

## Factors that Influence Customer Loyalty in Online Banking Among University Students

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**Abstract:** Banks confronted tough competition in acquiring and maintaining consumers with their e-banking platforms due to the rising rate of use of e-banking systems. Essentially, improving e-banking service quality is seen as the best strategic strategy for increasing client loyalty to the e-banking system. The purpose of this paper was to empirically investigate a comprehensive mechanism for enhancing customer loyalty toward e-banking platforms via e-banking service. Reliability, website design, privacy and security, and customer service and support were the dimensions used. The objectives of this research included exploring relationships between factors such as customer satisfaction regarding online banking, reliability of service, quality and performance, service privacy and security in transactions, website design and its use, and the service and assistance in the usage, and customer loyalty. The respondents were among part 2 to part 5 students from Human Resources Studies in a higher learning institution. The researcher distributed the questionnaire to the respondents through the online method using social media accounts like WhatsApp, Instagram, and Telegram. The findings of the research included that, value and relevance were insights strategies to develop loyalty among student users. This included development and promotions with products like educational loan assistance, scholarship tracking tools, budget budget-friendly debit cards with student-specific features. Rewards, points, and other incentives should be used to make sure that online banking is being used frequently. Plugging the site along with its social features through a community forum made sure the students provided peer-to-peer support in sharing financial tips and experiences.

**Keywords:** *Customer Loyalty, Reliability, Privacy and Security, Website Design, Customer Service and Support, Customer Satisfaction, Service Quality*

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### 1. Introduction

#### Background of the Study

Research on factors affecting customer loyalty in online banking. Providing high-quality online banking services has been considered a key strategy to attract and retain customers using electronic banking platforms. In this context, offering high-quality e-banking services is seen as a fundamental approach to establishing a competitive edge in this service delivery platform. The purpose of this paper was to empirically study a comprehensive moderating mechanism for improving customer loyalty to online banking platforms through online banking service quality (EBSQ) practices. Reliability, website design, privacy and security, and customer service and support were the EBSQ dimensions. The use of structured questionnaires as a communication method was growing rapidly. Banks now offer their services through an electronic banking channel (e-banking). Personal computers were how customers could access electronic banking services, with the terms "online banking", "Internet banking", "electronic banking" and "electronic banking" being used interchangeably in the literature (Ali et al, 2023). The challenges to the banks in acquiring and retaining customers were brought out in the statement of the problem amidst an increasing use of e-banking. It described that enhancing quality in e-banking is a strategic path that can provide the banks with a competitive advantage together with an opportunity to enhance loyalty among customers.

Electronic banking is the process by which a customer interacts digitally with a bank through computers without the need for human contact (Garepasha et al, 2019). Customer loyalty can be defined as the customer's willingness to do business with a company or brand again and again. It is the result of customer satisfaction, exceptional customer experience, and the value of products or services received by a customer from a bank. When a consumer committed to a particular brand, they were not easily influenced by availability or price. He

was willing to spend more as long as he had the same high-quality product or service that he was used to and liked. All companies should strive to increase customer loyalty, which will motivate them to continue using and indirectly increase brand awareness through word-of-mouth advertising from loyal customers. Customer retention is essential, regardless of the size of an organization. New customers are more difficult to convince because they have no previous experience with the services or products offered by the banks. Therefore, the business needs a complete marketing funnel to get people to buy. However, customers who used a particular service were closer to the sale because they knew what to expect. Customer retention allows businesses to forecast growth more effectively, facilitating financial planning. Online banking facilitates consumers to use a variety of personalized banking services and helps banks provide their services to a large number of consumers in a cost-effective manner (Khan et al, 2023).

#### **Research Objectives:**

**RO1:** To examine the relationship between customer satisfaction and customer loyalty in online banking

**RO2:** To examine the relationship between service quality and customer loyalty in online banking

**RO3:** To examine the relationship between reliability and customer loyalty in online banking

**RO4:** To examine the relationship between privacy and security and customer loyalty in online banking

**RO5:** To examine the relationship between website design and customer loyalty in online banking

**RO6:** To examine the relationship between customer service and support and customer loyalty in online banking

**RO7:** To examine the most significant factor influencing customer loyalty in online banking

#### **Research Questions**

**RQ 1:** What are the factors that influence customer loyalty in Online Banking among Part 2 until part 5 students from the Department of Human Resources Studies?

**RQ 2:** What are the most significant factors that influence customer loyalty in Online Banking among part 2 until part 5 students from the Department of Human Resources Studies?

