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**An Examination of Antecedents of Customers' Retention and Online Retailers' Reputation: An Evidence of Pakistan**

**Zoya Ejaz<sup>1</sup>, Saba Atiq Khan<sup>2</sup>**

<sup>1</sup> M.Phil, Department of Business Administration, Ghazi University, Dera Ghazi Khan

Email: [zoyaejaz635@gmail.com](mailto:zoyaejaz635@gmail.com)

<sup>2</sup> M.Phil, Department of Business Administration, Ghazi University, Dera Ghazi Khan Email:

[sabaattiq17@gmail.com](mailto:sabaattiq17@gmail.com)

Corresponding Email: [sabaattiq17@gmail.com](mailto:sabaattiq17@gmail.com)

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**Abstract**

Online shopping has become a flourishing business in the digital era, with consumers increasingly adopting it for convenience. This study examines the antecedents' **quality personalization, system quality, information quality, and service quality** that influence **customer retention and online retailer reputation**, mediated by **customer satisfaction and trust** in Pakistan's e-commerce sector. A **quantitative approach** was employed, collecting data via **302 questionnaires** from university students in **Multan and D.G. Khan**, analyzed using **SPSS, AMOS, and Structural Equation Modeling (SEM)**. Results indicate that all antecedents **positively affect** retention and reputation through the mediating roles of **satisfaction and trust**. This research contributes to the literature by addressing Pakistan's growing digital market, offering insights for **online retailers** to enhance customer loyalty and competitive positioning. The study also highlights **managerial implications** for improving service delivery and technological infrastructure. Limitations are discussed, along with **future research directions** to expand knowledge in evolving e-commerce landscapes. This work stands as one of the **pioneering studies** in Pakistan, providing valuable guidance for retailers and policymakers in the digital marketplace.

**Keywords:** SERVQUAL, Online purchasing, customer trust and satisfaction, website qualities, web personalization, Pakistan

**1. Introduction**

The rapid expansion of e-commerce has transformed the global retail landscape, offering consumers' unparalleled convenience, variety, and accessibility (TOMIĆ, LAVRNIĆ, & VIDUKA, 2025). In Pakistan, the digital marketplace has witnessed exponential growth, driven by increasing internet penetration, smartphone adoption, and a young, tech-savvy population (Endarwati, Indriany, Rusdianto, Suarniki, & Pratiwi, 2024). Despite this growth, online retailers face significant challenges in retaining customers and maintaining a strong reputation in a highly

competitive environment. Customer retention and retailer reputation are critical determinants of long-term success in e-commerce, as acquiring new customers is often more costly than retaining existing ones (Venkatakrishnan, Alagiriswamy, & Parayitam, 2023). However, the factors influencing these outcomes in the Pakistani context remain underexplored.

Customer retention refers to a business's ability to encourage repeat purchases and foster long-term loyalty. In the digital marketplace, where switching costs are low and alternatives are abundant, retaining customers requires a deep understanding of their expectations and experiences (Al-Adwan, Kokash, Adwan, Alhorani, & Yaseen, 2020). Prior research highlights various antecedents of customer retention, including service quality, trust, perceived value, and customer satisfaction (Dhingra, Gupta, & Bhatt, 2020). However, the applicability of these factors in emerging markets like Pakistan, where e-commerce is still evolving, needs further empirical validation.

Similarly, online retailers' reputation defined as the collective perception of a retailer's credibility, reliability, and ethical conduct—plays a crucial role in shaping consumer behavior (Mofokeng, 2021). A strong reputation enhances consumer trust, reduces perceived risk, and fosters positive word-of-mouth, all of which contribute to sustained competitive advantage. In Pakistan, where concerns over fraud, delivery delays, and poor after-sales service persist, understanding how online retailers can build and maintain a favorable reputation is essential for industry growth (Fletcher & Nielsen, 2018).

The worldwide online deals of (FMCGs) items were growing multiple times quicker than disconnected deals, and Pakistan now standing with confronting infrastructural obstacles, which relied upon to follow a similar course. However at a shifted pace, as indicated by "Nielsen Future Opportunities in FMCGs E-business" report. E-Commerce expansion in Pakistan, (Times of Islamabad) another stunning report reveals that Pakistan, with exponential development in web-based business exercises over recent years, has seen Rs. 40.1 billion offers of nearby and universal online business vendors in the year 2018 (Potwora, Zakryzhevska, Mostova, Kyrkovskiy, & Saienko, 2023). An empowering development of 93.7 percent has been enrolled in web-based business exercises as a deal was Rs. 20.7 billion in Fiscal Year 2017. Baited by lower exchange costs, comfort, and growing web infiltration, the two ventures and buyers have begun moving their exchanges on the web.

While existing literature provides valuable insights into customer retention and corporate reputation in developed economies, there is a paucity of research examining these constructs in Pakistan's unique socio-economic and cultural context. Factors such as low digital literacy, payment security concerns, and infrastructural challenges may influence consumer behavior differently than in more mature e-commerce markets (Alimamy & Gnoth, 2022). Additionally, the role of emerging technologies (e.g., AI-driven customer service, blockchain for transparency) in shaping customer retention and retailer reputation remains underexplored in developing countries.

This study seeks to bridge these gaps by investigating the key antecedents of customer retention and online retailers' reputation in Pakistan. Specifically, it examines the impact of service quality, trust, perceived value, customer satisfaction, and technological advancements on these two critical outcomes. By doing so, this research contributes to the broader discourse on e-

commerce sustainability in emerging markets while providing actionable insights for online retailers operating in Pakistan.

## **2. Literature Review**

### **2.1 Customers Retention**

Recent studies emphasize that customer retention in digital markets is driven by personalized experiences, AI-driven engagement, and omnichannel strategies (Singh, Dash, Sahu, & Kumar, 2024). Research highlights the growing role of emotional loyalty, where brands fostering emotional connections achieve higher retention (Ortakci & Seker, 2024). Additionally, trust and transparency particularly in data privacy and ethical AI use significantly influence retention. In emerging markets like Pakistan, factors such as payment security, delivery reliability, and post-purchase support are critical (Thangeda, Kumar, & Majhi, 2024). Subscription models and loyalty programs remain effective but require gamification and hyper-personalization to sustain engagement. The COVID-19 pandemic further accelerated digital reliance, making seamless UX and responsive customer service key retention drivers (Rasheed & Balakrishnan, 2025).

### **2.2 Online Retailer Reputation**

Recent research highlights that online retailer reputation is increasingly shaped by digital trust, social proof, and sustainability practices. Studies show that consumers rely heavily on online reviews, influencer endorsements, and platform authenticity to assess retailer credibility (Duan, Deng, Ma, & Wang, 2025). Transparency in pricing, ethical AI use, and data privacy compliance has emerged as key reputation drivers. In emerging markets like Pakistan, logistical reliability and fraud prevention significantly impact reputation (Sivapathi & Kavitha). The rise of social commerce has further amplified the role of user-generated content (UGC) and real-time customer engagement in shaping perceptions. Additionally, retailers adopting ESG (Environmental, Social, Governance) principles report stronger reputational equity. Post-pandemic, seamless returns, responsive chatbots, and AI-powered personalization also contribute to reputation (Yadav & Kar, 2024).

