

Holding accounts in several banks - a conscious or reckless consumer?

Tomasz Szopiński

To cite this article: Tomasz Szopiński (2023) Holding accounts in several banks - a conscious or reckless consumer?, Economic Research-Ekonomiska Istraživanja, 36:2, 2142806, DOI: 10.1080/1331677X.2022.2142806

To link to this article: <https://doi.org/10.1080/1331677X.2022.2142806>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 13 Nov 2022.



Submit your article to this journal [↗](#)



Article views: 208




View related articles [↗](#)



View Crossmark data [↗](#)

Holding accounts in several banks - a conscious or reckless consumer?

Tomasz Szopiński 

Business Department, University of Economics and Human Sciences in Warsaw, Warsaw, Poland

ABSTRACT

Service providers are in a fierce competition for their clients' loyalty, encouraging them to participate in loyalty programs or to install mobile applications. Split loyalty is becoming more popular on the banking services market. This means that customers are loyal to two or three companies or service providers by buying or using their products or services interchangeably. This phenomenon may be further explained by the liberalization of the banking sector, for example through the Payment Services Directive (PSD2). Whilst the unbanked are a commonly analyzed subject, the overbanked have not yet been examined in the literature. The aim of the current article is to answer the following question: is having accounts in multiple banks connected with customer recklessness or consumer awareness? The analysis carried out by the author of this paper shows that people who have accounts in many banks: are aware of the guaranteed amounts of deposits in banks operating in Poland, compare offers in different banks, and are less likely to be victims of phishing. Results show that awareness increases with respondents' age. Age is a variable which directly and indirectly affects the number of accounts held in different banks.

ARTICLE HISTORY

Received 24 March 2021
Accepted 27 October 2022

KEYWORDS

Banking services;
overbanked; multiple bank
account ownership;
split loyalty

JEL CODES

D14; G21

1. Introduction

Many articles focus on factors influencing the use of banking services or the issue of financial exclusion (De la Cuesta-González et al., 2021; Devlin, 2009; Grohmann et al., 2018; Kabakova & Plaksenkov, 2018). While a lot of research has been devoted to unbanked consumers, the problem of overbanked consumers is not well recognized in the literature. The overbanked are people who own accounts in at least three different institutions (Ryan, 2016). Many analyses focus on the problem of multi-banking among companies (Bennouri et al., 2017; Carletti et al., 2007; Ongena & Smith, 2000), but there is a lack of consumer research on this issue. They focus on multi-banking of young consumers: for example young Malaysian residents (Mokhlis et al., 2009) or Singapore Undergraduates (Gerrard & Cunningham, 2001). The current

CONTACT Tomasz Szopiński  t.szopinski@vizja.pl

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

article analyzes the phenomenon of consumer owning multiple accounts in different banks. A question arises, what prompts consumers to have accounts at different banks at the same time? Although the era of free bank accounts has now come to an end, many respondents declared having two or more bank accounts. Currently, banks make the absence of account fees dependent on consumer activity, for instance, minimum payments to the account or specific activity related to the use of a payment card. On the one hand, having multiple accounts may indicate a lack of care for personal finances as unused accounts generate additional costs. On the other hand, it may be a sign of consumer wariness. For example, a conscious consumer keeps their savings in a bank which offers better deposit rates, while they withdraw cash at ATMs provided by another bank without charge, for example. Those customers transfer funds between their accounts on an ongoing basis. Skillfully choosing the offers of different banks, one can benefit from the advantages offered by each bank, while avoiding fees.

The aim of the article is to answer the following question: is having accounts in multiple banks connected with recklessness or consumer awareness? In order to answer this question, the author analyzes the data collected in Poland between 2019 and 2020. At the request of a reviewer, the author further increased the research sample by collecting additional responses in September 2021. The author poses detailed questions, namely: is there a connection between the respondents' basic knowledge about the specifics of the banking services market and the number of accounts they hold in different banks? Does the age of respondents indirectly (by affecting consumer awareness towards banking services) and directly affect the number of bank accounts they hold?

The aforementioned phenomenon of split loyalty will be intensified by the arrival of new paying directives. Secondly, therefore, the competition forces banks to lend money to new clients at interest rates that initially generate expected losses. They do this at the expense of existing clients, whose contracts are less favorable (Sharpe, 1990). Those who are financially literate know this and often prefer to conclude a contract with a new bank in order to, for instance, receive a bonus. Understanding the phenomenon of multiple banking is crucial, as clients' expectations regarding the second bank are often different. Banks must therefore provide other incentives for clients who set up a second bank account (Devlin & Gerrard, 2005).

