

DETERMINING THE SIGNIFICANCE OF THE QUALITY DIMENSION OF BANKING SERVICES IN CROATIA BASED ON THE SERVQUAL MODEL

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ABSTRACT

This paper aims to highlight the importance of defining the dimensions of service quality and their impact on the satisfaction and loyalty of users of banking services in the banking sector of the Republic of Croatia. The study focuses on service quality parameters and customer satisfaction. The paper aims to examine discrepancies between expected and perceived attributes of banking services (Servqual model) on a sample of 130 respondents from the Republic

of Croatia. Special objectives include examining the differences in the expression of scores on the dimensions of the expected and observed ABS scales in relation to the socio-demographic variables in the research (gender, age, professional education...etc). Based on the empirical study, it can be concluded that all service quality parameters play a vital role in customer satisfaction. The research results indicate that all five key dimensions of Servqual - tangibility, reliability, accountability, security, and empathy, are significantly and positively related to the overall Servqual perceived by users.

Keywords: bank, service quality, Croatia, customer satisfaction, Servqual model.

INTRODUCTION

Contemporary trends in the globalization of world flow, changes in the financial sector to which banking institutions belong, and reforms carried out in the countries of the European Union and the world are oriented to the participation of needs and the achievement of efficiency and effectiveness in the provision of banking services to different groups of users. To achieve and improve their market and profit position, many banks direct their strategies toward increasing customer satisfaction and loyalty by improving the quality of services. The changing role and functioning of today's banking systems have led to new user demands and the need to identify the dimension of service quality perceived by users following innovations from the environment and developed concepts of

modern information and communication technologies (ICT-Information and communication technology). Service managers should be able to improve the delivery of customer-perceived quality during the service process and have more control over the overall outcome (Choudhury, 2008).

In the scientific literature, the importance of user behavior as well as their shopping experience is investigated so that their experience is also used to explain their behavior in certain situations when using certain products or services (Sharma, 2019; Martínez-Torres, Díaz-Fernández, Toral, & Barrero, 2015; Liébana-Cabanillas, Sánchez-Fernández, & Muñoz-Leiva, 2014). The relationships between consumer satisfaction, the quality of specific products or services, and loyalty have been studied by scientists for years (Liébana-Cabanillas, Muñoz-Leiva, Sánchez-Fernández, & Viedma-del Jesús, 2016; Hamidi & Safareieh, 2019). So customer loyalty and satisfaction represent the most crucial element in evaluating the experience of shopping, using a product or service, as it impacts the long-term behavior of consumers in subsequent purchases (Gronroos, 1991). In order to assess customer satisfaction and determine loyalty, research conducted by Liébana-Cabanillas et al. (2016) comes to the knowledge that quality can be measured in such a way that the same customer will make a repeat purchase and then express an opinion. The banking sector and all other service organizations direct their activities to evaluate customer loyalty because, in this way, they achieve a competitive advantage. For these reasons, and in order to retain clients, banks have implemented marketing activities (Lee & Chung, 2009). Electronic and mobile banking is becoming one of the most promising innovations in the last twenty years, which today has an accurate value for both banks and users (Baabdullah, Alalwan, Rana, Kizgin, & Patil, 2019). Transactions carried out through these platforms improve the efficiency and quality of banks.

In a hypercompetitive market, all commercial banks are faced with retention challenges and customers switching to other banks. The goal for the successful operation

of the bank is to remain competitive and to constantly improve the quality of services in order to meet the needs of customers. The key to providing superior services is to clearly understand and appropriately respond to the expectations of banking service users by comparing perceptions with expectations in assessing the quality of service offerings. Maintaining the bank's existing customer base is, in terms of costs, even more important than the ability to attract new customers (Mulat, 2017). For this reason, continuous research, monitoring, and analysis of the quality of services and the degree of fulfillment of the needs and expectations of users at a given moment are necessary in order to predict their future needs.

The empirical results of this study can therefore provide better insight into banking services by simultaneously analyzing service quality and customer satisfaction.

The Republic of Croatia was chosen for this research because of certain specifics. Namely, after several decades of financial consolidation, only 20 banks operate in the Croatian banking market. After gaining independence in the early 1990s, the Croatian economy is in transition and market-oriented, so there has been an increase in small, private, and foreign banks. However, in the last two decades, there has been a trend of a decrease in the number of banks and an increase in the market share of several large banks, making the market more competitive (Uckar & Petrovic, 2021). Today, the Croatian banking market is predominantly foreign-owned, where the two largest banks operate with almost half of the total assets, and the four largest banks control more than 70% of the total assets (Croatian National Bank, 2021).

One of the researches on the quality of banking services in Croatia, which was conducted based on the *Servqual* model (Znaor & Grubišić, 2014), indicates that respondents have the highest expectations for the dimensions of tangibility (4.68) and empathy (4.48), while the results analysis (Pepura, 2006) shows that the highest expectation for dimensions is responsibility (0.929) and reliability (0.920). In the work of the author Pavlović (2021) on a sub-sample

of respondents from Croatia, on the scale of expected attributes of banking services, the highest expression was obtained for the reliability dimension (AS=4.65, SD=0.612), and the lowest for the security dimension (AS=4.38, SD=0.680). On the scale of perceived attributes of banking services, the highest score was obtained on the tangibility dimension (AS=3.92, SD=0.688), and the lowest on the security dimension (AS=3.09, SD=0.877). When it comes to the differences obtained by applying the Gap model, the biggest difference was obtained for the dimension security (1.29), followed by the dimensions reliability (1.20) and empathy (1.08). The smallest difference was obtained on the tangibility dimension (0.51), and a slightly larger one on the responsibility dimension (0.79).

Bearing in mind the different degrees of economic development in relation to neighboring countries (with the exception of Slovenia), as well as the fact that Croatia has become a member of the European Union in the meantime, the authors believe that this research can, through a comparative analysis in relation to the aforementioned research results, point to possible trends in the field of improving certain attributes of services in the banking sector of the Republic of Croatia, which can be applied to other countries in the region.

In the existing literature, there is a lack of research on this topic, especially studies of continuous monitoring and analysis, in order to observe the changes caused by the influence of the internal and external environment, both at the global regional, and local levels. In line with the above, it is important to point out that the client's views on the quality of the service derive from a comparison of their previous expectations of the service with their actual experience with the service received. In order to indicate the possibility of increasing the quality and integration of service management, the authors tried to find out which elements of service quality can increase the satisfaction and loyalty of clients in Croatian banks.

The paper examines the discrepancies between expected and perceived attributes of banking services among respondents from the

Republic of Croatia. These differences were examined using the Servqual model, i.e. the Gap model, which is very successfully applied in banking, telecommunications, and insurance. The specific objectives of the research are defined as examining the existence of statistically significant differences in the expected and perceived attributes of banking services in relation to the sociodemographic characteristics of the respondents.

The study suggests that clients distinguish five dimensions of service quality, namely: tangibility, reliability, responsibility, security, and empathy. Identifying the basic dimensions of the construction of service quality in the retail banking industry is the first step in defining, and therefore providing, a quality service. This article drew on the findings of the dimensions of service quality to contrast the initiatives that bank managers can undertake to improve the quality of service delivery, improve customer trust and satisfaction, and thus the bank's reputation itself. From the customer's point of view, the findings of specific dimensions of SERVQUAL will contribute to customers' perception of the image and reputation of banks, and strengthen trust and satisfaction.

Primary hypothesis: Users of banking services in the Republic of Croatia report a difference between expected and observed results.

