FACTORS DRIVEN THE CLIENT'S SATISFACTION ON THE HOUSING LOANS MARKET. EVIDENCE FROM POLAND

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Purpose: The aim of the article is to assess the satisfaction of housing loan borrowers in banks. The authors seek to answer the research question of what factors influence the declared level of satisfaction with the housing loan, ancillary products, and the bank's products in general. The paper addresses the consumer's behavior toward banking services, outlining the need to deepen and complete a financial-banking education.

Design/methodology/approach: The analyses are based on information obtained through a survey questionnaire. The survey was conducted in June 2022 on a sample of approximately 1,000 borrowers in Poland, aged over 18, with a housing loan secured by a mortgage. Nonparametric tests, the Mann- Witney U test and the Kruskal-Wallis H test, were used to assess the relationships between the variables considered.

Findings: The borrowers surveyed were mainly characterized by positive attitudes toward their bank. Most respondents declared satisfaction with their home loan, as well as with the bank's products/services in general. Socio-demographic characteristics turned out to be variables significantly differentiating declared customer satisfaction, only with regard to satisfaction ratings with the bank's products in general.

Originality/value: The analyses carried out provide important conclusions about the factors determining the level of satisfaction among bank customers in Poland with regard to housing loans. This is because housing loans are the main form of financing housing needs by consumers. The obtained results also make it possible to assess whether there are differences in the opinions of the surveyed borrowers, considering satisfaction in terms of their additional products to the loan, as well as assessments in the context of the banks' products in general. In addition, the originality of the study stems from the research methods used, which are rarely used in consumer satisfaction research.

Keywords: client's satisfaction, housing loan market, the Kruskal-Wallis H test, the Mann-Witney U test.

Category of the paper: Research paper.

1. Introduction

The purpose of the article is to assess the satisfaction of housing loan borrowers in banks. The market for banking products and services is characterized by a high rate of change (Czechowska et al., 2020). A key role is played by bank customers, who have an ever-increasing array of financial solutions available to them. Investigating the financial needs and expectations of customers should be one of the main pillars for banks to strive for the satisfaction felt by the recipients of their products and services (Pettersen-Sobczyk, 2015; Skowron, 2011; Starzyńska, Kowańska, 2022). In this context, the role of adequate quality of banking products and services is emphasized. This quality can be considered differently from the point of view of banking entities and customers (Idzik, 2016). It is important for banks to place special emphasis on pro-quality measures (Giemza, Materna, 2015).

Customer satisfaction has become a key determinant of demand, reflecting consumers' perceptions of product quality, service levels, and overall experience. Research indicates that satisfied customers are more likely to become repeat buyers, leading to increased sales and improved brand loyalty (Czechowska et al., 2024; Das et al., 2024). The etymology of the word satisfaction comes from Latin satisfactionem (nominative satisfactio) "a satisfying of a creditor, "noun of action from past-participle stem of satisfacere "discharge fully, comply with, make amends," literally "to do enough" (Online Etymology Dictionary). Customer satisfaction also has an emotional dimension and is related to responses to shopping experiences, retail outlets, and even behavior patterns (Agustiansyah, Taufik, 2019). Unhappy customers may switch to another company and spread negative news to the public (Kaur et al., 2021; Supriyanto, Wiyono, Burhanuddin, 2021). Meanwhile, the satisfied can be a link in word-of-mouth advertising (Wulandari, 2022). Customer satisfaction refers to an attitude or evaluation formed by a customer comparing pre-purchase expectations of what they would receive from the product or service to their subjective perceptions of the performance they actually did receive (McDonald, Rundle-Thiele, 2008). Customer satisfaction measures concern consumer expectations towards the service provided, as well as to what extent it is close to ideal (McDonald, Rundle-Thiele, 2008). The relationship between customer trust, satisfaction and demand for products is the subject of research in various disciplines, with satisfaction being more important for loyalty in industries such as automotive or banks and insurance (Cohen, Gan, Hwa, Chong, 2006). Findings from multiple studies have identified a positive correlation between customer satisfaction and subsequent purchasing behavior, reinforcing the idea that satisfied customers drive more demand. For example, Anderson and Mittal (2000) suggest that companies that prioritize customer satisfaction can expect to see more loyal customers.

When it comes to the banking industry, the factors affecting customer satisfaction may be different than for other services. Chakrabarty (2006), based on research conducted among United Kingdom retail banking customers, indicated four factors that determined overall customer satisfaction. Such as (Chakrabarty, 2006):

- in-branch satisfaction (speed of service, staff helpfulness, privacy, opening hours),
- economic satisfaction (level of bank fees, overdraft interest rates),
- remote satisfaction (responsiveness and efficiency in dealing with remote enquiries),
- ATM satisfaction (ATM availability, ATM reliability).

Manrai and Manrai (2007), on the other hand, pointed to other factors weighted from the point of view of customer satisfaction, namely:

- personnel-related considerations (attitudes and behaviour of tellers and other staff, procedures for handling complaints, appearance of staff),
- financial considerations (interest earnings, interest payments),
- branch environment-related considerations (atmospherics),
- convenience-related considerations (ATMs, opening hours).

