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Exploring the influence of service quality on customer loyalty, and the mediating role of customer satisfaction and emotional attachment: using the retail banking sector in North Macedonia

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Abstract

In this thesis, I investigate the effect of the mediator's customer satisfaction and emotional attachment on the connection among service quality and customer loyalty in the retail banking sector in North Macedonia. In addition, test if service quality, customer satisfaction and emotional attachment are significant predictors of customer loyalty. Quantitative analysis was conducted using an online survey sent to individuals who owned an active bank account in North Macedonia. The respondents answered Likert scale type of questions and Net promoter score questions. The data from the survey was analyzed using a Multiple linear regression analysis, SEM (Structural equation modeling) analysis and Mediation analysis. The findings prove that there is partial mediation caused by both customer satisfaction and emotional attachment on the correlation between service quality and customer loyalty. The analysis also suggests that all components are strong indicators of customer loyalty. Meaning each component has an influence on the loyalty of customers towards their bank, and improving these aspects can lead to greater customer loyalty and customer retention. However, there is insufficient information to declare that the sociodemographic variables included in the model, age, gender, education, and employee status, have an effect on customer loyalty. The findings provide marketing managers with insides on the important aspects of customer loyalty and ways in which managers can create innovative marketing programs to enhance service quality, obtain customer satisfaction and build emotional attachment within the banks in North Macedonia. Future research should focus on developing a more diverse model by including other variables that may influence customer loyalty and explore other potential mediators in the relationship between service quality and customer loyalty.

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1. Chapter 1 - Introduction

1.1 Background

Banks are increasing the emphasis they put on customer loyalty as competition in the banking industry becomes one of their main concerns. The banking sector is a highly competitive service sector, where the service provider's ability to succeed relies on the quality of the relationship it has with its clients (Gittell, 2002). A fundamental factor of importance when it comes to customer retention is customer loyalty (Ricadonna et al., 2021). A bank's profitability over the long term is mainly affected by the ability to attract (Al-abedallat, 2017) and retain customers (Keisidou et al., 2013). As the banking industry worldwide gets more and more competitive, banks emphasize the loyalty of customers as a technique to gain a competitive edge (Beerli et al., 2004). Furthermore, customer loyalty is of crucial significance as it provides a framework for analyzing a bank's marketing strategy (Fry et al., 1973). A Forbes article by Bottorff & Haan (2024) addresses the most influential factors that impact customer loyalty in 2024, the results of the survey show service quality as the most influential factor. Within the banking sector, service quality is an essential component that leads to an increase in operational efficiency (Chang et al., 2017) and the corporate image of businesses (Christanto & Santoso, 2022). More studies support the idea that customer retention and customer satisfaction are directly influenced by service quality (Vera & Trujillo, 2013). Additionally, there is evidence of a significant correlation among service quality and customer retention (Balancio, 2023).

1.2 Research Problem and Motivation

Fernandes and Pinto (2019) endorse the idea that relationship quality in retail banking services is affected by customer experience. This supports the argument that improving the bank's profitability requires improving service quality. Caruana (2002) studies the predictor service quality and mediator customer satisfaction effect on service loyalty in the retail bank sector in Malta. The outcome of the qualitative research performed in the study indicate that the correlation between service quality and service loyalty is mediated by customer satisfaction. Another paper indicated that service quality has a positive, direct effect on loyalty in banks in Zimbabwe

(Makanyeza & Chikazhe, 2017). Also, the study found that corporate image and satisfaction have a mediator impact over the relationship of service quality and customer loyalty. The results of Levy and Hino (2016) paper demonstrate a strong positive and direct correlation among the customer's emotional attachment to a bank and their bank loyalty. Furthermore, Omoregie et al., (2019) analysis showed that satisfaction is positively correlated with loyalty, alongside service quality and trust. In addition, the study concluded that corporate perception has a positive influence on satisfaction, however there is not a substantial influence on loyalty. Finally, Alzaydi's (2023) findings once again showed that service quality indeed affects customer loyalty through the mediator of customer satisfaction in Saudi Arabian customers.

However, this relationship is even more intricate in a transitioning economy like the one in North Macedonia. At the beginning of the 2000s in North Macedonia's banking sector foreign capital became increasingly significant as domestic banks became predominantly owned by foreign shareholders. The entry of foreign banks strengthened the domestic bank's capabilities and enhanced the financial stability, hence making the market more competitive in the long run (Mitreska & Bojcheva-Terzijan, 2017). Sabljic et al., (2023) study shows that the financial performance of Western Balkan banks has suffered as a result of the COVID-19 pandemic and the war in Ukraine. Correspondingly, the paper suggests the negative impact on the bank's financial liquidity and economic health will be further amplified by the current situation in Ukraine. Recently, North Macedonia's Eurostandard Bank filed for bankruptcy in August 2020 as a result of not meeting the necessary legal standards to operate. In North Macedonia's banks customer loyalty and satisfaction have received little attention, especially in the academic literature. Therefore, I would like to explore this topic further and expand the already existing literature by investigating a developing country like North Macedonia.

1.3 Research Objectives

The purpose of this paper is to fill the knowledge gap between many theoretical economic models explored in previous literature on the topic of consumer behavior and the services marketing sector using data from North Macedonia. Cultural background has a large influence on the customer's

perception of service quality and customer loyalty (Malai & Speece, 2005), therefore this paper exploring the retail banking sector in North Macedonia can contribute to the literature and future research in the marketing sector. Although, the connection among service quality and customer loyalty is a widely explored topic, but very few papers have supported the connection among service quality and customer loyalty through the indirect effect of emotional attachment. Overall, studies examining the mediating role of customer satisfaction and emotional attachment on the relationship between service quality and service loyalty in a country of a transitioning economy are under-investigated.

The purpose of the thesis is to investigate the mediating effect of customer satisfaction and emotional attachment on the connection between service quality and customer loyalty in North Macedonia's retail banking sector. Through investigating the effect of the mediators on the relationship between service quality and customer loyalty this study aims to contribute to already existing literature on customer loyalty, specifically contributing to the understanding of customer loyalty in North Macedonia's retail banking industry. The findings will be especially helpful for banks in completing strategies to retain customers and can be used to establish loyalty programs, therefore helping banks maintain long-term competitive advantage. This thesis focuses on answering the research question specified below:

How does service quality influence customer loyalty considering the mediating role of customer satisfaction and emotional attachment in the retail banking sector in North Macedonia.

1.4 Research Methodology

Explanatory and descriptive research is incorporated to discover the influence of service quality, customer satisfaction, and emotional attachment on customer loyalty. First, a qualitative analysis, and desk research were conducted by reading and evaluating a large specter of studies in the array of existing literature that provides a strong foundation for the research in the later phases. To operationalize the variables, previous literature is examined to see how the variables are defined and measured. The information gathered from existing literature is then used to formulate the questions in the online survey.

Following, quantitative research is used to examine and analyze these results from the desk research by designing an online survey using Qualtrics software. The questionnaire included a five-point scale for each question, at one end "strongly agree" and the other end "strongly disagree" (1 = "strongly disagree"; 5 = "strongly agree"). There were a few Net promoter score questions and socio-demographic variables were also collected for the analysis, to determine whether there is a difference between individuals with different demographic aspects like age, gender, income, and others. The survey is distributed using an online link sent via multiple online platforms including Email, WhatsApp, Facebook, Instagram and other. To have a representative sample of the population in North Macedonia, the objective was to reach as many respondents as possible who own a personal bank account across various demographic categories. The data was collected using convenience sampling and snowball sampling, as respondents were asked if they could share the link with other people. The benefit of using an online survey is that it's easier to reach a larger number of people, also, the data can be collected fast since there is limited time available for this paper to be finalized. The data collected from the survey is later used to make the analyses using SPSS and Stata.

1.5 Thesis Outline

The rest of the paper is structured as follows, first a literature review where the key concepts, and earlier research relevant to the topic is discussed. This leads to the formation of the hypotheses and the research model. Following is the methodology where the research design, sampling method, and data collection method are described. Then, the outcomes of the statistical evaluation are displayed leading to a discussion and conclusion. The thesis concludes with a section for managerial implications, limitations and recommendations for future research.

2. Chapter 2 – Literature review

This section presents the literature review, covering existing empirical research papers on the topic of customer loyalty, service quality, customer satisfaction and emotional attachment in the banking sector. The literature review will therefore help shape the research hypotheses. To maintain the information up to date, scientific papers published within the last twenty years will be explored.

The first section will review papers on customer loyalty and the factors that determine customer loyalty. Following, in the same section the component service quality is explored. Then, papers examining the relationship between customer loyalty and service quality are discussed, including papers from multiple service sectors as compared to papers specifically focused on the banking sector. In the next section the concept of customer satisfaction will be discussed and how customer satisfaction has a mediating effect on the correlation among customer loyalty and service quality. Finally, in the last section scientific papers concerning emotional attachment are discussed and the mediating role of emotional attachment in the connection among customer loyalty and service quality.

2.1 Customer Loyalty and Service Quality

Customer loyalty is a widely explored topic in the marketing literature. The capacity of a business to function successfully and operate profitably is connected to customer loyalty as it is the primary driver behind businesses' client retention (Solimun & Fernandes, 2018). Retaining loyal clients helps a business enhance its market penetration and allows a business to outperform its competitors (Wilson et al., 2021). Cheng et al. (2008) define customer loyalty as a purchase behavior, a result of a customer's reoccurring purchase patterns over an extended period of time, make customer referrals, as well as recommendations by word of mouth. Bramantoko and Maridjo (2024) also define customer loyalty as the tendency of clients to repeatedly select a specific brand or company during a longer period of time. The authors specify that feeling's of trust, perceived significance, fulfillment are often classified as indicators of customer loyalty. Zena and Hadisumarto (2021) study expanded the concept of customer loyalty, which can be evaluated based on the following

five factors: willingness to repurchase; willingness to recommend; spread positive word of mouth; adaptability to price changes; and frequency of purchases. Saini and Singh (2020) study investigates both altitudinal and behavioral forms of loyalty in customers. The findings show that altitudinal loyalty stimulates the development of behavioral loyalty. The study serves as empirical support for the idea that attitude and behavior shape people's perception of loyalty. For managers to implement pricing strategies to boost profits, they need to be aware of how important customer complaints are in building long term loyalty with clients, thus handle the complaints in the most appropriate way (Morgeson et al., 2020). Customers that are satisfied with the service provided are more likely to be loyal and use the offerings again (Bigné et al., 2008).