Auxiliary hypotheses: H1 Users of banking services expect more from the dimension of quality reliability. H2 Users of banking services expect more from the security dimension. H3 Users of banking services expect more responsibility from the dimension of quality. H4 Users of banking services expect more tangibility from the dimension of quality. H5 Users of banking services expect empathy more from the dimension of quality.

This paper is structured in sections as follows: Section 2 focuses on the literature review on the impact of service quality on customer satisfaction in the banking sector based on available empirical research. The analysis of mismatches between expected and perceived attributes of banking services (ABU) belongs to a wide field of empirical

research, but there are only a few studies that focus on banking services in the Republic of Croatia. Section 3 presents the Servqual model and methodology used in this paper. The paper used two scales that measure the expected and observed attributes of banking services, more precisely their mismatch (Gap model). Both scales used have 22 statements grouped into 5 dimensions or subscales: tangibility, reliability, responsibility, security, and empathy. The fourth part presents empirical data and research results on the observed sample. Also, this section provides indicators of instrument reliability for both used scales, normality of distribution or distribution with the help of the Kolmogorov-Smirnov normality test, skewness and kurtosis, then differences in expected and observed ABU using the Servqual model, with special reference to socio-demographic variables. Section 5 discusses the achieved efficiency results and compares them with similar studies. Section 6 concludes and addresses topics for future research.

LITERATURE REVIEW

Banks not only in Croatia but also in other countries are creating new services that are adapted to the needs of users and the market. Furthermore, new IT technologies are transforming traditional banking services into digital ones so that most services are performed from home or other accessible places that support the Internet. Some scientists believe this is the beginning of IT technologies and that by 2030 they will experience expansion, such as educational, health, and other services (Meeker, 2017). The functioning of technologies in the banker is done with the help of authorization. Each transaction is subject to authorization on the following devices: electronic banking, ATMs, mobile banking, and POS terminals (Bradić-Martinović, 2013). However, digital banks today represent a trend in banking, and their principle of operation is to work on a platform with the change and modification of IT technologies (Shettar, 2020; Yvon, 2019). New technologies enable the creation of additional value in all functional organizations. The goal of every service organization is to achieve good business

success. There are a large number of banks on the market, so the task of management is to adapt digital services to users in the most efficient way (Dietz, Härle, & Khanna, 2016; Mitik, Korkmaz, Karagoz, Toroslu, & Yucel, 2017; Mitik, Korkmaz, Karagoz, Toroslu, & Yucel, 2016; Girchenko & Kossmann, 2017).

Service quality has become an essential marketing tool for achieving competitive differentiation and fostering customer satisfaction and loyalty. In order to increase customer loyalty, it is necessary to improve the quality of service. There is no loyal user without a satisfied user, and satisfaction is related to quality (Valvi & West, 2013). There are several meanings of what is meant by service quality. The one commonly applied refers to service quality as the degree to which the service meets customer requirements or expectations. Service quality is the difference between the customer's expectations of the service and the perceived service. If expectations are higher than performance, perceived quality is less than satisfactory, resulting in customer dissatisfaction (Roopchand & Boojhavon, 2014). In researching the relationship between service quality, perceived value, customer satisfaction, and customer loyalty in Indian retail banking, the authors conclude that service quality substantially impacts other defined dimensions (Kant, Jaiswal, & Mishra, 2019).

The quality of services is an essential factor affecting user satisfaction in the banking sector and other service activities. The SERVQUAL model is applicable in the assessment of service quality, which has been adapted over time in many studies in various research sectors, both in the business of home appliances and sales services (Murali, Pugazhendhi, & Muralidharan, 2016; Shokouhyar, Shokoohyar, & Safari, 2020), and has experienced its expansion in the research of banking services (Kumar, Tat Kee, & Taap Manshor, 2009; Kumar, Tat Kee, & Charles, 2010; Islam, 2012; Amiri Aghdaie & Faghani, 2012; Li & Raza, 2017). However, some researchers believe that the SERVQUAL model may only be applicable in some service industries, so it must be adapted. Namely, the original SERVQUAL

model may not be appropriate in different service industries (Gilmore, 2003). Thus, Kumar et al. (2009) propose four critical dimensions, tangibility, reliability, competence, and convenience, to assess the quality of banking services and determine a significant difference between expectations and perceptions. These dimensions are also applied to examine the relative importance of the dimensions between the two types of banks (Kumar et al., 2010). Tsoukatos and Mastrojianni (2010) formed a specific quality scale by combining SERVQUAL and banking service quality dimensions. Amiri Aghdaie and Faghani (2012) applied the SERVQUAL model to assess the relationship between mobile banking services and customer satisfaction. Li, & Raza (2017) proposed an improved SERVQUAL model using the conformity dimension to assess the correlation between quality and customer satisfaction.

In the research on the impact of service quality on customer satisfaction in the banking sector of North Macedonia, conducted on a sample of 68 customer responses, using the Servqual model, it was found that expectations are highest in the sphere of reliability and responsiveness, while the perception of the analyzed bank is lower in these two dimensions. This means that, although somewhat less important - material elements, empathy and belief, represent the dimensions in which the bank is more successful. Regarding reliability and responsiveness, as the two most important dimensions for clients, the bank should work on improving its results (Naumovska-Saveska et al., 2021).

In the author's research (Pavlović et al., 2023) in the territory of Bosnia and Herzegovina on the scale of perceived attributes of banking services, the highest score was obtained for the dimension of perceived tangibility (AS=3.31, SD=0.977), and the lowest score was obtained for the dimension of perceived empathy (AS=2.82, SD=0.690). Through further analysis, the mentioned authors came to the result that the obtained findings confirm that differences in expected and perceived attributes exist for all five dimensions, expressed in absolute

numbers, the biggest difference using the Gap model was obtained for the reliability dimension (1.67). The dimensions of responsibility (1.65) and security (1.64) follow immediately after.

In the example of Ethiopia's banking sector, the research results indicate the importance of employees who pay attention to customers and understand the specific needs of customers and that these are key variables which are statistically significant and represent an important determinant of client satisfaction (Mulat, 2017).

Ladhari, Ladhari, & Morales. (2011) in this research, which deals with the comparison of clients' perception of the quality of banking services in Tunisia and Canada, constructed a scale of satisfaction with the quality of services and customer loyalty (tangibility, reliability, responsiveness, security and empathy) and concluded that for Canadians, empathy and reliability were the most important factors in reducing the relative importance of customer satisfaction and loyalty, while for Tunisians, those factors were reliability and responsiveness.

The results of the research carried out in the banks of Vietnam (Quyet, Vinh, & Chang, 2015), based on the 5 critical dimensions of SERVQUAL, show that the tangibility factor had the greatest impact (b=0.717) on customer satisfaction, empathy is second place (b=0.486) which suggests that, in order to attract customers, banks must improve their business culture and the attitude of employees towards customers. Trust took third place (b=0.452), which is particularly related to the lack of security in the application of new information technologies. Adaptability is ranked fourth (b=0.340), while reliability is ranked last (b=0.228).

RESEARCH METHODS

In order to fulfill the objectives of the study, the questionnaire was randomly sent to more than 1000 e-mail addresses residing in the Republic of Croatia, of which 130 respondents answered, representing a representative sample of the research. The research was conducted from mid-May 2023

to the beginning of June 2023, with a note that the research is completely anonymous and that the results obtained will be used exclusively to create this scientific paper.

