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FACTORS AFFECTING MICRO AND SMALL ENTERPRISES' ACCESS TO MICROFINANCE IN CROATIA

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Abstract

Micro, small and medium enterprises (MSMEs) are recognized worldwide as crucial element of boosting economic growth, reducing unemployment and poverty. In order to achieve growth, develop new products, create new jobs, they need to get finance. However, they are facing financing constraints, and persistent limitations to access to finance remain to be a major obstacle for them. Thus, financial inclusion is important for economic welfare and sustainable economic development. This study aims to identify the determinants of access to micro loans for micro and small enterprises (MSEs) by considering entrepreneur characteristics, firm characteristics, and perceived business obstacles. Data set of 173 MSEs from Croatia – the region Dalmatia, is available for the purpose of investigating and comparing characteristics of those that are financed and those that are not financed by micro loans. Besides, the paper also presents the logistic regression model which identifies set of characteristics which have significant relation with the MSE tendency to be financed by micro loans.

Keywords: micro loans, sustainable economic development, determinants of access to micro loans

1. INTRODUCTION

Micro, small and medium enterprises (MSMEs) are recognized worldwide as crucial element of boosting economic growth, reducing unemployment and poverty, and achieving socio-economic stability. The availability of finance provides them to achieve growth, develop new products or production programs, use new technology, create new jobs, and access markets, strengthening both their competitiveness and the competitiveness of the country in which they operate (Giurca Vasilescu, 2010; Solomon, 2009 in Kebede and Abera, 2014; Robu, 2013; Haider et al., 2017). However, MSMEs are facing financing constraints, and persistent limitations to access to finance remain to be a major obstacle for them, particularly for micro and small enterprises (MSEs) (Cruz et al., 2012 in Haider et al., 2017; Haider et al., 2017; Vidučić et al., 2014; Kumar and Rao, 2015; Asad et al., 2016; Rahman et al., 2017; Alpeza et al., 2020). Therefore, microfinance can be considered as a tool to avoid financial exclusion since the concept of microfinancing arose out of the need to provide finance to non-bankable entrepreneurs (Neuberger, 2015; Kisaka & Mwewa, 2014). Besides micro and small enterprises, microfinance may be crucial for new enterprises due to their limited access to finance caused by asymmetric information. Furthermore, microfinance may play a critical role in the survival and success of necessity-based businesses as well as opportunity-based businesses (Kariv & Coleman, 2015).

Prior research confirms that MSMEs' access to finance is influenced by a numerous factors related to enterprise and entrepreneur characteristics as well as their business environment (Chittenden et al. 1996., Michaelas, et al., 1999., Ferrando and Griesshaber 2011., Demirgüç-Kunt, and Maksimovic, 2008., in Moritz et al., 2016; Waked, 2016).

In evidence, in the year 2021., MSEs in Croatia respectively represent almost 99% of Croatia's 144.259 enterprises, accounting for more than half of employment (FINA, 2022). However, access to finance for MSEs in Croatia continues to be one of the major obstacles that these companies face, regardless of their life cycle (Kolaković et al., 2019; Alpeza et al., 2020; Pepur et al., 2020). According to the ratings of the quality of access to money, Croatia is lagging behind the average of EU countries involved in the Global Entrepreneurship Monitor (GEM) study. In the money market in Croatia, there is a significant supply of bank loans. Still, the lack of other financial sources for new or growing entrepreneurial ventures repeats in all years of GEM research (Singer et al., 2021). Furthermore, microfinance in Croatia faces several problems, and entrepreneurs are not sufficiently familiar with this source of finance. Hence it is relevant to gain insight into the characteristics of MSEs who use micro loans in Croatia.

This paper examines two questions related to micro loans: What are the characteristics related to enterprises, entrepreneurs and business environment that distinguish enterprises that are financed with micro loans from those that are not financed with micro loans in Croatia and what characteristics can be related to MSE tendency to be financed by micro loans.

Structure of the paper is organized as follows. Section 2 provides a statement of the problem. Section 3 presents the hypotheses development and theoretical framework. In section 4, data, variables and methodology are explained which is followed by results in section 5. Discussion and conclusion are presented in section 6.