Service quality is defined as the difference between what clients believe they will receive from the service provider and the actual quality of the service they receive, that may influence their behavior toward the brand or company in the future (Sachdev & Verma, 2004). Jasinskis et al. (2016) study indicate that customer loyalty is impacted to a great extent by the degree to which the service quality they receive matches their expectations. An alternative way to define service quality, is the overall evaluation of the services a company provides (Hussain et al., 2015). Reliability, assurance, responsiveness, empathy, and tangibles are some of the most significant factors related to service quality (Sachdev & Verma, 2004). Measuring service quality helps managers find issues and potential areas for improvement, hence boosting a businesses' productivity (Seth et al., 2005). Companies in fast growing industries like the banking industry need to preserve their competitive edge by adopting superior service quality strategies (Kuo et al., 2009). Using more sophisticated service quality strategies can lead to a more favorable perceptions about a company's image and improves a company's performance relative to its competitors (Hu et al., 2009).

A study by Izogo and Ogba (2015) conducted a questionnaire in a Nigerian city, focusing on a region known for automobile repairs. Using convenience sampling, researchers found that service quality positively affects customer loyalty in the automobile service sector. It was determined that successful service providers put emphasis on providing exceptional service by focusing on elements such as agility, compassion, dedication, trustworthiness, hence increasing the customer's loyalty. Chen & Hu (2013) showed that that customer loyalty is positively impacted by service quality in the airline service industry. This study suggests that improving service quality will not

only favorably influence customer loyalty, but also improve the operation of the administration of the airline company. In addition, the paper recommends the administration team to focus on delivering high quality service to build relationship benefits and strengthen the airline's competitive advantage. Sabir et al. (2013) explore the telecommunication service industry in Pakistan. The findings indicate that the quality of the services has a major impact on customer loyalty. The study observed that in the telecommunication industry, customer loyalty is heavily influenced by customer satisfaction depending on the available loyalty programs. In addition, Lemy et al. (2019) empirically investigated the correlation between service quality and customer loyalty by conducting a questionnaire in Indonesian five-star hotels. The findings once again point to the importance for the management team to prioritize improving the service, since it would lead to greater customer satisfaction, trust and loyalty. There are numerous other studies that explore the same relationship in different service industries, but the focus of this paper is the banking industry.

Siddiqi (2011) analyzes the correlation within service quality and customer loyalty in the personal banking division in Bangladesh. Data was compiled using a survey distributed to retail bank customers from multiple banks in Bangladesh. The findings show that service quality is significantly related with customer loyalty in retail banking sector in Bangladesh. To deliver individualized offerings and create stable relationships with clients, Siddiqi (2011) recommends bank's management to engage in employee training programs, considering customer loyalty is the primary objective for success. Kheng et al. (2010) expands the research on customer loyalty in the internet banking sector, a progressive financial market facing global rivalry. Research was conducted using the information from customers of several local banks in Penang, Malaysia. The results indicate that the service offered can be elevated by improving the bank's credibility, empathy and security. Further, the study points out that there is room for improvement in the employee's performance, accordingly banks should hire more selectively in the future. Kheng et al. (2010) points out that the banking industry is a fast-moving industry that constantly requires technological innovation to upgrade the quality of the services. The author further says that over time customer needs and desires are changing, and these developments must be taken into consideration as well in order to keep the loyal customers. Another paper by Zhou et al. (2021) investigates the key factors influencing customer loyalty in mobile banking. An online survey was

utilized to gather the information from individuals who use the Chinese mobile banking services. The research identifies user convenience, program quality, and information security as the most significant factors of service quality, crucial for a client to stay loyal to a mobile banking platform. The paper suggests banks to improve customer's perception of security in mobile banking, by solving privacy concerns, boosting data safety, and developing detailed policies to retain current customer and attract new users. Lau et al. (2013) studies the crucial components of service quality in retail banks in Hong Kong. Customer satisfaction and privacy protection are two ways to improve service quality. Kranias and Bourlessa (2013) explore ways in which banks can gain competitive edge in terms of service quality. The study was carried out during a period of unpredictable economic developments in the Greek banking sector. A survey was sent to customers subscribed to one of the eight largest banks in Greece. The findings suggest having excellent service quality in elements like staff experience, trustworthiness, accessibility. Another factor that the administration should put emphasis on is innovative product offerings. Additionally, the data showed that banks need to upgrade their interior design, hence attract new customers. To summarize, based on the already explored literature, the findings show that there is a significant correlation among service quality and customer loyalty. Therefore, the following hypothesis is put forward:

H1: Service quality has a positive effect on customer loyalty in North Macedonia's banking sector.

2.2 Mediating Effect of Customer Satisfaction

A key goal for every business is to build customer loyalty and retain customers, so one way they can do so is through customer satisfaction (Geetha & Rani, 2016). Companies can gain competitive advantage by offering clients better services. Service providers as banks should constantly monitor and evaluate customer satisfaction scores to create connections with their clients as it is an essential element in enhancing a company's profitability. Customer satisfaction can be defined as degree of service quality efficiency that meets customer's expectations (Wang & Shieh, 2006). Customers have the natural tendency to compare the actual quality of a service to what they had anticipated, hence satisfaction can be viewed as the degree to which a person feels satisfied or disappointed

with a product or service (Mandal, 2015). Overall satisfaction, preferences, loyalty, possibility of future recommendation, favored alternatives are some of the factors that define customer satisfaction, before and after-purchase (Lee et al., 2010). Khamis and AbRashid (2018) find a close link among customer satisfaction and service quality. The paper demonstrates that customer satisfaction will improve by upgrading the quality of the services.

Gulam B et al. (2023) studies the influence of service quality on customer loyalty, and the indirect influence of customer satisfaction in the restaurant service industry. The data was collected using judgmental sampling by distributing a survey to customers who entered the restaurants in Tuban Regency. The findings show that customer loyalty is favorably impacted by service quality, and service quality has a favorable influence on customer satisfaction as well. It was also concluded that customer loyalty is positively influenced by customer satisfaction. Another study by Fida et al. (2020) investigates the effect of service quality on the satisfaction of customers and their loyalty in the Islamic banking division. Questionnaires were sent to customers of the four main Islamic banks, the data was collected using convenience sampling. The findings prove that service quality has a substantial influence on both variables, customer loyalty and customer satisfaction. The author recommends for the institutions to make improvements in service quality to get positive evaluation and to gain customers in the future. Additionally, the banks should improve factors such as responsiveness and compassion, the two most prominent variables for customer satisfaction. Afzal and Pakistan (2013) explored the relationship between customer loyalty and customer satisfaction by conducting a survey from customers of different banks in Pakistan. What the researchers pointed out is that high satisfaction can be reached by meeting customer's requirements, however loyalty is created through time, from reoccurring routines where the customer uses the same service and develops a strong relationship with the service provider. Afzal and Pakistan (2013) note that today, growing a strong loyal clientele is the most effective method to obtain a unique advantage over competitors. Lenka et al. (2009) studied the level of service quality at which customer satisfaction increases, which in turn stimulates customer loyalty. The findings show that the idea of customer satisfaction is dominated by the human part of service quality as compared to the technological and physical side. Previous literature, has investigated the mediator customer satisfaction on the interrelationship of service quality and customer loyalty. Slack and Singh (2020) explored the same relationship in the service supermarket industry in Fiji.

Once again service quality was proven to have a favorable impact on customer satisfaction and their loyalty. Further, it was proven that the correlation among the quality of service and the loyalty of customers is affected by the mediator customer satisfaction. Erdoğan (2020) looks at the same relationship in a different service industry, in public hospitals in Turkey. Again, customer satisfaction was proven to be a mediator in the correlation between the quality of services offered and the loyalty of clients. The analysis shows that in the healthcare service sector similarly to the other industries, by improving service quality, customer satisfaction improves as well. In relation to the provided evaluation on prior studies, the following hypotheses are proposed:

H2: Service quality has a positive effect on customer satisfaction in North Macedonia's banking sector.

H3: Customer satisfaction has a positive effect on customer loyalty in North Macedonia's banking sector.

H4: Customer satisfaction functions as a mediator in the relationship between customer loyalty and service quality in North Macedonia's banking sector.

2.3 Mediating Effect of Emotional attachment

When there is a connection between an individual and an object or setting, an attachment can be classified as emotionally driven (Thomson et al., 2005). Higher emotional connection such as empathy, joy and excitement, will lead to a stronger relationship with that object, place and therefore develop higher attachment. The basic human need to develop close connections with certain people, objects, places is known as emotional attachment. (Park et al., 2010). Characteristics of strong emotional attachment include devotion, loyalty, and association with a brand. Loyal individual are more likely to possess these characteristics towards a business, through building a long-lasting bond with the company (So et al., 2013). A person's loyalty and spending patterns can be predicted by the level of emotional attachment they exert towards the enterprise (Thomson et al., 2005). The degree of emotional connection a person has towards a company is an

essential component in marketing literature, commonly referred to as customer emotional attachment (So et al., 2013).

Levy and Hino (2016) explored the connection between customer loyalty and customer emotional attachment in bank service providers. Convenience sampling was used to collect the data using a survey sent to bank clients in Israel who had a valid bank account. The analysis suggests that in Israel's banking sector there is a favorable relationship among customer loyalty and emotional connection. The study points out that banks need to retain customers by developing strong connections between service providers and customers, facilitating positive emotional attachment. Levy (2022) explored ways to retain loyal clients by achieving exceptional emotional experience. Emotional attachment is one key element for building a long-standing relationship with clients, so this study improves our understanding on the factors that influence customer loyalty. Suhartanto et al. (2019) analyzes emotional attachment in order to build customer loyalty for Islamic banks. This empirical research shows that service excellence has insignificant impact on loyalty compared to emotional attachment. The results indicate that customer happiness increases when there is superior service, but there is no evidence of a direct impact on customer loyalty. Consequently, the following hypotheses are proposed:

H5: Service quality has a positive effect on emotional attachment in North Macedonia's banking sector.

H6: Emotional attachment has a positive effect on customer loyalty in North Macedonia's banking sector.

H7: Emotional attachment functions as a mediator in the relationship between customer loyalty and service quality in North Macedonia's banking sector.