The next reason for examining consumer awareness in the banking services market is the stability of the financial system. Consumer confidence improves the stability of the financial market, ensures the smooth operation of the financial system, and reduces the possibility of financial risks (Liu et al., 2019). There are a number of articles dealing with the problem of relationship between consumers' literacy and their financial decisions (Lusardi et al., 2010; Lusardi & Mitchell, 2014; Mette et al., 2019; Xiao et al., 2014).

Respondents' awareness towards the functioning of banking services was investigated by asking about the knowledge of certain legal aspects, such as the guaranteed amount of deposits for consumers. Moreover, the questionnaire included questions on economic aspects—whether consumers compared offers of different banks. Finally, it also involved questions about cyber threats in banking—whether consumers

avoided behaviors, which could potentially result in the theft of money and identity by cybercriminals. In order to answer research questions, the author used Partial Least Square Structural Equation Modeling (PLS-SEM) technique using SmartPLS software (Ringle et al., 2015). The remainder of the study is organized as follows. Section 2 contains the literature review and proposed hypotheses. Section 3 describes methods, section 4 contains obtained results. The next sections are devoted to discussion, conclusion, then contribution. Last section describes limitations and presents proposals for future research.

2. Theoretical framework

Consumer awareness in banking services should cover legal, economic, and IT aspects. Besides being aware of their rights and obligations related to the use of banking services or having the economic knowledge to choose the best offers, banking consumers must also be aware of the threats posed by cybercriminals. Consumers need to have an ever-increasing financial (and digital) sophistication to effectively use products offered through electronic channels (Andreou & Anyfantaki, 2020). Moreover, consumers need to continuously improve their skills to use e-banking safely (Reis et al., 2011). Informed consumers are less likely to buy fraudulent products (Gui et al., 2018). Financial literacy is a factor that affects the intensity of financial services use (Grohmann et al., 2018).

Often, banking threats to consumers appear in seemingly unrelated places. Phishing scams are an example of this. Their aim is to extract sensitive data from the victim, such as banking or social media login details. Phishing, however, can also target credit card information. This may involve sending phishing e-mails, designed to look like they came from a legitimate bank or other institutions. The recipient is instructed to click on a link attached to the e-mail, which redirects to a fake site resembling that of a familiar bank. By entering their login credentials, victims are unaware that they are actually providing them to criminals (Arachchilage & Love, 2014; Bhavsar et al., 2018). With increasing public awareness, cybercriminals have begun using increasingly sophisticated and often unsuspecting phishing methods. Consumers still lack alertness in situations that are not directly related to their bank accounts. Examples include the theft of money from a bank account by a person offering goods for sale through a classifieds site. To illustrate, let me describe a common scenario. To pay for the goods, the seller sends the buyer a link to an online payment operator. The buyer clicks on the link received and tries to make the transfer twice. At this point, the buyer activated a program that allowed the criminal to take control of the buyer's device. The buyer receives a message that the transfer could not be completed. The next day, the buyer's account is empty. The bank refuses to accept the complaint, claiming that the buyer received an authentication SMS and confirmed the transaction. The buyer's mistake was clicking on the link provided by the scammer, as they should have found their bank account's website on their own, and pay using a regular transfer. The results regarding the direction of the relationship between age and susceptibility to cyber fraud are not clear. Sarno et al. (2017;

2020) state that young people are less vigilant against cyber threats. In turn, Whitty's (2019) research shows that victims of cyber-frauds were more likely to be older.

Age is an important factor determining the use of banking services (Bunyan et al., 2016; Burhouse et al., 2016; Clamara et al., 2014; Devlin, 2009; Fungáčová & Weill, 2015; Gortsos, 2016; Szopiński, 2019; Tuesta et al., 2015). Among young people, the intensity of usage of banking services is low (Lusardi et al., 2010). According to Lusardi and Mitchell (2011) young and older adults are less financially literate than middle aged adults. Age is a variable that influences the perception of switching barriers in retail banking (Tesfom & Birch, 2011).

Hence, the author puts forward the following research hypothesis concerning the relationship between age and consumer behavior in the banking services market:

H₁ – There exists a relationship between age and the number of accounts owned in different banks.

H₂ – there is a relationship between respondents' age and willingness to compare and browse offers from different banks.

H₃ – there is a relationship between respondents' age and their knowledge of the amount of deposits guaranteed by Bank Guarantee Fund.

