces a unified empirical framework. The research findings from both methods demonstrate that service quality together with information accuracy and usability form the essential foundation for online satisfaction in Uzbekistan's digital retail market.

The excellent results for service quality demonstrate how businesses must focus on delivering excellent post-purchase support and fast communication because their markets lack developed logistics and dispute-resolution systems (Herzallah et al., 2025). The importance of product information quality becomes evident because detailed product descriptions help customers feel safer while building trust with brands (Nadeem et al., 2021). The usability factor represents how customers experience products through their minds because it shows that easy-to-use interfaces and accessible platforms matter (Al-Adwan and Yaseen, 2023).

The price fairness and affordability perception coefficient shows that consumers base their purchasing decisions on these two factors. The trust in customer reviews variable shows that social validation functions as an alternative to institutional trust which appears in new e-commerce markets.

# 5. CONCLUSION

The research investigated how e-commerce platform characteristics affect customer contentment and retail brand development within

Uzbekistan's expanding digital economic sector. The research used survey data from 1,000 Tashkent online consumers to analyze platform attributes through Ordinary Least Squares (OLS) regression for direct effect estimation and Structural Equation Modeling (SEM) for validating structural relationships and model fit.

The OLS results demonstrated that the seven investigated factors explain 74% of customer satisfaction variability through their positive relationships ( $R^2 = 0.742$ ). The analysis showed that all examined variables produced positive results which demonstrated that platform usability and security and information quality and delivery reliability and service responsiveness and review credibility and value perception work together to enhance online retail satisfaction.

The SEM results supported the previous findings by showing perfect model alignment (CFI = 1.000; RMSEA = 0.000; TLI = 1.000) and all relationships were positive. The three factors which produced the highest impact on satisfaction were Customer Service Quality ( $\gamma$  = 1.41) and Product Information Quality ( $\gamma$  = 1.39) and Platform Usability ( $\gamma$  = 1.38). The research findings demonstrate that digital brand strength in emerging markets depends on three essential elements which include technical functionality and information transparency and interactive service quality.

The research establishes a complete methodological framework through its combination of econometric modeling with structural validation to study digital service models and traditional marketing constructs. The research introduces fresh data from Central Asia which represents a seldom studied area in worldwide e-commerce studies.

The research results provide essential guidance to platform operators and digital business owners and public institutions which want to boost Uzbekistan's position in worldwide e-commerce markets:

 Digital Service Quality Improvement Requires Investment in Multilingual Customer Service Systems with Quick Resolution Channels and AI-Based Chatbots and Personalized After-Sales Communication

- Platform owners together with regulators need to create standardized content verification procedures which will maintain accurate and real-time product information and pricing details. The combination of accurate information with real-time updates helps customers feel safer while developing enduring relationships with the brand
- The development of human-centered design principles should guide developers to create platforms which offer simple navigation and minimal mental effort for users. The requirement for user-friendly interfaces becomes essential because digital skills vary across different regions of emerging markets
- The government together with financial institutions needs to work on developing digital trust systems which include merchant verification programs and protected payment systems and robust data protection standards. The implementation of robust cybersecurity frameworks will create an environment where people feel secure when shopping online
- The implementation of loyalty programs together with cashback systems and price guarantees helps organizations achieve fair value perceptions which lead to better customer satisfaction
- The government needs to establish digital education programs and entrepreneurship support systems and training initiatives which will help local businesses create user-friendly platforms with secure features and excellent service delivery to support the "Digital Uzbekistan 2030" strategy.

The research provides a complete empirical evaluation but researchers need to address three main study constraints. The research design uses a single point in time to study consumer behavior which prevents scientists from tracking how people change their actions throughout time. Future research should use either long-term data collection or controlled experiments to study the exact relationships between variables. The research focused on Tashkent but future studies should analyze e-commerce markets across different regions to achieve better results. The research should include additional variables such as mobile application usage and delivery sustainability and environmental consciousness to enhance its understanding of digital consumer satisfaction.

The research provides a dependable and reproducible approach to study customer satisfaction and digital brand development through its combination of OLS and SEM analysis. The research demonstrates that trust and usability and service quality serve as essential operational metrics which drive the development of Uzbekistan's e-commerce sector. The research findings demonstrate that technical functionality combined with information transparency and interactive service quality form the essential foundation for digital brand strength in emerging markets.

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