2.5 Research model

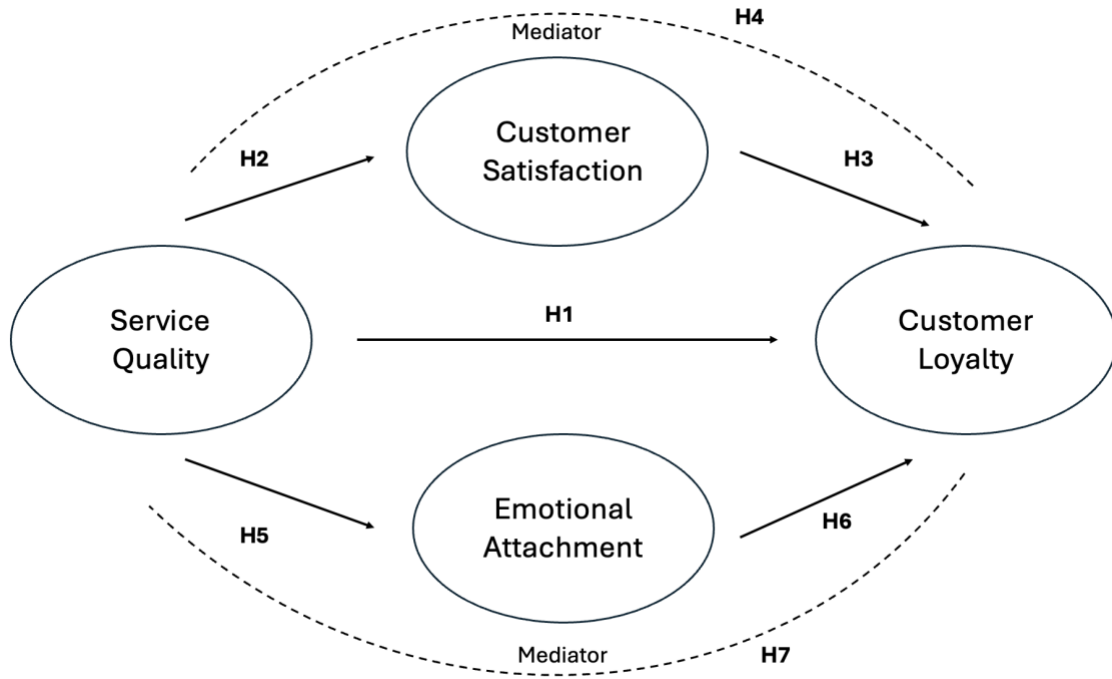


Figure 1 Visual representation of the model

3. Chapter 3 – Methodology

3.1 Research Design

An online survey design was used to examine how retail bank customers in North Macedonia evaluate each variable. Multiple linear regression, a statistical technique used for analyzing the relationship between the dependent variable and more independent variables will be used to examine the data collected from the online survey. Therefore, understanding how changes in service quality, customer satisfaction and emotional attachment can affect customer loyalty, to derive well-informed conclusions from the investigation. Online survey design is used to effectively and rapidly gather information from a significant amount of respondents. An online survey has the advantage of being cost-effective and time efficient. The data can be gathered quickly and examined easily, and the respondents are kept anonymous. To determine whether individuals with specific demographic characteristics differ from one another, sociodemographic variables were also collected for the analysis. The objective for this type of analysis was to gather around 200 responses and share the link of the online survey to a diverse set of individuals, so that the sample is representative of the population in North Macedonia as much as possible. In the first section of the survey the participants were asked to give consent to participate in the thesis study.

3.2 Sampling Method

Convenience sampling is the primary sample technique used in this research, alongside the sampling technique known as snowball sampling, as participants were asked if they could send the online survey link to friends and family so that the sample would include individuals from diverse backgrounds and ages. The sampling technique may not generate the optimal random sample, but it is the most appropriate sampling method due to time constraints of this paper. The target population intended to be examined include individuals who own a personal bank account in North Macedonia. At the beginning of the questionnaire, the participants were asked if they currently own a personal bank account in North Macedonia. Any respondent that indicated that they do not

own a personal bank account in North Macedonia were excluded from the data. The aim of the study is to obtain an accurate representation of the population in North Macedonia by reaching as many respondents as possible. An online link for the survey was sent out by multiple online platforms including Email, WhatsApp, Facebook Messenger, Instagram, Messages, LinkedIn and Viber.

3.3 Data Collection Methods and Procedures

The data is gathered using Qualtrics software, also used to create and distribute the online survey. In the beginning of the survey, before answering the questions participants were asked to indicate if they have an active bank account in North Macedonia. If they answer “Yes” than they could continue with the survey, and if they answer “No” the survey ended for these participants immediately. To gather sociodemographic information participants were asked questions about their age, gender, nationality, religion, level of education, employee status and marital status. The respondent is then asked to select the bank they are currently subscribed to from a list of all the banks in North Macedonia. Piped text was used in the software Qualtrics so that the following questions will adapt accordingly to the choice of the respondent based on which bank they have chosen. Personalizing the questions in the survey increases the accuracy of the respondent’s answers and increases the quality of the information collected. Also, respondents can more easily understand the questions and reduce the possibility of errors.

The variables were measured during the following part of the questionnaire. Previous research measured customer loyalty using a 12-item measure proposed by Caruana (2002) and service quality using a 21-item model. Each question in the online survey included a five-point Likert scaling to rate each variable from “strongly agree” to “strongly disagree” (1 = “strongly disagree”; 5 = “strongly agree”). The Likert scale was utilized, as it is a very reliable tool for measuring respondent’s attitudes and is simple for respondents to understand. In addition, few of the questions used Net promoter score, a metric used to measure customer loyalty that assesses a customer’s tendency to recommend their bank’s services, by choosing a score from 1 (extremely unsatisfied) to 10 (extremely satisfied). The use of Net promoter score in survey questions reduces respondent efforts, and consequently reduces survey fatigue while identifying specific areas that require

improvement. One attention check question was also included to ensure that respondents were paying attention to the questions in the survey. While the other questions were phrased positively, this particular question was purposefully designed in a negative connotation asking if the participant is considering switching away from their current bank.

3.4 Data Analysis

First, the data sample is described using Descriptive statistics in Excel, in which pie charts and cluster bars are used to summarize the characteristics of the data set. To guarantee data accuracy during the statistical analysis, a validity and reliability analysis was performed using Cronbach's Alpha and Factor analysis in SPSS software. In order to determine if changes in the other variables impact customer loyalty, Multiple linear regression analysis and ANOVA tests were carried out in Stata. The Multiple linear regression equation used in Stata is the following:

$$\begin{aligned} \text{Customer loyalty} = & \beta_0 + \beta_1 * \text{Service quality} + \beta_2 * \text{Customer satisfaction} + \beta_3 * \\ & \text{Emotional attachment} + \beta_4 * \text{Age} + \beta_5 * \text{Gender} + \beta_6 * \text{Education} + \beta_7 * \\ & \text{Employee status} + \varepsilon \end{aligned}$$

In the regression, the dependent variable is customer loyalty, the exploratory variable is service quality. Customer satisfaction is the first mediator and emotional attachment is the second mediator in the regression equation. β_0 is the constant, the intercept in the regression equation. The regression coefficients are β_1 ; β_2 ; β_3 ; β_4 ; β_5 ; β_6 ; β_7 and ε is the error term. The variables age, gender, education and employee status account for variation in sociodemographic's in the regression model. To support the findings of the Multiple linear regression analysis and to further explore the correlation between the variables in the model, Structural equation modeling (SEM) analysis was performed. Finally, a Mediation analysis was carried out to find out if customer satisfaction and emotional attachment are significant mediators in this model.

4. Chapter 4 – Results

4.1 Data description

This study focuses on people that have an active bank account in North Macedonia, In total 196 respondents completed the survey. Any participants that indicated that they do not own a bank account in North Macedonia were excluded from the data. Further, participants who did not consent to take part in the study were removed from the analysis. Additionally, the duration of response time of each participant was recorded. Any responses recorded with duration under 90 seconds were removed from the data to avoid any biases in the data. Those participants were removed because it is likely that these respondents did not pay attention to the questions and may cause false deviations in the data. Removing these participants preserves the quality of the data and leads to a more precise data analysis. Respondents who failed to answer the whole survey were also eliminated from the investigation. After cleaning the data, a total of 192 responses were used for the data analysis in the following section. The data sample included 53% female respondents, 46% male respondents and 1% non-binary, third gender respondents. The sample nationality was mainly composed of Macedonian respondents, 94%, there were 4% Albanian respondents, 1% Bulgarian respondents and 1% classified as “Other”. Most respondents, 31% were between the age of 25-34; 27% were between the age of 18-25; 22% were between the age of 35-44; 12% were between the age of 45-54; 3% were under 18; 2% were between the age of 55-64, another 2% were between the age of 65-74. Also, 1% were in the age group of 75-84 and 0% indicated the age of 85 or older. Out of the respondents 34% had a Master’s degree, 33% had a Bachelor’s degree, 23% only finished high school, 8% had a PhD and 2% indicated “Other” level of education. Most of the participants were employed, 72%, while 24% were unemployed. Further, 2% of the respondents were retired, and 2% selected “Prefer not to say”. Further information on the parameters that are later used in the regression, age, gender, education and employee status are illustrated in Table 1.

Table 1

Descriptive Statistics including Mean and Standard Deviation of age, gender, education and employee status (not standardized values)

Variable	Observations	Mean	Standard Deviation
Age	192	2.526	1.531
Gender	192	1.474	.511
Education	192	2.307	1.191
Employee status	192	1.766	1.279

4.2 Validity and reliability analysis

To ensure data accuracy during the statistical analysis, reliability and validity analysis was performed in SPSS. One statistic used in SPSS to determine if the questions measure the same characteristics over time is Cronbach's alpha, shown in Table 2. The estimate of the Cronbach's alpha is 0.923, in general values larger than 0.7 indicate sufficient internal consistency. This means the questions are highly reliable, accurately assessing the same variables.

Table 2

Reliability statistics results using Cronbach's Alpha

Cronbach's Alpha	N of Items
.923	17

Note: Every individual question used when conducting the reliability analysis is what is defined by "Items". N represents the number of individual questions used during the Cronbach's Alpha reliability analysis.