Statistical analysis and data processing was performed using the SPSS Statistics-21 program, descriptive and analytical method. The research used two scales that measure the expected and observed attributes of banking services, that is, the discrepancy between expected and observed service attributes (Gap model). Both scales used (Expected and Perceived Attributes) have 22 statements grouped into five dimensions or subscales: tangibility (4 statements), reliability (5 statements), responsibility (4 statements), assurance (5 statements), and empathy (4 statements). Both used scales are five-point, Likert-type, with possible answers from 1- do not agree at all to 5- completely agree. The parametric values of the sample are shown as arithmetic means, and the frequency (f-frequency) of the essential characteristics and answers of the respondents are expressed numerically and in percentage (%). In addition to the arithmetic mean (AS), the standard deviation (SD) was also used to show the expressiveness of the measured dimensions. The reliability of the Likert scale was checked using Cronbach's alpha coefficient (α). The significance of the differences concerning other independent variables (more than two categories) was examined with the non-parametric Kruskal-Wallis (χ^2) test. The normality of the distribution of the summation scores was examined by the Kolmogorov-Smirnov test (K-S) and the quantitative indicators of skewness and kurtosis. The Wilcoxon rank test (Z) was used to show the significance of differences in expression. In contrast, the Mann-Whitney U test (Z) was used to show the significance of differences in the expression of scores regarding gender, marital status, and monthly income (two categories). The results are presented tabularly (numerical and percentage frequency) and graphically. All statistical analyses were performed for the level of statistical significance $p < 0.05$ (95%).

RESEARCH RESULTS

Regarding the gender of the respondents, approximately two-thirds of the sample consists of female respondents (67.7%), and one-third of the sample consists of male respondents (32.3%). The sample of respondents was not balanced according to gender (Table 1).

Table 1. Structure of the sample regarding the gender of the respondents

Gender	f	%
Male	42	32,3
Female	88	67,7
In total (Σ)	130	100,0

The sample is approximately uniform regarding the respondents' age (Table 2). Namely, 23.8% of respondents aged 17 to 24, 24.6% aged 25 to 36 and 56 to 65, and 26.9% of respondents aged 36 to 55 participated in the survey.

Table 2. Structure of the sample regarding the age of the respondents

Age(years)	f	%
17-24	31	23,8
25-35	32	24,6
36-55	35	26,9
56-65	32	24,6
In total (Σ)	130	100,0

Concerning the professional education of the respondents (Table 3), according to the obtained structure, only respondents with higher education participated in the research. Most respondents from the sample have completed university (60.0%) and master's or master's studies (26.2%). In comparison, a significantly smaller percentage is represented by respondents with the title of Doctor of Science (5.4%) or completed higher education (8.5%). The sample is not uniform according to the professional training of the respondents.

Table 3. Structure regarding the respondents' professional education

Professional qualification	f	%
Higher Ed Institution	11	8,5
Faculty	78	60,0
Master/Master's Degree	34	26,2
PHD	7	5,4
In total (Σ)	130	100,0

When it comes to the social status of the respondents - all respondents (100.0%) are employed, and concerning the marital status of the respondents (Table 4), the vast majority of respondents (80.8%) are married, or cohabiting (relationship), and 19.2 % of respondents are single or not in a relationship.

Table 4. Structure regarding the marital status of respondents

Martial status	f	%
Single	25	19,2
Married/In relationship	105	80,8
In total (Σ)	130	100,0

Concerning the amount of monthly income (Table 5), slightly less than three-quarters of the sample has a monthly income of more than 600 euros (73.1%), and slightly more than one-quarter of the sample of respondents do not want to disclose the amount of their monthly income (26.9 %).

Table 5. Structure regarding the monthly income of respondents

Monthly income	f	%
More than 600 euros	95	73,1
Wouldn't say	35	26,9
In total (Σ)	130	100,0

When it comes to the respondent's place of residence (Chart 1), the majority of respondents from the survey reside in Podravina (26.2%) and Zagreb (23.8%). Respondents from Zagorje (10.0%), Kvarner (7.7%), Prigorje (6.2%), and Dalmatija (3.8%) are represented in a significantly smaller percentage. Also, 3.1% of respondents each have their place of residence in Istria, Bjelovar-Bilogora region, Trupolje, and Moslavina, and 10.0% of respondents have their place of residence in some other place that was not specified in the questionnaire.

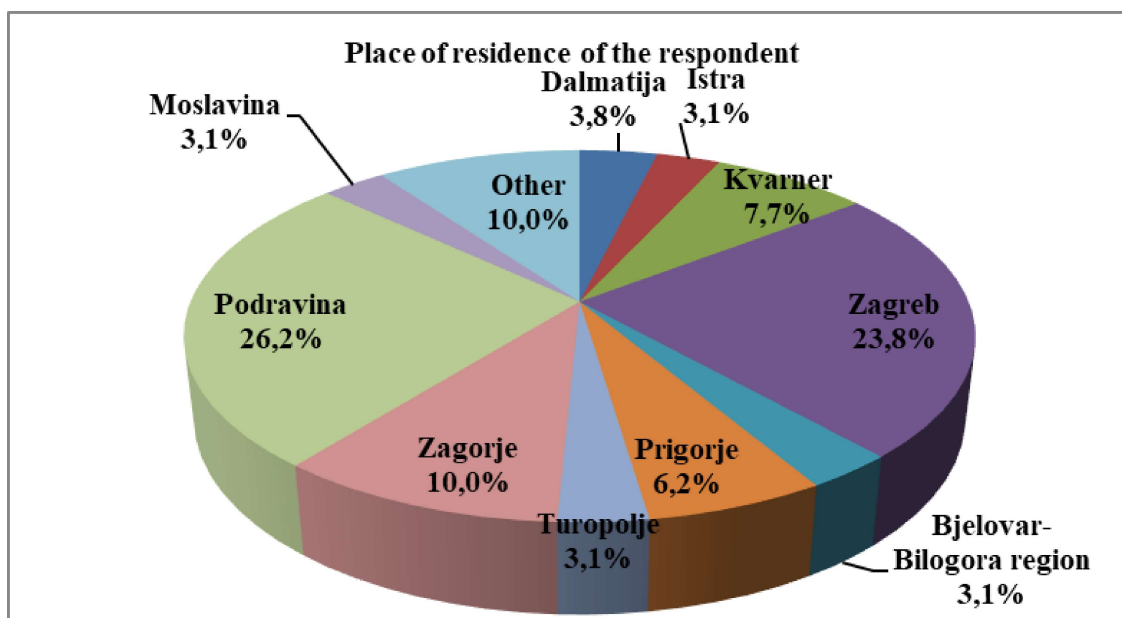


Chart 1. Structure of the sample in relation to the respondent's place of residence

Reliability of instruments

The research results showed that high reliability was obtained for both used subscales. Obtained alpha coefficients for the expected attributes scale ($\alpha=0.886$) and the perceived service attributes scale ($\alpha=0.937$). The first obtained reliability coefficient is considered high ($\alpha>0.80$), and the second very high ($\alpha>0.90$) (Table 6).

Table 6. Reliability of the scale of expected and perceived attributes of banking services

Scale	Cronbach's coefficient (α)	Item number (N)
Expected ABS	0,886	22
Observer ABS	0,937	22

*ABS- attributes of banking services

When it comes to the reliability obtained on individual subscales of the scales of expected and observed attributes of banking services (Table 7), very high ($\alpha>0.90$), high ($\alpha>0.80$), and acceptable ($\alpha>0.70$) reliability coefficients were obtained, especially if it is taken into account that the subscales have only four or only five claims. In general, higher reliability coefficients were obtained on the dimensions of the scale of perceived attributes compared to the scale of expected attributes of services. On the scale of expected attributes of banking services, the highest reliability was obtained for the subscale expected Security ($\alpha=0.908$) and the lowest for the subscale expected Responsibility ($\alpha=0.718$). On the scale of perceived attributes of banking services, the highest reliability was obtained with the subscale perceived Security ($\alpha=0.843$) and the lowest reliability for the subscale perceived Responsibility ($\alpha=0.734$).

