International Business Research; Vol. 16, No. 12; 2023
ISSN 1913-9004 E-ISSN 1913-9012
Published by Canadian Center of Science and Education

The Impact of Migration on Financial Inclusion in Bosnia and Herzegovina

Jasmina Džafić[1], & Lamija Gazić[1]

[1] Faculty of Economics, University of Zenica, Zenica, Bosnia & Herzegovina

Correspondence: Jasmina Džafić, Faculty of Economics, University of Zenica, Zenica, Bosnia & Herzegovina. E-mail: jasmina.dzafic@unze.ba

Received: November 6, 2023 Accepted: November 30, 2023 Online Published: November 30, 2023

doi:10.5539/ibr.v16n12p74 URL: https://doi.org/10.5539/ibr.v16n12p74

Abstract

Examining the impact of migration on financial inclusion in Bosnia and Herzegovina, the focus of this research is on the level of financial inclusion of immigrants, emigrants and residents without a migration background. Through a combination of quantitative and qualitative analyses, access to financial services among these groups is investigated, and possible obstacles they face are identified. The current active financial inclusion policies did not treat the migration phenomenon, and in this regard, they were not channeled towards more vulnerable categories, which is of great importance for its improvement. The innovativeness of the explained topic is precisely reflected in the development of awareness of the impact of migration on the level of financial inclusion with the aim of more efficient positive results in the end. The research analyzes the link between migration status and the level of financial inclusion, taking into account demographic characteristics such as gender, age, education, work status and income. The research was conducted on the basis of primary data collection, using the method of written (online) examination. An online survey was used as a data collection form, which was created based on the OECD/INFE (2011, 2015, 2018) standardized questionnaire. The data was collected from a sample of 616 respondents in the first quarter of 2023. The results indicate an unequal level of financial inclusion among different migration groups. Immigrants achieved the highest level of financial inclusion, and emigrants achieved the lowest. Regression models showed statistically significant relationships between migration status and financial inclusion, indicating the complexity of this relationship. Furthermore, socioeconomic characteristics such as education, work status and income have a positive influence on the level of financial inclusion, while gender and age are not significant factors. It is concluded that there is a need to improve financial inclusion in Bosnia and Herzegovina, with a focus on education, facilitating access to financial services and supporting the integration of migrants into the economic framework of the country. This paper provides the foundations for further research on the impact of migration on financial inclusion, emphasizing the complexity of the connections between these two phenomena.

Keywords: Financial Inclusion, Financial Literacy, Financial Infrastructure, Migration

JEL classification: G53, O16, J11

1. Introduction

In modern society, migration movements are becoming a ubiquitous phenomenon that shapes the socioeconomic aspects of many countries, including Bosnia and Herzegovina. These dynamic processes have a profound and complex impact on various aspects of society, including financial inclusion. Financial inclusion, as a concept that aims to ensure access to basic financial services for all citizens, becomes fundamentally important in the context of changing migration patterns. As Smith and Wesselbaum (2022) emphasize, research does not sufficiently address the role of financial inclusion in migration decisions. Therefore, this paper aims to investigate the significance of the influence of migration movements on financial inclusion in Bosnia and Herzegovina. The scientific contribution of this paper implies the recognition of a new dimension that includes consideration of the impact of rapid migration trends on the overall state of financial inclusion of residents of a country. However, there are numerous challenges that are based on the research of this topic. Considering that it represents one of the pioneers in scientific testing, setting up the model itself requires additional checks. The only way to measure the level of financial inclusion of residents, as well as their migration attitudes and preferences, is a turning point in the generation of valid data. Therefore, this paper aims to investigate the significance of the influence of migration movements on financial inclusion in Bosnia and Herzegovina. Through detailed research, the article will focus on achieving three operational objectives.