H₄ – there is a relationship between respondents' age and susceptibility to phishing

Research indicates that consumer awareness differentiates how consumers behave in financial markets. However, different authors suggest that the direction of these relationships varies. Consumers who were financially capable were less likely to use alternative financial services (Friedline & West, 2016). Financial literacy influences consumers' financial behavior as well as their financial capability (Çera et al., 2021). Research conducted by Babiarczyk and Robb (2014) indicated that households who are more financially knowledgeable or more confident in their financial ability are significantly more likely to report having emergency funds. However, Kawamura et al. (2021) provide counterintuitive results. According to them, people with a high level of financial expertise tend to undertake too much risk. Bajo and Barbi (2018) state that financial literacy and an educational background in economics or finance increase the refinancing propensity of borrowers. The author proposed four hypotheses concerning consumer awareness and the number of accounts held in different banks:

H₅ – There is a relationship between the consumer's willingness to compare and browse offers from different banks and the number of accounts they own in different banks.

H₆ – There is a relationship between knowledge of the amount of deposits guaranteed by the Bank Guarantee Fund and the number of accounts held with different banks.

H₇ – There is a relationship between susceptibility to phishing and the number of accounts owned in different banks.

H₈ – The relationship between consumer age and the number of accounts held in different banks is mediated by (a) the propensity to compare offers in different banks, (b) awareness of the amount guaranteed by the Bank Guarantee Fund, and (c) consumer susceptibility to phishing.

Figure 1 contains a conceptual model showing the relationship between respondents' age and number of accounts held in different banks, along with mediators.

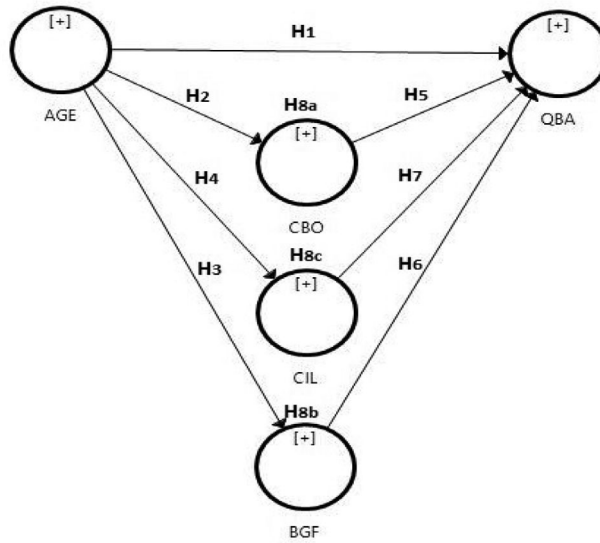


Figure 1. Conceptual model.
Source: Author's own elaboration.

3. Methods

The initial questionnaire was designed to identify people who either use, or do not use, banking services. It was interesting that many people indicated that they owned at least two or three accounts. The study has been conducted among individuals residing in Poland. The data for analysis were collected through an online questionnaire between October 2019 and January 2020. Author collected additional data in September 2021. Both in the first and second round the respondents were randomly recruited via paid advertising on Facebook.com. The advertisement was to encourage people to fill in a questionnaire created on the Google Forms website. The questionnaire was prepared in Polish and addressed to Poles or people living in Poland and speaking Polish. 850 questionnaires were completed. Men constitute 46.5% of the respondents and women 54.5%. 5.3% of the respondents were between 15 and 18 years old. People between 19 and 24 years old constitute 32.7% of the respondents, while 11.5% are between 25 and 29 years old. People between 30 and 39 years old constitute 17.9% of the respondents. The next group comprises people between 40 and 49 years old (15.2% of the respondents). People who are 50–59 constitute 9.5%, and those 60 years old and older constitute 7.9% of the respondents. The analysis excluded the answers of those who declared that they did not use banking services. 47.7% of the respondents had one bank account, 32.5% had two accounts in different banks, while 19.0% declared having accounts in more than two banks. For the purpose of the analyses, the age variable is denoted by 'AGE'.

In the question about deposit guarantees by the Bank Guarantee Fund, the questionnaire contains several erroneous options aimed at minimizing the probability of a correct answer by persons who do not know the terms and conditions of deposit guarantees, namely: (a) a full refund (regardless of the amount deposited); (b) no refund; (c) a payout of guaranteed funds not exceeding the limit of the equivalent of

Table 1. Direct relations (Hypotheses H1–H7).

	β	t	p
H1: AGE \rightarrow QBA	0.301	7.553	0.000
H2: AGE \rightarrow CBO	0.096	2.493	0.013
H3: AGE \rightarrow BGF	0.369	10.030	0.000
H4: AGE \rightarrow CIL	-0.148	3.785	0.000
H5: CBO \rightarrow QBA	0.138	3.767	0.000
H6: BGF \rightarrow QBA	0.185	4.677	0.000
H7: CIL \rightarrow QBA	-0.086	2.292	0.022

Source: Own research 2019–2021.