## **2. Literature Review**

### **Dependent Variable**

#### **Customer Loyalty:**

It is a complex process that has played a crucial role in the success of an organization (Fianto et al, 2020). Loyal customers resist price fluctuations and actively promote a particular provider's services to potential customers through positive word of mouth (Alzaydi, 2023). Therefore, loyal customers are considered beneficial for a business. The concept of customer loyalty in online banking is defined as "the tendency of customers to visit the bank's website frequently, use online banking services regularly and share positive words about online banking" (Gautam and Sah, 2023). Online banking has become the preferred choice over conventional financial methods (Kaabachi, Mrad & Fiedler, 2020). According to Haq and Awan (2020), when consumers have experienced high-quality interactive services on an online banking website, they return to the platform and recommend it to others. The demand for internet banking is constantly increasing as customers prefer online banking to visiting physical banks (Islam et al., 2023). However, building trust remains essential for customer retention in digital environments (Shankar & Jebarajakirthy, 2019). Therefore, banks have had to design marketing strategies aimed at providing more value to customers to maintain their loyalty to online banking services (Kartika, Firdaus & Achmad, 2019). In particular, loyal users of online banking tend to share positive words through electronic devices and social media, thus creating a favorable perception of online banking among other consumers (Ozkan et al., 2019).

### **Independent Variable**

#### **Customer Satisfaction:**

A wide range of independent variables, including customers' overall level of satisfaction with their online banking experience, make up customer satisfaction (Raza et al., 2020). This variable takes into account many factors, such as usability, efficiency and problem-solving. The study examined customer satisfaction levels with the overall online banking experience and how these levels relate to platform loyalty. Customer satisfaction is

used, designed as an evaluation of feelings regularly over time. User satisfaction is considered the degree to which a user feels that holding or using an object causes optimistic emotions (Raza, et al, 2020). Satisfaction is the emotional response of the individual, characterized by feelings of happiness or disappointment, after a comparison between the perceived performance of a product or result and expectations (Hamouda, 2019). In simpler terms, customer satisfaction serves as a metric to evaluate how well the company's products perform To meet the general expectations of consumers (Pritjahjono, Jahroh & Saptono, 2023). It reflects the adoption rate of a product based on buyer expectations. When products meet or exceed customer expectations, individuals feel satisfaction and exceeding expectations can lead to a higher level of satisfaction or happiness (Salem, Baidoun & Walsh, 2019)

#### **Service Quality:**

All the performance and efficiency of the online banking service are included in the service quality (Raza et al., 2020). The impact of service quality on customer loyalty is examined as an independent variable in this study. This variable took into account the overall quality of service delivery, transaction efficiency and information accuracy. Optimizing online banking to meet customer expectations requires an understanding of the relationship between service quality and customer loyalty. One of the main aspects of service quality was transaction efficiency, which measures how quickly and easily users can perform various financial activities on the online banking platform. A smooth and efficient transaction process increases customer satisfaction, thereby increasing the likelihood that they will remain loyal to the service. Another important consideration was information accuracy, as users rely on the online banking platform for up-to-date and accurate information about their accounts, transactions and financial activity. Errors or inconsistencies in this regard can damage credibility and have a detrimental effect on customer loyalty. To optimize their online banking services, financial institutions needed to understand the relationship between customer loyalty and service excellence. Customers who received excellent service and were satisfied with the platform were more likely to have a good opinion and feel safe and secure. Over time, this attitude favorable can evolve into continuous participation and loyalty. The purpose of the study was to provide in-depth insights into the specific aspects of service quality that have a major impact on customer loyalty in the online banking sector.

#### **Reliability:**

"The ability of the service provider to deliver the promised services accurately and consistently" (Shankar and Jebarajakirthy, 2019) was the definition of reliability used in the study. Customers' favorable opinions of Internet banking are influenced by trust, which is also a critical component of Internet banking service quality (EBSQ) (Sleimi, Musleh & Qubbaj, 2020). In online banking, credibility served as an independent variable that influenced client loyalty. She was talking about how online banking services are dependable and long-lasting. When customers can rely on the platform's uninterrupted availability, accurate transactions, and seamless system operation, they are more likely to be loyal. The goal of investigating the connection between trust and client loyalty is to ascertain how a dependable online banking experience affects users' propensity to stick with the service (Stevano et al., 2019). Reliability in online banking extends beyond basic operation. It contains the guarantee that consumers can transact uninterrupted, encounter few problems, and depend on the platform's constant availability. In addition to satisfying consumers' fundamental needs, a strong and dependable online banking system fosters trust. Customers are more inclined to incorporate Internet banking into their regular financial operations when they believe it to be dependable. Additionally, examining the connection between consumer loyalty and trust acknowledges the fluidity of digital interactions. Customers are increasingly using online banking to handle their money, so having a dependable platform is essential to establishing a lasting partnership. To maximize the technological features of online banking and to establish a foundation of trust that promotes enduring engagement and loyalty in the constantly evolving landscape of digital financial services, it was crucial to comprehend the subtleties of how trust influences client loyalty. To fully comprehend the elements influencing client loyalty in online banking, the study attempts to identify these complications.