2. STATEMENT OF THE PROBLEM

According to the Resource-Based Theory of the Firm (RBT), financial, human and social resources are considered as the main business assets for attaining a competitive advantage (Kariv & Coleman, 2015). In line with RBT, financial resources are core resources for any enterprise because they are a medium of exchange for other resources (Kessy, 2012). Hence, access to financial resources is crucial for business operations. World Bank defined access to finance as an absence of price and non-price barrier to use any financial services (World Bank, 2011 in Sidek, 2015). Easier access to finance improves firm performance, facilitates market entry, growth of firm, risk reduction, and the ability to exploit growth and investment opportunities (Beck, Thorsten, Demirguc-Kunt, & Asli, 2008, Beck, Thorsten, Demirguc-Kunt, & Maksimovic, 2006 in Sidek, 2015).

However, SMEs have limited access to external financial resources whether from formal or informal institution (Mason & Kwok, 2010, Hughes, 2009, Guijarro, Garcia, & Auken, 2009 in Sidek 2015). The main obstacles for SMEs to access finance from external sources are absence of track records, high collateral requirements, high administrative costs, and lack of experience within financial intermediaries (Schans, 2013, Madichie & Nkamnebe 2010, Mason and Kwok, 2010, Chaya & Suhb, 2008, Rudjito, 2010 in Sidek 2015). Compared to medium and large enterprises, micro and small enterprises are constrained to the greatest extent in access to commercial sources of financing (Nyikos, G., & Soós, G., 2018).

According to the Global Entrepreneurship Monitor (GEM), Croatia's experts assess that access to finance and government prioritization need improvements to encourage more potential entrepreneurs (Hill et al., 2022). The World Bank's Doing Business report provides information on the Ease of Getting Credit, in 2019 and 2020 Croatia have score below the EU average, although credit lines or overdrafts, followed by leasing and hire-purchase, together with bank loans are their most relevant external source of financing (Landström, 2017; Drexler et al., 2020; CEPOR, 2022). Considering existing obstacles in access to finance and the dependence of MSMEs on banking sources of financing, it is important to stress that Euro area banks reported a substantial further tightening of credit standards for loans or credit lines to enterprises in the fourth quarter of 2022 (The euro area bank lending survey, 2023).

Hence, it is difficult for MSEs to obtain external sources of financing, and self-financing as one of the alternative options isn't sufficient because of their low saving capacity (Harvie, Narjoko, & Oum, 2013 in Haider, 2017). Thus, microfinance may be suitable source for accessing finance for MSEs. Microfinance Institutions use different credit methodologies and mainly focus on the financing of very small and small businesses (business microfinance) and low income or poor individuals (personal microfinance), providing loans without collateral at simple terms and conditions without any lengthy procedure, and have innovative recovery processes (Haider, 2017; Nyikos, G., & Soós, G., 2018). Although Europe represent less than 10% of the global microfinance portfolio, microfinance has become a growing sector in Europe. Micro loans lending practices in Europe is highly fragmented and it differs with regard to the type of institution that provide micro loans, legal set-up, the environment in which it operates, and its own ability to apply sound and efficient management procedures (Drexler et al., 2020).

Croatia reported a long list of problems related to microfinance, including lack of guarantees, range of products, documentation requirements, interest rates and lack of information (Nyikos, G., & Soós, G., 2018). In Croatia, banks and credit unions are the only financial institutions permitted by law to engage in lending on a commercial basis. However, credit unions, as providers of microfinancing services for their members, have an insignificant share of the capital market in Croatia due to the restrictive provisions of the Credit Unions Act from 2011 that threaten the sustainability of credit union's operations and thus of micro-financing in Croatia (Alpeza et al., 2020). Government programs are included in the business venture financing through the participation of the Croatian Bank for Reconstruction and Development (HBOR) and Croatian Agency for SMEs, Innovation and Investments (HAMAG-BICRO), through which EU funds are placed in cooperation with commercial banks (Nyikos, G., & Soós, G., 2018; Alpeza et al., 2020).

Our research aims to assess the determinants of access to micro loans for MSEs in Croatia. We want to investigate and give some recommendations how to encourage microfinance.

3. HYPOTHESES DEVELOPMENT AND THEORETICAL FRAMEWORK

The literature investigating the determinants of financing constraints are based on two main theoretical considerations: asymmetric information and agency costs (Artola and Genre 2011). Prior research has shown that MSMEs access to finance from external sources is influenced by numerous factors that can be categorized into three main areas: entrepreneur characteristics, enterprise characteristics and business environment obstacles (Cotei and Farhat, 2017; Waked, 2016; Giurca Vasilescu, 2010; Rupeika-Apoga, 2014; Oukes and von Raesfeld, 2016.; Landström, 2017). Likewise, those factors significantly affect both finance-seeking behaviour and outcomes (Xiang and Worthington, 2015).