The analysis will include the level of financial inclusion of immigrants, emigrants and residents without a migration background in Bosnia and Herzegovina in order to understand the differences in access to financial services among these groups through quantitative and qualitative analyses and to identify possible obstacles they face. Taking into account various demographic characteristics, the connection between immigrants and emigrants within the population of Bosnia and Herzegovina and the level of financial inclusion will be examined. This analysis will contribute to the understanding of how migration status can affect access to and use of financial services. The research will analyze the relationship between gender, age, education, work status, and income structure of the population of Bosnia and Herzegovina and its financial inclusion. This approach enables a deeper understanding of the factors that can additionally shape the level of financial inclusion within different demographic groups. The research results can have significant implications for policies and practices aimed at improving the financial inclusion of different population structures, and provide a basis for further research in the fields of economics, sociology and social sciences.

2. Theoretical Framework and Literature Review

The importance of financial literacy is reflected in understanding financial products and making adequate decisions in order to reduce losses and the risk of poverty (Vehovec et al., 2015). However, research shows that billions of people are not ready for rapid changes in the financial environment (Klapper, Lusardi, & Oudheusden, 2014). Financial services, such as transactions and savings, are crucial for development, but many are unprepared for complex products, which creates the potential for abuse (OECD, 2005).

Financial inclusion represents the use of formal financial services and has become the subject of increasing interest among researchers, policymakers and other stakeholders in the financial sector (Franklin et al., 2016). Governments are committed to increasing financial inclusion to ensure access to bank accounts and services (Findex, 2021). Financial inclusion is becoming the focus of researchers and politicians (Franklin et al., 2016). Policy should aim to identify and reduce frictions holding back financial inclusion, rather than targeting specific levels of inclusion (Barajas et al., 2020). Bank accounts have benefits such as higher savings and lower risks (Aportela, 1999; Ashraf et al., 2010; Ifediora et al., 2022). Digital payments facilitate everyday transactions and prevent the shadow economy (Klapper and Singer, 2014). Increased financial inclusion can benefit women and vulnerable groups (Findex, 2014). Strengthening digital connectivity, building financial capabilities, investing in financial infrastructure, and introducing regulations that enable the development of a healthy financial system will not only help address the digital divide between men and women, but also build financial resilience to mitigate future economic crises (Hess et al., 2021). Various countries are trying to increase the level of financial inclusion through the imposition of financial products and services, which would make the less financially literate population face potential problems. Thus, the German government tries to integrate immigrants who show a low level of financial literacy and thus increase their level of financial literacy. However, lack of financial literacy can lead to high debts and losses (Kalpper, Lusardi and Oudheusden, 2014). There are similar challenges in developed and underdeveloped countries, especially for vulnerable groups (GPFI, 2010). On the other hand, financial literacy spreads through social ties and can contribute to financial inclusion (Goenadi et al., 2022). However, increasing financial literacy does not necessarily mean greater financial inclusion (Klapper et al., 2014). Overall, financial inclusion is crucial for economic development, but the lack of literacy and access to services can make it difficult to achieve these goals (Barbić and Lučić, 2018).

One of the key influences of migration movements on financial inclusion in Bosnia and Herzegovina is the flow of financial resources from emigrants to their families in their country of origin. These monetary transfers, known as remittances, often account for a significant share of domestic gross domestic product. Such financial resources play a key role in improving the living standards of recipients, strengthening their economic stability, and providing opportunities for greater financial inclusion, such as opening bank accounts and participating in various financial services. Remittances are often an entry point for migrants to access and use additional financial services and productsv (Reidiess and Boukhali, 2022). On the other hand, migration can lead to challenges related to financial inclusion. Emigration can cause a "brain drain", where highly educated individuals leave the country to find better professional opportunities abroad (Halilović, 2020). This can lead to a lack of qualified labor in key sectors, which potentially affects economic growth and development as well as the financial infrastructure itself (Delalić, 2019). Migrants also face challenges in accessing financial services in the countries where they settle. Limited access to bank accounts, loans and other financial products can put them in a disadvantageous position and make it difficult for them to integrate into the financial system of the new country. These challenges often affect their ability to save, invest and plan for their financial future. In this regard, it is necessary to investigate the extent to which migration affects the level of financial inclusion in Bosnia and Herzegovina and to determine which subjects government strategies should be applied to in order to improve overall economic well-being.