Table 7. Reliability of subscales within the scales of expected and observed ABS

Expected ABS Scale	Cronbach's coefficient (α)	Number of items (N)	Perceived ABS scale	Cronbach's coefficient (α)	Number of items (N)
Tangibility	0,741	4	Tangibility	0,808	4
Reliability	0,866	5	Reliability	0,840	5
Responsability	0,718	4	Responsability	0,734	4
Safety	0,908	5	Safety	0,843	5
Empathy	0,721	4	Empathy	0,810	4

Checking the normality of the distribution

After checking the reliability of the instruments used, the normality of the distribution or distribution is checked with the help of the Kolmogorov-Smirnov test of

normality, skunis, and kurtosis. The height of these three statistics determines whether parametric or non-parametric methods will be used in further analysis.

Table 8. Checking the normality of the distribution of the expected ABS scale

Expected ABS	K-S statistician	p	S _k	C _u
Tangibility	0,326	0,000**	-1,298	1,222
Reliability	0,362	0,000**	-1,709	3,068
Responsability	0,250	0,000**	-3,657	25,343
Safety	0,319	0,000**	-1,207	2,354
Empathy	0,151	0,000**	-1,328	4,910
Average (Σ)	0,103	0,000**	-2,279	11,921

df=130; p<0,01**

On the Expected Attributes of Banking Services scale (Table 8), a statistically significant departure from the normal distribution was confirmed for all five subscales or dimensions and the average of the entire scale of Expected Service Attributes. All deviations are high and significant at the $p < 0.01$ level. According to

the level of skewness, it was confirmed that there is a high negative asymmetry for all five dimensions of the scale, and according to the level of kurtosis, the distribution is from moderate (subscale Tangibility, Reliability and Security) to extremely leptokurtic (subscale Accountability).

Table 9. Checking the normality of the distribution of the observed ABS scale

Observed ABS	K-S test	p	Skewness	Kurtosis
Tangibility	0,146	0,000**	-1,007	2,038
Reliability	0,093	0,008**	-0,367	0,343
Responsability	0,148	0,000**	-0,696	1,203
Safety	0,110	0,001**	-0,537	0,748
Empathy	0,117	0,000**	-0,554	0,709
Average (Σ)	0,087	0,018*	-0,728	1,430

df=130; $p < 0,01$ ** ; $p < 0,05$ *

When it comes to checking the distribution on the scale of Perceived attributes of banking services (Table 9), as well as on the scale of Expected attributes, a statistically significant deviation from the normal distribution was confirmed on this scale for all five dimensions and the average of the entire scale. Deviations from the normal distribution on the subscales are significant at the $p < 0.01$ level. On the average of the entire scale of General Attributes, the deviation is significant at the $p < 0.05$ level. Regarding the height of skewness and kurtosis, lower values of these two statistics were obtained on this scale. The

skewness is still negatively asymmetric for all five dimensions and significantly high on the Perceived Tangibility dimension ($Sk = -1.007$), and the kurtosis indicates a leptokurtic curvature of the score distribution graph.

Servqual model

As already mentioned, the aim of this research is primarily the mismatch of expected and perceived attributes of banking services (Servqual model). The mismatch is expressed by the differences obtained in the expected attributes concerning the perceived attributes of banking services.

Table 10. Expression of expected and observed ABS

Expected ABS	AS	SD	Observed ABS	AS	SD	Difference
Tangibility	4,57	0,329	Tangibility	3,94	0,701	0,63
Reliability	4,74	0,411	Reliability	3,46	0,767	1,28
Responsability	4,63	0,313	Responsability	3,75	0,707	0,88
Safety	4,63	0,463	Safety	3,42	0,816	1,21
Empathy	4,53	0,383	Empathy	3,46	0,763	1,07
Average (Σ)	4,62	0,280	Average (Σ)	3,61	0,642	1,01

When it comes to the expressiveness of scores on the measured subscales of expected

and perceived attributes of banking services on the entire sample of respondents (Table

10), greater expressiveness was obtained on the scale of expected attributes of services compared to the dimensions of the scale of general attributes of services. On the scale of expected ABS, the highest expression was obtained for the subscale Expected Reliability (AS=4.74, SD=0.411) and the lowest for the subscale Expected Tangibility (AS=4.57, SD=0.329). On the dimensions of the scale of perceived attributes of banking services, the highest expression was obtained on perceived Tangibility (AS=3.94, SD=0.701) and the slightest expression on perceived Security (AS=3.42, SD=0.816).

Applying the Servqual model, an average difference of 1.01 was obtained

between expected and observed attributes of banking services. The most significant difference was obtained for the Reliability dimension (1.28) and the Security dimension (1.21). In third place is the Empathy dimension with a difference between expected and observed ABSs of 1.07, and in fourth place is the difference obtained for the Responsibility dimension. The most negligible difference was obtained for the Tangibility dimension (0.63), and this is also the dimension on which there is the slightest discrepancy between expected and observed ABS (Chart 2).

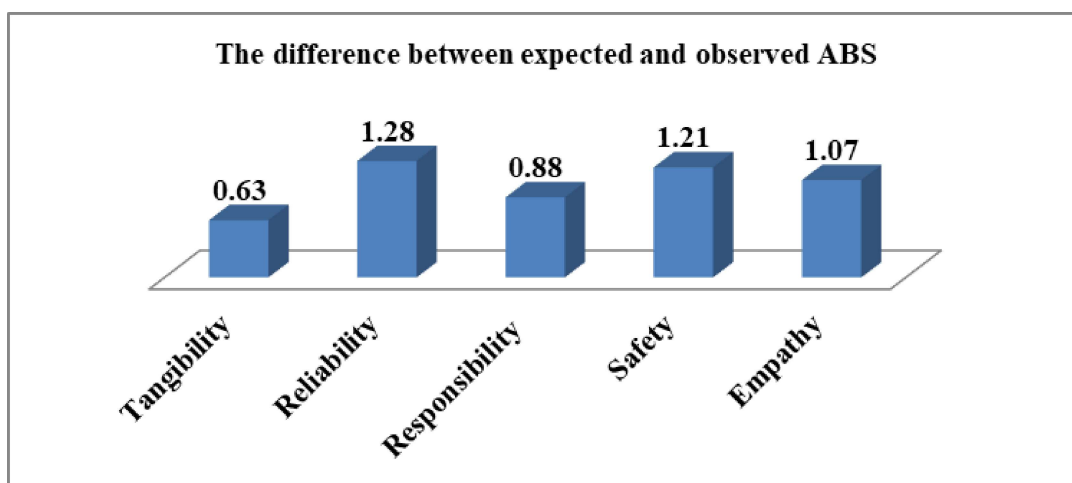


Chart 2. The difference between expected and perceived attributes of banking services

Table 11. Significance of differences in the expression of expected and observed ABS

Wilcoxon rank test	Z	p
Tangibility	-7,611	0,000**
Reliability	-9,422	0,000**
Responsability	-9,159	0,000**
Safety	-9,220	0,000**
Empathy	-9,192	0,000**
Average (Σ)	-9,812	0,000**

df=130; p<0,01**

When we discuss the significance of the differences between expected and observed ABS obtained by applying the Servqual model (Table 11), statistically significant differences were confirmed for all five dimensions. All

obtained differences are high and significant at the p< 0.01 level and have a negative sign. They indicate that the respondents' expectations about the quality of banking services are higher than the perceived service

attributes. According to the height of the Z statistic (Wilcoxon rank test), the most significant difference exists on the Reliability dimension ($Z=-9.422$, $p=0.000$), and the slightest difference was obtained for the Tangibility dimension ($Z=-7.611$, $p=0.000$), which is in line with the results obtained by applying the Servqual method.