The entrepreneur is the most important component of an MSME, given that they are also the managers in most MSMEs, unlike large enterprises that are managed by teams of professionals. Business experience, the level of education and financial literacy of entrepreneurs represent managerial skills, respectively human capital, that has a direct and indirect influence on access to external sources of finance, particularly on access to debt finance by SMEs, and recognition of business opportunities (Anderson and Miller, 2003, Davidson and Honig, 2003, Bhagavatula et al., 2010 in Anis and Mohamed, 2012; Fatoki and Odeyemi, 2010; Fatoki, and Asah, 2011.). Therefore, it can be assumed that micro loans users differ from those who did not use these sources of financing. In addition to these characteristics, gender is one of the most frequently analysed factors related to the characteristics of entrepreneurs. Although, some scholars consider that gender is a predictor of financial leverage, while others conclude the opposite (Cole and Mehran, 2018). Hence micro loans are recognized as a valuable tool for women's empowerment in both developed and developing countries (Cruz Rambaud et al., 2022) it is important to investigate whether female entrepreneurs use micro loan more than their male counterparts. Thus based on previous literature, it is hypothesized:

H1: There is a difference in access to microfinance considering gender, education level of entrepreneurs and financial literacy of entrepreneurs.

The literature about SME financing frequently identifies firm profitability, age, size, tangibility, and growth as the major factors affecting the capital structure of MSMEs (Kumar and Rao, 2015.). Besides those factors, a business plan is one of the frequently researched factors because of its relation to debt i.e. it has a positive effect to the application of bank loans and to success in credit application (Fatoki, and Asah, 2011; Khalid and Kalsom, 2014.). Trade-off theory supposes that a profitable firm will use debt financing due to the interest tax shield (Xiang and Worthington, 2015). However, the pecking-order theory (which suggests that the firm will initially use internal financing), concerning the trade-off theory, is more useful to explain their financial behaviour because MSMEs still face financial constraints when applying for external finance (Vidučić, 2001; Pepur et al., 2020; Xiang and Worthington, 2015). External financial sources are often not available to firms before the growth stage and to micro and small enterprises in general (compared to medium and large enterprises) (Berger and Udell, 1998; Leach and Melicher, 2011; Soini and Veseli, 2011.). Based on prior research, it is hypothesized that:

H2: There is a difference in access to microfinance considering age of the enterprise, growth aspiration and financial indicators including liquidity, leverage and profitability.

Business obstacles are considered to be the main limitations of the firm performance and have an impact on the access to external financial sources, especially bank loans (Fatoki and David, 2010; Aremu and Adeyemi, 2011; Rahman et al., 2017; Waked, 2016). More generally, those obstacles can be divided into internal and external. Internal business obstacles mostly refer to certain characteristics of the firm and entrepreneur, such as gender, age of the owner, work experience, education, the technology used, sales and marketing, management skills, customer satisfaction, and quality of products or services. While, external business obstacles are related to the availability of financial sources, legal issues, availability of labour, corruption, bureaucracy, and laws (Waked, 2017; Trinh and Thanh, 2017). Obstacles related to access to finance, tax burden, labour inadequacy and regulations, firm size, experience of owner/manager, and ownership type are the significant factors that influence SME growth (Gill & Biger, 2012). Moreover, SME growth is reduced by the presence of institutional and financial barriers (Bartlett & Bukvič, 2001). Therefore, it is hypothesized:

H3: There is a difference in access to microfinance considering perceived level of business barriers.

Considering findings from prior research (explained above) that factors related to entrepreneur characteristics, enterprise characteristics, and perceived business environment obstacles influence MSEs' access to external financial sources and significantly affect both finance-seeking behaviour and outcomes, it makes sense to observe them together. Therefore, as a novelty in research, we analysed these factors together in order to estimate the probability that an MSE will be financed by micro loan. Thus, it is hypothesized:

H4: Characteristics that have significant relation with the MSE tendency to be financed by micro loan include enterprise and entrepreneur characteristics as well as perceived environment obstacles.