Following, a validity analysis is used to evaluate if the survey accurately measures the variables that are intended to be analyzed. To test if the data is adequate for Factor analysis, KMO and Bartlett's test were conducted, displayed in Appendix C, Table 8. The KMO test generated a score of 0.931, which is greater than 0.5 and therefore indicating the data is appropriate for factor analysis. Bartlett's test outcome is $p < 0.001$, the results are sufficiently correlated further indicating the significance of the results and improving the validity of the analysis that follow.

Both KMO and Bartlett's test demonstrate that the data from the survey is suitable for factor analysis.

In the Principal Component Analysis three factors were marked as important with Eigenvalue above one, presented in Appendix C, Table 9. Component one with Eigenvalue of 9.186 and accounts for 54.03% variance in the data; component two with Eigenvalue of 1.268 with 7.46% of the variance explained. Finally, the third component has Eigenvalue of 1.085 accounts for 6.38% of the variance in the data. Overall, the cumulative amount of variance the three components account for is 67.87%. Since all items have communality score larger than 0.2, no value needs to be removed from the analysis. To summarize, we can see that out of seventeen components, only three components explain the total variance in the data. The rotated component matrix presented in Appendix C, Table 12, contain the rotated factor loadings which include estimations of the correlation between each component and each factor. Factors rated with 0.4 or more can be considered as a significant loading of a component. Component one is mainly influenced by questions 19 and 21, approximately reflecting the variable service quality. For component two the most influential questions were question 31 and 32, reflecting the variable emotional attachment. And component three was made up of question 33, reflecting the variable customer loyalty.

4.3 Regression analysis

Table 3

Results of Multiple linear regression analysis

Effect	Estimate	SE	95% CI		p
			LL	UL	
Constant	7.65e-09	.029	-.057	.057	1.000
Service quality	.379	.066	.248	.509	.000
Customer satisfaction	.191	.072	.049	.334	.009
Emotional attachment	.152	.040	.073	.232	.000
Age	-.035	.030	-.094	.025	.248
Gender	-.034	.030	-.094	.026	.262
Education	.010	.031	-.051	.071	.754
Employee status	.006	.031	-.054	.066	.847

Note: The number of respondents is N=192; $F(7, 184) = 49.320$ and $R^2 = 0.652$; CI = Confidence interval; LL = lower limit; UL = upper limit. The statistical significance levels are the following: (* $p < 0.10$; ** $p < 0.05$ *** $p < 0.01$).

Table 3 represents the following Multiple linear regression equation:

$$\begin{aligned} \text{Customer loyalty} = & 7.650 * 10^{-9} + 0.379 * \text{Service quality} + 0.191 * \\ & \text{Customer satisfaction} + 0.152 * \text{Emotional attachment} - 0.035 * \text{Age} - 0.034 * \\ & \text{Gender} + 0.010 * \text{Education} + 0.006 * \text{Employee status} \end{aligned}$$

Based on the findings, a significant regression equation was identified ($F(7, 184) = 49.320$; $p < 0.000$), with R^2 of 0.652, meaning 65.2% of the variance in customer loyalty is explained by the regression model. The intercept is $7.650 * 10^{-9}$, the predicted value of customer loyalty when all independent variables are zero. For each unit increase in service quality, customer loyalty increases by 0.379 units and the effect is significant ($0.000 < 0.05$). Customer loyalty increases by 0.191 units for each unit increase in customer satisfaction at significance of 0.05 ($0.009 < 0.05$). Finally, customer loyalty increases by 0.152 units for each unit increase in emotional attachment, and the effect is significant ($0.000 < 0.05$). For each unit (range of age categorized in group) increase

in Age, customer loyalty decreases by 0.035 units. Gender is coded as 1 = Male, 2 = Female, 3 = Non-binary/third gender, and 4 = Prefer not to say. Similarly, for each unit increase in Gender, customer loyalty decreases by 0.034 units. Alternatively, for each unit increase in Education, customer loyalty increases by 0.010 units, and for every unit increase in Employee status customer loyalty again increases by 0.006 units. However, Age, Gender, Education and Employee status, all have not significant effect on customer loyalty. To support the findings of the regression, four ANOVA test were conducted to analyze whether age, gender, education and employee status are significant predictors of customer loyalty. The values for the sociodemographic variables in the analysis were unstandardized. The tables are provided in Appendix D, Figure 14,15,16,17. Once again the results show that customer loyalty does not have a significant relationship with either one of these sociodemographic variables. The different age groups are not a significant predictor of changes in customer loyalty. Likewise, differences in gender, level of education and employee status are not significant predictors of customer loyalty.

4.4 Mediation analysis

Table 4

Path coefficients and their confidence interval and significance

Path	Path coefficient	95% CI		p-values
		LL	UL	
H1: service quality → customer loyalty	.385	.260	.510	.000
H2: service quality → customer satisfaction	.776	.707	.846	.000
H3: customer satisfaction → customer loyalty	.183	.045	.322	.010
H5: service quality → emotional attachment	.582	.455	.709	.000
H6: emotional attachment → customer loyalty	.146	.070	.223	.000

Note: SRMR = .035; CFI = .980; Number of participants N = 192; The statistical significance levels are the following: (* $p < 0.10$; ** $p < 0.05$ *** $p < 0.01$).

To better understand the connections between the variables, SEM analysis was conducted using Stata. The path coefficients and their significance are presented in Table 4. The impact of service quality on customer loyalty was found to be positive, $\beta = 0.385$, and significant, $p = 0.000$, therefore providing support for H1. Customer satisfaction and emotional attachment were both proven to have a positive and significant influence on customer loyalty, with $\beta = 0.183$ and $p = 0.010$ for customer satisfaction supporting H3; and $\beta = 0.146$ and $p = 0.000$ for emotional attachment in support of H6. Further, service quality was proven to be an important predictor of customer satisfaction, $\beta = 0.776$ and $p = 0.000$; and emotional attachment, $\beta = 0.582$ and $p = 0.000$. These results support H2 and H5 respectively. Based on the full analysis, service quality was identified as the largest predictor of customer loyalty ($\beta = 0.385$, $p = 0.000$). The proposed model has CFI index of 0.980, where any values larger than 0.950 are considered a sign of a good model fit. Additionally, SRMR has a value of 0.035, suggesting a close-fitting model as values up to 0.050 are considered indicative of a model that fits well. The values of R^2 represent the joint effect of the determinants on all endogenous variables Appendix D, Figure 20. Service quality together with customer satisfaction and emotional attachment account for 64.5% of the variation in customer loyalty in this model. Again, service quality accounts for 71.2% of the variation in customer satisfaction and 29.5% of the variation in emotional attachment. Figure 2 is a structural representation of the variables observed in the SEM analysis model. The arrows depict causal association including the path coefficients and the prediction error.



Figure 2

Structural model with values of SEM analysis estimation results and values for error terms

Table 5

Testing the significance of the indirect effect of customer satisfaction on the relationship between service quality and customer loyalty

Estimates	Sobel	Monte Carlo
Indirect effect	.192	.195
Standard Error	.056	.055
z-value	3.425	3.528
p-value	.001	.000
Conf. Interval	.082, .302	.084, .305

Note: The values of RIT = 0.313 and RID = 0.456

The following Mediation analysis is carried out to determine the importance of the mediator on the model. Table 5 has the Baron and Kenny approach for the analysis of the mediator impact of customer satisfaction on the correlation among service quality and customer loyalty. Referencing Sobel's test, it is concluded that the tests are significant and that there is partial mediation. The Sobel test has an indirect effect of 0.192 with statistical significance of 0.001. Further, the confidence interval is (0.082,0.302), meaning the zero value is not between the upper and the lower bound, so indirect effect is statistically significant. RIT calculates the ratio of indirect effect to total effect, where 31% of the impact of service quality on customer loyalty is mediated by customer satisfaction. RID calculates the ratio of indirect effect to direct effect, where the mediated effect is 0.5 times as large as the direct effect of service quality on customer loyalty. Additionally, Zhao, Lynch and Chen's approach reflecting service quality effect on customer loyalty, where the Monte Carlo test has a significant indirect effect of 0.195. The confidence interval is (0.084,0.305), once again showing the indirect effect is not zero. For that reason, we can conclude that service quality has both a significant direct and indirect effect on customer loyalty, where the indirect effect represents customer satisfaction.

Table 6

Testing the significance of the indirect effect of customer satisfaction on the relationship between service quality and customer loyalty

Estimates	Sobel	Monte Carlo
Indirect effect	.099	.100
Standard Error	.025	.025
z-value	3.980	4.020
p-value	.000	.000
Conf. Interval	.050, .148	.051, .149

Note: The values of RIT = 0.162 and RID = 0.193

In Table 6 is the output from analysis for the mediator emotional attachment in the relationship between service quality and customer loyalty. Similarly, Table 6 includes the Baron and Kenny approach and the results from the Sobel's test show that the tests are significant and that there is partial mediation once again. Here the Sobel test has a significant indirect effect of 0.099 with statistical significance of 0.000. The confidence interval is (0.050,0.148), the indirect effect is statistically significant. The RIT analysis for emotional attachment suggests that 16% of the effect of service quality on customer loyalty is mediated by emotional attachment. Calculating the RID, the effect of the mediator emotional attachment is 0.2 times as large as the direct effect of service quality on customer loyalty. Finally, Zhao, Lynch and Chen's approach shows service quality has a direct influence on customer loyalty. The Monte Carlo test has a significant indirect effect of 0.100, and the confidence interval is (0.051,0.149), once again showing the indirect effect is substantial. Hence, the results show that service quality both directly and indirectly, through emotional connection, have a significant impact on customer loyalty.

5. Chapter 5 – Conclusion and Discussion

5.1 Discussion

This paper contributes to the knowledge gap in the literature on customer loyalty and its predictors in North Macedonia. The findings provide further support to already existing literature on service quality, customer satisfaction and emotional attachment having positive impact on customer loyalty (Levy & Hino, 2016; Makanyeza & Chikazhe, 2017; Slack & Singh, 2020). The Multiple linear regression analysis alongside the path analysis performed in Stata showed that service quality has a positive and significant effect on customer loyalty, supporting Hypothesis 1 (*H1: Service quality has a positive effect on customer loyalty in North Macedonia's banking sector*). Further, customer satisfaction and emotional attachment both have a significant positive effect on customer loyalty, proving Hypothesis 3 (*H3: Customer satisfaction has a positive effect on customer loyalty in North Macedonia's banking sector*) and Hypothesis 6 (*H6: Emotional attachment has a positive effect on customer loyalty in North Macedonia's banking sector*) respectively, as accurate. The findings are identical to previous studies exploring the same relationship in the banking industry like Caruana (2002). Moreover, the findings also correspond to papers that research the same relationship in a different industry, like Erdoğan (2020) exploring the public hospitals. A trait shared by all the previous literature is that regardless of the industry that is being studied, the predictors of customer loyalty are consistent, including service quality, customer satisfaction, and emotional attachment. A combined impression is that these variables, indeed have a significant effect on the loyalty of customer towards a brand or business.