In order to achieve customer satisfaction in the banking industry, appropriate service standards are needed (Wulandari, 2022), with particular emphasis on the quality of service (Setiawan et al., 2019). In addition, customers make comparisons between the cost of the service and the resulting benefits (Parvati, 2022). However, as the authors emphasize, the goal that the bank wants to achieve is not customer satisfaction, but customer loyalty, which is expressed in long-term relationships (Li et al., 2021) and consistent purchase (Zikir, 2019; Supriyanto et al., 2021). Banks compete not only with each other but also with non-bank entities and other financial institutions (Cohen, Gan, Hwa, Chong, 2006). Since banking services are easy to follow, which means that they are very similar, they can only differ in price and quality. Therefore, customer retention is a potentially more effective tool to use to gain an advantage in a competitive market (Cohen, Gan, Hwa, Chong, 2006). The quality of service is a key element affecting the level of customer satisfaction in the banking industry. In banking, quality is a multidimensional concept that encompasses different types of amenities, reliability, service package, and staff that provides them (Ioanna, 2002). In addition, research has shown that customers with high knowledge of financial products are satisfied (Barbu et al., 2021; Reddy, Thanigan, 2023).

The literature highlights the roles of sociodemographic factors as important determinants of customer satisfaction (Rudawska, 2011; Skowron, 2017). In view of the considerations made in the context of existing research, the analyses undertaken will seek to determine answers to the following research questions. Do the demographic characteristics and credit profile of the Polish consumers differentiate their declared level of satisfaction with a housing loan, ancillary products and bank products in general?

2. Research method

Satisfaction among bank customers is a very important element in building positive attitudes and establishing long-term relationships (Al Qaisi, Alrosan, 2020; Chu et al., 2012; Geebren et al., 2021). Using the computer-assisted web interview method (CAWI), a survey of adult Poles was conducted to assess respondents' satisfaction with banks. This method of collecting quantitative data involves providing data using an online survey questionnaire. The survey was conducted in June 2022 and involved 993 respondents over 18 years of age, with a housing loan secured by a mortgage. The research sample was chosen considering the population of borrowers who have a mortgage-secured housing loan, taking into account the borrowers' age and gender, and utilizing information from Poland's Credit Information Bureau. Quota-based sampling was used. Respondents could use a 5-point Likert scale to rate their level of satisfaction, with 1 being "definitely dissatisfied" and 5 representing "definitely satisfied". The results were compiled using IBM SPSS Statistics software (version 29.0.1.0).

Using non-parametric tests such as the Mann-Whitney U test and the Kruskal-Wallis H test, the association between borrowers' satisfaction with housing loans and sociodemographic and credit profile information was evaluated. The search for differences in the context of sociodemographic characteristics of bank customers is visible in the subject literature (Dauda, Lee, 2016; Haron et al., 2020; Kaczmarek, 2019; Li et al., 2021; Pakurár et al., 2019; Waliszewski, Barankiewicz, 2023). The Mann-Whitney test is used to compare two independent samples when the data are stated on an ordinal scale or are measured on an interval scale but do not meet the t-test's normality assumptions. Whether the two medians are equal - as opposed to the two means in the t-test for independent samples - is the hypothesis under investigation (McCrum-Gardner, 2008; McKnight, Najab, 2010). The Kruskal-Wallis test ranks the initial data values, just like the Mann-Whitney test does. In other words, all data instances from the samples are gathered and ranked in ascending order. In the event that two scores are equal, the average of the two ranks is used (Nahm, 2016). The Kruskal-Wallis test examines whether the median values of three or more independent samples differ from each other (MacFarland, Yates, 2016; Mircioiu, Atkinson, 2017).

3. Results and Discussion

3.1. Respondent satisfaction with their housing loan

In the first step of the study, the declared satisfaction with the housing loan was verified and analyzed whether there is a relationship between the declared satisfaction with the housing loan and selected characteristics of the borrowers surveyed.
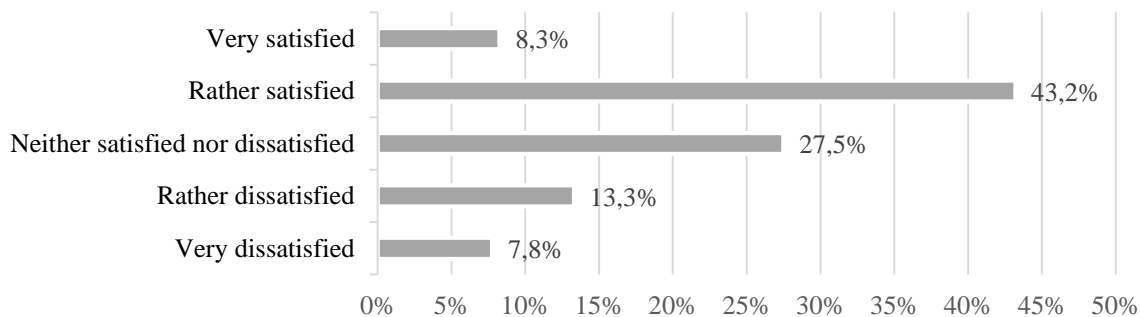
Figure 1. Declared satisfaction with housing loan (in %).