#### **Privacy and Security:**

Privacy and security, defined as "the degree to which customers believe that the site is safe from intrusion and that the personal information shared on the platform is protected" (Stevano, Andajani & Rahayu, 2019), were essential elements. Inside online banking. The lack of face-to-face interaction between customers and service providers in the context of online banking has raised concerns about privacy and security issues during financial transactions on online banking sites (Thaker et al, 2019). Privacy and security have played a crucial

role in online banking and have had a significant impact on customer loyalty (Gautam & Sah, 2023). In this study, privacy was related to the protection of personal information, while security was related to the protection of financial transactions. The study examined how a strong privacy policy and a secure online banking environment contributed to customer trust and, therefore, loyalty. Understand the dynamics between Privacy, security and customer loyalty were essential for financial institutions seeking to promote a safe and reliable online banking experience. Security and privacy were the two pillars of a reliable and customer-centric online banking environment. In the context of online banking, privacy and personal data protection were closely linked. Consumers had entrusted financial institutions with sensitive information, so it was essential to have peace of mind knowing that personal information was protected from abuse or illegal access. Therefore, a strong privacy policy includes procedures and safeguards to ensure the privacy and security of user data when interacting with the online banking platform. On the other hand, security in online banking includes the security of financial transactions in addition to personal information. Consumers wanted to know that there was no risk of fraud or illegal access to the secure environment in which their financial transactions were carried out. To detect and prevent any security breach, it was necessary to establish strong encryption techniques, secure authentication processes and continuous monitoring.

#### **Website Design:**

Web design includes "various elements of the online banking website that consumers use to interact with the website, including navigation, detailed information and the transaction process" (Ullah, 2022). E-service providers usually design their websites to provide comprehensive information, improve search efforts and stimulate interaction with customers (Zhang and Zhou, 2022). These website designs aim to improve customer trust in e-commerce platforms and encourage loyalty to online service providers (Khan, Arshad, & Munir, 2023). The design of an online banking platform has played a vital role in defining the user experience. In this research, website design was considered as an independent variable affecting customer loyalty (Kaabachi et al, 2019). An intuitive and user-friendly design can improve accessibility, ease of navigation and overall satisfaction. The study aims to find out how the aesthetic and functional aspects of the website design influenced customers' perceptions of online banking and, therefore, their loyalty to the platform. Furthermore, the study aims to examine how these design elements affect customers' perceptions of online banking and, consequently, their loyalty to the platform. The way users interact with the platform, the ease with which they can transact, and the overall satisfaction derived from the design contribute to their loyalty. Understanding the dynamics of this relationship was essential for financial institutions seeking to optimize their online banking platforms and create an environment conducive to lasting customer loyalty.

#### **Customer Service and Support:**

Customer service and support played a crucial role in maintaining a positive customer experience. In online banking, customers look for professional help and support when they face problems with online banking. In particular, when technology and website improvements are made by online banking providers, customers tend to seek technical support from these providers (Ozkan et al, 2019). When the online customer support team quickly provided solutions to customer queries, thus demonstrating a transparent and hassle-free recovery policy, customers have developed trust in service providers (Fianto et al, 2020). The proactive nature of the customer support team has been demonstrated by their ability to anticipate and resolve potential issues before they escalate into significant issues, thereby improving the overall customer experience. As an independent variable, customer service and support in this study include the response, efficiency and usefulness of the support system provided by online banking (Haq & Awan, 2020). The study of the relationship between customer service and customer loyalty aims to discover the impact of a supportive and responsive service team on customer loyalty to the online banking platform.

#### **The Relationship Between Independent Variable and Dependent Variable**

##### **The Relationship Between Reliability and Customer Loyalty in Online Banking:**

The relationship between reliability and customer loyalty in online banking is based on the idea that reliable and stable online banking promotes user trust and satisfaction. When customers can trust the system to make accurate transactions, provide real-time information and act transparently, they are more likely to develop a sense of loyalty (Salem et al., 2019). Another study found only a partial mediating effect of online banking satisfaction between the service quality dimensions of reliability and website design on online banking loyalty

(Ul Haq and Awan, 2020). Reliability is considered one of the factors that influence the responses, although the timely processing of banking transactions without errors is often considered crucial in the evaluation of the reliability of Internet banking providers (Gautam and Shah, 2023). The study aims to find out how the reliability of the online banking platform affects the users' perception of the service and, therefore, their willingness to stay loyal to the platform over time.

#### **The Relationship Between Privacy and Security and Customer Loyalty on Online Banking:**

Confidentiality and security are the main issues in online banking and their relationship with customer loyalty is an integral part of this study. Complete and comprehensive information about the company, products, services, privacy policies and security systems play a crucial role in creating trust in e-commerce (Hamouda, 2019). Banks use their websites to disseminate information, offer banking products and services, and improve customer relations. The websites are listed in the financial sector as functional or relational. Functional characteristics include technical dimensions such as visual design, security, privacy, ease of use and interoperability (Haq and Awan, 2020). Customers are more likely to show loyalty to an online banking platform that ensures the protection of their personal information and financial transactions. The study examines how a strong privacy policy and security measures contribute to customer trust and, therefore, loyalty (Garepasha et al., 2019). Understanding this relationship is essential for financial institutions that want to create a safe and reliable online banking environment that encourages long-term customer engagement.