Furthermore, service quality was proven to have a positive, significant effect on customer satisfaction and emotional attachment, advocating for Hypothesis 2 (*H2: Service quality has a positive effect on customer satisfaction in North Macedonia's banking sector*) and Hypothesis 5 (*H5: Service quality has a positive effect on emotional attachment in North Macedonia's banking sector*), respectively. Fida et al. (2020) came to a similar conclusion, service quality has a positive influence on customer satisfaction in Islamic banking. The better the services that the bank provides to its customers, the gather the possibility they will continue to be loyal to the bank (Bigné et al., 2008). Customer loyalty is the most important driver of a bank's profitability and competitive advantage. For banks to become a market leader they need to improve customer loyalty, retain

current clients and attract new clients. Siddiqi (2011) talks about improving customer loyalty through improving service quality by investing in employee training programs. Technological innovation is another way to improve the quality of the services provided in the bank (Kheng et al., 2010). Today, as the technology progresses, the needs of the customer change, and the banks should keep the services up to date with the newest technologies, to meet the needs of the clients. This thesis paper together with previous research has demonstrated that having advanced service quality, customer satisfaction and emotional attachment are more likely to increase loyalty in customers.

The mediation analysis showed that customer satisfaction has a significant indirect effect, meaning Hypothesis 4 (*H4: Customer satisfaction functions as a mediator in the relationship between customer loyalty and service quality in North Macedonia's banking sector*) is partially accurate. The research shows that there is partial mediation cause by customer satisfaction in the connection between service quality and customer loyalty. Alzaydi (2023) paper came to a similar conclusion, where customer satisfaction was discovered to be a partial mediator between service quality and customer loyalty. In conclusion, the more satisfied the customers are, the more likely they are to form a bond with the bank and be loyal to the bank (Afzal & Pakistan, 2013). The findings also correlate with Khamis and AbRashid (2018) paper, when there is superior service quality customers are more satisfied with the bank. The same analysis was conducted for the mediator emotional attachment, where once again showed that there is a significant indirect effect in the relationship of service quality and customer loyalty caused by the mediator emotional attachment, in support of Hypothesis 7 (*H7: Emotional attachment functions as a mediator in the relationship between customer loyalty and service quality in North Macedonia's banking sector*). Levy and Hino (2016) came to the same conclusion that emotional attachment has a meaningful connection with customer loyalty. The analysis in this thesis paper suggest that emotional attachment has a partial mediating effect on the connection between service quality and customer loyalty. Therefore, the more emotionally attached a person is to the bank and its offerings, the more likely they are to form a long-lasting bond with the bank and remain as loyal customers (Levy, 2022). Based on the results, the mediation effect of service quality was proven to be larger than the mediation effect of emotional attachment in the correlation between service quality and customer loyalty. Similarly to Izogo and Ogba (2015) paper, in this analysis service quality was proven to be the most prominent

predictor of customer loyalty. Additionally, based on the Multiple linear regression and ANOVA analysis, there is insufficient evidence to conclude that any of the sociodemographic variables included in the model (age, gender, education and employee status) have a meaningful influence on customer loyalty.

5.2 Conclusion

This paper examines the relationship between service quality and customer loyalty and discovering whether customer satisfaction and emotional attachment have a mediation role in this relationship. Additionally, the analysis looks at which of these components are significant predictors of customer loyalty. The research focuses on the private banking sector in a country with a developing economy, North Macedonia, since there is little attention put on the importance of customer loyalty and its predictors in prior literature. This study aimed to answer the research question:

How does service quality influence customer loyalty considering the mediating role of customer satisfaction and emotional attachment in the retail banking sector in North Macedonia.

To answer the research question, a quantitative analysis was conducted by sending an online survey to individuals who had an active personal bank account in North Macedonia. Regression analysis, SEM and mediation analysis was performed to test the relevance of the seven hypotheses. The data analysis found that service quality, customer satisfaction and emotional attachment have positive and significant influence on the loyalty of customers, in support of H1, H3, H6. Additionally, the results from the analysis show that customer satisfaction and emotional attachment are partial mediators in the relationship among service quality and customer loyalty, proving H4 and H7 as partially correct. Service quality has a favorable impact on customer satisfaction and emotional attachment, confirming H2 and H5. The sociodemographic variables that were accommodated into the model did not have a significant impact on customer loyalty.

This thesis paper provides us with a deeper understanding of the main predictors of customer loyalty in the banking sector in North Macedonia. There is limited literature exploring the importance of customer loyalty in the banking sector in the country. In general, in the academic literature there is limited research exploring the mediator effect of emotional attachment on the

association among service quality and customer loyalty in the banking industry. Therefore, this paper contributes to the overall literature, by investigating a model that incorporates the variable emotional attachment. This paper deepens our understanding on the connection between service quality and customer loyalty in the retail banking sector in North Macedonia, as both mediators have a significant influence on this relationship. The findings were specifically associated with a particular country in the Balkans with a specific cultural background. In the beginning of the paper, it was suggested that these cultural differences contribute the understanding of the customer loyalty and how much customer loyalty should be emphasized in the banking industry in this country. The investigation, similar to previous research done on this topic, suggest that that customer loyalty has the same predictors regardless of any factors present in a specific banking environment. The developing economy in North Macedonia did not generate any differences in the relationships between the variables. This thesis paper can encourage banks in North Macedonia to put more emphasis on developing loyalty in customers, as it can have future benefits when it comes to the financial performance of the business. Further, it stresses the importance of customer loyalty in predicting consumer behavior and building strong relationships with a brand or company. Banks should put emphasis on improving the predictors of loyalty, which are service quality, customer satisfaction, emotional attachment, as they are the key components of budling customer loyalty.

5.3 Managerial implications

The banking industry is a very competitive industry, for a bank to be successful it should be able to retain its customers and attract new ones. This paper can provide recommendations to marketing managers on ways to improve customer loyalty in the banking industry by providing insides on the importance of service quality, customer satisfaction and emotional attachment. The investigation provides insides into the evolution of loyalty in customers and the psychology behind it. Achieving customer loyalty requires strengthening components like the quality of service, the level of satisfaction and emotional attachment. The research findings can assist the management team of banks in North Macedonia in developing marketing strategies to improve service quality, achieve customer satisfaction and emotional attachment. To enhance service quality banks should take initiatives to invest in employee and manager training programs. Employees need to restore confidence in the services that the bank offers to the clients. Customers should receive individual

attention and any problems should be taken seriously. Furthermore, banks should invest in advanced technologies, guaranteeing more convenience for the customers in the future. Privacy protection is a very important aspect for banks to consider when it comes to customer satisfaction. Further, physical aspects such as the location of the bank, appearance of the building, and the physical appearance of the staff have an influence on the perception of quality and satisfaction of customers. Banks need to take initiatives in favorably influencing the perception of clients about the bank's corporate image, therefore enhancing the emotional bond between customers and their banks. One way banks can positively influence customer's perception is by participating in public activities to strengthen the company's corporate social responsibilities.

5.4 Limitations and recommendations for future research

Mainly, due to the time constraint of this paper, the data is appropriate for this analysis, but the sample is small. Hence, it is difficult to generalize the findings to the whole population in North Macedonia. Also, this research had no budget, and the data was collected on the basis of convenience sampling and snowball sampling. To get a larger data sample from the population in North Macedonia a larger experiment should be conducted with a wider pool of respondents, to get better accuracy. The analysis is specifically focusing on the population in North Macedonia and the findings may not be generatable to other countries. So, future research is needed to explore customer loyalty in different countries and different settings to get a more precise analysis on the target population. The sample was composed of mainly young respondents in the ages between 25-34 and 18-25. Middle-aged and older individuals are underrepresented in the thesis, so a suggestion for future investigation is to solve this problem by collect a wider and more diverse sample. The survey was offered to the participants only in English and the native language in the country is Macedonian, so this may have caused some inconvenience for the participates who are not as familiar with the English language. Some may have struggled with understanding the questions and answers of the survey, so in future research a translated version of the survey should be offered to the participants. Furthermore, there may be some inconveniences in the analysis, as the influence of Age, Gender, Education and Employee status turned to be insignificant. The variables used in the model were standardized, but there may have been some error in the analysis

that contributed to having insignificant results. Overall, there may be a limited use of statistical analysis and the use of different models may lead to a more in-depth analysis in the future. Future research can focus on finding the importance of those factors and improving the overall analysis. Moreover, the study does not include all possible mediators among service quality and customer loyalty. There may be other variables that can influence the relationship between service quality and customer loyalty. As a result, this paper opens the door for developing a more complex model that is build based on this model, exploring other variables that may have a significant influence. Future research can look into other mediators, apart from customer satisfaction and emotional attachment, in the relationship between customer loyalty and service quality.

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Appendix A – Survey Questions

Q38 Welcome to my Marketing thesis research study!

For my thesis paper I am interested in understanding the factors that influence customer loyalty in North Macedonia's retail banking system. By selecting "I agree" you consent to participate in the study and your answers will be used for research purposes. Your responses will be kept confidential and anonymous. Participating in this research is completely voluntary and you can withdraw from the questionnaire at any point in time. Please answer the questions as accurately as possible.

- I agree (1)
- I do not agree (2)

Q1 What is your age?

- Under 18 (1)
- 18-25 (2)
- 25 - 34 (3)
- 35 - 44 (4)
- 45 - 54 (5)
- 55 - 64 (6)
- 65 - 74 (7)
- 75 - 84 (8)
- 85 or older (9)

Q2 What is your gender?

- Male (1)
- Female (2)
- Non-binary / third gender (3)
- Prefer not to say (4)

Q3 What is your nationality?