Source: own study.

Based on the results of the study (Figure 1), it should be stated that borrowers mainly declared satisfaction with their housing loan (more than half, i.e. 51.5% of the respondents, chose the option indicating satisfaction with the loan), with 43.2% of the respondents declaring the variant "rather satisfied" and 8.3% the variant "very satisfied". In general, 21.2% of the respondents were dissatisfied with the loan, indicating in 13.3% the variant "rather dissatisfied" and in 7.8% the variant "very dissatisfied". The remaining 27.5% of the respondents indicated an intermediate option, i.e., "neither satisfied nor dissatisfied".

Regarding the declared satisfaction with the housing loan, there were no significant differences between the respondents in terms of sociodemographic characteristics (i.e., gender, age, place of residence, educational level) and the amount of net income received (Table 1).

Table 1.

Results of the analysis of the relationship between declared satisfaction with the housing loan and selected variables from the profile of the surveyed borrowers

Independent variables	Test value*	Number of degrees of freedom (*df*)	Probability value (*p*)	Rejection of Hypothesis H_0 (decision based on p value)	V-Cramer coefficient or Kendall tau-b rank correlation (p)
Gender	122819.500	-	0.923	No	0.050 (0.642)
Age	2.102	3	0.552	No	0.017 (0.0923)
Place of residence	6.582	4	0.160	No	-0.048 (0.067)
Educational level	3.114	3	0.374	No	-0.47 (0.093)
Net income	1.433	3	0.698	No	0.016 (0.556)
Type of bank**	**9835.000**	**-**	**0.023**	**Yes**	**0.091* (0.023)**
Borrowing year	**10.657**	**3**	**0.014**	**Yes**	**0.049* (0.043)**
Loan period	**25.513**	**6**	**0.00**	**Yes**	**-0.112** (<0.010)**
Amount of credit	1.966	3	0.579	No	-0.250 (0.362)
Share of the instalment in net income	**87582.500**	**-**	**0.000**	**Yes**	**-0.128** (<0.01)**
Currency of the loan	**33.867**	**2**	**<0.001**	**Yes**	**0.200 (<0.001)**

Note.

*F - Mann-Whitney U test or Kruskal-Wallis H-test (when comparing more than 2 subgroups).

** whether a commercial or cooperative bank.

Source: own study.

However, there were significant differences in satisfaction with a housing loan from the point of view of credit profile parameters, such as the type of bank, the year of loan takeout, the loan period, the share of the loan instalment in the borrower's net monthly income, and the loan currency (the probability value in the Mann-Whitney U or Kruskal-Wallis H test was below the cutoff value, i.e. $p = 0.05$). Borrowers who had a commitment in cooperative banks declared a higher level of satisfaction with their houisng loan (mean rank 561.86) than commercial bank borrowers (mean rank 454.60). On the contrary, a significant but very weak relationship was found between satisfaction with the housing loan and the type of bank ($V = 0.091$).

From the point of view of the year of taking out a housing loan, using the post hoc test, differences were noted between borrowers who contracted liabilities until 2008 (i.e., before the financial crisis) and borrowers who did it in the period between 2009-2014, as well as between borrowers who took out a loan in 2015-2020. Borrowers who took out a loan before 2008, compared to the others listed here, on average declared a lower level of satisfaction with a housing loan. There was a weak positive relationship between the level of satisfaction with a housing loan and the year of borrowing the loan ($\tau\text{-c} = 0.049$). This result means that the level of satisfaction with the loan is higher the later the loan is taken out. Taking into account the loan period, using the post hoc test, significant differences were observed between borrowers who contracted a liability for up to 35 years and borrowers where the declared loan period was up to 25 years; as well as borrowers with a loan period of up to 15 years and up to 10 years. Borrowers with a liability for a period of up to 35 years, compared to the others listed here, on average declared a lower level of satisfaction with a housing loan. There was a weak negative relationship between the level of satisfaction with a housing loan and the loan period ($\tau\text{-c} = -0.112$). Such a result means that the level of satisfaction with the loan is lower the longer the loan period.

On average, borrowers who show a higher level of satisfaction with a housing loan are those for whom the loan instalment is less than half of their net income. A very weak relationship was observed between satisfaction with a housing loan and the share of the instalment in the borrowers' net income ($\tau\text{-c} = -0.128$). This means that as the share of instalments in net income increases, the declared satisfaction of borrowers with their liabilities decreases.

Taking into account the loan currency, significant differences were shown between borrowers with liabilities in Swiss francs and borrowers with loans in Polish zlotys. Borrowers with liabilities in Polish zlotys declared a relatively higher level of satisfaction with the loan than borrowers with liabilities in Swiss francs. Differences were also observed between borrowers with loans in Swiss francs and those with loans in euros. In the case of borrowers with a liability in euro, satisfaction is relatively higher than in the case of borrowers with a loan in Swiss francs. There was a weak relationship between currency and satisfaction with housing loans ($V = 0.300$).