3. Research Hypotheses and Methodology

Taking into account the above, the basic goal is to investigate whether migration flows shape the financial inclusion of the population and how different migration groups differ in terms of financial inclusion. Therefore, the research hypothesis implies that low level of financial inclusion is characteristic of a population that has no affinity for migration. Auxiliary hypotheses use socio-economic factors, such as gender, age, level of education, work status and monthly amount of income, to determine that increasing them increases the level of financial inclusion

The research was conducted on the basis of primary data collection, using the standardized form of the OECD/INFE questionnaire (2011, 2015, 2018), which was established in 2009 by the International Network for Financial Education (INFE). Considering the high costs of interviewing or conducting telephone surveys, as recommended in the manuals, and taking into account the complexity and time constraints of the research, it was decided to conduct the survey using a written (online) survey method. The research instrument used is *LimeSurvey*, a software program that enables the automation of valid answers. The research was conducted in the first quarter of 2023, when the questionnaire became available to the public. It was launched in January and closed at the end of March. Its goal includes examining the statistical significance and determining the impact of migration flows on the degree of financial inclusion of the population of Bosnia and Herzegovina.

By differentiating the population into categories according to the direction of migration, it is necessary to examine which migration group of citizens records the highest level of financial inclusion within the entire society of the country. In this regard, it is necessary to determine their migration aspirations as well as their background in order to classify the population into categories. In this way, it is possible to establish a cause-and-effect relationship between the variables in question. Therefore, the questionnaire is based on six questions about the migration profile of the respondents. The final result implies the formation of three categories related to immigrants - persons who have moved to Bosnia and Herzegovina from abroad; emigrants - persons of Bosnian origin who seek to leave their homeland in the next three years; and citizens who do not intend to move abroad in the long term. Through questions about the origin of the participant's parents and his native language, it is possible to single out the category of immigrants, given that the literature explains that an immigrant is a member of the population of a country whose native language is not the official language of the observed territory in which he lives, i.e., whose parents are not originally from a given country (Gjestvang, 2020).

Socio-economic characteristics are also of great importance, with the help of which a more representative sample can be determined according to OECD/INFE (2016), and also form a profile of the respondent in correlation with his level of financial literacy and migration trends. Following the recommendations of Rea and Parker (2005), the questionnaire was opened with five basic questions about the participant that follow a logical development and are connected by segments.

Financial inclusion is examined through knowledge, possession and use of various financial products and services. This opens up the possibility of a maximum of four points, where each use of products and services brings one point, which can later be used to explain some phenomena and changes with the level of financial literacy. The migration profile reveals only the trend and direction of population movement, and therefore it is not possible to quantify this change. Likewise, the socio-economic aspect of the respondent is a descriptive variable that is measured by an ordinal scale that provides information about the order of the categories but does not indicate the size of the differences between these categories.

The sample consists of 616 respondents, with a rate of returned answers (valid surveys) of 62% meeting the OECD criteria. The confidence interval records 99% and the margin of error is 5.2% according to the QuestionPro (2023) sample calculator and in accordance with data World Bank (2022). Each group of respondents, according to the migration profile, contains a minimum of 30 participants, which is considered sufficient in the context of social empirical research to produce significant statistics (Sharma, 2020).

By summarizing and recalculating the collected data, the trend of migration in the sample in Bosnia and Herzegovina was determined. Out of the total number of respondents, 30 immigrated to Bosnia and Herzegovina and started or continued their lives in this territory if they were children of the first generation of migrants. It is important to emphasize that this research treats only two generations of migrants, defining the mother tongue and the origin of the parents. The remaining 586 research participants are divided into 342 residents born in Bosnia and Herzegovina who do not want to leave the country and 244 future emigrants. Emigrants are people who intend to go outside the borders of Bosnia and Herzegovina in the next three years. The limitations of this type of research are manifested not only through a large percentage of employed, highly educated individuals but also through a larger proportion of younger members of the population due to the availability of questionnaires.