€100,000 in PLN; (d) a refund of deposited funds up to the average national salary; (e) I do not know. Prior to conducting statistical analyses, the respondents' answers concerning the guaranteed amount were divided into two groups. The first group included all people who correctly indicated the guaranteed amount. The second group included all people who declared that they did not know the guaranteed amount and those who selected an incorrect answer. For the purpose of the analyses, the variable is denoted by 'BGF'. The question concerning the tendency of the respondent to compare and browse offers of different banks before choosing a banking product included three answers: (a) yes; (b) no; (c) I do not know. For the purpose of the analyses, this variable is denoted by 'CBO'. Respondents who were unable to unequivocally answer the above questions and chose (c) were excluded from the analysis. Consumer cyber threat awareness question was aimed at finding out if the respondents ever clicked on a link received from a seller that was supposed to redirect them to a payment service. It also contained three response options: (a) yes; (b) no; (c) I do not know. For the purpose of the analyses, the variable is denoted by 'CIL'. Just like for 'BGF' and 'CBO' variables, Respondents who were unable to unequivocally answer the above questions and chose (c) were excluded from the analysis. In turn, the variable number of bank accounts held is denoted by 'QBA'. To verify the hypotheses, the author used Partial Least Square Structural Equation Modeling (PLS-SEM) technique using SmartPLS software (Ringle et al., 2015). All proposed hypothesis were tested by running a bootstrapping procedure. Before starting it, author chose two tailed tests.

4. Results

Table 1 shows the verified hypotheses on the direct relationships between the analyzed variables. All hypotheses in Table 1 were accepted. The propensity to hold accounts in different banks simultaneously increases with age: AGE \rightarrow QBA ($\beta = 0.301$, $t = 7.553$, $p < 0.0001$). For the purpose of the analysis, variables such as familiarity with the amount guaranteed by the Bank Guarantee Fund, comparing offers of different banks and clicking on links sent by sellers were converted into binary variables (excluding those who chose the *I do not know* response from the analysis). Responses from those who correctly indicated the guaranteed amount, as well as those who declared comparing offers of different banks and clicking on payment links sent by sellers online were coded as 1, while responses from those who did not indicate the amount guaranteed by the BGF, did not compare offers of different

Table 2. Mediation analysis (Hypotheses H8).

	β	t	p
H8a: AGE -> CBO -> QBA	0.013	2.029	0.043
H8b: AGE -> BGF -> QBA	0.068	4.295	0.000
H8c: AGE -> CIL -> QBA	0.013	1.944	0.052

Source: Own research 2019–2021.

banks, and did not click on links sent by sellers were coded as 0. The results shown in Table 1 demonstrate that with age, familiarity with the amount guaranteed by the BGF increases, willingness to compare offers at different banks increases, and willingness to click on links that may expose respondents to phishing scams decreases. Of the verifiable relationships H2, H3, and H4, the relationship between age and familiarity with the amount guaranteed by the Bank Guarantee Fund was the strongest: AGE→BFG ($\beta = 0.369$, $t = 10.030$, $p < 0.0001$). Analyzing the subsequent direct correlations shown in Table 1, one can see that familiarity with the amount guaranteed by the Bank Guarantee Fund has a positive effect on the number of accounts held at different banks. The same holds true for the relationship between the propensity to compare different offers and account ownership at different banks. Respondents' susceptibility to phishing associated with clicking on payment links provided by sellers negatively affects the number of accounts held indifferent banks.

The analysis of mediation was then conducted. Its results are included in Table 2. Hypotheses 8a and 8b were confirmed, while hypothesis 8c was rejected. The results show that the mediating roles of BGF ($\beta = 0.68$, $t = 4.295$, $p < 0.0001$), CBO ($\beta = 0.013$, $t = 2.029$, $p < 0.05$) are significant, while the mediating role of CIL ($\beta = 0.013$, $t = 1.944$, $p > 0.05$) is insignificant.

The fit of the model was calculated using the value of the standardized root mean square residual (SRMR). The SRMR is the square root of the sum of the squared differences between the model-implied and the empirical correlation matrix, i.e. the Euclidean distance between the two matrices. A value of 0 for SRMR would indicate a perfect fit and values below 0.08 are considered acceptable (Henseler et al., 2016). The proposed model has a value of 0.021.