- Macedonian (1)
- Albanian (2)
- Greek (3)
- Bulgarian (4)
- Other (5)

Q4 Which religion do you identify with?

- Christianity (1)
- Islam (2)
- Hinduism (3)
- Buddhism (4)
- Judaism (5)
- Other (6)

Q5 What is your level of education?

- High school (1)
- Bachelor's degree (2)
- Master's degree (3)
- PhD (4)
- Other (5)

Q6 What is your employee status?

- Employed (1)
- Unemployed (2)
- Prefer not to say (3)

Q7 What is your marital status?

- Single (1)
- Married (2)
- Divorced (3)
- Separated (4)
- Other (5)

Q8 Do you have an active bank account in North Macedonia?

- Yes (1)
- No (2)

Q9 Which bank are you currently using?

- NLB Bank (1)
- Sparkasse Bank (2)
- Stopanska Bank Skopje (3)
- Stopanska Bank Bitola (4)
- Komercijalna Bank (5)
- Halkbank (6)
- Silk Road Bank (7)
- Capital Bank (8)
- MBDP Bank (Development Bank of North Macedonia) (9)
- ProCredit Bank (10)
- CCB Bank (Centralna kooperativna banka) (11)
- UNI Bank (Universal Investment Bank) (12)
- TTK Bank (13)

Q10 Please select the option the you agree with the most.

I would share positive comments about $\{Q9/ChoiceGroup/SelectedChoices\}$ to others.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q12 Please select the option the you agree with the most.

I would encourage friends and family to use $\{Q9/ChoiceGroup/SelectedChoices\}$.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q14 Please select the option the you agree with the most.

I have considered switching from $\{Q9/ChoiceGroup/SelectedChoices\}$.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q15 Please select the option the you agree with the most.

In my opinion, $\{Q9/ChoiceGroup/SelectedChoices\}$ is the best bank to work with.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q23 Please select the option the you agree with the most.

I consider $\{Q9/ChoiceGroup/SelectedChoices\}$ as my primary bank.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q16 Please select the option the you agree with the most.

Im confident $\{Q9/ChoiceGroup/SelectedChoices\}$ is a trustworthy bank.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q17 Please select the option the you agree with the most.

I constantly choose $\{Q9/ChoiceGroup/SelectedChoices\}$ when I require bank services.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q21 Please select the option the you agree with the most.

$\{Q9/ChoiceGroup/SelectedChoices\}$ is willing to provide help to customers.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q19 Please select the option the you agree with the most.

You can rely on the customer service to resolve any issues that you have in $\{Q9/ChoiceGroup/SelectedChoices\}$.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q20 Please select the option the you agree with the most.

Customer help is provided immediately after asking for help in $\{Q9/ChoiceGroup/SelectedChoices\}$.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q22 Please select the option the you agree with the most.

$\{Q9/ChoiceGroup/SelectedChoices\}$ is keeping customers updated when the service will be provided.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q34 ★

Overall, how satisfied are you with the services provided at $\{q://QID8/ChoiceGroup/SelectedChoices\}$?

Extremely unsatisfied Extremely satisfied

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q24 ★

Considering all your experience that you had using $\{q://QID8/ChoiceGroup/SelectedChoices\}$, how would you rate your overall satisfaction?

Extremely unsatisfied Extremely satisfied

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26 Please select the option the you agree with the most.

In general, I am satisfied with the services $\{Q9/ChoiceGroup/SelectedChoices\}$ offers.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q27 ★

How satisfied are you with the employees at $\{q://QID8/ChoiceGroup/SelectedChoices\}$?

Extremely unsatisfied Extremely satisfied

0 1 2 3 4 5 6 7 8 9 10

Q28 ★

How knowledgeable do you find the employees at $\{q://QID8/ChoiceGroup/SelectedChoices\}$?

Extremely unsatisfied Extremely satisfied

0 1 2 3 4 5 6 7 8 9 10

Q29 Please select the option the you agree with the most.

The setting in $\{Q9/ChoiceGroup/SelectedChoices\}$ is professional.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q30 Please select the option the you agree with the most.

The facility of $\{Q9/ChoiceGroup/SelectedChoices\}$ is visually appealing

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q31 To what extent do you feel a sense of belonging at $\{Q9/ChoiceGroup/SelectedChoices\}$?

- Very weak feelings of belonging (1)
- Weak feelings of belonging (2)
- Neutral (3)
- Strong feelings of belonging (4)
- Very strong feelings of belonging (5)

Q32 To what extent are you emotionally connected to $\{Q9/ChoiceGroup/SelectedChoices\}$?

- None at all (1)
- A little (2)
- A moderate amount (3)
- A lot (4)
- A great deal (5)

Q33 How likely are you to remain a customer at $\{Q9/ChoiceGroup/SelectedChoices\}$?

- Extremely unlikely (1)
- Somewhat unlikely (2)
- Neither likely nor unlikely (3)
- Somewhat likely (4)
- Extremely likely (5)