Differences in the expression of ABS regarding the socio-demographic characteristics of the respondents

In addition to the examination of the differences between expected and observed ABS (Servqual model), which was the general goal of this research, the particular objectives are to examine the differences in the expressiveness of the scores on the dimensions of the scales of expected and observed ABS regarding the socio-demographic variables in the research (gender, age, vocational training...etc.).

Table 12. Significance of differences in expected ABS regarding the gender of the respondents

Observed ABS	Gender	AS	SD	Z	p
Tangibility	Male	4,51	0,396	-1,030	0,303
	Female	4,61	0,288		
Reliability	Male	4,68	0,500	-0,650	0,515
	Female	4,76	0,361		
Responsibility	Male	4,56	0,445	-1,145	0,252
	Female	4,66	0,222		
Safety	Male	4,60	0,554	-0,149	0,881
	Female	4,65	0,414		
Empathy	Male	4,51	0,445	-0,048	0,961
	Female	4,53	0,352		
Average (Σ)	Male	4,57	0,383	-0,414	0,679
	Female	4,64	0,212		

df=130

Regarding the expected attributes of banking services (Table 12), no statistically significant differences were confirmed in the expression of the scores concerning the gender of the respondents. Noticeably, female respondents obtained higher scores for all

five dimensions than male respondents, who obtained somewhat lower scores. As already mentioned, there are minimal differences in expression that did not show statistical significance.

Table 13. Significance of observed ABS differences regarding the gender of the respondents

Observed ABS	Gender	AS	SD	Z	p
Tangibility	Male	3,89	0,747	-0,407	0,684
	Female	3,97	0,681		
Reliability	Male	3,33	0,767	-1,504	0,132
	Female	3,52	0,764		
Responsibility	Male	3,67	0,736	-0,813	0,416
	Female	3,78	0,695		
Safety	Male	3,26	0,870	-1,666	0,096
	Female	3,50	0,783		
Empathy	Male	3,17	0,888	-2,517	0,012*
	Female	3,60	0,657		
Average (Σ)	Male	3,47	0,688	-1,845	0,065
	Female	3,67	0,611		

df=130; $p<0,05^*$

With the perceived ABS (Table 13), a statistically significant difference in the expressiveness of the scores was obtained for the perceived Empathy dimension ($Z=-2.517$, $p=0.012$). The obtained difference is significant at the $p<0.05$ level and indicates that female respondents ($AS=3.60$, $SD=0.657$) have a significantly positive attitude regarding perceived Empathy

compared to male respondents ($AS=3.17$, $SD=0.888$). On the other dimensions of the scale of observed ABS, no statistically significant differences in the expressiveness of the scores were confirmed. However, it is again noticeable that more positive attitudes on all dimensions were obtained in female respondents.

Table 14. Significance of differences in expected ABS concerning the age of the respondents

Expected ABS	Age	AS	SD	χ^2	p
Tangibility	17-24	4,67	0,236	7,618	0,055
	25-35	4,50	0,402		
	36-55	4,63	0,299		
	56-65	4,50	0,336		
Reliability	17-24	4,68	0,403	6,813	0,078
	25-35	4,66	0,446		
	36-55	4,85	0,363		
Responsability	56-65	4,75	0,422	0,921	0,820
	17-24	4,65	0,301		
	25-35	4,63	0,254		
Safety	36-55	4,64	0,204	3,007	0,391
	56-65	4,59	0,457		
	17-24	4,61	0,467		
Empathy	25-35	4,59	0,416	4,814	0,186
	36-55	4,73	0,418		
	56-65	4,58	0,548		
Average (Σ)	17-24	4,60	0,340	1,765	0,623
	25-35	4,59	0,395		
	36-55	4,46	0,304		
	56-65	4,46	0,471		

df=3

Regarding the respondents' age, no statistically significant differences were confirmed in the expressiveness of the scores on the dimensions of the expected ABS scale (Table 14). The difference obtained on the expected Tangibility dimension is close to statistical significance but insignificant ($\chi^2=7.618$, $p=0.055$).

On the scale of perceived ABS concerning the age of the examinees (Table 15), statistically significant differences were confirmed on the dimension of perceived Empathy ($\chi^2=11.762$, $p=0.008$) and on the overall average of the entire scale of

perceived ABS ($\chi^2=8.094$, $p=0.044$). The first difference obtained is high and significant at the $p<0.01$ level, and the second is significant at the $p<0.05$ level. According to the expressiveness of the scores on the perceived Empathy dimension, the highest score was obtained in respondents aged 36 to 55 years ($AS=3.64$, $SD=0.736$) and the lowest in the youngest respondents aged 17 to 24 years ($AS=3.10$, $SD=0.806$). On the aggregate average of the entire scale of observed ABS, the highest score was obtained in subjects aged 25 to 35 ($AS=3.74$, $SD=0.535$), and the lowest score was also

obtained in the youngest subjects (AS=3.37, SD=0.687). On the other dimensions of the scale of perceived ABS, no statistically significant differences were confirmed concerning the age of the subjects.

When it comes to the expected ABS, statistically significant differences in the expressiveness of the scores concerning the level of professional education of the respondents (Table 16) were obtained for the dimension expected Tangibility ($\chi^2=13.586$, $p=0.004$). The obtained difference is high and significant at the significance level of $p<0.01$.

On this dimension, the highest score was obtained by respondents with a university degree (AS=4.64, SD=0.287), and the lowest score was obtained by respondents with a doctorate (AS=4.21, SD=0.485).

On the other dimensions of the scale of expected ABS, no statistically significant

differences were confirmed concerning the respondents' professional education level. On the scale of perceived ABS, no statistically significant differences were confirmed in the expressiveness of the scores with the respondents' level of education (Table 17). In general, the differences in the expressiveness of the scores on this scale to the respondent's level of education are minimal.

On the scale of expected attributes of banking services (Table 18), no statistically significant differences were confirmed in the expressiveness of the scores concerning the marital status of the respondents. The most significant differences were obtained for the dimensions of expected Tangibility ($Z=-1.378$, $p=0.168$) and expected Empathy ($Z=-1.287$, $p=0.198$), but they are also far from statistical significance.

Table 15. Significance of the observed ABS differences in relation to the age of the subjects

Observed ABS	Age	AS	SD	χ^2	p
Tangibility	17-24	3,70	0,762	5,894	0,117
	25-35	4,10	0,595		
	36-55	3,98	0,682		
	56-65	3,98	0,731		
Reliability	17-24	3,28	0,870	3,259	0,353
	25-35	3,50	0,666		
	36-55	3,66	0,805		
	56-65	3,38	0,689		
Responsibility	17-24	3,60	0,787	3,257	0,354
	25-35	3,91	0,542		
	36-55	3,72	0,730		
	56-65	3,76	0,745		
Safety	17-24	3,15	0,929	5,177	0,159
	25-35	3,60	0,685		
	36-55	3,46	0,749		
	56-65	3,46	0,863		
Empathy	17-24	3,10	0,806	11,762	0,008**
	25-35	3,59	0,712		
	36-55	3,64	0,736		
	56-65	3,48	0,715		
A (Σ)	17-24	3,37	0,687	8,094	0,044*
	25-35	3,74	0,535		
	36-55	3,69	0,638		
	56-65	3,61	0,665		

df=3; $p<0,01$ **; $p<0,05$ *

Table 16. Significance of differences in expected ABS regarding the respondents' professional education