### **2.3 Relationship between Satisfaction, Online Retailer Reputation, and Customers Retention**

The relationship between customer satisfaction, online retailer reputation, and customer retention has been extensively examined in digital commerce research. Customer satisfaction, influenced by factors such as service quality, website usability, and fulfillment reliability, serves as a fundamental driver of retention (Dwivedi, Lohmor Choudhary, Dixit, Sahiba, & Naik, 2024). When customers are satisfied with their shopping experience, they exhibit higher repurchase intentions and lower switching tendencies (Wahyuni, Kusumaningtyas, Mahdani, & Wibowo, 2024).

A retailer's reputation operates as both an antecedent and consequence in this dynamic. Positive reputation, built through consistent service delivery and ethical business practices, enhances initial customer trust and reduces perceived risk. This trust translates into greater satisfaction, which subsequently strengthens retention rates. Simultaneously, satisfied customers contribute to reputation building through positive word-of-mouth and online reviews, creating a virtuous cycle (Hussain, Javed, Khan, & Yasir, 2024).

In developing e-commerce markets like Pakistan, this relationship takes on added complexity. Structural challenges like payment security concerns and logistical inconsistencies mean reputation plays an even more pivotal role in converting satisfaction into retention (Ma, Zeyu, Ni, & Ping, 2024). Retailers who actively manage both satisfaction drivers and reputation signals demonstrate superior retention performance in these contexts.

**H11:** Satisfaction has a positive impact on online retailer reputation.

**H12:** Satisfaction has a positive effect on customer retention.

## **2.4 Relationship between Trust, Online Retailer Reputation and Customers Retention**

Trust plays a pivotal role in shaping consumer behavior in digital marketplaces, serving as a critical link between online retailer reputation and customer retention. Research indicates that trust acts as a fundamental prerequisite for establishing a positive retailer reputation (Wahyuni et al., 2024). When consumers perceive an online retailer as trustworthy, they are more likely to develop favorable perceptions of the retailer's overall reputation, which in turn fosters long-term customer relationships (Noor et al., 2024).

The connection between these constructs operates through several mechanisms. First, trust reduces perceived risk and uncertainty in online transactions, making customers more willing to engage in repeat purchases. Second, a strong reputation built on trust enhances customer confidence, leading to greater loyalty and reduced churn rates (Harriet, Arthur, Komunda, & Mugizi, 2024). Third, trust violations such as security breaches or misleading product information can significantly damage both reputation and retention outcomes.

In developing e-commerce markets like Pakistan, these relationships take on added significance. The absence of robust consumer protection mechanisms and prevalent concerns about online fraud make trust and reputation particularly crucial for customer retention (Hussain et al., 2024).

**H9:** Customer trust has a positive impact on online retailer reputation.

**H10:** Customer trust has a positive impact on customer retention.

## **2.5 Relationship between Quality Personalization, Customers Trust and Satisfaction**

Quality personalization has emerged as a significant driver of customer trust and satisfaction in digital commerce environments. When online retailers effectively implement personalized experiences such as tailored product recommendations, customized communication, and individualized service they create more relevant and meaningful interactions for consumers (Hassan, Abdelraouf, & El-Shihy, 2025). This strategic personalization fosters customer trust by demonstrating that the retailer understands and values individual preferences, thereby reducing perceived uncertainty in online transactions (Sipos, 2025).

The relationship between these constructs follows a sequential pattern. High-quality personalization first enhances customer satisfaction by delivering more convenient and enjoyable shopping experiences (Endarwati et al., 2024). Satisfied customers then develop greater trust in the retailer, as consistent positive experiences validate the retailer's competence and benevolence. This trust further reinforces satisfaction, creating a virtuous cycle that strengthens customer-retailer relationships over time (Ahmed & Aziz, 2024).

However, the effectiveness of personalization depends on its execution. Poorly implemented personalization that relies on inaccurate data or feels intrusive can undermine trust and diminish satisfaction (Tuan, Hang, & Ngoc, 2025). In emerging markets like Pakistan, where digital

literacy varies, retailers must balance personalization with transparency about data usage to maintain consumer confidence.

**H1:** Quality personalization has a positive effect on the customer's trust.

**H2:** Quality personalization has a positive effect on the customer's satisfaction.

## **2.6 Relationship between Information Quality, Customers Trust and Satisfaction**

The relationship between information quality, customer trust, and satisfaction is well-established in e-commerce literature, where high-quality information characterized by accuracy, completeness, relevance, and timeliness serves as a fundamental driver of both trust and satisfaction by reducing purchase uncertainty and facilitating informed decision-making (Kedaton, Sadat, & Sari, 2024). When online retailers provide transparent product details, authentic reviews, and reliable service information, customers perceive lower risks, which enhances their trust in the retailer (Wedy, Pebrianti, & Listiana, 2025), while clear and consistent information across all touch-points simultaneously improves satisfaction by minimizing confusion and post-purchase dissonance. Trust acts as a critical mediator in this relationship, as it amplifies the positive impact of information quality on satisfaction and transforms satisfied customers into loyal patrons (Hamid et al., 2024), particularly in emerging markets like Pakistan where information asymmetry is more pronounced, making trustworthy and detailed product information even more crucial for building long-term customer relationships (Agritika & Suharjo, 2024). Poor or misleading information, conversely, can disproportionately damage trust and satisfaction, highlighting the need for retailers to maintain rigorous standards in their information management practices to sustain competitive advantage in digital marketplaces.

**H3:** Information quality has a positive impact on customer satisfaction.

**H4:** Information quality has a positive impact on the customer's trust.

## **2.7 Relationship between Service Quality, Customers Satisfaction and Trust**

The relationship between service quality, customer satisfaction, and trust forms a critical success framework for online retailers. Service quality - encompassing efficiency, reliability, responsiveness, and problem resolution - directly enhances customer satisfaction by meeting or exceeding expectations in the digital shopping experience (Kim & Yum, 2024). When customers consistently receive prompt deliveries, accurate orders, and effective customer support, their satisfaction levels increase significantly. This satisfaction then fosters trust, as positive cumulative experiences convince customers of the retailer's competence and reliability. Trust subsequently reinforces the satisfaction-service quality link by reducing perceived risk and increasing willingness to engage in future transactions (Sharma, 2024). In competitive e-commerce environments, this virtuous cycle becomes particularly crucial, where high service quality not only satisfies immediate needs but also builds the trust necessary for long-term customer retention (Sann, Pimpohnsakun, & Booncharoen, 2024). The relationship is especially pronounced in emerging markets where service inconsistencies are common, making reliable service delivery a key differentiator for building customer confidence and loyalty (Agritika & Suharjo, 2024). Retailers must therefore prioritize consistent service excellence as it simultaneously drives both satisfaction and trust, which collectively form the foundation for sustainable business growth in digital commerce.