#### **The Relationship Between Website Design and Customer Loyalty on Online Banking:**

The appearance of a website has a huge impact on how users interact with online banking. Improving user satisfaction through aesthetic and intuitive design can have a positive effect on customer loyalty. To understand how the aesthetic and functional elements of the design of a website influence the opinions of consumers about online banking, this relationship is studied (Salem et al., 2019). Banks should prioritize these four aspects (website design, usability, security and privacy) to maintain a high level of banking service quality. To achieve customer loyalty, customers must be satisfied (Alzaydi, 2023). Users rate the design of a website in six dimensions: information content, information design, navigation design, visual design, website trust and transaction security (Kartika, Firdaus, & Achmad, 2019). The quality of a website is shaped by usability, informative content and elements of interaction with the service. The study aims to determine the impact of website design on the overall user experience and its subsequent effect on customer loyalty (Khan, Arshad, & Munir, 2023).

#### **The Relationship Between Customer Service and Support and Customer Loyalty on Online Banking:**

The customer experience with online banking is greatly influenced by the speed, efficiency and usefulness of customer service and support. This interaction was examined to understand how helpful and responsive support staff influences user opinions and, therefore, their persistence on the platform (Khan et al., 2023). Customer service is one of the factors that influence customer loyalty to organizations (Harazneh et al., 2020). To be effective, banks must prioritize superior customer service, quality, profitability and innovation (Ahmed et al, 2020).

#### **The Relationship Between Customer Satisfaction and Customer Loyalty on Online Banking:**

Customer satisfaction is a broad concept that encompasses various aspects of the online banking experience. This relationship is explored to understand customer satisfaction with overall service, including ease of use, efficiency and problem-solving. The study examined the structural relationship between the dimensions of online banking service quality, e-customer satisfaction and loyalty. The results revealed that when more people have adopted the Internet as their primary way of communicating with their bank, the importance of the Internet in banking services increases. Customer loyalty was mainly aimed at keeping customers online by meeting their needs, solving online banking problems and ensuring overall satisfaction (Raza et al., 2020). Customer satisfaction and loyalty have been identified as critical factors that contribute to stronger relationships (Thaker et al, 2019). In the banking sector, the exceptional quality of systems and information helps to increase customer satisfaction and loyalty (Banu, Mohamed and Parayitam 2019).

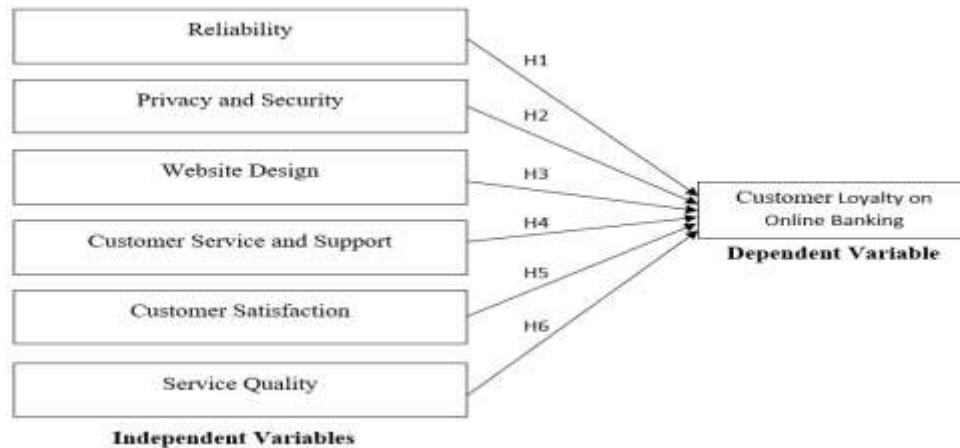
#### **The Relationship Between Service Quality and Customer Loyalty in Online Banking:**

A comprehensive assessment of the performance and effectiveness of an online banking service is called service quality (Salem et al., 2019). The objective of this relational analysis was to determine the extent to which

customer loyalty was influenced by service quality, including transaction efficiency and information accuracy. The objective of the study was to determine the extent to which consumers' opinions about the overall quality of the service influenced their likelihood of remaining loyal to long-term online banking platforms. The efficiency of the transaction played an important role in the evaluation of the quality of the service. Customers using online banking expect smooth and fast transaction processes. A platform that facilitates fast and error-free transactions contributes positively to the overall user experience. When customers perceive a high level of transaction efficiency, it not only meets their immediate needs but also contributes to their overall satisfaction and happiness with online banking.

## Theoretical Framework

Figure 1: Theoretical Framework



### Hypotheses:

H1: There is a significant relationship between IV1: reliability and DV: customer loyalty in online banking.

H2: There is a significant relationship between IV2: privacy and security and DV: customer loyalty in online banking.