3.2. Satisfaction with products additional to the loan

In the next step of the study, the declared satisfaction with housing loan ancillary products was verified and the relationship between the declared satisfaction with houisng loan ancillary products and selected characteristics of the borrowers surveyed was analyzed.
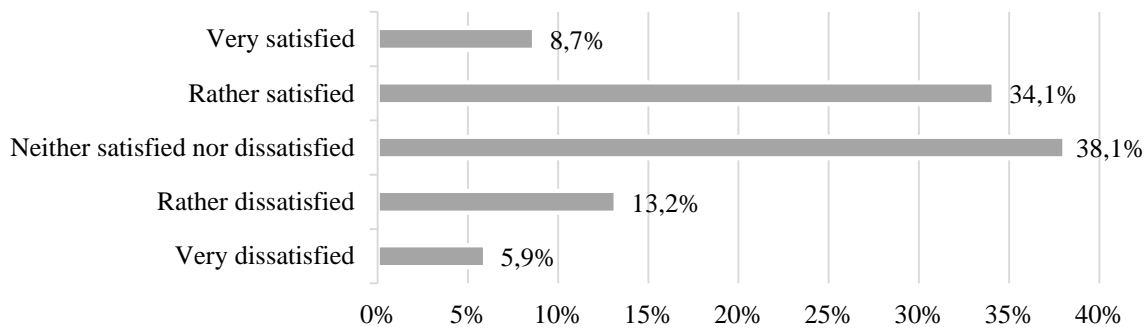

Figure 2. Declared satisfaction with housing loan ancillary products (%).

Source: own study.

In the case of assessing the satisfaction of borrowers with additional products to the housing loan (Figure 2), 38.1% of the respondents declared that the option was "neither satisfied nor dissatisfied". Satisfaction with the additional products was expressed by a total of 42.8% of respondents, with 8.7% choosing the "very satisfied" option, and 34.1% choosing the "rather satisfied" option. Dissatisfaction was expressed by a total of 19.1% of respondents, of which 13.2% were "rather dissatisfied" and 5.9% chose the option "very dissatisfied".

As for the declared satisfaction with products additional to the housing loan, there were no significant differences between the respondents in terms of socio-demographic characteristics (except for education), i.e., gender, age, place of residence, as well as the amount of net income received (Table 2).

Table 2.
Results of the analysis of the relationship between the declared satisfaction with additional products and selected variables in the scope of the profile of surveyed borrowers

Independent variables	Test value*	Number of degrees of freedom (*df*)	Probability value (*p*)	Rejection of the H_0 hypothesis (decision based on p value)	Cramer's V-coefficient (p) or Kendall's tau-b rank correlation (p)
Gender	4,656	4	0.324	No	0.068 (0.324)
Age	3.806	3	0.283	No	0.008 (0.765)
Place of residence	7.434	4	0.115	No	-0.043 (0.108)
Educational level	**12.774**	**3**	**0.005**	**Yes**	**-0.093**(<0.001)**
Net income	18.615	16	0.289	No	-0.052 (0.070)
Type of bank**	12829.500	-	0.989	No	0.030 (0.036)
Borrowing year	**8.472**	**3**	**0.037**	**Yes**	**0.048* (0.047)**
Loan period	**23.896**	**6**	**<0.001**	**Yes**	**-0.082** (0.002)**
Amount of credit	6.622	3	0.085	No	-0.053 (0.056)

Cont. table 2.

Share of the instalment in net income	94979.000	-	0.012	Yes	-0.073* (0.012)
Currency of the loan	**22.373**	**2**	**<0.001**	**Yes**	**0.176 (<0.001)**

Notes.

*F- Mann-Whitney U test or Kruskal-Wallis H-test (when comparing more than 2 subgroups).

** whether a commercial or cooperative bank.

Source: own study.

In the case of the level of education, the probability value in the Kruskal-Wallis H test was lower than the limit value (p < 0.005), which indicates that the expressed satisfaction with additional products of the housing loan differs significantly from the point of view of the borrower's education. Differences were observed between borrowers with higher education and those with secondary and/or postsecondary education. People with higher education, on average, declared a lower level of satisfaction with additional products. In this respect, a weak negative relationship was noted (τ-c = -0.093), which means that the higher the level of education, the lower the satisfaction with additional products for the loan.

From the point of view of the parameters of the credit profile, differences were noted in terms of satisfaction with products additional to the loan, taking into account the year of taking out the loan, the loan period, the share of the loan instalment in monthly net income and the currency of the loan (probability value in the Mann-Whitney U test or H Kruskal-Wallis was below the cut-off value, i.e., 0.05). From the point of view of the year of taking out a housing loan, using the post hoc test, differences were noted between borrowers who took out a loan until 2008 (i.e. before the financial crisis) and borrowers who took out a loan in 2015-2020. Borrowers who took out a loan before 2008, on average, declared a lower level of satisfaction with additional products. There was a weak positive relationship between the declared level of satisfaction with additional products to the housing loan and the year of liability (τ-c = 0.048). Such a result means that the level of satisfaction with the loan is higher, the later the loan is taken out.