**H5:** Service quality has a positive impact on customer satisfaction.

**H6:** Service quality has a positive impact on the customer's trust.

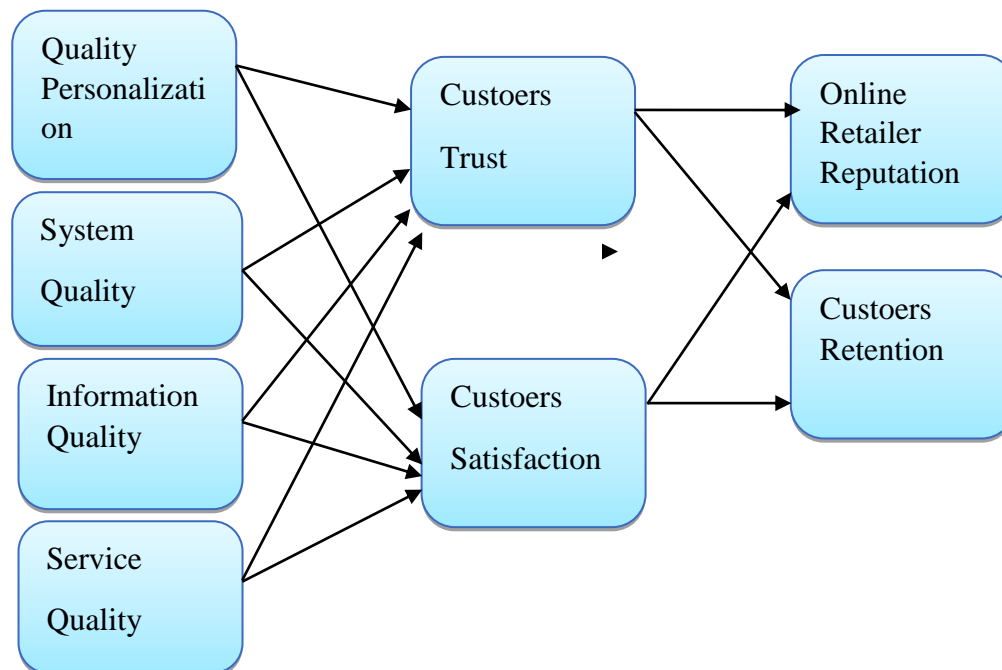
## 2.8 Relationship between System Quality, Customers Satisfaction and Trust

The relationship between system quality, customer satisfaction, and trust represents a fundamental triad in digital commerce success. System quality characterized by website reliability, intuitive navigation, fast loading speeds, and seamless functionality – serves as the technological foundation that directly shapes customer satisfaction by enabling effortless and efficient online shopping experiences (Kim & Yum, 2024). When e-commerce platforms demonstrate consistent technical performance with minimal downtime or errors, customers experience reduced frustration and increased satisfaction with their interactions (Chang, Chan, & Hsieh, 2025). Satisfaction evolves into trust as users develop confidence in the retailer's technological competence and operational stability. The trust generated through superior system quality further enhances satisfaction by lowering perceived risk in transactions and creating positive anticipation for future interactions (Ahmad, Akbar, & Lina, 2024). In mobile-dominated markets like Pakistan, where users frequently access e-commerce through smart-phones, system quality becomes particularly crucial as it directly affects accessibility and convenience (Ghaderi, Omidvar, Hosseini, & Hall, 2024). Retailers who invest in robust platform infrastructure and continuous UX improvements benefit from this reinforcing cycle, where technical excellence builds both immediate satisfaction and enduring trust – two critical components for customer retention in competitive digital marketplaces (Dehghanpouri, Soltani, & Rostamzadeh, 2020). The interdependence of these factors highlights why system quality should be prioritized not just as a technical requirement, but as a strategic driver of customer relationships in e-commerce.

**H7:** System quality has a positive impact on customer satisfaction.

**H8:** System quality has a positive impact on the customer's trust.

## 2.9 Research Model



(Independent variable)      (Mediating variable)      (Dependent variable)

**Figure 2.1:** Research Model

### 3. Methodology

This study employed a quantitative data collection method using a survey research design. The questionnaire was developed using previously validated scales. The research included 27 items measuring independent variables, 8 items for dual mediation, and 9 items for dependent variables. The survey method was selected for four key reasons: (1) it directly captures respondents' thoughts, emotions, and perceptions; (2) it is cost-effective and efficient for accurate data analysis; (3) it minimizes assumptions about participants' views; and (4) it is well-suited for large populations (Zikmund & Babin, 2000; Demarcq et al., 1994). The questionnaires were adapted IQ, SQ and SERQ were adapted from the measurements developed by (Ahn, Ryu, & Han, 2004). Whereas, construst of quality personalization was adapted from (Pappas, Kourouthanassis, Giannakos, & Lekakos, 2017). Rest of the two constructs customers' satisfaction and customers trust was adapted from the research of (Wu, 2013). The online retailers reputation and customer retention was adapted from (Ziaullah, Feng, & Akhter, 2017). 7-point likert scale were used for data collection (1= strongly disagree; 7= Strongly agree). The population of the study was the universities' students, and the sample size was 302 universities' students.

### 4. Results and Discussion

#### 4.1 Analysis of Demographics

Table 4.1 Gender

Gender	Frequency	Percentage
Female	182	60.3
Male	120	39.7
Total	302	100.0

Table 4.2 Age

Age	Frequency	Percentage
Below 20	88	29.1
30 to 39	20	6.6
20 to 29	194	64.2
Total	302	100.0

Table 4.3 Education

Education	Frequency	Percentage
Secondary School	13	4.3
Masters	98	32.5
Diploma	1	0.3
PhD	2	0.7
Bachelor	178	58.9
Other	8	2.6
Total	302	100.0

The tables summarize demographic data: Table 4.1 shows 60.3% of the 302 respondents are female, and 39.7% are male. Table 4.2 reveals 64.2% are aged 20–29, while 29.1% are under 20. Table 4.3 indicates 58.9% hold a bachelor's degree, 32.5% a master's, and fewer have diplomas, PhDs, or secondary education. The total sample size is consistent across all tables (302 respondents).

#### 4.2 Reliability Analysis

Table 4.4 Reliability Analysis

Variables	Number of Items	Cronbach's Alpha
<b>Independent Variables</b>		
-Quality Personalization	03	0.694
-System Quality	09	0.797
-Information Quality	09	0.858
-Service Quality	06	0.803
<b>Mediating Variables</b>		
-Customer Trust	04	0.815
-Customer Satisfaction	05	0.866
<b>Dependent Variables</b>		
-Online Retailer Reputation	04	0.811
-Customer Retention	03	0.842

The value of Cronbach's Alpha showed the reliability of the instruments. High value shows the high reliability and in above table all the values of cronbach's alpha is greater than .6 that means the instruments were reliable.



### 4.3 Correlation and Descriptive Statistics Analysis

Correlation, Standard deviations (SD), unwavering quality and the mean of constructs are examined in the table of 4.8 thus mean of Quality personalization (QP) is (M= 4.92, SD= 1.15), System Quality (SQ) is (M= 4.75, SD= 0.89), Information Quality (IQ) has (M= 4.95, SD= 1.00), Services Quality (SERQ) is (M= 4.78, SD= 1.01), Customer Trust (T) have (M= 4.91, SD= 1.20), Customer Satisfaction is (M= 4.94, SD= 1.21), Online Retailer Reputation (ORR) is (M= 4.86, SD= 1.15) and Customer Retention (CR) is (M= 4.71, SD= 1.39).