To examine the connection between migration movements and financial inclusion, regression analysis is included as a statistical technique that enables modeling the relationship between a dependent variable and one or more independent variables. In the context of the subject research, a model is distinguished that assumes their linear relationship, the assumptions of which include linearity, independence, normality, homoscedasticity and the absence of multicollinearity (Wooldridge, 2008).

Therefore, the OLS model would read:

financial inclusion= $\beta 0 + \beta 1$residents without migration background + εi

The coefficients represent the expected change in financial inclusion associated with an increase in the corresponding independent variable by one unit, holding all other variables constant. It is assumed that we are talking about a normal error distribution with a zero mean and constant variance.

Including the control variables, the regression model of this research reads:

financial inclusion = $\beta 0$ + $\beta 1$ residents without migration background + $\beta 2$gender + $\beta 3$age + $\beta 4$education + $\beta 5$work status+ $\beta 6$income + εi

The mathematical model was formed on the basis of the primary research objective of this paper, which is based on the empirical analysis of the impact of migration movements on the level of financial literacy of the inhabitants of Bosnia and Herzegovina. This means the positive or negative effect of the migration trend on that part of the population whose long-term place of residence will be Bosnia and Herzegovina. The obtained data were processed and analyzed through the statistical package GRETL, which is used in econometrics.

4. Results of Empirical Research and Discussion

The general results of measuring the level of financial inclusion in Bosnia and Herzegovina show that there is a need for improvement from the average of 3.05 points achieved. In order to determine the significance of migration movements on financial inclusion, it is necessary to determine the level of financial inclusion of immigrants, emigrants and residents without a migration background in Bosnia and Herzegovina.

If the results are observed individually according to population categories classified according to migration aspirations, the achievements of immigrants stand out with a score of 3.10 points. Emigrants have the lowest level of financial inclusion with 3.02 points, while residents without a migration background have 3.07 points. The above results are presented in graph 1.

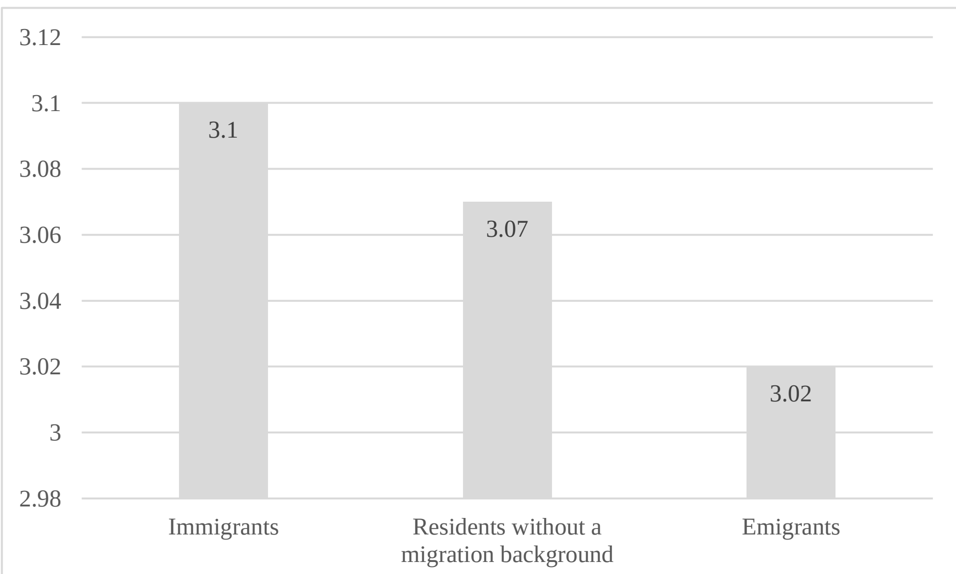

Chart 1. Level of financial inclusion according to migration categories in Bosnia and Herzegovina

The set regression model, whose goal is to determine the connection between immigrants and emigrants in the population of Bosnia and Herzegovina with financial inclusion, shows that only the intercept is statistically significant at the level of 0.001, with a coefficient of 3.033 and a standard error of 0.064. The independent variable is not statistically significant in explaining financial inclusion among residents in Bosnia and Herzegovina. The R-squared value is very low, which indicates that the model does not explain a large part of the variation in financial inclusion. Overall, the results suggest that none of the independent variables included in the model have a significant effect on financial inclusion, and other factors should be considered to better understand the determinants of the dependent variable in this context.