H3: There is a significant relationship between IV3: website design and DV: customer loyalty in online banking.

H4: There is a significant relationship between IV4: customer service and support and DV: customer loyalty in online banking.

H5: There is a significant relationship between IV5: customer satisfaction and DV: customer loyalty in online banking.

H6: There is a significant relationship between IV6: service quality and DV: customer loyalty in online banking.

## 3. Methodology

### Research Design

**Data Analysis:** This study used correlational research to determine the influence of how customer satisfaction, service quality, reliability, privacy and security, website design, and customer service influenced customer loyalty in online banking from part 2 until part 5 of Human Resources full-time and part-time students in UITM Puncak Alam. In this type of research, the independent and dependent variables were evaluated separately, and the relationship between them was observed. As we only measured and kept this relationship without manipulating any variables, the correlation between factors that influence customer loyalty in online banking was considered non-experimental.

**Type of Investigation:** This research explored a correlation relationship, investigating the connection between occurring variables. In simple terms, it helped us understand whether there was a relationship between two or more variables and the extent to which they were related. The study considered two types of variables: dependent variables and independent variables. The independent variables considered in this study were as

follows: (i) customer satisfaction, (ii) service quality, (iii) reliability, (iv) privacy and security, (v) website design, and (vi) customer service and support. All these components contributed to the influence of how the factors influenced customer loyalty in online banking among part 2 until part 5 of Human Resources full-time and part-time students in UITM Puncak Alam.

**The extent of the Researcher’s Interference with the Study:** This study utilized a correlational research design aligned with the research objective, conducted within the natural environment of the organization. The theoretical framework was developed with minimal intervention, keeping the research setting unchanged. Respondents experienced minimal environmental distractions while answering the questionnaire, with no significant disruptions.

**Study Setting:** This study was conducted in a natural environment setting without any artificial alterations. It adopted a non-contrived approach, meaning that no aspects of the research were intentionally manipulated. The research procedures required a minimal level of intervention. The factors under investigation were not controlled or modified. Data were collected through an online survey administered manually to respondents. The primary focus was to examine how customer satisfaction, service quality, reliability, privacy and security, website design, and customer service and support influenced customer loyalty in online banking among part 2 until part 5 of Human Resources students in UITM Puncak Alam.

**Population and Sampling**

**Population:** The research population of the study focused on part 2 until part 5 Human Resources full-time and part-time students, specifically in Universiti Teknologi MARA (UiTM) Puncak Alam.

**Sampling Size:** As a sample for our study, we selected students from various classes of Part 2 until Part 5 of Human Resources full-time and part-time students in UiTM Puncak Alam. Since we used probability sampling, we needed to get a minimum of 196 respondents for this study. Therefore, the total sample size obtained was 251.

**Table 1: Sampling Size**

No.	Part of Students	A proportionate Number of Students
1	2	70
2	3	42
3	4	54
4	5	85
	<b>TOTAL</b>	<b>251</b>

**Sample Techniques:** There were two major types of sampling, which were probability and non-probability sampling. This included simple random, stratified, systematic, and convenience sampling, among others. For this study, we used a probability sampling.

**Data Collection Procedures**

For the data analysis in this research, the researcher used primary data to gain valuable insights for implementing the analysis of the study. The researcher used an online questionnaire spread via Google Forms as the medium of data collection. The questionnaire was designed based on the dependent variable and independent variables that were chosen and consisted of seven sections. The questionnaire was distributed among full-time and part-time students from Part 2 until Part 5 of the Degree Human Resources program at Universiti Teknologi Mara (UiTM) Puncak Alam. The researcher distributed the questionnaire to the respondents through the online method with the help of platforms such as WhatsApp and other social media accounts like Instagram and Telegram, enabling the researcher to reach them immediately and conveniently. Additionally, a five-point Likert Scale was used in collecting data, indicated as below 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree.

**Table 2: Questionnaire Design**

Variables	No. of Item	Sources
Customer Loyalty in Online Banking (DV)	12	(Ozkan et al., 2019)
Customer Satisfaction (IV1)	7	(Ozkan et al., 2019)
Service Quality (IV2)	8	(Ozkan et al., 2019)
Reliability (IV3)	4	(Shankar et al., 2019)
Privacy and Security (IV4)	3	(Shankar et al., 2019)
Website Design (IV5)	4	(Shankar et al., 2019)
Customer Service and Support (IV6)	5	(Shankar et al., 2019)

**Data Analysis**

The purpose of data analysis was to obtain useful and useful knowledge. In addition, it also helped to synthesize, analyze and interpret all the data collected after conducting the research. Then, all the data we successfully collected through Google Forms were transferred into the SPSS software. All these data were analyzed with the latest version of SPSS (Statistical Package for the Social Sciences) software. Descriptive statistics are often used to explain underlying characteristics data in a study where they provide a simple summary of the sample and data measures. Inferential statistics were used to draw conclusions or predictions with t-tests, ANOVA and regressions. In addition, correlation and regression analysis was found to be essential to examine the relationship between dependent and independent variables based on responses to distributed questionnaires.