In present investigation, correlations are greater than .10 and were huge at  $p < .05$ . As per this worth bivariate relationship appears that System Quality (SQ) has solid positive correlation to Customer Trust (T) ( $r = .50$ ,  $p < .01$ ) and Customer Satisfaction (SAT) ( $r = .51$ ,  $p < .01$ ). Likewise, Quality personalization (QP) was substantial correlated with Customer Trust (T) ( $r = .60$ ,  $p < .01$ ) and Customer Satisfaction (SAT) ( $r = .66$ ,  $p < .01$ ). Information Quality (IQ) had a solid positive relationship/correlation to Customer Trust (T) ( $r = .58$ ,  $p < .01$ ) Customer Satisfaction (SAT) ( $r = .62$ ,  $p < .01$ ). Services Quality (SERQ) has solid positive relationship or correlation to Customer Trust (T) ( $r = .51$ ,  $p < .01$ ) and Customer Satisfaction (SAT) ( $r = .55$ ,  $p < .01$ ). Meanwhile, Customer Trust (T) had strong positive correlation to Online Retailer Reputation (ORR) ( $r = .60$ ,  $p < .01$ ) and Customer Retention (CR) ( $r = .54$ ,  $p < .01$ ). Similarly, Customer Satisfaction (SAT) was positively correlated with Online Retailer Reputation (ORR) ( $r = .73$ ,  $p < .01$ ) and Customer Retention (CR) ( $r = .65$ ,  $p < .01$ ).

Table 4.5 Factors of Interest for the Examination

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. S Q	4.75	0.89	(.79)							
2. IQ	4.95	1.00	.72*	(.85)						
3. S E R Q	4.78	1.01	.54*	.66*	(.80)					
4. Q P	4.92	1.15	.44*	.58*	.62*	(.69)				
5. T	4.91	1.20	.50*	.58*	.56*	.60**	(.81)			
6. S A T	4.94	1.21	.51*	.61*	.56*	.66**	.72**	(.86)		
7. O	4.86	1.15		.64*	.60*					

R	6	15	.55*	*	*	.54**		.60**		(.81)	
R			*					.73**			
8. C	4.7	1.		.55*	.49*					.62*	(.84)
R	1	39	.84*	*	*	.48**		.54**	.65**	*	

Note=360 System Quality (SQ); Information Quality (IQ); Services Quality (SERQ); Quality Personalization(QP); Customer Trust (T); Customer Satisfaction (SAT); Online Retailor Reputation (ORR) and Customer Retention (CR), Alpha reliabilities additionally displayed in bracket.\*p<.05, \*\*p<.01, \*\*\*p<.001

#### 4.4 Structural Equation Modeling

Structure Equation Modeling has utilized right now to examine the expected alliance of the investigation. SEM is an enthusiastic estimating strategy as it holds recognize estimation functions also models of the basic way with all model fit files, gave help to decide essentialness of framework (Hair Jr et al., 2021). The SEM procedure has two center parts: 1) estimation model and 2) auxiliary model. Consequently, a strategy that went with was a two-advance methodology though; the full estimation model reflects connections among watched factors (Ullman & Bentler, 2012).

##### Direct Structural Equation Modeling (Direct path SEM)

As the rights are supporting a complete estimation framework or model, the consequent stage was auxiliary models for taking a gander at direct ways, mediation, and equivalent appeal for demanding proposed hypotheses. Thusly, the analyst of this assessment applied the direct basic model to investigate 12 direct ways. While revealing results of these immediate ways SEM utilized  $\chi^2$ , df, ( $\chi^2$ /df), GFI, CFI, NFI, TLI, and RMSEA. Besides, institutionalized way coefficients likewise uncovered among external and internal elements to reflect the backslide coefficient. Numerous squared connection (R<sup>2</sup>) was utilized to release the exchange (Variance).

##### 4.4.1 Structural Equation (path) Modeling as Quality Personalization and Customer's Outcomes (customer's trust and customer's satisfaction).

Developed construct 1 had two sub-parts: H1<sub>a</sub> and H1<sub>b</sub>. In this way, examing theory 1 with help of basic model individually where speculation H1<sub>a</sub>, declared as, **“quality personalization has a affirmative effect on customers trust”**. Results of SEM described that Quality personalization was strongly associated with Customer trust. This SEM model exhibit solid match  $\chi^2 = 346.73$ , df = 156, p < .000, ( $\chi^2$ /df) = 2.22, CFI = .86, GFI = .91, TLI = .83, NFI = .78 and RMSEA = .05. The fundamental model fit diagram for H1a is clarified in figure 4.1.

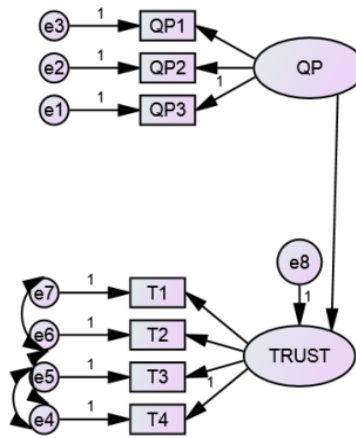


Figure 4.1 Path Model of QP and CT

Also, a further affirmation of worthiness of this basic framework was through parameter which contained standardized backslide coefficient and p regard. The standardized way coefficient revealed an irrelevant connection between Quality personalization and Customer trust ( $\beta = .67$ ;  $p < .000$ ). Quality personalization was essentially related to self-revealed Customer trust ( $R^2 = .45$ ;  $p < .000$ ) and explained 45% variance in self-reported Customer trust. Thus, hypothesis 1a was sustained. In case, H1<sub>b</sub> was expressed as **“quality personalization has a affirmative impact on customer’s satisfaction”**. To resultants of SEM additionally bolstered this proposed speculation that self-revealed Quality personalization has an integrity of fit records among Customer Satisfaction  $\chi^2 = 30.94$ ,  $df = 17$ ,  $p < .000$ ,  $(\chi^2/df) = 1.82$ ,  $CFI = .98$ ,  $GFI = .97$ ,  $TLI = .97$ ,  $NFI = .97$  and  $RMSEA = .05$ . While directed coefficients likewise uncovered positively connected arrangement of Quality personalization and Customer Satisfaction with end ( $\beta = .86$ ;  $p < .000$ ) and essentially associated ( $R^2 = .74$ ;  $p < .000$ ) clarifying 74% fluctuation or variance in Customer Satisfaction. These outcomes offered full help for H1b. Figure 4.2 has a way of speculation 1b basic model fit.

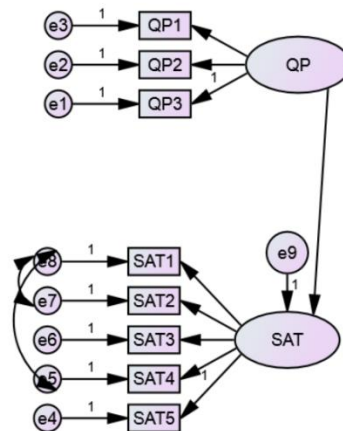


Figure 4.2 Path Model of QP and CS

4.4.2 Structural Path Modeling for Information Quality and Customer’s Outcomes (customer’s trust and customer’s satisfaction).

Construct 2 detained about two sub-partitions H2<sub>a</sub> and H2<sub>b</sub>. While H2<sub>a</sub> was expected as **“information quality has a positive impact on customer’s trust”**. Overall SEM results

showed that Information quality was positively significant linked with time Customer Trust, model fit lists are  $\chi^2 = 126.58$ ,  $df = 53$ ,  $p < .001$ ,  $(\chi^2/df) = 2.38$ ,  $CFI = .95$ ,  $GFI = .94$ ,  $TLI = .93$ ,  $NFI = .92$  and  $RMSEA = .04$ . Similarly, estimations of framework appraise likewise uncovered and affirmed the worthiness of the basic model and indicated that self-detailed Information quality had significant positive association along with Customers Trust ( $\beta = .67$ ;  $p < .000$ ). Also squared various connection among Information quality and Customers Trust ( $R^2 = .45$ ;  $p < .000$ ) with variance 45% Customers Trust. Along these lines, the lists and satisfaction offered complete help to H2a. Figure 4.3a imitated H2a auxiliary way.