Expected ABS	Professional qualifications	AS	SD	χ^2	p
Tangibility	Higher Ed Institution	4,34	0,407	13,586	0,004**
	Faculty	4,64	0,287		
	Master/Master's Degree	4,56	0,299		
	PHD	4,21	0,485		
Reliability	Higher Ed Institution	4,80	0,268	3,139	0,371
	Faculty	4,78	0,335		
	Master/Master's Degree	4,67	0,513		
	PHD	4,43	0,709		
Responsibility	Higher Ed Institution	4,59	0,169	1,469	0,689
	Faculty	4,65	0,202		
	Master/Master's Degree	4,64	0,305		
	PHD	4,25	1,012		
Safety	Higher Ed Institution	4,60	0,438	0,927	0,819
	Faculty	4,66	0,419		
	Master/Master's Degree	4,64	0,444		
	PHD	4,27	0,961		
Empathy	Higher Ed Institution	4,43	0,197	6,913	0,075
	Faculty	4,58	0,343		
	Master/Master's Degree	4,51	0,364		
	PHD	4,04	0,797		
Average (Σ)	Higher Ed Institution	4,55	0,180	5,215	0,157
	Faculty	4,66	0,206		
	Master/Master's Degree	4,61	0,282		
	PHD	4,24	0,740		

df=3; p<0,01**

Table 17. Significance of observed ABS differences in relation to the educational level of the respondents

Observed ABS	Professional qualifications	AS	SD	χ^2	p
Tangibility	Higher Ed Institution	3,89	0,646	0,417	0,937
	Faculty	3,95	0,766		
	Master/Master's Degree	3,96	0,543		
	PHD	3,79	0,886		
Reliability	Higher Ed Institution	3,38	0,767	1,081	0,782
	Faculty	3,49	0,768		
	Master/Master's Degree	3,45	0,822		
	PHD	3,30	0,518		
Responsibility	Higher Ed Institution	3,70	0,579	0,624	0,891
	Faculty	3,75	0,759		
	Master/Master's Degree	3,76	0,646		
	PHD	3,67	0,719		
Safety	Higher Ed Institution	3,42	0,576	0,602	0,896
	Faculty	3,38	0,859		
	Master/Master's Degree	3,49	0,802		
	PHD	3,57	0,843		
Empathy	Higher Ed Institution	3,41	0,562	0,826	0,843
	Faculty	3,49	0,806		
	Master/Master's Degree	3,42	0,724		
	PHD	3,46	0,886		
Average (Σ)	Higher Ed Institution	3,56	0,534	0,143	0,986
	Faculty	3,61	0,693		
	Master/Master's Degree	3,61	0,563		
	PHD	3,56	0,704		

df=3

Table 18. Significance of differences in expected ABS concerning marital status of respondents

Expected ABS	Marital status	AS	SD	Z	p
Tangibility	Single	4,66	0,249	-1,378	0,168
	Married/In a relationship	4,55	0,343		
Reliability	Single	4,66	0,461	-0,700	0,484
	Married/In a relationship	4,75	0,398		
Responsibility	Single	4,65	0,250	-0,490	0,624
	Married/In a relationship	4,62	0,327		
Safety	Single	4,69	0,428	-0,654	0,513
	Married/In a relationship	4,62	0,471		
Empathy	Single	4,46	0,344	-1,287	0,198
	Married/In a relationship	4,54	0,391		
Average (Σ)	Single	4,62	0,282	-0,319	0,749
	Married/In a relationship	4,64	0,280		

df=130

Table 19. Significance of the observed ABS differences concerning the respondents' marital status

Observed ABS	Marital status	AS	SD	Z	p
Tangibility	Single	3,75	0,829	-1,351	0,177
	Married/In a relationship	3,99	0,664		
Reliability	Single	3,26	0,982	-1,696	0,090
	Married/In a relationship	3,51	0,703		
Responsibility	Single	3,62	0,833	-0,938	0,348
	Married/In a relationship	3,78	0,675		
Safety	Single	3,02	0,913	-2,674	0,007**
	Married/In a relationship	3,52	0,765		
Empathy	Single	3,16	0,763	-2,437	0,015*
	Married/In a relationship	3,53	0,748		
Average (Σ)	Single	3,36	0,740	-2,280	0,023*
	Married/In a relationship	3,66	0,606		

df=130; p<0,01**; p<0,05*

On the scale of perceived ABS concerning the marital status of the respondents (Table 19), statistically significant differences were confirmed for the dimensions of perceived Security ($Z=-2.674$, $p=0.007$), perceived Empathy ($Z=-2.437$, $p=0.015$) and for the overall average of the whole scale of observed ABS ($Z=-2.280$, $p=0.023$). The first difference is high and significant at the $p<0.01$ level, and the other two obtained differences are significant at the $p<0.05$ level. According to the level of scores on these dimensions, significantly higher scores on the dimension of perceived Security perceived Empathy and the cumulative average of the scale of perceived ABS exist in respondents who are married or in a relationship compared to respondents who are not in a relationship.

Regarding the expected ABS concerning the amount of the respondents' monthly income (Table 20), statistically significant differences were confirmed for the dimension expected Tangibility ($Z=-2.179$, $p=0.029$). The obtained difference is significant at the significance level of $p<0.05$. It indicates that the respondents who do not want to reveal the amount of their income ($AS=4.67$, $SD= 0.248$) have significantly higher scores on this dimension compared to the respondents who have monthly incomes over 600 euros ($AS=4.54$, $SD=0.348$). On the other dimensions of the expected ABS scale, no statistically significant differences were confirmed in the expressiveness of the scores with the amount of monthly income.

Table 20. Significance of differences in expected ABS concerning the monthly income of respondents

Expected ABS	Monthly income	AS	SD	Z	p
Tangibility	> 600 eur	4,54	0,348	-2,179	0,029*
	Wouldn't say	4,67	0,248		
Reliability	> 600 eur	4,73	0,402	-0,849	0,396
	Wouldn't say	4,75	0,439		
Responsibility	> 600 eur	4,63	0,218	-1,481	0,139
	Wouldn't say	4,62	0,490		
Safety	> 600 eur	4,62	0,416	-1,005	0,315
	Wouldn't say	4,65	0,578		
Empathy	> 600 eur	4,54	0,340	-0,260	0,795
	Wouldn't say	4,48	0,483		
Average (Σ)	> 600 eur	4,61	0,223	-1,616	0,106
	Wouldn't say	4,63	0,399		

df=130; p<0,05*

Table 21. Significance of the observed ABS differences concerning the respondents' monthly income

Observed ABS	Monthly income	AS	SD	Z	p
Tangibility	> 600 eur	4,01	0,662	-1,871	0,061
	Wouldn't say	3,76	0,778		
Reliability	> 600 eur	3,47	0,734	-0,097	0,922
	Wouldn't say	3,44	0,861		
Responsibility	> 600 eur	3,76	0,653	-0,233	0,816
	Wouldn't say	3,71	0,846		
Safety	> 600 eur	3,42	0,755	-0,018	0,985
	Wouldn't say	3,43	0,976		
Empathy	> 600 eur	3,51	0,673	-0,882	0,378
	Wouldn't say	3,33	0,964		
Average (Σ)	> 600 eur	3,63	0,580	-0,829	0,407
	Wouldn't say	3,53	0,791		

df=130

On the scale of observed ABS, no statistically significant differences were confirmed in the expressiveness of the scores with the level of the respondents' monthly income (Table 21). The difference obtained for the perceived Tangibility dimension is close to statistical significance but insignificant ($Z=-1.871$, $p=0.061$). On the other dimensions of this scale, the differences are minimal and not statistically significant.