Appendix B – Excel Output Descriptive Statistics

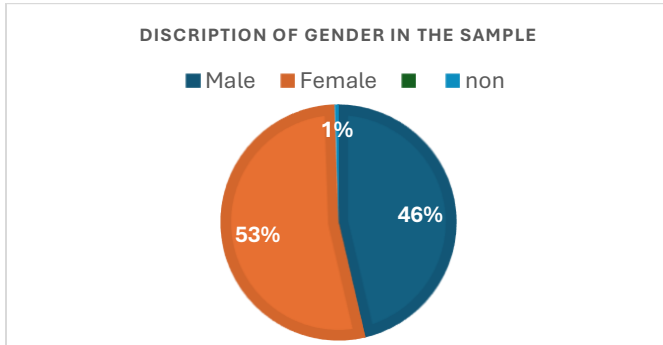


Figure 3 Pie chart of the percentage distribution of gender in the data

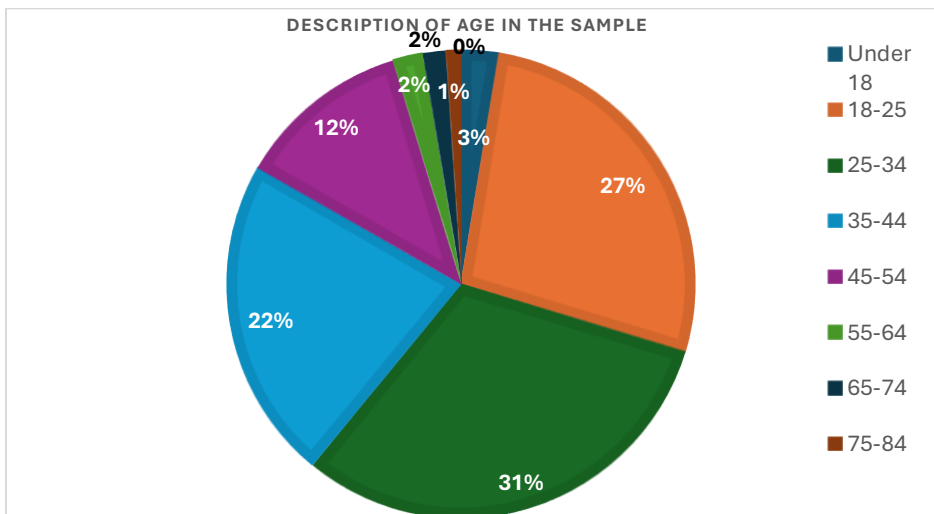


Figure 4 Pie chart of the percentage distribution of age in the data

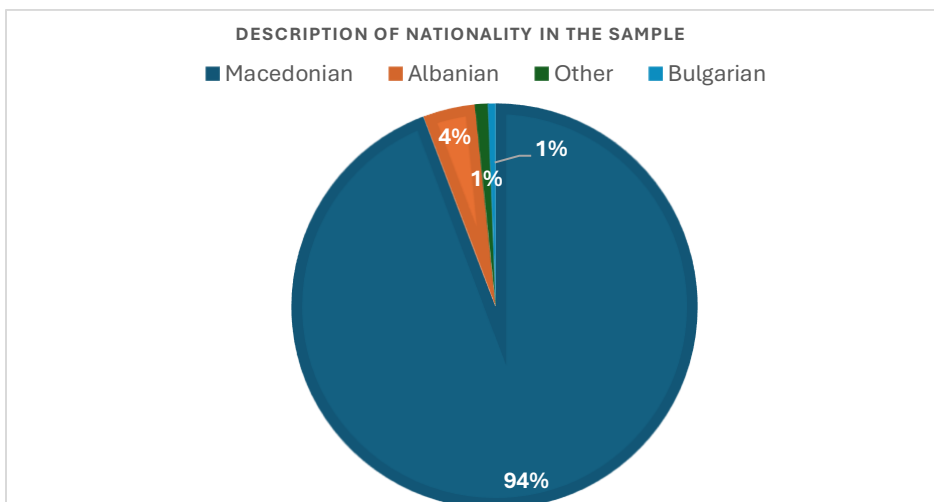


Figure 5 Pie chart of the percentage distribution of nationality in the data

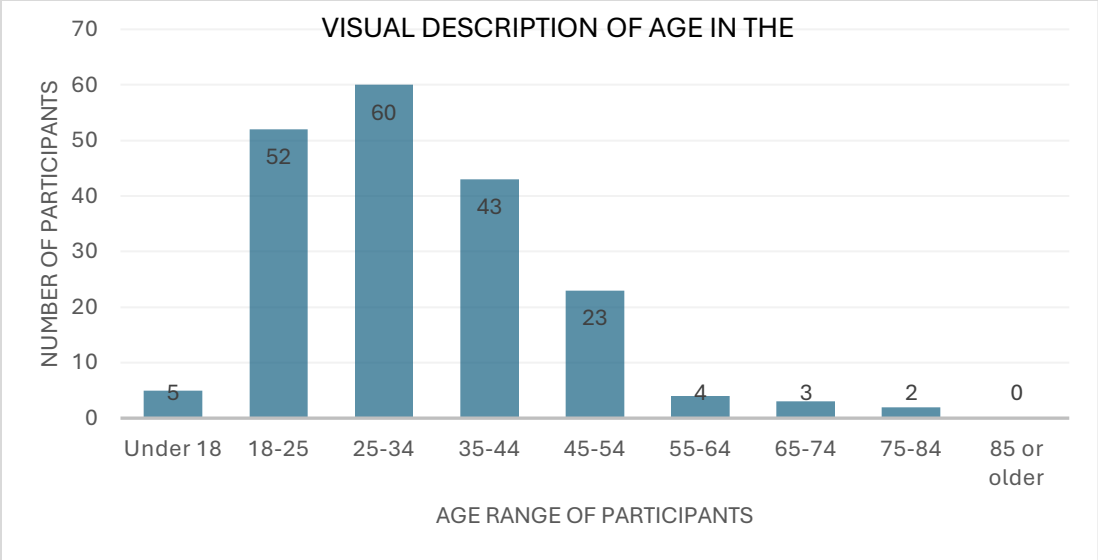


Figure 6 Cluster bar of the percentage distribution of age

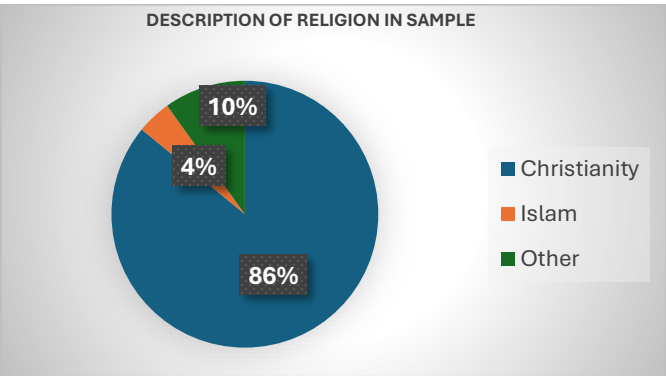


Figure 7 Pie chart of the percentage distribution of religion in the data

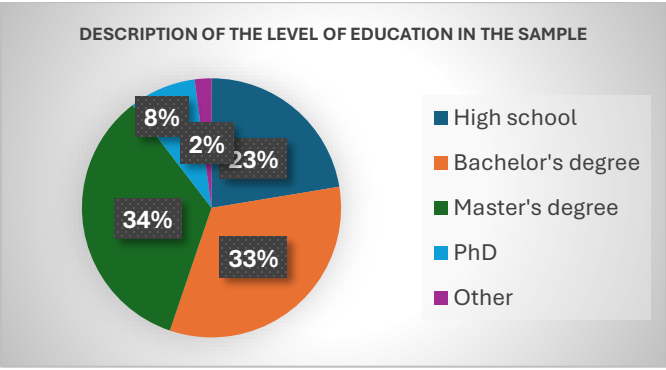


Figure 8 Pie chart of the percentage distribution of education in the data

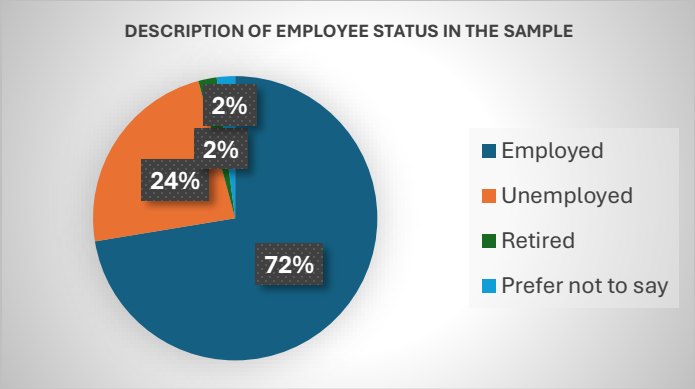


Figure 9 Pie chart of the percentage distribution of employee status in the data

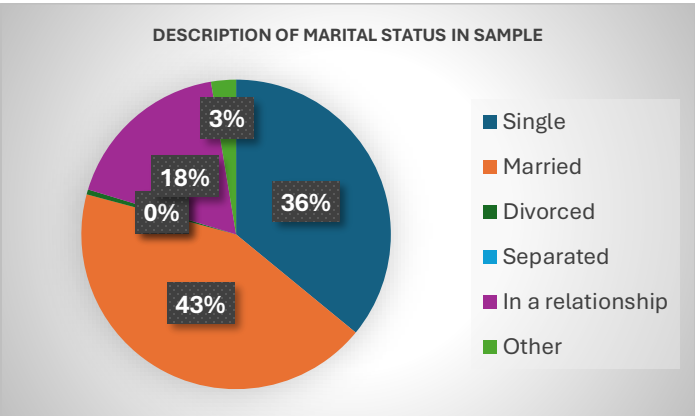


Figure 10 Pie chart of the percentage distribution of marital status in the data

Appendix C – SPSS Output

Table 7 SPSS output of reliability statistics results using Cronbach's Alpha

Reliability Statistics	
Cronbach's Alpha	N of Items
.923	17

Table 8 SPSS output of Factor analysis KMO and Bartlett's test

Factor Analysis			
KMO and Bartlett's Test			
→ Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.931
Bartlett's Test of Sphericity	Approx. Chi-Square	2339.341	
	df		136
	Sig.		<.001

Table 9 SPSS output of the total variance explained in the model

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.186	54.034	54.034	9.186	54.034	54.034	6.544	38.494	38.494
2	1.268	7.459	61.493	1.268	7.459	61.493	3.614	21.261	59.756
3	1.085	6.380	67.873	1.085	6.380	67.873	1.380	8.118	67.873
4	.876	5.152	73.026						
5	.739	4.346	77.371						
6	.625	3.676	81.047						
7	.465	2.738	83.784						
8	.438	2.576	86.360						
9	.368	2.167	88.527						
10	.350	2.060	90.587						
11	.326	1.920	92.507						
12	.318	1.870	94.377						
13	.249	1.465	95.842						
14	.219	1.289	97.131						
15	.195	1.147	98.279						
16	.166	.979	99.258						
17	.126	.742	100.000						

Extraction Method: Principal Component Analysis.

Table 10 SPSS output of the Communalities

Communalities		
	Initial	Extraction
Q10	1.000	.609
Q12	1.000	.686
Q14	1.000	.827
Q15	1.000	.684
Q23	1.000	.583
Q16	1.000	.650
Q17	1.000	.691
Q21	1.000	.753
Q19	1.000	.721
Q20	1.000	.652
Q22	1.000	.615
Q26	1.000	.684
Q29	1.000	.699
Q30	1.000	.543
Q31	1.000	.689
Q32	1.000	.745
Q33	1.000	.707

Extraction Method: Principal Component Analysis.

Table 11 SPSS output of the Component matrix^a

	Component		
	1	2	3
Q10	.730	.277	.000
Q12	.770	.304	-.033
Q14	-.315	-.119	.845
Q15	.781	.248	-.115
Q23	.674	-.348	-.088
Q16	.785	-.180	.027
Q17	.796	-.224	-.080
Q21	.847	-.186	.033
Q19	.816	-.235	-.002
Q20	.791	-.154	.058
Q22	.761	-.168	.084
Q26	.821	-.087	-.047
Q29	.780	-.173	.245
Q30	.638	-.008	.369
Q31	.661	.479	.150
Q32	.556	.640	.160
Q33	.789	.032	-.290

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Table 12 SPSS output of the rotated Component matrix

Rotated Component Matrix^a

	Component		
	1	2	3
Q10	.438	.624	.168
Q12	.452	.661	.211
Q14	-.108	-.104	-.897
Q15	.486	.605	.287
Q23	.740	.067	.177
Q16	.746	.287	.104
Q17	.770	.236	.206
Q21	.800	.316	.110
Q19	.800	.252	.133
Q20	.739	.317	.077
Q22	.725	.294	.045
Q26	.715	.368	.193
Q29	.760	.332	-.109
Q30	.561	.413	-.239
Q31	.281	.781	.030
Q32	.106	.856	.018
Q33	.598	.400	.437

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 4 iterations.

Table 13 SPSS output of the descriptive statistics

Descriptive Statistics

	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Variance Statistic	Skewness Statistic	Std. Error
Q10	192	4	1	5	3.96	1.015	1.030	-1.232	.175
Q12	192	4	1	5	3.84	1.110	1.232	-.986	.175
Q14	192	4	1	5	2.67	1.312	1.721	.201	.175
Q15	192	4	1	5	3.58	1.030	1.062	-.502	.175
Q23	192	4	1	5	4.26	1.035	1.071	-1.589	.175
Q16	192	4	1	5	4.27	.936	.877	-1.521	.175
Q17	192	4	1	5	4.21	.903	.815	-1.244	.175
Q21	192	4	1	5	4.13	.989	.979	-1.270	.175
Q19	192	4	1	5	3.95	1.045	1.092	-1.046	.175
Q20	192	4	1	5	4.05	1.050	1.103	-1.191	.175
Q22	192	4	1	5	4.04	1.080	1.166	-1.106	.175
Q26	192	4	1	5	4.09	.985	.971	-1.440	.175
Q29	192	4	1	5	4.20	.878	.770	-1.396	.175
Q30	192	4	1	5	4.01	.915	.838	-.808	.175
Q31	192	4	1	5	3.40	.850	.723	.004	.175
Q32	192	4	1	5	2.59	1.315	1.729	.296	.175
Q33	192	4	1	5	4.09	.881	.777	-1.205	.175
Valid N (listwise)	192								

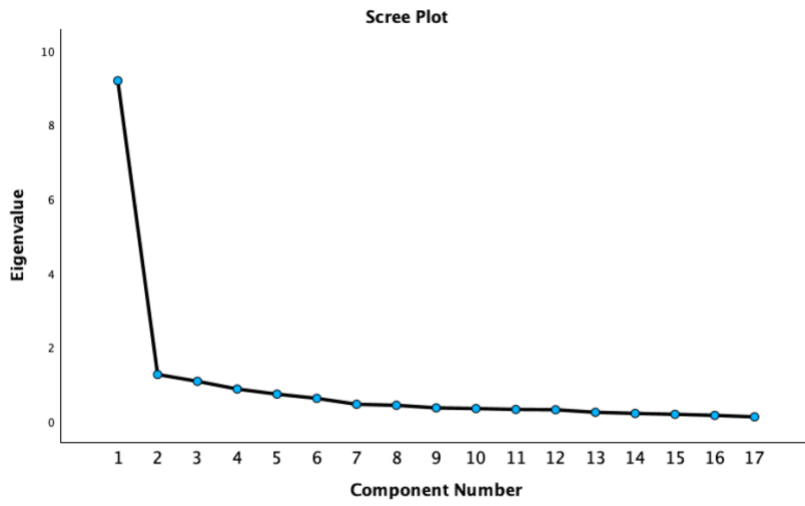


Figure 11 SPSS output of Scatterplot

Appendix D – Stata Output

```
. summarize age gender education employee_status
```