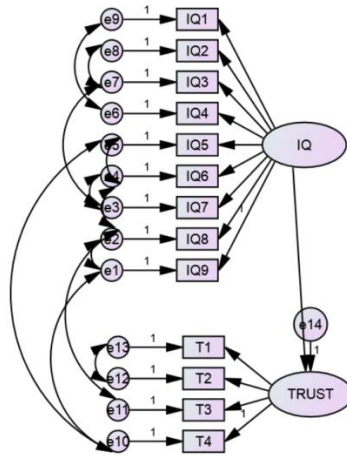


Figure 4.3 Path Model of IQ and CT

Schematically H2<sub>b</sub>, which stated as **“information quality has a positive impact on customer satisfaction”**. Model fit indexes supported that Information Quality had strong positively associated with Customers Satisfaction such as  $\chi^2 = 115.3$ ,  $df = 65$ ,  $p < .000$ ,  $(\chi^2/df) = 1.77$ ,  $CFI = .97$ ,  $GFI = .95$ ,  $TLI = .96$ ,  $NFI = .97$  and  $RMSEA = .05$ . Satisfactory estimations of model fit records demonstrate that expected speculation or hypothesis H2<sub>b</sub> had fully bolstered. Furthermore, the structural model way of H2<sub>b</sub> was additionally affirmed by framework gauges esteem where institutionalized relapse coefficient unveiled that Information Quality linked positively with Customer Satisfaction ( $\beta = .73$ ;  $p < .000$ ). Correlation among Information Quality and Customer Satisfaction ( $R^2 = .53$ ;  $p < .000$ ) with 53% variance for Customer Satisfaction. Hence theory 6b was demonstrated. Figure 2b had a fit impression of the theory 4.4

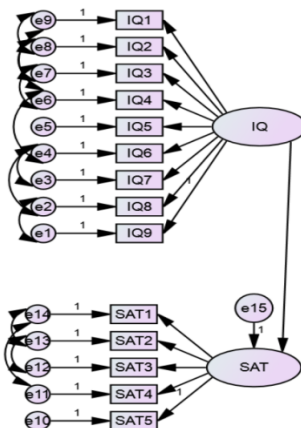


Figure 4.4 Path Model of IQ and Sat

#### 4.4.3 Structural Path Modeling for Service Quality and Customer's Outcomes (customer trust and customer satisfaction)

Hypothesis 3 included Service qualities that were hypothesized with Customer outcomes (Customer Trust and Customers Satisfaction). Where H3<sub>a</sub> was proposed as “**service quality has a positive impact on customers trust**”. It was tried in SEM and consequences of SEM portray that the Service Quality was fundamentally connected with Customer Trust. Where decency of model fit lists are  $\chi^2 = 51.09$ ,  $df = 28$ ,  $p < .000$ ,  $(\chi^2/df) = 1.82$ ,  $CFI = .97$ ,  $GFI = .97$ ,  $TLI = .96$ ,  $NFI = .97$  and  $RMSEA = .05$ .

The institutionalized way coefficient uncovered noteworthy affirmative relation between Service Quality and Customers Satisfaction ( $\beta = .69$ ;  $p < .000$ ). In the meantime connection between Service Quality and Customer Satisfaction ( $R^2 = .49$ ;  $p < .000$ ) was uncovered critical relationship with change of 49% for Customer Satisfaction. Along these lines, these consequences of SEM and parameter checks regards exhibited that theory H3a had a significant positive alliance. Figure 8a shows the model assault of hypothesis H3a.

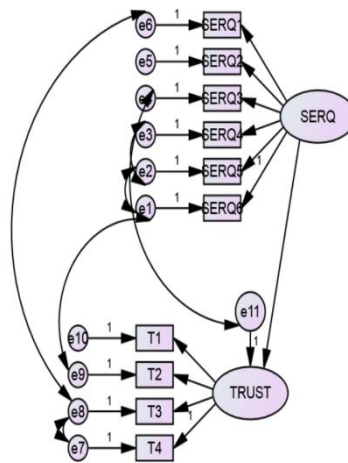


Figure 4.5 Path Model of SQ and CT

Diagrammatically, hypothesis H3<sub>b</sub> has stated as “**service quality has a positive effect on customer satisfaction**”. By analyzing H3<sub>b</sub> through fundamental condition model, outcomes of SEM depicts that Service Quality had positive essential relationship with Customer Satisfaction for instance  $\chi^2 = 49.83$ ,  $df = 36$ ,  $p < .000$ ,  $(\chi^2/df) = 1.38$ ,  $CFI = .99$ ,  $GFI = .97$ ,  $TLI = .98$ ,  $NFI = .96$  and  $RMSEA = .03$ . These records completely upheld speculation H3<sub>b</sub>. Essentially, for additional affirmation for agreeableness of theory H3<sub>b</sub> estimation of institutionalized relapse coefficient uncovered that Service Quality had a solid relationship with Customer Satisfaction ( $\beta = .69$ ;  $p < .000$ ). Furthermore, demonstrated connection ( $R^2 = .48$ ;  $p < .000$ ) with 48% of difference for Customer Satisfaction. Which additionally bolstered that there was a noteworthy connection between Service Quality and Customer Satisfaction? In the meantime, figure 4.5b given below as a form of basic model way of speculation H3<sub>b</sub>.

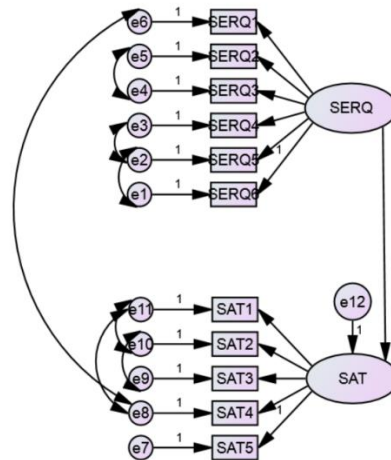


Figure 4.6 Path Model of SQ and CS

#### 4.4.4 Structural Equation Path Modeling as System Quality and Customer Satisfaction (customer's trust and customer satisfaction).

Hypothesis 4 expected for System Quality with partition H4<sub>a</sub> and H4<sub>b</sub>. While construct H4<sub>a</sub> was proposed as “**system quality is a positive impact on customer's trust**”. To explore and look at this expected current relation investigated following SEM procedure where aftereffects of auxiliary way model delineate that System Quality had a solid noteworthy positive connection with Customer Trust and decency of model fit records corporate as  $\chi^2 = 94.4$ ,  $df = 55$ ,  $p < .000$ ,  $(\chi^2/df) = 1.72$ , CFI = .96, GFI = .96, TLI = .75, NFI = .9 and RMSEA = .04.

But the institutionalized way coefficient uncovered huge positive linkage in System Quality with Customers Trust ( $\beta = .58$ ;  $p < .000$ ). Furthermore, demonstrated any connection among this relationship ( $R^2 = .33$ ;  $p < .000$ ) with 33% of fluctuation of variance for Customers Trust. Along these lines, this proposed theory has upheld by results. Figure 4.6 of the structural equation modeling for hypothesis H4<sub>a</sub> is given below.