Taking into account the loan period, using the post hoc test, significant differences were noted between:

- borrowers who took out a liability for a period of over 35 years and borrowers where the declared loan period was up to 35 years, up to 25 years, up to 20 years, up to 15 years and up to 10 years. Borrowers with a liability for a period of more than 35 years, compared to the others listed here, on average declared a lower level of satisfaction with additional (accompanying) products;

- borrowers with liabilities for up to 35 years and borrowers with liabilities for up to 20 years,, up to 15 years and 10 years. Borrowers with a liability for a period of up to 35 years, compared to the others listed here, on average declared a lower level of satisfaction with additional (accompanying) products;

- borrowers with a loan term of up to 25 years and borrowers with a loan term of up to 10, 15 and 10 years. Borrowers with a liability for up to 25 years, compared to the others listed here, on average declared a lower level of satisfaction with additional (accompanying) products.

There was a very weak negative relationship between the declared level of satisfaction with additional products to the housing loan and the loan period (τ-c = -0.082). Such a result means that the level of satisfaction with additional products to the loan is lower the longer the loan period is.

From the point of view of the share of the loan instalment in the monthly net income, borrowers for whom the loan instalment is less than half of the net income declared a higher level of satisfaction with additional products. A very weak negative relationship (τ-c = 0.073) was observed in this respect. This means that as the share of instalments in net income increases, the declared satisfaction of borrowers with the products additional to the loan decreases (albeit to a small extent).

Taking into account the loan currency, significant differences were shown between borrowers with liabilities in Swiss francs and borrowers with loans in Polish zlotys. Borrowers with liabilities in Polish zlotys declared a relatively higher level of satisfaction with additional loan products than borrowers with liabilities in Swiss francs. There was a significant but weak relationship from the point of view of loan currency and satisfaction with additional products of the loan (V = 0.176).

3.3. Satisfaction with bank products in general

In the next step of the study, the declared satisfaction with the bank's products in general among the surveyed borrowers was verified, and the relationship between the declared satisfaction with the bank's products and selected characteristics of the surveyed borrowers was assessed.
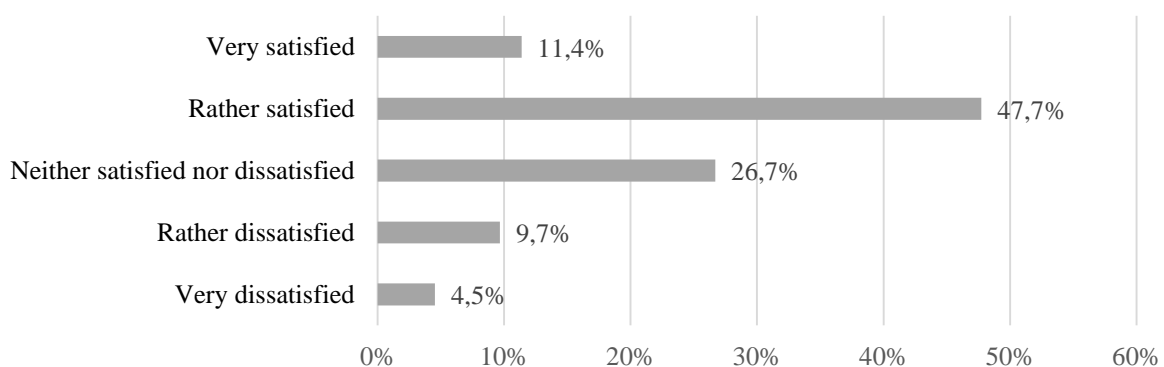

Figure 3. Declared satisfaction with bank products/services overall (%).

Source: own study.

Regarding satisfaction with the bank's products in general (Figure 3), satisfaction was expressed by 59.1% of respondents, with 11.4% selecting the option 'very satisfied /' and 47.7% selecting the option 'rather satisfied /'. Dissatisfaction was expressed by a total of 14.2% of respondents, 9.7% as "rather dissatisfied" and 4.5% selecting the option "very dissatisfied". An intermediate option, i.e., "neither satisfied nor dissatisfied", was declared by 26.7% of respondents.

As for the declared satisfaction with the bank's products in general, significant differences were noted between the respondents in terms of such sociodemographic characteristics as gender, age, and place of residence. In the case of the level of education and the amount of income obtained in net terms, no differences were shown (Table 3).

Table 3.
Results of the analysis of the relationship between the declared satisfaction with the bank's products in general and selected variables

Independent variables	Test value*	Number of degrees of freedom (*df*)	Probability value (*p*)	Rejection of the H_0 hypothesis (decision based on p value)	Cramer's V-coefficient (p) or Kendall's tau-b rank correlation (p)
Gender	**10.686**	**4**	**0.030**	**Yes**	**0.104* (0.030)**
Age	9.412	3	0.024	No	0.017 (0.522)
Place of residence	**17.559**	**4**	**0.002**	**No**	**-0.089** (<0.001)**
Educational level	5.738	3	0.125	No	-0.049 (0.086)
Net income	9.215	16	0.904	No	0.003 (0.919)
Type of bank**	**8867.000**	**-**	**0.002**	**Yes**	**0.111* (0.024)**
Borrowing year	**8.291**	**3**	**0.040**	**Yes**	0.047 (0.085)
Loan period	**14.649**	**6**	**0.023**	**Yes**	**-0.084** (0.002)**
Amount of credit	3.466	3	0.325	No	-0.430 (0.124)
Share of the instalment in net income	**90612.000**	**-**	**<0.001**	**Yes**	**-0.108** (<0.001)**
Currency of the loan	**22.682**	**2**	**<0.001**	**Yes**	**0.161* (<0.001)**

Notes.