4. DATA, VARIABLES AND METHODOLOGY

MSEs from four counties in Croatia (Dubrovnik-Neretva County, Split-Dalmatia County, Šibenik-Knin County, and Zadar County) that have submitted financial statements for three consecutive years (2017-2019) represent the population. The data was collected in June 2021 through the survey questionnaire that was adapted from the previous studies and was mailed to cover the maximum area. The sample was stratified with regard to the share of the number of enterprises considering activity and county, and 173 questionnaires were received.

Enterprises were divided into two groups. The first group consists of enterprises that were financed with micro loans (26% of the sample), and the second group are those that were not (74% of the sample). Variable descriptions and measurements are shown in table 1.

Table 1 Variable description

Variable	Description
Group: Entrepreneur	
Education	Owner's education: high school, university degree, masters or doctorate degree
Gender	Owner's gender
	Knowledge of financial products and services.
Loans and account overdrafts	Knowledge assessment: 1 – completely unfamiliar to 5 – completely familiar
cro loans	
Venture capital	
Special state financing programs	
Business angels	
Current account	
Leasing	
Factoring	
Crowdfunding	
Securitization	
Group: Enterprise	
Age	Age of an enterprise
Number of employees	Current number of employees
Growth in employees	Percentage of increase in employees
Growth in revenues	Percentage of increase in revenues
ROI	Return on investment = net income/investment
ROE	Return on equity = net income/equity
ROA	Return on assets = net income/assets
PM	Profit margin = net income/revenue
TAT	Total assets turnover = revenue/assets
DR	Debt ratio = liabilities/assets
DE	Total debt to equity = liabilities/equity
CR	Current ratio = current assets/current liabilities
CASHR	Cash ratio = cash/current liabilities
Group: Environment/barriers	
Barriers to business continuity and enterprise growth	
Is this considered as a barrier to business continuity and enterprise growth? 1-not a barrier at all, 5- a very big barrier	
Female	If a female is an enterprise owner
Male	If a male is an enterprise owner
Business experience	If an owner lacks business experience
Age 35	If an owner is under 35 years old
Formal education	If an entrepreneur does not have adequate formal education necessary for running a business
Informal education	If an entrepreneur does not acquire additional knowledge through informal education
Managerial skills	If an entrepreneur does not possess the necessary managerial skills
External finance	If finances from external sources are unavailable in the required quantity and dynamics
Plan	If an enterprise does not have a business or a strategic plan
New technology	If the company does not use new technologies in its operations, production, communication, marketing, etc.
Marketing	If the company does not have a sales and marketing department
Products	If the products are non-competitive

Customers	If customers express a low level of satisfaction
Bureaucracy	If there is a high level of bureaucracy If the resolution of legal issues related to the company's operations is slow
Corruption	If there is corruption
Legal	If legal issues are slow to resolve
Barriers to getting a loan	
Is this considered as a barrier to getting a loan? 1 – totally disagree, 5 – totally agree	
L_Rate	If the interest rate is high (higher than 5%)
L_Collateral	If the bank sets high requirements in terms of collateral
L_Time	If the loan approval process takes a long time
L_Demand	If the bank makes high demands - in general
L_Plan	If an enterprise does not have a business or a strategic plan
L_Skills	If an entrepreneur does not have adequate managerial skills
L_Relation	If an entrepreneur does not have relations with the bank
L_experience	If an entrepreneur does not have a business experience
L_Female	If an entrepreneur is a female
L_Employees	If an enterprise has less than 50 employees
L_Revenue	If an enterprise has revenues and/or assets less than 10 million EUR
L_Start-up	If an enterprise is a start-up
L_Information	If a bank does not have detailed financial information about an enterprise
L_History	If an enterprise has a bad credit history
L_Risky	If the business project for which financing is requested is risky
L_Officer	If there is no adequate assistance from the bank officer regarding the collection of data required for the request

Source: authors

To investigate dependence between access to microfinance and gender as well as level of education, χ^2 test is used (tables 2 and 3). To test differences in mean values of enterprises characteristics (financial literacy, age, number of employees, growth rate of employees and revenues, perceived level of business barriers) t-test is used. Results are presented in tables 4-7. In order to develop a model which identifies set of characteristics, which have significant relation with the MSE tendency to be financed by micro loan, logistic regression is used (see Czepiel, 2002). Results are presented in table 8.

5. RESULTS

In the first hypothesis we wanted to explore whether gender, educational level and financial literacy of entrepreneurs are related to access to microfinance. In table 2, we crossed gender and access to microfinance.