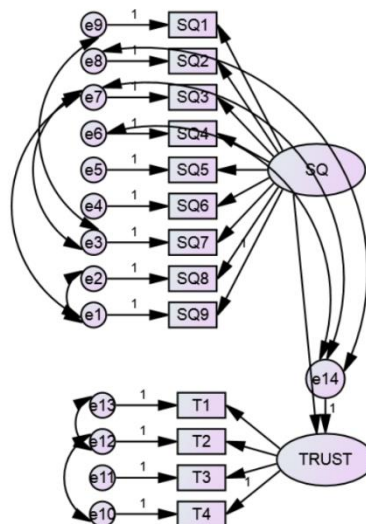


Figure 4.7 Path Model of SQ and CT

Speculation or hypothesis H4<sub>b</sub> was expressed as “**system quality is decidedly affected to customer's satisfaction**”. H4<sub>b</sub> was tried through structural model, where System Quality was decidedly influenced to Customers Satisfaction that demonstrated great model fit  $\chi^2 = 102.3$ ,  $df$

= 68,  $p < .007$ ,  $(\chi^2/df) = 1.50$ , CFI = .98, GFI = .95, TLI = .69, NFI = .93 and RMSEA = .04. In addition, institutionalized way coefficient recognized a positive connection between System Quality and Customers Satisfaction ( $\beta = .62$ ;  $p < .000$ ). System Quality construct was correlated with Customers Satisfaction ( $R^2 = .39$ ;  $p < .000$ ) with 39% of variance Customers Satisfaction. The basic way model figure for theory H4b has appeared in figure 4.8b.

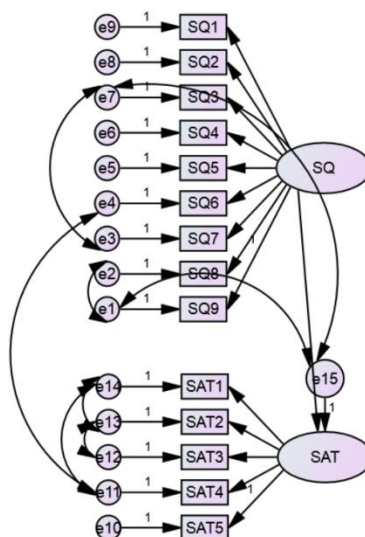


Figure 4.8 Path Model of SQ and CS

#### 4.4.5 Structural Path Modeling for Customers Trust, Online Retailer Reputation, and Customers Retention.

Hypothesis or Speculation 5 proposed for Customers Trust with to subcategory H5a and H5b. While theory H5a was expressed as "**customers trust is certainly identified with online retailer reputation**". To explore and look at this expected current relation investigated following SEM method where consequences of basic way model portray that Customers Trust had a solid noteworthy positive connection with Online Retailer Reputation and integrity of model fit lists corporate as  $\chi^2 = 19.7$ ,  $df = 16$ ,  $p < .000$ ,  $(\chi^2/df) = 1.32$ , CFI = .99, GFI = .98, TLI = .99, NFI = .98 and RMSEA = .02.

As the standardized path coefficient uncovered significant positive relationship with Customers Trust along Online Retailer Reputation ( $\beta = .51$ ;  $p < .000$ ). And showed strong positive correlation among this association ( $R^2 = .51$ ;  $p < .000$ ) with 51% of variance for Online Retailer Reputation. Along these lines, this proposed speculation has upheld by the conclusion. See figure 4.9 of the auxiliary model for speculation H4a.



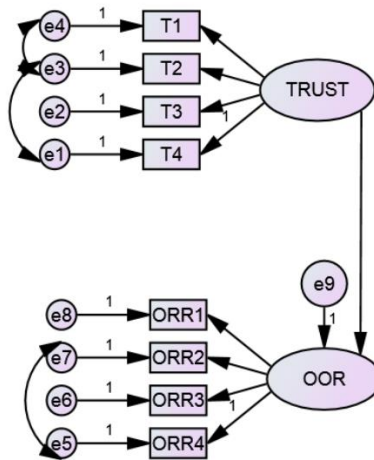


Figure 4.9 Path Model of CT and ORR

Diagrammatically, theory H5b was expressed as **"Customers trust is sure identified with Customers retention"**. By testing H5b through basic condition model, consequences of SEM obviously portrays that Customers Trust had positive noteworthy relationship with Customers Retention for example chi-square  $\chi^2 = 157.08$ ,  $df = 72$ ,  $p < .000$ ,  $(\chi^2/df) = 2.18$ , CFI = .91, GFI = .94, TLI = .92, NFI = .90 and Thus, for additional affirmation for agreeableness of theory H5b estimation of institutionalized relapse coefficient uncovered that Customers Trust had positive relationship with Customers Retention ( $\beta = .69$ ;  $p < .000$ ). What's more, demonstrated relationship ( $R^2 = .48$ ;  $p < .000$ ) with 48% of fluctuation for Customers Satisfaction. This additionally upheld that there was a critical connection between Service Quality and Customers Satisfaction. In the interim, figure 4.10 given underneath is away from of basic model way of theory H3b.

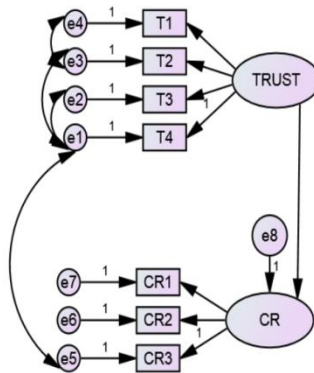


Figure 4.10 Path Model of T and CR

#### 4.4.6. Structural Path Modeling for Customers Satisfaction, Online Retailer Reputation, and Customers Retention.

Hypothesis 6 held two sub-parts H6<sub>a</sub> and H6<sub>b</sub>. While H6<sub>a</sub> was expected as "Customers satisfaction has positive impact on online retailer reputation". Overall SEM results showed that Customers satisfaction was positively significant linkage with Online Retailer Reputation, model fit indexes are  $\chi^2 = 31.4$ ,  $df = 19$ ,  $p < .000$ ,  $(\chi^2/df) = 1.65$ , CFI = .98, GFI = .97, TLI = .98, NFI = .98 and RMSEA = .04.

In this manner, estimations of parameters assess additionally uncovered and affirmed the worthiness of the basic model and indicated that Customer satisfaction had a positive association



along with Online Retailer Reputation ( $\beta = .86$ ;  $p < .000$ ). Too squared numerous relationship among Customers fulfillment and Online Retailer Reputation ( $R^2 = .48$ ;  $p < .000$ ) with difference 48% Customers Trust. Along these lines, every one of these records and estimation regards offered full assistance to H2a. Figure 4.11 reflected H2a's essential way.

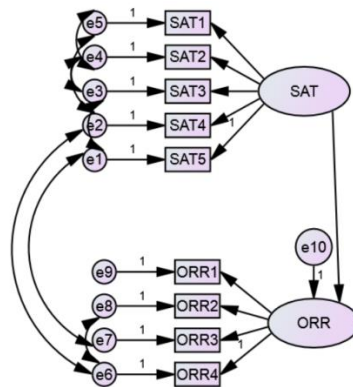


Figure 2.11 Path Model of Sat and ORR

However, H6<sub>b</sub> was stated as **“customer’s satisfaction has positive affect on customer’s retention”**. Too resultants of SEM likewise bolstered this expected theory that Customer fulfillment has integrity of fit lists among Customer Retention  $\chi^2 = 24.8$ ,  $df = 14$ ,  $p < .000$ ,  $(\chi^2/df) = 1.77$ , CFI = .99, GFI = .98, TLI = .98, NFI = .98 and RMSEA = .05. While institutionalized coefficients likewise uncovered emphatically relationship Customer fulfillment and Customer Retention with results ( $\beta = .78$ ;  $p < .000$ ) and essentially connected ( $R^2 = .61$ ;  $p < .000$ ) clarifying 61% difference in Customer Retention. These all outcomes offered full help for H6b. Figure 4.12 have away from of theory 6b basic model fit.