Linear regression models that explain financial inclusion among migrants and the domiciled population in Bosnia and Herzegovina do not show statistical significance in the category of residents without a migration background. The result of 0.042 or 0.049 is close to zero, which implies that the population that has no affinity for migration does not have a low level of financial inclusion. The reason for this solution is visible in the presentation of the results of the level of financial inclusion among categories of the population. Immigrants have a slightly higher score of 3.1, while the remaining two categories record amounts of 3.07 and 3.02.

In this connection, socio-economic variables are included in order to identify population factors that influence financial inclusion. The regression model, as well as the robust regression model, show that the intercept coefficient is statistically significant at the 0.001 level with a value of 1.468. The coefficient of retention of the domicile population in both models is not statistically significant at conventional levels ($p > 0.05$) and shows that staying in the country has no significant effect on financial inclusion.

Within the control variables, the gender coefficient estimates the effect of gender on financial inclusion. In both models, it is not statistically significant, and it is concluded that belonging to the female gender does not have a significant impact on financial inclusion. The age coefficient is the same. Statistically significant at the level of 0.001, and the positive coefficient of education in both observed models assumes that higher levels of education are associated with greater financial inclusion. The same is true for the working status of residents, except in the case of the robust model, where it is significant at the 0.05 level, given that it uses robust standard errors that are more resistant to heteroskedasticity. A higher amount of personal monthly income also indicates a greater scope of financial inclusion, as determined by a positive coefficient and statistical significance at the 0.05 level. Both models have an R-squared value of 0.112, which explains that the independent variables explain only a small part of the variance in financial inclusion. The regression results of the connection between migration profiles of the population and financial inclusion in Bosnia and Herzegovina are given in Table 1.

Table 1. Regression results of the connection between migration profiles of the population and financial inclusion in Bosnia and Herzegovina

Dependent variable : financial inclusion	
Independent variable	A robust model
Interception	1,468***
	(0.250)
Residents without migration backgrounds	0.049
	(0.088)
Women	0.131
	(0.084)
Age	-0.012
	(0.030)
Education	0.222***
	(0.044)
Work status	0.051**
	(0.022)
Monthly income	0.124*
	(0.070)
Size sample	608
R-squared	0.112

*** significance p<0.001, ** significance p<0.01, * significance p<0.05

Note: standard errors are given in parentheses

5. Conclusion

OECD/INFE recommendations, which focus on the development of financial inclusion in the population in order to strengthen the economy, confirm the importance of understanding this relationship. The research results indicate an unequal level of financial inclusion among different migration categories. The analysis confirmed that emigrants have the lowest level of financial inclusion, while residents without a migration background and immigrants show better results. Referring to previous explanations about remittances, which make up a large share of GDP, we can conclude that the low level of financial inclusion of emigrants significantly affects the level of funds remitted to the home country. On the other hand, residents without migration ambitions did not show a statistically significant association with financial inclusion, emphasizing the need for further research into this phenomenon. A higher level of education, employment and monthly income implies that residents are more financially involved. This indicates that vulnerable categories of population are less educated, unemployed and underpaid. Age and gender are not statistically significant in the context of the observed phenomenon.

Sustainable management of this influence has the potential to support the economic development of the country and the integration of migrants into the financial system. Therefore, state policy should be channeled towards greater integration of emigrants into the financial system in order to improve economic well-being according to the presented results of previous research. In order to achieve these goals, it is necessary to implement strategies that promote financial education for all categories of the population, facilitate access to financial services, and support their complete integration into the domestic economic framework.