5. Discussion and conclusion

The analysis demonstrated that consumers holding accounts in different banks tend to compare offers of different banks. They are also familiar with the amount to which deposits are guaranteed by the Bank Guarantee Fund. Results are consistent with the results of Brunetti et al. (2016). Households which use the services of more than one bank are more likely to switch banks. Age also plays a role in multiple bank account ownership. The relationships between age and financial literacy found by me are consistent with the findings of Lusardi et al. (2010). Relationship concerning the literacy and loyalty is consistent with research made by Mavri and Ioannou (2008). The relationship I found concerning the impact of age on loyalty stands opposite to other researchers (Colgate & Lang, 2001; Salinas & Schinzano, 2014; Tesfom & Birch, 2011) who stated that those customers who have seriously considered moving banks tended to be younger than those who had not seriously considered moving. The results

contradict the claims of Iqbal et al. (2021) that product awareness has a positive effect on customer loyalty. Regarding the relationship between tendency of the respondent to compare and browse offers of different banks and their disloyalty, results are consistent with the research conducted by Colgate and Lang (2001). The results confirm Sarnòs et al. (2019) results, that young people are more prone to phishing and are contrary to Whitty's (2019) and Lin's et al. (2019) results showing that elder people are more prone to cyber fraud.

To answer the titular question, the analyzed relationships serve as evidence of the high awareness of consumers who hold accounts in multiple banks. Conscious consumers are more likely to have several accounts in different banks. These results indirectly confirm the results published by Grohmann et al. (2018). Financial literacy favours the more intensive use of financial services. My results confirm results published by Devlin (2009), who argued that young people are most vulnerable to financial exclusion or the results published by Tuesta et al. (2015), who argued that with age, the inclination to use a bank account or payment cards increases. The results contradict the claims of Iqbal et al. (2021) that product awareness has a positive effect on customer loyalty.

Awareness can affect the propensity to be an opportunity hunter. Having accounts in different banks often allows one to use promotional deposits in different banks. After the deposit expires, the account can be closed, and the consumer does not incur high entry and exit costs. Guides with MS Excel spreadsheets, which include promotional bank account or deposit offers, are available on facebook.com. They facilitate the systematic management of data such as the minimum period of use necessary for the account to receive the bonus; the maximum period of the promotional interest rate; and the deadline for closing the account in order to avoid costs after the promotional period.

Awareness may influence consumers to seek and compare mortgages in different banks. This is a product that can largely determine multi-banking. Mortgage loans often tie customers to their banks. A person applying for a mortgage loan is often persuaded by a bank employee to open a bank account. When offering a bank account, bank employees make credit terms and conditions dependent on the use of complementary bank products. Sometimes, a consumer applies for a mortgage loan in several banks. Applying for a loan in a bank they already have a bank account with is only the beginning. Having several offers to choose from, customers can select the bank which offers better conditions or the one that will consider the credit application positively. When deciding to take out a mortgage, one often decides to establish a bank account in exchange for a lower interest rate. However, customers do not want to close their existing current accounts because they are often used to their current bank. Customers want to take advantage of other factors, such as the physical proximity of the bank, or the proximity of a free-of-charge ATM which allows withdrawing money using the other current account.

6. Contribution

This study allowed for a better understanding of a rarely described phenomenon concerning the factors influencing the partial loyalty of banks' customers. These results

emphasize the key role of customer awareness in the economic, legal, and IT dimensions in shaping their loyalty. The analyzed problem will become increasingly important for several reasons. Firstly, suppliers in various industries target their competition's clients using slogans, such as: 'Switching is easy' (Pick, 2014). This situation can particularly threaten a bank's financial results. Nowadays, loyalty in the area of financial services cannot be treated as binary. My research is one of the few studies analyzing split loyalty in banking. Devlin and Gerrard (2005) research attempted to answer the question of what multi-banking consumers look for when choosing their first bank and their next bank. In contrast, my research answers questions about the behaviors exhibited by consumers who use multiple banks and how age affects this directly and indirectly. As Gerrard and Cunningham (1999) stated, multiple banking has certain pros and cons for both banks and customers. Consequently, acquiring a partially loyal consumer may be advantageous for some banks. With the research findings, decision makers at banks can better target consumers. For example, by targeting age or consumer awareness, they can more easily get a consumer for their secondary bank. This knowledge allows them to more easily define the audience for advertising on popular social networking sites (e.g. based on consumer age, activity in specific groups/forums bringing together well informed and information-seeking consumers). In the era of the development of information and communication technologies, banks, by means of behavioral targeting, can easily reach groups of clients through services like Facebook (De Cnudde et al., 2019). At the same time, thanks to the results of these studies, banks where the customer has a main account can try to offer additional beneficial services to customers prone to partial loyalty in order to maintain their total loyalty.