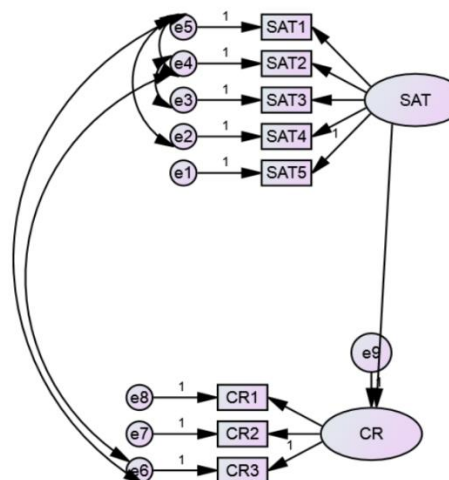


Figure 4.12 Path Model of Sat and CR

Table 4.6 Hypothesis Path

Structural path	Conclusion
Independent Variable Dependent Variable	Results
H1 Quality Personalization → Customers Trust	Accepted
H2 Quality Personalization → Customers Satisfaction	Accepted
H3 Information Quality → Customers Trust	Accepted
H4 Information Quality → Customers Satisfaction	Accepted
H5 Service Quality → Customers Trust	Accepted
H6 Service Quality → Customers Satisfaction	Accepted
H7 System Quality → Customers Trust	Accepted
H8 System Quality → Customers Satisfaction	Accepted
H9 Customers Trust → Online Retailers Reputation	Accepted
H10 Customers Trust → Customers Retention	Accepted
H11 Customers Satisfaction → <del>Online</del> Online Retailers Reputation	Accepted
H12 Customers Satisfaction → Customers Retention	Accepted

## 5. Conclusion and Recommendations

### 5.1 Conclusion

This study offers significant insights into the factors driving customer retention and online retailer reputation in Pakistan's evolving e-commerce landscape. The research establishes that quality personalization, system quality, information quality, and service quality collectively influence customer retention and retailer reputation, with customer satisfaction and trust serving as crucial mediating variables. The empirical analysis, based on data collected from 302 university students in Multan and D.G. Khan and analyzed through structural equation modeling, confirms that these antecedents positively contribute to building sustainable customer relationships and enhancing retailer credibility in digital marketplaces.

The findings carry important implications for online retailers operating in Pakistan's competitive e-commerce environment. Retailers should prioritize improving their technological infrastructure to ensure system reliability while maintaining high standards of information accuracy and service delivery. Personalization strategies should be implemented thoughtfully to enhance customer experiences without compromising privacy concerns.

This study contributes to the existing literature by examining these relationships in Pakistan's unique market context, where digital commerce is rapidly expanding but remains under-researched. Future studies could explore additional variables such as cultural influences or mobile payment systems to further understand consumer behavior in emerging e-commerce markets. The current findings provide a foundation for both academic research and practical strategies to strengthen Pakistan's digital retail sector.

## **5.2 Recommendations and Limitations**

### **5.2.1 Recommendations:**

Online retailers should enhance system reliability, improve information transparency, and personalize services while maintaining data privacy. Investing in customer service training and seamless user experiences can strengthen satisfaction and trust. Policymakers should establish e-commerce regulations to boost consumer confidence. Future research should incorporate diverse demographics and explore cultural influences on digital shopping behavior.

### **5.2.2 Limitations:**

This study's sample was limited to university students in two cities, potentially affecting generalizability. Cross-sectional data may not capture long-term behavioral changes. Unmeasured variables like cultural preferences or payment security concerns could influence results. Future studies should employ longitudinal designs and broader sampling to strengthen findings.

## **References**

- Agritika, D. F., & Suharjo, B. (2024). The Effect of E-Service Quality Through Customer Satisfaction and Customer Trust on Customer Loyalty of Klikindomaret Users. *Indonesian Journal of Business and Entrepreneurship (IJBE)*, 10(1), 203-203.
- Ahmad, A. D. S., Akbar, M. A., & Lina, R. (2024). Service Quality and Trust on Customer Satisfaction. *Advances: Jurnal Ekonomi & Bisnis*, 2(5), 255-267.
- Ahmed, S., & Aziz, N. A. (2024). Impact of ai on customer experience in video streaming services: A focus on personalization and trust. *International Journal of Human-Computer Interaction*, 1-20.
- Ahn, T., Ryu, S., & Han, I. (2004). The impact of the online and offline features on the user acceptance of Internet shopping malls. *Electronic commerce research and applications*, 3(4), 405-420.
- Al-Adwan, A. S., Kokash, H., Adwan, A. A., Alhorani, A., & Yaseen, H. (2020). Building customer loyalty in online shopping: the role of online trust, online satisfaction and electronic word of mouth. *International Journal of Electronic Marketing and Retailing*, 11(3), 278-306.

- Alimamy, S., & Gnoth, J. (2022). I want it my way! The effect of perceptions of personalization through augmented reality and online shopping on customer intentions to co-create value. *Computers in Human Behavior*, 128, 107105.
- Chang, W.-L., Chan, C. L., & Hsieh, Y.-H. (2025). Antecedents of user satisfaction and trust in digital banking: an examination of the ISSM factors. *International Journal of Bank Marketing*.
- Dehghanpouri, H., Soltani, Z., & Rostamzadeh, R. (2020). The impact of trust, privacy and quality of service on the success of E-CRM: the mediating role of customer satisfaction. *Journal of business & industrial marketing*, 35(11), 1831-1847.
- Demarcq, C., Bunch, R. T., Creswell, D., & Eastman, A. (1994). The role of cell cycle progression in cisplatin-induced apoptosis in Chinese hamster ovary cells. *Cell Growth and Differentiation-Publication American Association for Cancer Research*, 5(9), 983-994.
- Dhingra, S., Gupta, S., & Bhatt, R. (2020). A study of relationship among service quality of E-commerce websites, customer satisfaction, and purchase intention. *International Journal of E-Business Research (IJEER)*, 16(3), 42-59.
- Duan, Y., Deng, N., Ma, Z., & Wang, Y. (2025). Does Online Retailers' Service Investment Matter? Optimal Reputation Certification Strategies for Hybrid E-Commerce Platforms. *Business & Information Systems Engineering*, 1-21.
- Dwivedi, R. K., Lohmor Choudhary, S., Dixit, R. S., Sahiba, Z., & Naik, S. (2024). The Customer Loyalty vs. Customer Retention: The Impact of Customer Relationship Management on Customer Satisfaction. Paper presented at the Web Intelligence.
- Enderwati, E. T., Indriany, Y., Rusdianto, R., Suarniki, N. N., & Pratiwi, L. (2024). The Effect of Product Personalization, User Experience, and Consumer Trust on the Level of E-Commerce Consumer Satisfaction in Indonesia. *Jurnal Bisnisan: Riset Bisnis dan Manajemen*, 6(1), 163-179.
- Fletcher, R., & Nielsen, R. K. (2018). Are people incidentally exposed to news on social media? A comparative analysis. *new media & society*, 20(7), 2450-2468.
- Ghaderi, Z., Omidvar, M. S., Hosseini, S., & Hall, C. M. (2024). Corporate social responsibility, customer satisfaction, and trust in the restaurant industry. *Journal of Foodservice Business Research*, 1-32.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., Ray, S., . . . Sarstedt, M. (2021). An introduction to structural equation modeling. Partial least squares structural equation modeling (PLS-SEM) using R: a workbook, 1-29.
- Hamid, R. S., Ukkas, I., Goso, G., Abror, A., Anwar, S. M., & Munir, A. R. (2024). The role of social media in building trust, self-perceived creativity and satisfaction for millennial entrepreneurs. *Journal of Small Business and Enterprise Development*, 31(2), 377-394.
- Harriet, N., Arthur, N., Komunda, M. B., & Mugizi, T. (2024). Service quality, customer loyalty and customer retention among private health care services in mbarara city. *Open Journal of Social Sciences*, 12(01), 101-126.