Finally, the research points to the complexity and importance of the links between migration and financial inclusion. As one of the pioneers in this research field, this work provides the foundations and certain limitations for studying the impact of international migration on the financial literacy of the observed country. Considering the complexity and difficulty of studying this phenomenon, further and more targeted research is recommended in order to generate detailed data that contributes to sustainable economic development and the strengthening of social cohesion.

Acknowledgments

Not applicable.

Authors contributions

Not applicable.

Funding

Not applicable.

Competing interests

Not applicable.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Canadian Center of Science and Education.

The journal’s policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

References

Aportela, F. (1999). Effects of Financial Access on Savings by Low-Income People. *National Bureau of Economic Research.* Retrieved from http://users.nber.org/~rdehejia/!@$devo/Lecture%2006%20Microcredit/supplemental/Aportela.pdf

Ashraf, N., Berry, J., & Shapiro, J. M. (2010). Can Higher Prices Stimulate Product Use? Evidence from a Field Experiment in Zambia. *American Economic Review, 100*(5), 2383-2413. https://doi.org/10.1257/aer.100.5.2383

Barajas, A., Beck, T., Belhaj, M., & Ben Naceur, S. M. (2022). *Financial Inclusion: What Have We Learned So Far? What Do We Have to Learn?* International Monetary Fund. https://doi.org/10.5089/9781513553009.001

Barbić, D., & Lučić, A. (2018). *Financial literacy and responsible consumption in everyday life.* Zagreb: Narodne novine.

Delalić, N. (2019). "New" migrations and the understanding of minorities in Europe. University of Sarajevo: Faculty of Political Sciences Retrieved December 1, 2022, from https://fpn.unsa.ba/b/wp-content/uploads/2021/02/NOVE-MIGRACIJE-I-RAZUMIJEVANJE-MANJINA-U-EVROPI.pdf

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2021). *The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19.* International Bank for Reconstruction and Development / The World Bank, Washington, DC. https://doi.org/10.1596/978-1-4648-1897-4

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Van Oudheusden, P. (2014). Global Findex Database 2014: Measuring Financial Inclusion around the World. [online]. https://doi.org/10.1596/1813-9450-7255

Franklin, A., Demirguc-Kunt, A., Klapper, L., & Martinez Peria, M. S. (2012). *The Foundations of Financial Inclusion: Understanding Ownership and Use of Formal Accounts.* World Bank Policy Research Working Paper 6290.

Gjestvang, M. (2020). *Financial Literacy among Immigrants- A Quantitative Measure of Financial Knowledge and Financial Behavior Within Immigrant Groups at Stamina Kurssenter AS.* Agder: Faculty of Business and Law.

Goenadi, G. F., Murhadi, R. W., & Ernawati, E. (2022). The influence of financial literacy on financial inclusion: social capital as mediatin variable. *Media Economics Day Management, 37*(2). https://doi.org/10.24856/mem.v37i2.2738

GPFI (2010). *G20 Financial Inclusion Indicators.* World Bank. Retrieved November 19, 2022, from https://databankfiles.worldbank.org/public/ddpext_download/g20fidata/G20_Financial_Inclusion_Indicators.pdf

Halilović, H. (2020). Bosnia and Herzegovina diaspora in a vortex global migration: challenges and chances for Bosnia and Herzegovina. *Review: magazine for social Questions / Periodical for Social Issues, 3*(3), 193-218. Retrieved December 23, 2022, from https://pregled.unsa.ba/index.php/pregled/article/view/137

Hess, J., Klapper, L., & Beegle, K., (2021). Financial Inclusion, Women, and Building Back Better. The World Bank, [online]. Retrieved from https://openknowledge.worldbank.org/server/api/core/bitstreams/b23248e2-215f-592d-bdd2-af4ae22d5117/content

Ifediora, C., Onochie Offor, K., Festus Eze. E., Takon, S. M., Ageme, A. E., Ibe, G. I., & Onwumere U. J. (2022). Financial inclusion and its impact on economic growth: Empirical evidence from sub-Saharan Africa. *Cogent Economics & Finance, 10*(1). https://doi.org/10.1080/23322039.2022.2060551

Klapper, L., & Singer, D. (2014). *The Opportunities of Digitizing Payments.* World Bank, Washington, DC.