All this provides practical information for individuals deciding about the product strategy in banks whose major concern is to tie clients to the bank through them purchasing different products. When choosing different products from different banks, customers can opt for the most favorable one from their point of view, which is not necessarily profitable for the bank. Banking services are considered complex (Michel, 2004). It thus requires banks to skillfully segment their customers, regarding not only their age or income, but their financial literacy or involvement in searching for financial products.

7. Limitations and further research

The study has several limitations. First, author conducted cross-sectional analysis. Future studies may focus on longitudinal data that could help verify the dynamic change of loyalty, willingness to compare and browse offer from different banks, knowledge of amount of deposit guaranteed by the Bank Guarantee Fund, and susceptibility to phishing. Second, the present study focused only on one country. In order to know the impact of age on customer split loyalty in more depth, other countries could be taken in consideration in future research. Third, future studies could also verify the mediating role of other variables on the linkage between age and consumer awareness. Additionally, although consumer susceptibility to phishing was affected by age and loyalty was affected by consumer susceptibility to phishing, consumer

susceptibility to phishing was found to be an insignificant mediator in my conceptual model. Therefore, future research shall explore deeper its role in linkage between age and consumer awareness. Fourth, the present study did not assess the role of any moderating variables. Future studies could assess the moderating role of family situation (e.g. parents' approach to money or to financial education, employing a respondent or a family member in banking), situation on the market, or country of origin. Fifth, future research should include questions about the motives for closing or not closing inactive accounts.

Ethics declaration

For non-interventional studies (surveys), ethical approval is not required because of national laws.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Tomasz Szopiński  <http://orcid.org/0000-0002-9314-1886>

References

- Andreou, P. C., & Anyfantaki, S. (2020). Financial literacy and its influence on internet banking behavior. *European Management Journal*, 39, 658–674. <https://doi.org/10.1016/j.emj.2020.12.001>
- Arachchilage, N. A. G., & Love, S. (2014). Security awareness of computer users: A phishing threat avoidance perspective. *Computers in Human Behavior*, 38, 304–312. <https://doi.org/10.1016/j.chb.2014.05.046>
- Babiarz, P., & Robb, C. A. (2014). Financial literacy and emergency saving. *Journal of Family and Economic Issues*, 35(1), 40–50. <https://doi.org/10.1007/s10834-013-9369-9>
- Bajo, E., & Barbi, M. (2018). Financial illiteracy and mortgage refinancing decisions. *Journal of Banking & Finance*, 94, 279–296. <https://doi.org/10.1016/j.jbankfin.2018.08.001>
- Bennouri, M., Falconieri, S., & Kooli, M. (2017). Single versus multiple banking: Lessons from initial public offerings. *The European Journal of Finance*, 23(10), 841–858. <https://doi.org/10.1080/1351847X.2015.1053149>
- Bhavsar, V., Kadlak, A., & Sharma, S. (2018). Study on Phishing Attacks. *International Journal of Computer Applications*, 182(33), 27–29. <https://doi.org/10.5120/ijca2018918286>
- Brunetti, M., Ciciretti, R., & Djordjevic, L. (2016). The determinants of household's bank switching. *Journal of Financial Stability*, 26, 175–189. <https://doi.org/10.1016/j.jfs.2016.08.004>
- Bunyan, S., Collins, A., & Gianpiero, T. (2016). Analysing household and intra-urban variants in the consumption of financial services: Uncovering “exclusion” in an English city. *Journal of Consumer Policy*, 39(2), 199–221. <https://doi.org/10.1007/s10603-016-9319-7>
- Burhouse, S., Chu, K., Ernst, K., Goodstein, R., Lloro, A., Lyons, G., Northwood, J., Osaki, Y., Rhine, S., Sharma, D., & Weinstein, J. (2016, October 20). *FDIC national survey of unbanked and underbanked households. Federal deposit insurance corporation. division of depositor and consumer protection.* <https://www.fdic.gov/householdsurvey/2015/2015report.pdf>