**Validity Test:**

The validity test was one of the significant elements that needed to be included in the research for the quality and accuracy of the questionnaire, which was done by Dr. Maliza Delima Kamarul Zaman.

The purpose of the conducted study was to examine the relationship between customer loyalty and several factors, including (i) customer satisfaction, (ii) service quality, (iii) reliability, (iv) privacy and security, (v) website design, and (vi) customer service support. For this purpose, a total of 251 sets of questionnaires were distributed to Part 2 until Part 5 of Human Resources full-time and part-time students in UiTM Puncak Alam over a month. The study achieved a 100% response rate, as all respondents provided answers to the questions. To ensure widespread distribution, the e-questionnaires were shared through messaging applications like WhatsApp and Telegram given the lack of a clear total population count for the targeted respondents. The response rate of the study is illustrated in Table 3. Total E-Questionnaires Distributed Total Questionnaires Collected Overall Response Rate (%) 251 251 100 Table 3: Response Rate of Study 30 4.2

**Table 3: Response Rate of the Study**

Total E-Questionnaires Distributed	Total Questionnaires Collected	Overall Response Rate (%)
251	251	100

Demographic Analysis Variable Frequency Percentage (%) Gender: Male Female 185 66 73.7 26.3 Age: 18-20 years old 21-25 years old 26-30 years old 31 years old and above 28 186 11 26 11.2 74.1 4.4 10.4 Marital Status: Single Married 223 28 88.8 11.2 Part of Students: Part 2 Part 3 Part 4 Part 5 70 42 54 85 27.9 16.7 21.5 33.9

**4. Results**

**Table 4: Demographic Analysis**

Variable	Frequency	Percentage (%)
Gender:		
Male	185	73.7
Female	66	26.3
Age:		
18-20 years old	186	74.1
21-25 years old	11	4.4
26-30 years old	26	10.4



31 years old and above		
Marital Status:		
Single	223	88.8
Married	28	11.2
Part of Students:		
Part 2	70	27.9
Part 3	42	16.7
Part 4	54	21.5
Part 5	85	33.9

### Reliability Analysis

Reliability analysis was conducted to some extent to examine the internal consistency of the survey responses. Cronbach's alpha test, which determines the degree of association between a set of items, was used in this research to evaluate scale reliability. In addition, it supported the creation of reliable evidence regarding (i) perceived trust, (ii) privacy and security, (iii) website design, (iv) customer service and support, (v) customer satisfaction and (vi) customer quality. Service According to the table, Cronbach's alpha values exceeded 0.5. These data are applied, which was confirmed by Nunally (1978) as he showed that a value of 0.70 in Cronbach's alpha is considered an empirical rule in research. However, it was preferred to have a value of 0.90 or higher in which the reliability of the items was much greater. All variables in the table have high reliability greater than 0.5, which shows that the elements of the online questionnaire were reliable, understandable and relevant for studies. No item was removed from the independent variables to ensure a higher and reliable value of Cronbach's alpha, estimated above 0.5 for all variables.

**Table 5: Reliability Analysis**

Variables	No of Item	No of Item deleted	Cronbach's Alpha
DV: Customer Loyalty on Online Banking	12	-	0.959
IV1: Reliability	7	-	0.948
IV2: Privacy and security	8	-	0.962
IV3: Website design	4	-	0.918
IV4: Customer service and support	3	-	0.934
IV5: Customer satisfaction	4	-	0.933
IV6: Service Quality	5	-	0.954

**Table 6: Descriptive Analysis**

	Descriptive Statistics								
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
DV	251	1.00	5.00	3.1633	1.08130	-.253	.154	-.399	.306
IV1	251	1.00	5.00	3.3705	.89564	-.262	.154	.111	.306
IV2	251	1.00	5.00	3.3625	.93810	-.255	.154	-.079	.306
IV3	251	1.00	5.00	3.6016	.89924	-.457	.154	.320	.306
IV4	251	1.00	5.00	3.7769	.84736	-.789	.154	1.315	.306
IV5	251	1.00	5.00	3.5817	.98605	-.394	.154	-.178	.306
IV6	251	1.00	5.00	3.4821	.92665	-.190	.154	-.321	.306
Valid N (listwise)	251								

Table 6 shows the descriptive analysis that consisted of mean and standard deviation. The highest mean was scored by customer service and support, while the lowest mean was scored by privacy and security. The table above showed that all variables obtained a maximum value of 5.00, and as for the minimum value, academic performance and behavioral engagement obtained the least minimum value, which was 1.00. Results showed that the score for the dependent variable was customer loyalty in online banking ( $M = 3.1633$ ,  $SD = 1.08130$ ). This was followed by the independent variables, which included reliability ( $M = 3.3705$ ,  $SD = 0.89564$ ), privacy and security ( $M = 3.3625$ ,  $SD = 0.93810$ ), social website design ( $M = 3.6016$ ,  $SD = 0.89924$ ), customer service and support ( $M = 3.7769$ ,  $SD = 0.84736$ ), customer satisfaction ( $M = 3.5817$ ,  $SD = 0.98605$ ), and service quality