*F- Mann-Whitney U test or Kruskal-Wallis H-test (when comparing more than 2 subgroups).
** whether a commercial or cooperative bank.

Source: own study.

On average, men declared a higher level of satisfaction with the bank's products than women. In the case of age, using post hoc tests, differences were observed between 35 to 44-year-old borrowers and those aged over 55. On average, borrowers aged 55 and older assessed the level of their satisfaction with the bank's products relatively higher than borrowers aged between 35 to 44. Taking into account the place of residence, significant differences were observed between borrowers from cities with more than 500,000 inhabitants and borrowers living in cities with 11,000 to 100,000 inhabitants. Generally, people from cities of over 500 thousand inhabitants, rated their level of satisfaction with the bank's products relatively

lower. There is a negative but weak correlation between satisfaction with bank products in general and the size of the borrower's town (τ-c = -0.089), which means that the level of satisfaction is lower the larger the borrower's town (calculated in the number of inhabitants).

Statistically significant differences were observed from the point of view of the credit profile, taking into account the type of bank, the year of taking out the loan, the loan period, the share of instalments in net income and the currency of the loan. Borrowers with liabilities in cooperative banks declared a higher level of satisfaction with the bank's products (average rank 595.24) than borrowers of commercial banks (average rank 453.51). However, a weak correlation was found between satisfaction with the bank's products in general and the type of bank (V = 0.111). From the point of view of the year of taking out a housing loan, using the post hoc test, significant differences were noted between borrowers who took out a loan until 2008 (i.e., before the financial crisis) and borrowers who took out a loan between 2015-2020. Borrowers who took out a loan before 2008, on average, declared a lower level of satisfaction with additional products compared to people who took out a loan in the period of 2015-2020.

Taking into account the loan period, differences were shown between borrowers who took out a liability for a period of up to 35 years and borrowers with the declared loan period of up to 30, 25, 20, 15 and 10 years. Borrowers with liabilities for a period of up to 35 years, compared to the others listed here, on average declared a lower level of satisfaction with the bank's products in general. There was a weak negative relationship between the level of satisfaction with the bank's products and the loan period (τ-c = -0.084). Such a result means that the level of satisfaction with the bank's products is lower, the longer the loan period.

On average, borrowers for whom the loan instalment is less than half of their net income, declared a higher level of satisfaction. In this regard, a weak negative relationship (V = -0.108) was shown, which means that the higher the share of the instalment in net income, the lower the level of satisfaction with bank products.

Taking into account the loan currency, the differences were shown between borrowers with liabilities in Swiss francs and borrowers with loans in Polish zlotys. Borrowers with liabilities in Polish zlotys declared a relatively higher level of satisfaction with the bank's products than borrowers with liabilities in Swiss francs. A significant, although weak, relationship was observed from the point of view of loan currency and satisfaction with bank products (V = 0.166).

4. Summary

In the article, the adopted goal was pursued by presenting the current state of research on the importance of customer satisfaction with bank products and services, as well as performing an empirical analysis of factors affecting bank customers' satisfaction with their home loan,

ancillary products, and total bank products. The analysis shows that the majority of respondents declared satisfaction with their home loan, ancillary products, and the bank's products in general. More than half, that is, 51.5% of the respondents, chose the option indicating satisfaction with the loan. Satisfaction with the loan's accompanying products was expressed by a total of 42.8% of the respondents, while satisfaction with the bank's products in general was indicated by 59.1% of the respondents. Demographic characteristics (gender and age) did not significantly differentiate the declared level of satisfaction with the home loan and accompanying products. However, in the case of declared satisfaction with the bank's products in general, demographic characteristics (gender and age) significantly differentiated the respondents' level of satisfaction. On average, men declared a higher level of satisfaction with the bank's products than women. Higher levels of satisfaction were declared by older borrowers, i.e. over 55 years of age. The parameters of the credit profile, except for the amount of the loan, significantly differentiated satisfaction with the home loan. On the other hand, in the case of satisfaction with ancillary products and the bank's products in general, the amount of the loan and the type of bank proved to be non-significant parameters. The practical importance of the research was emphasized.