- Carletti, E., Cerasi, V., & Daltung, S. (2007). Multiple-bank lending: Diversification and free-riding in monitoring. *Journal of Financial Intermediation*, 16(3), 425–451. <https://doi.org/10.1016/j.jfi.2007.03.001>
- Çera, G., Khan, K. A., Mlouk, A., & Brabenec, T. (2021). Improving financial capability: The mediating role of financial behaviour. *Economic Research-Ekonomska Istraživanja*, 34(1), 1265–1282. <https://doi.org/10.1080/1331677X.2020.1820362>
- Clamara, N., Peña, X., & Tuesta, D. (2014). Factors that matter for financial inclusion: Evidence from Peru (Working Paper 14/09). BBVA Research. http://socialprotectionet.org/sites/default/files/factors_that.pdf
- Colgate, M., & Lang, B. (2001). Switching barriers in consumer markets: An investigation of the financial services industry. *Journal of Consumer Marketing*, 18(4), 332–347. <https://doi.org/10.1108/07363760110393001>
- De Cnudde, S., Moeyersoms, J., Stankova, M., Tobback, E., Javalý, V., & Martens, D. (2019). What Does your Facebook profile reveal about your creditworthiness? Using alternative data for microfinance. *Journal of the Operational Research Society*, 70(3), 353–363. <https://doi.org/10.1080/01605682.2018.1434402>
- De la Cuesta-González, M., Paredes-Gazquez, J., Ruza, C., & Fernández-Olit, B. (2021). The relationship between vulnerable financial consumers and banking institutions. A qualitative study in Spain. *Geoforum*, 119, 163–176. <https://doi.org/10.1016/j.geoforum.2021.01.006>
- Devlin, J. F. (2009). An analysis of influences on total financial exclusion. *The Service Industries Journal*, 29(8), 1021–1036. <https://doi.org/10.1080/02642060902764160>
- Devlin, J., & Gerrard, P. (2005). A study of customer choice criteria for multiple bank users. *Journal of Retailing and Consumer Services*, 12(4), 297–306. <https://doi.org/10.1016/j.jretconser.2004.10.004>
- Friedline, T., & West, S. (2016). Financial education is not enough: Millennials may need financial capability to demonstrate healthier financial behaviors. *Journal of Family and Economic Issues*, 37(4), 649–671. <https://doi.org/10.1007/s10834-015-9475-y>
- Fungáčová, Z., & Weill, L. (2015). Understanding financial inclusion in China. *China Economic Review*, 34, 196–206. <https://doi.org/10.1016/j.chieco.2014.12.004>
- Gerrard, P., & Cunningham, J. B. (1999). The multiple banking behaviour of Singaporeans. *International Journal of Bank Marketing*, 17(1), 26–35. <https://doi.org/10.1108/02652329910254028>
- Gerrard, P., & Cunningham, J. B. (2001). Singapore undergraduates: How they choose which bank to patronise. *International Journal of Bank Marketing*, 19(3), 104–114. <https://doi.org/10.1108/02652320110388531>
- Gortsos, C. V. (2016, January). Financial Inclusion: An overview of its various dimensions and the initiatives to enhance its current level (Working Paper No. 15). European Center for Economic and Financial Law. <http://www.ecefil.eu/UplFiles/WPS/wps2016-15.pdf>
- Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross country evidence. *World Development*, 111, 84–96. <https://doi.org/10.1016/j.worlddev.2018.06.020>
- Gui, Z., Huang, Y., & Zhao, X. (2018). Whom to educate? Financial fraud and investor awareness (Working Paper No. 2018-52). HKUST Institute for Emerging Market Studies. https://econ.hkbu.edu.hk/eng/Doc/20180206_HUANG.pdf
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems*, 116(1), 2–20. – <https://doi.org/10.1108/IMDS-09-2015-0382>
- Iqbal, K., Munawar, H. S., Inam, H., & Qayyum, S. (2021). Promoting customer loyalty and satisfaction in financial institutions through technology integration: The roles of service quality, awareness, and perceptions. *Sustainability*, 13(23), 12951. <https://doi.org/10.3390/su132312951>
- Kabakova, O., & Plaksenkov, E. (2018). Analysis of factors affecting financial inclusion: Ecosystem view. *Journal of Business Research*, 89, 198–205. <https://doi.org/10.1016/j.jbusres.2018.01.066>