Klapper, L., Lusardi, A., & Oudheusden, P. (2014). Financial Literacy Around the World: INSIGHTS FROM THE STANDARD & POOR'S RATINGS SERVICES GLOBAL FINANCIAL LITERACY SURVEY. Standard & Poor's, [online]. Retrieved from https://gflec.org/initiatives/sp-global-finlit-survey/

OECD (2005). *Improving Financial Literacy - Analysis of Issues and Policies.* Paris: OECD Publishing. https://doi.org/10.1787/fmt-v2005-art11-en

OECD (2005). *Recommendation on Principles and Good Practices for Financial Education and Awareness.* Paris: OECD Publishing, [online]. Retrieved December 1, 2022, from http://www.oecd.org/daf/fin/financialeducation/35108560.pdf

OECD/INFE (2011). Measuring Financial Literacy: Core Questionnaire in Measuring Financial Literacy: Questionnaire and Guidance Notes for conducting an Internationally Comparable Survey of Financial Literacy. Paris: OECD Publishing, [online]. Retrieved from https://www.oecd.org/finance/financial-education/49319977.pdf

OECD/INFE (2015). Toolkit for Measuring Financial Literacy and Financial Inclusion. Paris: OECD Publishing, [online]. Retrieved from http://www.oecd.org/daf/fin/financialeducation/2015_OECD_INFE_Toolkit_Measuring_Financial_Literacy.pdf

OECD/INFE (2016). *G20/OECD INFE Core Competencies framework on Financial Literacy for Adults.* [online] Retrieved from http://www.oecd.org/finance/Core-Competencies-Framework-Adults.pdf

OECD/INFE (2018). Toolkit for Measuring Financial Literacy and Financial Inclusion. OECD, Paris, [online]. Retrieved from https://www.oecd.org/daf/fin/financial-education/2015finlitmeasurementexercise.htm

QuestionPro. (2023). Sample Size Calculator. [online]. Retrieved from https://www.questionpro.com/sample-size-calculator/

Rea, L. M., & Parker, R. A. (2005). *Designing and conducting survey research: A comprehensive guide* (3rd ed.). Jossey-Bass.

Reidiess, G., & Boukhali, S. (2022). Financial Inclusion of Migrants. Swiss Agency for Development and Cooperation SDC, 3003 Bern, [online]. Retrieved from https://www.shareweb.ch/site/EI/Documents/FSD/Remittances/fsd%20guidance%20sheet%20financial%20inclusion%20of%20migrants%202022.pdf

Sharma, A. (2020). Is n = 30 really enough? A popular inductive fallacy among data analysts. Towards Data Science. Ruminating Verbose of Statistics Part I. [online]. Retrieved from https://towardsdatascience.com/is-n-30-really-enough-a-popular-inductive-fallacy-among-data-analysts-95661669dd98

Smith, M. D., & Wesselbaum, D. (2023). Financial inclusion and international migration in low- and middle-income countries. *Empire Econ, 65,* 341-370. https://doi.org/10.1007/s00181-022-02331-4

Vehovec, M., Rajh, E., & Škreblin Kirbiš, I. (2015). Financial literacy of citizens in Croatia. *Zagreb: Economic trends and economic policy, 24*(1), 136.[online] Retrieved from https://hrcak.srce.hr/

Wooldridge, J. M. (2008). *Introductory econometrics: A modern approach* (4th ed.). South-Western College Pub

World Bank. (2022). Population - total, Bosnia and Herzegovina. [online] Retrieved May 1, 2022, from https://data.worldbank.org/indicator/SP.POP.TOTL?locations=BA