Variable	Obs	Mean	Std. dev.	Min	Max
age	192	2.526042	1.531296	1	8
gender	192	1.473958	.5109779	1	3
education	192	2.307292	1.190868	1	5
employee_s~s	192	1.765625	1.279015	1	4

Figure 12 Stata Output of the Descriptive Statistics

Source	SS	df	MS	Number of obs	=	192
Model	56.2554113	7	8.03648733	F(7, 184)	=	49.32
Residual	29.9834629	184	.162953603	Prob > F	=	0.0000
				R-squared	=	0.6523
				Adj R-squared	=	0.6391
Total	86.2388742	191	.45151243	Root MSE	=	.40368

customer_loyalty	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
service_quality	.3786936	.0660075	5.74	0.000	.2484646	.5089225
customer_satisfaction	.1914177	.0722937	2.65	0.009	.0487866	.3340489
emotional_attachment	.1524418	.0401817	3.79	0.000	.0731656	.2317179
Age	-.0349472	.0301524	-1.16	0.248	-.094436	.0245416
Gender	-.034057	.0302813	-1.12	0.262	-.0938003	.0256863
Education	.0096832	.0309095	0.31	0.754	-.0512994	.0706658
Employee_status	.0059214	.0305655	0.19	0.847	-.0543825	.0662252
_cons	7.65e-09	.0291327	0.00	1.000	-.0574772	.0574772

Figure 13 Stata Output of the Multiple linear regression results

```
. anova customer_loyalty age
```

Source	Partial SS	df	MS	F	Prob>F
Model	5.2942008	7	.7563144	1.72	0.1068
age	5.2942008	7	.7563144	1.72	0.1068
Residual	80.944673	184	.4399167		
Total	86.238874	191	.45151243		

Figure 14 Stata Output of the ANOVA analysis on customer loyalty and age

```

. anova customer_loyalty gender

      Number of obs =      192   R-squared   =  0.0103
      Root MSE      =  .672003   Adj R-squared = -0.0002

      Source | Partial SS | df | MS | F | Prob>F
-----|-----|-----|-----|-----|-----
      Model | .88862449 | 2 | .44431225 | 0.98 | 0.3758
      gender | .88862449 | 2 | .44431225 | 0.98 | 0.3758
      Residual | 85.35025 | 189 | .45158862
-----|-----|-----|-----|-----
      Total | 86.238874 | 191 | .45151243

```

Figure 15 Stata Output of the ANOVA analysis on customer loyalty and gender

```

. anova customer_loyalty education

      Number of obs =      192   R-squared   =  0.0184
      Root MSE      =  .672833   Adj R-squared = -0.0026

      Source | Partial SS | df | MS | F | Prob>F
-----|-----|-----|-----|-----|-----
      Model | 1.5832992 | 4 | .39582481 | 0.87 | 0.4804
      education | 1.5832992 | 4 | .39582481 | 0.87 | 0.4804
      Residual | 84.655575 | 187 | .45270361
-----|-----|-----|-----|-----
      Total | 86.238874 | 191 | .45151243

```

Figure 16 Stata Output of the ANOVA analysis on customer loyalty and education

```

. anova customer_loyalty employee_status

      Number of obs =      192   R-squared   =  0.0087
      Root MSE      =  .674347   Adj R-squared = -0.0072

      Source | Partial SS | df | MS | F | Prob>F
-----|-----|-----|-----|-----|-----
      Model | .74695187 | 3 | .24898396 | 0.55 | 0.6504
      employee_~s | .74695187 | 3 | .24898396 | 0.55 | 0.6504
      Residual | 85.491922 | 188 | .45474427
-----|-----|-----|-----|-----
      Total | 86.238874 | 191 | .45151243

```

Figure 17 Stata Output of the ANOVA analysis on customer loyalty and employee status

Fitting target model:
 Iteration 0: log likelihood = **-660.59107**
 Iteration 1: log likelihood = **-660.59107**

Structural equation model Number of obs = 192
 Estimation method: ml

Log likelihood = **-660.59107**

	OIM		z	P> z	[95% conf. interval]	
	Coefficient	std. err.				
Structural						
customer_loyalty						
customer_satisfaction	.1834813	.0707587	2.59	0.010	.0447969	.3221657
emotional_attachment	.1464585	.0388354	3.77	0.000	.0703425	.2225746
service_quality	.3848312	.0639387	6.02	0.000	.2595137	.5101487
_cons	6.60e-09	.0287045	0.00	1.000	-.0562597	.0562597
customer_satisfaction						
service_quality	.7763513	.0356268	21.79	0.000	.7065241	.8461784
_cons	6.96e-09	.0301439	0.00	1.000	-.059081	.059081
emotional_attachment						
service_quality	.5820994	.0649124	8.97	0.000	.4548734	.7093253
_cons	3.38e-09	.0549226	0.00	1.000	-.1076463	.1076463
var(e.customer_loyalty)	.1581978	.016146			.1295165	.1932306
var(e.customer_satisfaction)	.1744618	.0178059			.1428318	.2130962
var(e.emotional_attachment)	.5791665	.0591109			.4741634	.7074224
LR test of model vs. saturated: chi2(1) = 11.21			Prob > chi2 = 0.0008			

Figure 18 Stata Output of the SEM analysis

Fit statistic	Value	Description
Likelihood ratio		
chi2_ms(1)	11.212	model vs. saturated
p > chi2	0.001	
chi2_bs(6)	517.794	baseline vs. saturated
p > chi2	0.000	
Population error		
RMSEA	0.231	Root mean squared error of approximation
90% CI, lower bound	0.123	
upper bound	0.361	
pclose	0.004	Probability RMSEA <= 0.05
Information criteria		
AIC	1343.182	Akaike's information criterion
BIC	1379.015	Bayesian information criterion
Baseline comparison		
CFI	0.980	Comparative fit index
TLI	0.880	Tucker-Lewis index
Size of residuals		
SRMR	0.035	Standardized root mean squared residual
CD	0.781	Coefficient of determination

Figure 19 Stata Output of the Goodness of fit statistics

Equation-level goodness of fit

Dependent variables	Variance			R-squared	mc	mc2
	Fitted	Predicted	Residual			
Observed						
customer_l~y	.445092	.2868942	.1581978	.6445728	.8028529	.6445728
customer_s~n	.6059445	.4314826	.1744618	.7120828	.84385	.7120828
emotional_~t	.8217387	.2425722	.5791665	.2951938	.5433174	.2951938
Overall				.7808086		

mc = Correlation between dependent variable and its prediction.
 mc2 = mc^2 is the Bentler-Raykov squared multiple correlation coefficient.

Figure 20 Stata Output continuation of the Goodness of fit statistics analysis

```
. medsem, indep(service_quality) med(customer_satisfaction) dep(customer_loyalty) mcreps(500) rit rid zlc

Significance testing of indirect effect (unstandardised)

+-----+-----+-----+-----+
| Estimates | Delta | Sobel | Monte Carlo |
+-----+-----+-----+-----+
| Indirect effect | 0.192 | 0.192 | 0.195 |
| Std. Err. | 0.056 | 0.056 | 0.055 |
| z-value | 3.425 | 3.425 | 3.528 |
| p-value | 0.001 | 0.001 | 0.000 |
| Conf. Interval | 0.082 , 0.302 | 0.082 , 0.302 | 0.084 , 0.305 |
+-----+-----+-----+-----+

Baron and Kenny approach to testing mediation
STEP 1 - customer_satisfaction:service_quality (X -> M) with B=0.776 and p=0.000
STEP 2 - customer_loyalty:customer_satisfaction (M -> Y) with B=0.247 and p=0.001
STEP 3 - customer_loyalty:service_quality (X -> Y) with B=0.421 and p=0.000
As STEP 1, STEP 2 and STEP 3 as well as the Sobel's test above
are significant the mediation is partial!

Zhao, Lynch & Chen's approach to testing mediation
STEP 1 - customer_loyalty:service_quality (X -> Y) with B=0.421 and p=0.000
As the Monte Carlo test above is significant, STEP 1 is
significant and their coefficients point in same direction,
you have complementary mediation (partial mediation)!

RIT = (Indirect effect / Total effect)
(0.192 / 0.613) = 0.313
Meaning that about 31 % of the effect of service_quality
on customer_loyalty is mediated by customer_satisfaction!

RID = (Indirect effect / Direct effect)
(0.192 / 0.421) = 0.456
That is, the mediated effect is about 0.5 times as
large as the direct effect of service_quality on customer_loyalty!

Note: to read more about this package help medsem
```

Figure 21 Stata Output of Mediator analysis with customer satisfaction as the mediator

Estimates	Delta	Sobel	Monte Carlo
Indirect effect	0.099	0.099	0.100
Std. Err.	0.025	0.025	0.025
z-value	3.980	3.980	4.020
p-value	0.000	0.000	0.000
Conf. Interval	0.050 , 0.148	0.050 , 0.148	0.051 , 0.149

Baron and Kenny approach to testing mediation

STEP 1 - emotional_attachment:service_quality (X -> M) with B=0.582 and p=0.000

STEP 2 - customer_loyalty:emotional_attachment (M -> Y) with B=0.170 and p=0.000

STEP 3 - customer_loyalty:service_quality (X -> Y) with B=0.513 and p=0.000

As STEP 1, STEP 2 and STEP 3 as well as the Sobel's test above are significant the mediation is partial!

Zhao, Lynch & Chen's approach to testing mediation

STEP 1 - customer_loyalty:service_quality (X -> Y) with B=0.513 and p=0.000

As the Monte Carlo test above is significant, STEP 1 is significant and their coefficients point in same direction, you have complementary mediation (partial mediation)!

RIT = (Indirect effect / Total effect)

(0.099 / 0.613) = 0.162

Meaning that about 16 % of the effect of service_quality on customer_loyalty is mediated by emotional_attachment!

RID = (Indirect effect / Direct effect)

(0.099 / 0.513) = 0.193

That is, the mediated effect is about 0.2 times as large as the direct effect of service_quality on customer_loyalty!

Figure 22 Stata Output of Mediator analysis with emotional attachment as the mediator