- Hassan, N., Abdelraouf, M., & El-Shihy, D. (2025). The moderating role of personalized recommendations in the trust–satisfaction–loyalty relationship: an empirical study of AI-driven e-commerce. *Future Business Journal*, 11(1), 66.
- Hussain, M., Javed, A., Khan, S. H., & Yasir, M. (2024). Pillars of customer retention in the services sector: Understanding the role of relationship marketing, customer satisfaction, and customer loyalty. *Journal of the Knowledge Economy*, 1-21.
- Kedaton, N. R. S., Sadat, A. M., & Sari, D. A. P. (2024). The Effect of E-Trust, Information Quality and User Interface Quality on E-Customer Loyalty Through E-Satisfaction as an Intervening Variable:(Study on Tokopedia Users in Jabodetabek). *International Journal Of Education, Social Studies, And Management (IJESSM)*, 4(2), 720-733.
- Kim, J., & Yum, K. (2024). Enhancing Continuous Usage Intention in E-Commerce Marketplace Platforms: The Effects of Service Quality, Customer Satisfaction, and Trust. *Applied Sciences*, 14(17), 7617.
- Ma, X., Zeyu, W., Ni, X., & Ping, G. (2024). Artificial intelligence-based inventory management for retail supply chain optimization: a case study of customer retention and revenue growth. *Journal of Knowledge Learning and Science Technology* ISSN: 2959-6386 (online), 3(4), 260-273.
- Mofokeng, T. E. (2021). The impact of online shopping attributes on customer satisfaction and loyalty: Moderating effects of e-commerce experience. *Cogent Business & Management*, 8(1), 1968206.
- Noor, S. K., Imran, M. A. U., Aziz, M. B., Biswas, B., Saha, S., & Hasan, R. (2024). Using Data-Driven Marketing to Improve Customer Retention for US Businesses. Paper presented at the 2024 International Conference on Intelligent Cybernetics Technology & Applications (ICICyTA).
- Ortakci, Y., & Seker, H. (2024). Optimising customer retention: An AI-driven personalised pricing approach. *Computers & Industrial Engineering*, 188, 109920.
- Pappas, I. O., Kourouthanassis, P. E., Giannakos, M. N., & Lekakos, G. (2017). The interplay of online shopping motivations and experiential factors on personalized e-commerce: A complexity theory approach. *Telematics and informatics*, 34(5), 730-742.
- Potwora, M., Zakryzhevskia, I., Mostova, A., Kyrkovskiy, V., & Saienko, V. (2023). Marketing strategies in e-commerce: personalised content, recommendations, and increased customer trust. *Financial and credit activity: problems of theory and practice*, 5(52), 562-573.
- Rasheed, A. F., & Balakrishnan, J. (2025). Innovating for retention: Strategies for enhancing customer retention in theme parks. *World Leisure Journal*, 67(1), 105-123.
- Sann, R., Pimpohnsakun, P., & Booncharoen, P. (2024). Exploring the impact of logistics service quality on customer satisfaction, trust and loyalty in bus transport. *International Journal of Quality and Service Sciences*, 16(4), 519-541.
- Sharma, B. (2024). Effect of service quality, customer satisfaction, customer trust, and security on customer loyalty with respect to virtual organisation. *International Journal of Public Sector Performance Management*, 13(3), 423-435.

- Singh, C., Dash, M. K., Sahu, R., & Kumar, A. (2024). Artificial intelligence in customer retention: a bibliometric analysis and future research framework. *Kybernetes*, 53(11), 4863-4888.
- Sipos, D. (2025). The Effects of AI-Powered Personalization on Consumer Trust, Satisfaction, and Purchase Intent. *European Journal of Applied Science, Engineering and Technology*, 3(2), 14-24.
- Sivapathi, N., & Kavitha, S. THE IMPACT OF ONLINE REPUTATION MANAGEMENT (ORM) ON BRAND IMAGE IN THE RETAIL INDUSTRY.
- Thangeda, R., Kumar, N., & Majhi, R. (2024). A neural network-based predictive decision model for customer retention in the telecommunication sector. *Technological Forecasting and Social Change*, 202, 123250.
- TOMIĆ, T., LAVRNIĆ, I., & VIDUKA, D. (2025). THE IMPACT OF WEBSITE DESIGN ON CUSTOMER SATISFACTION AND PURCHASE INTENTION. *Journal of process management and new technologies*, 13(1-2), 1-13.
- Tuan, D. C., Hang, N. T. M., & Ngoc, L. T. M. (2025). The Impact Of Personalized Marketing On Purchase Intention In Online Shopping: The Mediation Role Of Trustable Experiences. Paper presented at the International Conference on Emerging Challenges: Sustainable Strategies in the Data-driven Economy (ICECH 2024).
- Ullman, J. B., & Bentler, P. M. (2012). Structural equation modeling. *Handbook of psychology*, second edition, 2.
- Venkatakrishnan, J., Alagiriswamy, R., & Parayitam, S. (2023). Web design and trust as moderators in the relationship between e-service quality, customer satisfaction and customer loyalty. *The TQM Journal*, 35(8), 2455-2484.
- Wahyuni, I., Kusumaningtyas, D. P., Mahdani, H. B., & Wibowo, D. P. P. (2024). The Relationship Between Customer Perceived Value, Service Quality, Brand Trust, and Customer Retention in the Retail Industry. *International Journal of Business, Law, and Education*, 5(2), 2816-2826.
- Wedy, Y. K., Pebrianti, W., & Listiana, E. (2025). The Influence of Service Quality, Information Quality, Trust and Customer Satisfaction on Customer Loyalty a Case Study at CU Tri Tapang Kasih. *International Journal of Finance and Business Management*, 3(1), 1-12.
- Wu, L. (2013). The antecedents of customer satisfaction and its link to complaint intentions in online shopping: An integration of justice, technology, and trust. *International journal of information management*, 33(1), 166-176.
- Yadav, S. S., & Kar, S. K. (2024). Consumers' purchase intention of private labels: The case of e-retailers. *Global Business and Organizational Excellence*, 44(1), 47-64.
- Ziaullah, M., Feng, Y., & Akhter, S. N. (2017). How does justice matter in online retailers' reputation and purchase intentions: An empirical study of China. *Behaviour & Information Technology*, 36(1), 85-94.
- Zikmund, W. G., & Babin, B. J. (2000). *Exploring Marketing Research*, 7 th. Thompson, SouthWestern.