(M = 3.4821, SD = 0.92665). As for the distribution of skewness, all variables were highly skewed with a value less than -1. Lastly, reliability, privacy and security, website design, customer service and support, customer satisfaction, and service quality variables were negatively skewed due to values lower than 3. 38

**Correlation Analysis**

Pearson correlation analysis was used to answer the first research question, which was “What are the factors that influence customer loyalty in Online Banking among part 2 until part 5 students from the Department of Human Resources Studies?” The correlation analysis determined the degree of the existing relationship between the two variables. A result of correlation could be either positive or negative, depending on whether the integer of the correlation coefficient itself is positive or negative. Furthermore, the strength of the correlation was determined based on the value of the correlation coefficient, in which a value that is less than 0.3 shows a weak correlation, 0.3 – 0.7 is considered a medium correlation, and more than 0.7 indicates a strong correlation. Based on the table of correlations, it can be concluded that the correlations were considered medium correlations because the numbers were not more than 0.7.

**Table 7: Correlation Analysis**

		<b>Correlations</b>						
		DV	IV1	IV2	IV3	IV4	IV5	IV6
DV	Pearson Correlation	1	.677**	.659**	.540**	.446**	.556**	.524**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	251	251	251	251	251	251	251
IV1	Pearson Correlation	.677**	1	.754**	.656**	.615**	.629**	.627**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	251	251	251	251	251	251	251
IV2	Pearson Correlation	.659**	.754**	1	.693**	.625**	.645**	.691**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	251	251	251	251	251	251	251
IV3	Pearson Correlation	.540**	.656**	.693**	1	.665**	.723**	.659**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	251	251	251	251	251	251	251
IV4	Pearson Correlation	.446**	.615**	.625**	.665**	1	.649**	.672**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	251	251	251	251	251	251	251
IV5	Pearson Correlation	.556**	.629**	.645**	.723**	.649**	1	.633**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	251	251	251	251	251	251	251
IV6	Pearson Correlation	.524**	.627**	.691**	.659**	.672**	.633**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	251	251	251	251	251	251	251

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Phrasing Correlation Reliability A Pearson correlation was calculated to examine the relationship between reliability (IV1) and customer loyalty in online banking (DV). The result was  $r(249) = 0.677$ ,  $P < 0.001$

**Phrasing Correlation**

**Reliability:**

A Pearson correlation was calculated to examine the relationship between reliability (IV1) and customer loyalty in online banking (DV). The result was  $r(249) = 0.677$ ,  $P < 0.001$ , indicating a significant relationship between the two variables. This indicated that as reliability increased, there was a corresponding improvement in customer loyalty to online banking.

**Privacy and Security:**

A Pearson correlation was calculated to examine the relationship between privacy and security (IV2) and customer loyalty in online banking (DV). The result was  $r(249) = 0.659$ ,  $P < 0.001$ , indicating a significant

relationship between the two variables. This indicated that as privacy and security increased, there was a corresponding improvement in customer loyalty to online banking.

**Website Design:**

A Pearson correlation was calculated to examine the relationship between website design (IV3) and customer loyalty in online banking (DV). The result was  $r(249) = 0.540, P < 0.001$ , indicating a significant relationship between the two variables. This indicated that as website design increased, there was a corresponding improvement in customer loyalty to online banking.

**Customer Service and Support:**

A Pearson correlation was calculated to examine the relationship between customer service and support (IV4) and customer loyalty in online banking (DV). The result was  $r(249) = 0.446, P < 0.001$ , indicating a significant relationship between the two variables. This indicated that as customer service and support increased, there was a corresponding improvement in customer loyalty to online banking.

**Customer Satisfaction:**

A Pearson correlation was calculated to examine the relationship between customer satisfaction (IV5) and customer loyalty in online banking (DV). The result was  $r(249) = 0.556, P < 0.001$ , indicating a significant relationship between the two variables. This indicated that as customer satisfaction increased, there was a corresponding improvement in customer loyalty to online banking.

**Service Quality:**

A Pearson correlation was calculated to examine the relationship between service quality (IV6) and customer loyalty in online banking (DV). The result was  $r(249) = 0.524, P < 0.001$ , indicating a significant relationship between the two variables. This indicated that as service quality increased, there was a corresponding improvement in customer loyalty to online banking.

Based on this research, six (6) independent variables were analyzed, including reliability, privacy and security, website design, customer service and support, customer satisfaction, and service quality. The result of the correlation table above showed that all six independent variables were correlated.