Table 2 The relationship between gender and access to microfinance

		No micro loan	Micro loan	Total
Male	% column	64.84%	66.67%	113
	% row	73.45%	26.55%	65.32%
Female	% column	35.16%	33.33%	60
	% row	75.00%	25.00%	34.68%
Total		128 73.99%	45 26.01%	173 100%

Source: authors

From table 2, it can be noticed that 66.67% of MSEs financed by micro loans are owned by male entrepreneurs and 33.33% by female entrepreneurs. Percentages for MSEs that are not financed by micro loans are similar – 64.84% are owned by male and 35.16% by female entrepreneurs. $\chi 2$ test revealed that there is no dependence between gender and financing by micro loans ($\chi 2=0.049$; $p=0.825$). The percentage of both male and female entrepreneurs financed by micro loans is similar.

In the next step, level of education and access to microfinance is crossed (table 3).

Table 3 The relationship between level of education and access to microfinance

		No micro loan	Micro loan	Total
High school	% column	31.25%	22.22%	50
	% row	80.00%	20.00%	28.9%
University degree	% column	49.22%	66.67%	93
	% row	67.74%	32.26%	53.76%
Masters or doctorate	% column	19.53%	11.11%	30
	% row	83.33%	16.67%	17.34%
Total		128 73.99%	45 26.01%	173 100%

Source: authors

From table 3, it can be noticed that among all entrepreneurs with high school 20% are financed by micro loans, among entrepreneurs with university degree there is 32.26% MSEs financed by micro loans and among entrepreneurs with masters or doctorate degree the percentage is 16.67%. $\chi 2$ test revealed that there is no dependence between education and financing by micro loans ($\chi 2=4.186$; $p=0.123$).

In table 4 we analysed if there is a difference in knowledge of financial products between entrepreneurs financed by micro loan and those that are not financed by micro loan.

Table 4 The comparison of knowledge of financial products regarding access to microfinance

Product	No micro loan	Micro loan	t-test	p-value
	Mean (s.d.)	Mean (s.d.)		
Loans and account overdrafts	3.55 (1.56)	4.02 (1.18)	-2.09	0.039
Micro loan	2.95 (1.52)	3.89 (0.88)	-4.97	<0.001
Venture capital	1.94 (1.33)	2.36 (1.25)	-1.85	0.067
Special state financing programs	2.99 (1.48)	3.73 (1.25)	-3.03	0.003
Business angels	1.75 (1.21)	1.91 (1.02)	-0.8	0.426
Current account	4.3 (0.98)	4.16 (0.99)	-0.87	0.385
Leasing	3.74 (1.45)	4.22 (0.79)	-2.75	0.007
Factoring	2.25 (1.45)	2.8 (1.08)	-2.68	0.009
Crowdfunding	2.01 (1.26)	2.18 (1.11)	-0.79	0.425
Securitization	1.49 (0.98)	1.71 (0.87)	-1.33	0.164

Source: authors

From table 4, it can be noticed that entrepreneurs financed by micro loan have better knowledge than those that are not financed by micro loans for the following financial products: loans and account overdrafts, micro loan, venture capital, special state financing programs, leasing and factoring.

Considering results given above, our first hypothesis is partially confirmed. Gender and education are not related to access to finance – both gender and all levels of education have the same access to microfinance. Somehow different situation is noticed in financial literacy. The result that entrepreneurs who are financed by micro loan have higher knowledge of certain financial products may mean that they were additionally informed about different financial possibilities because they could not apply for a commercial loan in banks.

In the second hypothesis we analysed relationship between enterprises characteristics and access to microfinance.

In table 5 we compared if there is a difference in age of the enterprise, growth aspiration and financial indicators including liquidity, leverage and profitability between entrepreneurs financed by micro loan and those that are not financed by micro loan.