DISCUSSION OF RESULTS

The research results showed, first of all, that both used (expected and perceived) scales have good reliability. Good reliability was obtained for all five dimensions of both scales: Tangibility, Reliability,

Responsibility, Security, and Empathy. When it comes to the Servqual model, the application of this model showed that in the banking sector in the Republic of Croatia, the most significant difference, or the biggest mismatch, exists in the dimensions of Reliability and Security. In third place is the Empathy dimension, and in fourth place is the difference obtained for the Responsibility dimension. The slightest difference was obtained for the dimension Tangibility, which is also the dimension on which the slightest discrepancy exists between expected and perceived ABS. By checking the significance of the differences obtained using the Servqual model, it was confirmed that they are statistically significant.

When we talk about the expressiveness of scores on the scale of expected ABS, the highest expressiveness was obtained for the subscale Expected Reliability and the lowest for Expected Tangibility. On the dimensions of the scale of perceived attributes of banking services, the highest expression was obtained on the dimension of perceived Tangibility and the least on the dimension of perceived Security. Concerning the gender of the respondents, a statistically significant difference in the expressiveness of the scores was obtained for the perceived Empathy dimension. The obtained difference indicates that female respondents have a significantly positive attitude regarding perceived Empathy compared to male respondents. On the scale of expected ABS, no statistically significant differences were confirmed with the gender of the respondents.

On the scale of perceived ABSs, statistically significant differences were confirmed on the dimension of perceived Empathy and the overall average of the scale of perceived ABSs. According to the expressiveness of the scores on the perceived Empathy dimension, the highest score was obtained in subjects aged 36 to 55 years and the lowest in the youngest subjects, aged 17 to 24. On the aggregate average of the entire scale of observed ABS, the highest score was obtained in subjects aged 25 to 35, and the lowest score was obtained in the youngest subjects.

On the scale of expected ABS, no statistically significant differences were confirmed with the age of the respondents. Concerning the professional education of the examinees, statistically significant differences in the expressiveness of the scores were obtained on the dimension of Expected Tangibility. On this dimension, the highest score was obtained by respondents with a university degree, and the lowest was obtained by respondents with a doctorate. On the scale of observed ABS, no statistically significant differences were confirmed with the respondents' professional education level.

When it comes to the marital status of the respondents, statistically significant differences were confirmed for the dimensions of perceived Security, perceived

Empathy, and the overall average of the entire scale of perceived ABS. According to the level of scores on these dimensions, significantly higher scores on the perceived Security dimension perceived Empathy, and the overall average of the perceived ABS scale exist in respondents who are married or in a relationship compared to respondents who are not in a relationship or are single. On the scale of expected ABS, no statistically significant differences were confirmed with the marital status of the respondents. Concerning the monthly income of the respondents, statistically significant differences were confirmed for the expected Tangibility dimension. The obtained difference indicates that respondents who want to keep the amount of their income private have significantly higher scores on this dimension than respondents with a monthly income of over 600 euros. On the scale of perceived ABS, no statistically significant differences were confirmed in the expressiveness of the scores to the monthly income of the respondents. Significant differences were not confirmed with the respondent's place of residence, both on the scale of expected ABS and on the scale of perceived ABS.

On the basis of research and indicators from 2014, which were made using the SERVQUAL model, it was concluded that the highest expectations are expressed by users according to the dimensions of tangibility (4.68) and empathy (4.48). Also, the research conducted in 2021 based on the same model indicates that respondents from Croatia, on the scale of expected attributes of banking services, expect the most from the dimension of reliability (AS=4.65, SD=0.612), and the smallest difference was observed for security dimension (AS=4.38, SD=0.680) and the author's primary research in 2023, the most significant difference was obtained for the Reliability (1.28) and Safety (1.21) dimension. In third place is the Empathy dimension with a difference between expected and observed ABS of 1.07, and in fourth place is the difference obtained for the Responsibility dimension. The most negligible difference was obtained for the tangibility dimension (0.63), which is also the

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dimension where there is the smallest discrepancy between expected and observed ABS. Based on these indicators, it is still necessary for banks to work on the reliability and security of their services in the future. This primarily refers to the security of payments, execution of transactions, new electronic services, ATM services, as well as new mobile cards, for which it is certainly necessary to enable better security in order for users to have confidence in their implementation. We should not ignore the fact of reliability and security of traditional banking services that will continue to be used, certainly not in the existing scope.

CONCLUSIONS

Banks in Croatia had a rather conservative attitude toward the market, considering that marketing activities are not applicable in banking. Nevertheless, new technologies and the influence of social networks have changed the attitude of the bank's management. High competition among banks has created a need to adopt marketing tools. Analyzing this paper provided the bank's management in Croatia with an insight into the current state of the user's opinion, which will guide the bank's activities in the coming period. The biggest drawback that users have expressed is reliability and security. Banks should improve legal regulations, the security of new modern services, employee education, and deadlines for the execution of transactions. Also, in the upcoming period, it is necessary to examine employees' attitudes.

The primary hypothesis: That users of banking services in the Republic of Croatia report a difference between expected and observed results was confirmed by this research.

Auxiliary hypotheses: H1-Users of banking services expect more from the quality dimension this research confirmed reliability. H2 - Users of banking services expect more from the dimension of security was confirmed by this research. H3 - Users of banking services expect more from the dimensions of quality and responsibility, which this research confirmed. H4 - Users of banking services expect more from the

quality dimension, this research confirmed the tangibility. H5 - Users of banking services expect more from the dimension of empathy, which this research confirmed.

The main limitations of the research:

"It is also important to mention that the research has certain limitations. Namely, the research was conducted online, which in itself carries limitations. Also, considering the number of banks, the number of respondents is small, but it is a sample that is often used in marketing research, therefore it can be said that it is representative. All respondents have a higher education; only respondents with high incomes (over 600 euros) and those who do not want to reveal the amount of their monthly income participated in the research. Furthermore, all respondents (100.0%) are employed. In general, except for the variable age of respondents, there is no uniformity in the number of respondents by category on any other socio-demographic variable. The mentioned limitations certainly reduce the possibility of generalizing the data obtained from the research."

It should also be said that the banks in Croatia did not allow the examination of employees' attitudes, as well as bank management regarding customer satisfaction. Therefore, there is no overall insight into the satisfaction of users of banking services in Croatia.

LITERATURE

- Amiri Aghdaie, S. F., & Faghani, F. (2012). Mobile banking service quality and customer satisfaction (application of SERVQUAL model). *International Journal of Management and Business Research*, 2(4), 351-361.
- Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Kizgin, H., & Patil, P. (2019). Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, 44, 38-52.
- Bradić-Martinović, A. (2013). Strategic Use of Technology in the Financial Sector: E-banking and Forms of Electronic Money. *Entrepreneurship, Finance and*

Pavlović, M.M., & Tešić, B. (2023). Determining the significance of the quality dimension of banking service in Croatia based on the servqual model. *STED Journal*, 5(2), 29-49.