**Regression Analysis**

The regression analysis was conducted to understand which among several independent variables eventually related to the dependent variable. Thus, based on the table below, the results of the regression analysis for this study were shown, which referred to the relationships of independent variables with the dependent variable. Based on the result, the R2 value for this model was 0.0525, which meant that all the independent variables (predictors) explained 52.5% of the variance in customer loyalty to online banking.

**Table 8: Model Test**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.144	.231		.624	.533
	IV1	.470	.087	.389	5.404	.000
	IV2	.344	.089	.299	3.855	.000
	IV3	.019	.089	.016	.212	.832
	IV4	-.160	.086	-.125	-1.849	.066
	IV5	.174	.077	.159	2.265	.024
	IV6	.055	.081	.047	.673	.501

a. Dependent Variable: DV

### Phrasing Regression

A multiple linear regression was calculated to predict students' customer loyalty to online banking based on (i) reliability, (ii) privacy and security, (iii) website design, (iv) customer service and support, (v) customer satisfaction, and (vi) service quality. A significant regression equation was found, which was  $F(45.033) =$ ,  $P < 0.001$ , with an R square of 0.525. Besides, the respondents' predicted dependent variable was equal to DV: customer loyalty on online banking =  $0.144 + 0.470$  (IV1: Reliability) +  $0.344$  (IV2: Privacy and Security) +  $0.174$  (IV5: Customer satisfaction). Thus, the independent variables IV1, IV2, and IV5 engagement were significant predictors.

### 5. Conclusion

In conclusion, the study aims to determine the factors that led to customer loyalty to online banking services among full-time and part-time students from Part 2 to Part 5 of the Department of Studies of Human Resources of UiTM Puncak Alam. The context of the study highlighted the need to perfect high-quality online banking services capable of attracting and retaining customers in an increasingly competitive online banking environment. Internet banking service quality (EBSQ) dimensions include reliability, website design, and privacy and security aspects, with customer services and support featuring prominently. The results of the study showed that, of the six variables examined, only reliability, privacy and security, and customer satisfaction showed a significant relationship. The challenges that banks face to acquire and keep customers are highlighted in the statement of the problem against the background of the increased use of online banking services. French The study describes that improving quality in online banking is a strategic path that can provide banks with a competitive advantage, as well as an opportunity to strengthen customer loyalty. This research had several objectives, including exploring the relationships between factors such as customer satisfaction with online banking, service reliability, quality and performance, privacy and security of the transaction services, website design and usability, customer service and support. Define the determining factor important for customer loyalty and therefore identify the same factor among HR students. The conclusion of this study has thus defined a systematic framework to examine and examine the phenomena of customer loyalty in online banking with practical implications for banks that want to improve their online banking offer as a means of developing relationships with loyal customers. In addition, directions for possible future research aimed to emphasize the examination of cultural differences and the use of longitudinal data to gain more accurate insights into customer behavior in the dynamic environment of online banking.

### Recommendations

In this dynamic scenario of online banking, customer loyalty, especially among students, requires a multifaceted approach to address the various factors influencing them. Trust and security have been a key factor in this. To achieve this, institutions have improved cyber security measures with a focus on data security and fraud prevention through clear communications and robust systems. Transparent use of data, fees, rules and regulations has been key to building and maintaining trust. Personalized communication further strengthens this foundation with personalized online safety tips and alerts based on each user's activity. It was essential to meet this demand to acquire and retain student customers. This included simplifying the user interface so that it was not only user-friendly but also intuitive and optimized for mobile devices. Offering 24/7 customer support, live chat, FAQs and self-service options caters to busy student plans, replicating the student experience. Effective financial management tools such as access to budget functions, transaction tracking and goal-setting options are present on the online banking platform and help manage users' finances. Value and relevance were sound strategies for developing student user loyalty. This has included developing and promoting products such as student loan assistance, scholarship trackers, and money-saving debit cards with student-specific features. The personalization of financial advice through data analysis meant that their product suggestions matched the needs and goals of their family and each student. This has added another layer of value through partnerships with student organizations or institutions that offer exclusive benefits and offers through joint activities in universities, clubs or events that take place on campus.

A recommendation to improve engagement and build community was to use gamified experiences with prizes, points and other incentives to ensure frequent use of online banking. Promoting the site and its social functions through a community forum ensured that students helped each other by sharing financial advice and experiences. It provides educational resources to its users in the form of financial education seminars, webinars

or blog posts on specific financial issues that affect students and make them feel better equipped and become a more informed and more engaged user base. The site is also constantly monitored and adjusted, which is another key to customer loyalty. Periodic monitoring of customer satisfaction and loyalty through surveys, feedback forms and analytics provided valuable information to identify areas where student needs exist, in addition to areas that require improvement. Responding to feedback was also important to quickly implement changes aimed at adding value to the online banking experience for students and finding ways to resolve their concerns promptly. In addition, it was necessary to ensure that emerging trends and technologies in online banking and financial services were carefully monitored so that the offer could always be improved to meet the ever-changing expectations of student customers.

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