Acknowledgement

References

1. Agustiansyah, E.C., Taufik, E.R. (2019). Customer Satisfaction Mediation on the Influence of Service Quality and Company Image on Loyalty (Study on PT. Bank Syariah Mandiri KCP Pandeglang). *Journal of Business and Management Research Tirtayasa*, *3*(1), 1-19.
2. Al Qaisi, F., Alrosan, M. (2020). Measuring Customers Satisfaction of Islamic Banking Sector in Jordan. *Humanities and Social Sciences Letters, 8(3),* 310322. https://doi.org/10.18488/JOURNAL.73.2020.83.310.322
3. Anderson, E.W., Mittal, V. (2000). Strengthening the satisfaction-profit chain. *Journal of Service Research*, *3(2),* 107-120. https://doi.org/10.1177/109467050032002
4. Barbu, C.M., Florea, D.L., Dabija, D.C., Barbu, M.C. (2021). Customer experience in Fintech. *Journal of Theoretical & Applied Electronic Commerce Research, 16*(5), 1415-1433. https://doi.org/10.3390/ jtaer16050080.

5. Chakrabarty, A. (2006). Barking up the wrong tree– factors influencing customer satisfaction in retail banking in the UK. *International Journal of Applied Marketing*, *1(1)*.

6. Chu, P.Y., Lee, G.Y., Chao, Y. (2012). Service quality, customer satisfaction, customer trust, and loyalty in an e-banking context. *Social Behavior and Personality, 40(8),* 1271-1284. https://doi.org/10.2224/SBP.2012.40.8.1271

7. Cohen, D.A., Gan, C., Hwa, A., Chong, E.Y. (2006). *Customer satisfaction: a study of bank customer retention in New Zealand.* Retrieved from: https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=0fb8ded6e30f97604fdbbbbb4ecc6332df869652, 20.11.2024.

8. Czechowska, I.D., Paduszyńska, M., Jędrzejczak, R., Sadowski, A. (2024). Information as a consumer protection instrument on the consumer credit market. *Technological and Economic Development of Economy*, 1-20.

9. Czechowska, I. D., Stawska, J., Witczak, R. (2020). *Bezpieczeństwo i stabilność systemu finansowego. Perspektywa makro-i mikroekonomiczna*. Wydawnictwo Uniwersytetu Łódzkiego.

10. Das, A.C., Mozumder, M.S.A., Hasan, M.A., Bhuiyan, M., Islam, M.R., Hossain, M.N., ... Alam, M.I. (2024). Machine learning approaches for demand forecasting: the impact of customer satisfaction on prediction accuracy. *The American Journal of Engineering and Technology*, *6*(10), pp. 42-53.

11. Dauda, S.Y., Lee, J. (2016). Quality of service and customer satisfaction: a conjoint analysis for the Nigerian bank customers. *International Journal of Bank Marketing, 34(6),* 841-867. https://doi.org/10.1108/IJBM-04-2015-0062/FULL/PDF

12. Edi, A.S., Suherniyatin, S. (2022). Pengaruh kualitas layanan, peningkatan intimacynasabah dan citra merek terhadap loyalitas nasabahmelalui minat menabung pada nasabah bank syariah indonesia kcp wiyung surabaya. Worldview. *Jurnal Ekonomi Bisnis dan Sosial Sains, 1(1),* pp. 63-80.

13. Geebren, A., Jabbar, A., Luo, M. (2021). Examining the role of consumer satisfaction within mobile eco-systems: Evidence from mobile banking services. *Computers in Human Behavior, 114,* 106584. https://doi.org/10.1016/j.chb.2020.106584.

14. Giemza, M., Materna, M. (2015). Selected factors determining the customer satisfaction of bank services. In: S.T. Balon Urszula (Ed.), *The functioning and improvement of management Social aspects* (pp. 57-73). Wydawnictwo Naukowe PTTŻ [Polskie Towarzystwo Technologów Żywności].

15. Haron, R., Abdul Subar, N., Ibrahim, K. (2020). Service quality of Islamic banks: satisfaction, loyalty and the mediating role of trust. *Islamic Economic Studies, 28(1),* 3-23. https://doi.org/10.1108/ies-12-2019-0041

16. Idzik (2016). Consumer centrity w usługach bankowych. In: I.D. Czechowska (Ed.), *Etyka w relacjach instytucji finansowych z gospodarstwami domowymi* (pp. 87-113). University of Lodz. https://doi.org/10.18778/8088-212-6.05

17. Ioanna, P.D. (2002). The Role of Employee Development in Customer Relations: The Case of UK Retail Banks. *Corporate Communication, 7(1),* pp. 62-77.

18. Kaczmarek, M. (2019). Jakość użytkowa serwisów transakcyjnych banków w ocenie klientów z pokolenia X i Y − próba oceny. *Bank i Kredyt, 50(2),* 195-220. https://ideas.repec.org/a/nbp/nbpbik/v50y2019i2p195-220.html

19. Kaur, B., Kiran, S., Grima, S., Rupeika-Apoga, R. (2021). Digital banking in Northern India: The risks on customer satisfaction. *Risks*, *9*(11), 209.

20. Li, F., Lu, H., Hou, M., Cui, K., Darbandi, M. (2021). Customer satisfaction with bank services: The role of cloud services, security, e-learning and service quality. *Technology in Society*, *64*, 101487.