- Kawamura, T., Mori, T., Motonishi, T., & Ogawa, K. (2021). Is financial literacy dangerous? Financial literacy, behavioral factors, and financial choices of households. *Journal of the Japanese and International Economies*, 60, 101131. <https://doi.org/10.1016/j.jjie.2021.101131>
- Liu, S. Q., Qi, X. Z., Qin, M., & Su, C. W. (2019). Financial stability or instability? Impact from Chinese consumer confidence. *Romanian Journal of Economic Forecasting*, 22(4), 25–49.
- Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: An overview. *Journal of Pension Economics & Finance*, 10(4), 497–508. <https://doi.org/10.1017/S1474747211000448>
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs*, 44(2), 358–380. <https://doi.org/10.1111/j.1745-6606.2010.01173.x>
- Mavri, M., & Ioannou, G. (2008). Customer switching behaviour in Greek banking services using survival analysis. *Managerial Finance*, 34(3), 186–197. <https://doi.org/10.1108/03074350810848063>
- Mette, F. M. B., de Matos, C. A., Rohden, S. F., & Ponchio, M. C. (2019). Explanatory mechanisms of the decision to buy on credit: The role of materialism, impulsivity and financial knowledge. *Journal of Behavioral and Experimental Finance*, 21, 15–21. <https://doi.org/10.1016/j.jbef.2018.10.002>
- Michel, S. (2004). Consequences of perceived acceptability of a bank's service failures. *Journal of Financial Services Marketing*, 8(4), 367–377. <https://doi.org/10.1057/palgrave.fsm.4770133>
- Mokhlis, S., Salleh, H. S., & Mat, N. H. N. (2009). Commercial bank selection: Comparison between single and multiple bank users in Malaysia. *International Journal of Economics and Finance*, 1(2), 263–273. <https://doi.org/10.5539/ijef.v1n2p263>
- Ongena, S., & Smith, D. C. (2000). What determines the number of bank relationships? Cross-country evidence. *Journal of Financial Intermediation*, 9(1), 26–56. <https://doi.org/10.1006/jfin.1999.0273>
- Pick, D. (2014). “Switching is easy”—Service firm communications to encourage customer switching. *Journal of Retailing and Consumer Services*, 21(4), 502–509. <https://doi.org/10.1016/j.jretconser.2014.03.007>
- Reis, Z. A., Gülseçen, S., & Bayrakdar, B. (2011). To develop an education system for secure internet banking: GIBES. *Procedia Computer Science*, 3, 1333–1340. <https://doi.org/10.1016/j.procs.2011.01.012>
- Ringle, C. M., Wende, S., & Becker, J. M. (2015). *SmartPLS 3*. SmartPLS GmbH. <http://www.smartpls.com>
- Ryan, P. (2016, August 16). *The rise of the overbanked [INFOGRAPHIC]*. <https://bankinnovation.net/allposts/biz-lines/retail/the-rise-of-the-overbanked-pdf/>
- Salinas, U., & Schinzano, A. (2014). The factors of the bank customer (dis)loyalty in portfolio choices. *Procedia Economics and Finance*, 17, 192–201. [https://doi.org/10.1016/S2212-5671\(14\)00894-6](https://doi.org/10.1016/S2212-5671(14)00894-6)
- Sarno, D. M., Lewis, J. E., Bohil, C. J., & Neider, M. B. (2020). Which phish is on the hook? Phishing vulnerability for older versus younger adults. *Human Factors. The Journal of the Human Factors and Ergonomics Society*, 62(5), 704–717. <https://doi.org/10.1177/0018720819855570>
- Sarno, D. M., Lewis, J. E., Bohil, C. J., Shoss, M. K., & Neider, M. B. (2017). Who are phishers luring? A demographic analysis of those susceptible to fake emails. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 61(1), 1735–1739. <https://doi.org/10.1177/1541931213601915>
- Sharpe, S. A. (1990). Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships. *The Journal of Finance*, 45(4), 1069–1087. <https://doi.org/10.1111/j.1540-6261.1990.tb02427.x>

- Szopiński, T. (2019). Who is unbanked? Evidence from Poland. *Contemporary Economics*, 13(4), 417–426. <https://doi.org/10.5709/ce.1897-9254.323>
- Tesfom, G., & Birch, N. J. (2011). Do switching barriers in the retail banking industry influence bank customers in different age groups differently? *Journal of Services Marketing*, 25(5), 371–380. <https://doi.org/10.1108/08876041111149720>
- Tuesta, D., Sorensen, G., Haring, A., & Cámara, N. (2015). Financial inclusion and its determinants: The case of Argentina (Working Paper No. 15/03). BBVA Research. https://www.bbvar-research.com/wp-content/uploads/2015/01/WP_15-03_Financial-Inclusion-in-Argentina.pdf
- Whitty, M. T. (2019). Predicting susceptibility to cyber-fraud victimhood. *Journal of Financial Crime*, 26(1), 277–292. <https://doi.org/10.1108/JFC-10-2017-0095>
- Xiao, J. J., Ahn, S. Y., Serido, J., & Shim, S. (2014). Earlier financial literacy and later financial behaviour of college students. *International Journal of Consumer Studies*, 38(6), 593–601. <https://doi.org/10.1111/ijcs.12122>