- Education in Digital Age*. Lambert Academic Publishing, Germany.
- Choudhury, K. (2008). Service Quality: Insights from the Indian Banking Scenario. *Australasian Marketing Journal*, 16(1), 48–61. [https://doi.org/10.1016/S1441-3582\(08\)70004-1](https://doi.org/10.1016/S1441-3582(08)70004-1)
- Dietz, M., Härle, P., & Khanna, S. (2016). A digital crack in bankings business-model. *Transactions*, 577, 483. <https://integral.ms/wp-content/uploads/2018/03/A-digital-crack-in-bankings-business-model.pdf>
- Girchenko, T., & Kossman, R. (2017). Implementation and development of digital marketing in modern banking business. *European Cooperation*, 12(19), 68-85.
- Gilmore, A. (2003). *Services, Marketing and Management*. SAGE Publications, London.
- Grönroos, C. (1991). The marketing strategy continuum: towards a marketing concept for the 1990s. *Management Decision*. 29(1), 7-13.
- Hamidi, H., & Safareeyeh, M. (2019). A model to analyze the effect of mobile banking adoption on customer interaction and satisfaction: A case study of m-banking in Iran. *Telematics and Informatics*, 38, 166-181.
- Croatian National Bank. (2021). Report. Retrieved May 20, 2022 from <https://www.hnb.hr/en/home>
- Islam, R. M. D. (2012). Application of SERVQUAL model in customer service of mobile operators: a study from the context of Bangladesh. *European Journal of Business and Management* 4(1), 47-54.
- Kant, R., Jaiswal, D., & Mishra, S. (2019). A Model of Customer Loyalty: An Empirical Study of Indian Retail Banking Customer. *Global Business Review*, 20(5), 1248-1266. <https://doi.org/10.1177/0972150919846813>
- Kumar, M., Tat Kee, F., & Charles, V. (2010). Comparative evaluation of critical factors in delivering service quality of banks: An application of dominance analysis in modified SERVQUAL model. *International Journal of Quality and Reliability Management*, 27(3), 351-377.
- Kumar, M., Tat Kee, F., & Taap Manshor, A. (2009). Determining the relative importance of critical factors in delivering service quality of banks: an application of dominance analysis in SERVQUAL model. *Managing Service Quality* 19(2), 211-228.
- Ladhari, R., Ladhari, I., & Morales, M. (2011). Bank service quality: Comparing Canadian and tunisian customer perceptions. *International Journal of Bank Marketing*, 29(3), 224–246. <https://doi.org/10.1108/02652321111117502>
- Lee, K. C., & Chung, N. (2009). Understanding factors affecting trust in and satisfaction with mobile banking in Korea: A modified DeLone and McLean’s model perspective. *Interacting with Computers*, 21(5–6), 385–392. <https://doi.org/10.1016/j.intcom.2009.06.004>
- Li, M., & Raza, S. A. (2017). Service quality perception and customer satisfaction in Islamic banks of Pakistan: the modified SERVQUAL model. *Total Quality Management & Business Excellence*, 28(5-6), 559-577.
- Liébana-Cabanillas, F., Muñoz-Leiva, F., Sánchez-Fernández, J., & Viedma-del Jesús, M. I. (2016). The moderating effect of user experience on satisfaction with electronic banking: empirical evidence from the Spanish case. *Information Systems and e-Business Management*. 14(1), 141-165.
- Liébana-Cabanillas, F., Sánchez-Fernández, J., & Muñoz-Leiva, F. (2014). The moderating effect of experience in the adoption of mobile payment tools in Virtual Social Networks: The m-Payment Acceptance Model in Virtual Social Networks (MPAM-VSN). *International Journal of Information Management* 34(2), 151-166.

Pavlović, M.M., & Tešić, B. (2023). Determining the significance of the quality dimension of banking service in Croatia based on the servqual model. *STED Journal*, 5(2), 29-49.

- Martínez-Torres, M. D. R., Díaz-Fernández, M. D. C., Toral, S. L., & Barrero, F. (2015). The moderating role of prior experience in technological acceptance models for ubiquitous computing services in urban environments. *Technological Forecasting and Social Change*, 91, 146-160.
- Meeker, M. (2014). Internet trends 2014-code conference. Retrieved May, 28, 2014 from <http://www.kpcb.com/internet-trends>
- Mitik, M., Korkmaz, O., Karagoz, P., Toroslu, I. H., & Yucel, F. (2017). Data mining approach for direct marketing of banking products with profit/cost analysis. *The Review of Socionetwork Strategies*, 11, 17-31. <https://doi.org/10.1007/s12626-017-0002-5>
- Mitik, M., Korkmaz, O., Karagoz, P., Toroslu, I. H., & Yucel, F. (2016, December). Data Mining Based Product Marketing Technique for Banking Products. In *2016 IEEE 16th International Conference on Data Mining Workshops (ICDMW)* (pp. 552-559). IEEE. doi:10.1109/ICDMW.2016.0085
- Mulat, G.W. (2017). The Effects of Service Quality on Customer Satisfaction: A Study among Private Banks in Mekelle Town. *European Journal of Business and Management*, 9(13), 72-79.
- Murali, S., Pugazhendhi, S., & Muralidharan, C. (2016). Modelling and investigating the relationship of after sales service quality with customer satisfaction, retention and loyalty a case study of home appliances business. *Journal of Retailing and Consumer Services*, 30, 67-83.
- Naumovska-Saveska, M., Tomovska-Misoska, A., Efremov, K., & Petrovska, I. (2021). The impact of service quality and service characteristics on customer satisfaction in the North Macedonian banking sector. *Bankarstvo*, 50(2), 34-48. <https://doi.org/10.5937/bankarstvo2102034n>
- Pavlović, M. (2021). *Research on the satisfaction of individual users of banking services in developed countries and opportunities for improvement in Serbia*. [Doctoral thesis, Union Nikola Tesla University]. Nacionalni Repozitirijum Disertacija u Srbiji.
- Pavlović, M., Radonjić, A., & Pavlović, Đ. (2023). The behavior of users of banking services in the Republic of Serbia, Bosnia and Herzegovina during the pandemic of COVID-19. *Ekonomija: teorija i praksa*, 16(1), 120-139. <https://doi.org/10.5937/etp2301120P>
- Pepur, M. (2006). Kvaliteta usluga u bankarskoj industriji: koncept i mjerenje. *Tržište*, 18(1-2), 53-66.
- Quyet, T. V., Vinh, N. Q., & Chang, T. (2015). Service quality effects on customer satisfaction in banking industry. *International Journal of U-and e-Service, Science and Technology*, 8(8), 199-206. <https://doi.org/10.14257/ijunesst.2015.8.8.20>
- Roopchund, R., & Boojhawon, S. (2014). Applying the SERVQUAL Model in Postal Services: A Case Study of Mahebourg Mauritius Post Services Ltd. *The International Journal of Business & Management*, 2(7).
- Sharma, S. K. (2019). Integrating cognitive antecedents into TAM to explain mobile banking behavioral intention: A SEM-neural network modeling. *Information Systems Frontiers*, 21(4), 815-827.
- Shettar, R.M. (2020). Neo bank: a new landscape. *Journal of Xi'an University of Architecture & Technology*, 13(3), 3843-3847.
- Shokouhyar, S., Shokoohyar, S., & Safari, S. (2020). Research on the influence of after-sales service quality factors on customer satisfaction. *Journal of Retailing and Consumer Services*, 56, 102139.
- Učkar, D., & Petrović, D. (2021). Efficiency of banks in Croatia. *Zbornik radova Ekonomskog fakulteta u Rijeci: časopis za ekonomsku teoriju i praksu*, 39(2), 349-379.

- Pavlović, M.M., & Tešić, B. (2023). Determining the significance of the quality dimension of banking service in Croatia based on the servqual model. *STED Journal*, 5(2), 29-49.
- Valvi, A.C., & West, D.C. (2013). E-loyalty is not all about trust, price also matters: extending expectation-confirmation theory in bookselling websites. *Journal of Electronic Commerce Research*, 14, 99-123.
- Yvon, M., & Margaux, R. (2019). Open banking: Towards platform and modular banking, *Journal of Digital Banking*, 4(2), 131-143.
- Znaor, T., & Grubišić, D. (2014). Očekivanje i percepcije kvalitata usluga banke, 14. *Hrvatska konferencija o kvaliteti*, 402-410.