21. MacFarland, T.W., Yates, J.M. (2016). *Kruskal-Wallis H-Test for Oneway Analysis of Variance (ANOVA) by Ranks. Introduction to Nonparametric Statistics for the Biological Sciences Using R,* 177-211. https://doi.org/10.1007/978-3-319-30634-6_6

22. Manrai, L.A., Manrai, A.K. (2007). A field study of customers' switching behaviour for bank services. *Journal of Retailing and Consumer Services, Vol. 14*, pp. 208-15.

23. McCrum-Gardner, E. (2008). Which is the correct statistical test to use? *British Journal of Oral and Maxillofacial Surgery, 46(1),* 38-41. https://doi.org/10.1016/J.BJOMS.2007.09.002

24. McDonald, L.M., Rundle-Thiele, S. (2008). Corporate social responsibility and bank customer satisfaction: a research agenda. *International Journal of Bank Marketing*, *26*(3), pp. 170-182.

25. McKnight, P.E., Najab, J. (2010). Mann-Whitney U Test. *The Corsini Encyclopedia of Psychology, 1-1.* https://doi.org/10.1002/9780470479216.CORPSY0524

26. Mircioiu, C., Atkinson, J. (2017). A Comparison of Parametric and Non-Parametric Methods Applied to a Likert Scale. *Pharmacy, 5(2),* 26. https://doi.org/10.3390/pharmacy5020026

27. Nahm, F.S. (2016). Nonparametric statistical tests for the continuous data: the basic concept and the practical use. *Korean Journal of Anesthesiology, 69(1),* 8-14. https://doi.org/10.4097/KJAE.2016.69.1.8

28. *Online Etymology Dictionary*. Retrieved from: https://www.etymonline.com/word/satisfaction, 24.11.2024.

29. Pakurár, M., Haddad, H., Nagy, J., Popp, J., Oláh, J. (2019). The Service Quality Dimensions that Affect Customer Satisfaction in the Jordanian Banking Sector. *Sustainability, Vol. 11(4),* 1113. https://doi.org/10.3390/SU11041113

30. Parwati, K. (2022). The Influence of Service Quality, Brand Image, Customer Value and Member Motivation on Member Loyalty in the Rantauprapat Multi-Business Cooperative. *Journal of Accounting Management (JUMSI), 2*(2), 283-291.

31. Pettersen-Sobczyk, M. (2015). Lojalność i satysfakcja klientów jako czynniki sukcesu oraz narzędzia budowania przewagi konkurencyjnej przedsiębiorstw bankowych na rynku

finansowym. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Finanse, Rynki Finansowe, Ubezpieczenia, 2(74),* 619-630. https://doi.org/10.18276/FRFU.2015.74/2-54

32. Reddy, N.S., Thanigan, J. (2023). Determinants of purchase intention, satisfaction, and risk reduction: The role of knowledge and information search among mortgage buyers. *Cogent Economics & Finance*, *11*(2), 2266659.

33. Rudawska, E. (2011). Demographic determiners as a factor differentiating customers' loyal behaviour in individual banking market. *Studies & Proceedings Polish Association for Knowledge Management, 52,* 124. https://openurl.ebsco.com/EPDB%3Agcd%3A9%3A20110297/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Agcd%3A90219989&crl=c&link_origin=scholar.google.com

34. Setiawan, T., Rahayu, L.P., Ediyono, S. (2019). Service quality, customer satisfaction, company location and consumer loyalty. *Journal Of Economics, Social & Humanities, 1*(05), pp. 68-74.

35. Skowron, Ł. (2011). Satysfakcja i lojalność klientów jako źródło przewagi konkurencyjnej przedsiębiorstw. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Poznaniu, 170*, 258-268. https://bazekon.uek.krakow.pl/rekord/171193603

36. Skowron, Ł. (2017). Wpływ cech socjodemograficznych na wyniki modelowania ścieżkowego zjawisk satysfakcji i lojalności klientów. *Ekonometria, 58*, 22-36.

37. Starzyńska, D., Kowańska, B. (2022). Funkcjonalność serwisu bankowości mobilnej a relacje z klientami. *Marketing i Rynek, 11,* 31-44. https://doi.org/10.33226/1231-7853.2022.11.4

38. Supriyanto, A., Wiyono, B.B., Burhanuddin, B. (2021). Effects of service quality and customer satisfaction on loyalty of bank customers. *Cogent Business & Management*, *8*(1), 1937847.

39. Waliszewski, K., Barankiewicz, P. (2023). Rynek Indywidualnych Kont Emerytalnych w Polsce w kontekście Implementacji Ogólnoeuropejskiego Indywidualnego Produktu Emerytalnego. *Finanse i Prawo Finansowe, 4(40),* 77-103. https://doi.org/10.18778/2391-6478.4.40.05

40. Wulandari, D. (2022). Customer satisfaction as a priority in excellent banking services. *Performance: Journal of Organizational and Industrial Management*, *1*(1), 27-34.

41. Zikir, C.L.N. (2019). The Effect of Service Quality on Loyalty is Mediated by Customer Satisfaction of PT. *Bank BNI Syariah Banda Aceh. Jihbiz: Global Journal of Islamic Banking and Finance, 1*(2), 94-114.