Table 5 The comparison of enterprise characteristics regarding access to microfinance

Variable		No micro loan Mean (s.d.)	Micro loan Mean (s.d.)	t-test	p-value
Age		14.8 (8.93)	19.78 (9.31)	-3.18	0.003
Number of employees		5.84 (10.12)	12.84 (12.47)	-3.39	0.001
Growth in employees		36.26% (33.87)	26.28 (19.96)	1.78	0.092
Growth in revenues		28.25% (27.3)	38.78% (80.84)	0.78	0.442
CR	t*	4.10 (7.26)	2.42 (4.07)	1.90	0.059
	t-1**	6.34 (26)	2.21 (3.62)	1.75	0.082
CASHR	t*	1.83 (4.89)	0.43 (1.40)	2.92	0.004
	t-1**	3.93 (25.22)	0.40 (1.06)	1.58	0.117
TAT	t*	2.93 (10.47)	1.33 (0.93)	1.71	0.089
	t-1**	4.75 (31.33)	1.32 (1.03)	1.24	0.218
DR	t*	1.51 (5.11)	0.62 (0.47)	1.93	0.056
	t-1**	1.63 (5.63)	0.64 (0.49)	1.97	0.052
DE	t*	1.9 (11.20)	2.39 (5.45)	0.38	0.778
	t-1**	0.76 (16.46)	0.92 (8.70)	-0.08	0.935
PM (%)	t*	7.86 (91.52)	8.32 (31.04)	-0.05	0.960
	t-1**	-16.80 (345)	4.55 (22.27)	-0.69	0.488
ROA (%)	t*	8.23 (9.33)	7.52 (28.1)	0.05	0.961
	t-1**	-17.21 (135)	4.54 (22.21)	-0.69	0.487
ROE (%)	t*	23.15 (103)	20.18 (58.44)	0.22	0.828
	t-1**	22.41 (82.15)	-3.45 (73.12)	1.92	0.057

* year of the survey
** one year before the survey

Source: authors

Results from table 5 show that enterprises financed with micro loan operate longer, have higher number of employees but lower growth rate in employees. Besides, their liquidity, turnover ratios as well as profitability are lower compared to enterprises not financed by micro loans. It can also be noticed that the indebtedness of enterprises that are financed with micro loans is lower compared to those that are not financed with micro loans.

Our second hypothesis is confirmed – we proved differences in MSEs characteristics according to access to microfinance. It seems that enterprises that apply for micro loans are less financially successful and less leveraged. The reason for less indebtedness may be because they could not get a loan because they do not have favourable financial performance indicators.

The third hypothesis deals with the relationship between perceived level of business barriers and access to micro loan (table 6 and 7).

Table 6 The comparison of perceived level of barriers to business growth regarding access to finance

Barriers to business growth	No micro loan Mean (s.d.)	Micro loan Mean (s.d.)	t-test	p-value
Female	1.48 (1.08)	1.57 (1.25)	-0.47	0.634
Male	1.29 (0.77)	1.26 (0.78)	0.22	0.823
Business experience	2.75 (1.27)	2.62 (1.17)	0.59	0.555
Age 35	1.64 (0.96)	1.68 (1.01)	-0.23	0.812
Formal education	2.80 (1.28)	2.95 (1.27)	-0.68	0.497
Informal education	3.28 (1.22)	3.13 (1.23)	0.73	0.465
Managerial skills	3.69 (1.13)	3.55 (1.11)	0.71	0.476
External finance	3.31 (1.12)	3.46 (1.03)	-0.80	0.419
Plan	3.15 (1.16)	3.40 (1.09)	-1.22	0.222
New technology	3.69 (1.08)	3.93 (0.78)	-1.35	0.177
Marketing	2.53 (1.35)	2.91 (1.23)	-1.62	0.106
Products	4.35 (0.98)	4.33 (1.02)	0.15	0.880
Customers	4.46 (0.92)	4.42 (0.83)	0.24	0.804
Bureaucracy	4.09 (1.18)	3.86 (1.21)	1.09	0.274
Corruption	4.41 (1.09)	4.40 (1.01)	0.07	0.939
Legal	4.39 (1.07)	4.44 (0.94)	-0.25	0.799

Source: authors

No statistically significant differences were found in the perception of barriers regarding enterprise growth between the two observed groups of enterprises (table 6).

In table 7 we compared if there is a difference in the barriers to getting a loan between entrepreneurs financed by micro loan and those that are not financed by micro loan.

Table 7 The comparison of perceived level of barriers to getting loan regarding access to microfinance

Barriers regarding getting a loan	No micro loan	Micro loan	t-test	p-value
	Mean (s.d.)	Mean (s.d.)		
L_Rate	4.14 (1.15)	4.15 (1.14)	-0.07	0.940
L_Collateral	4.32 (1.01)	4.40 (0.78)	-0.48	0.629
L_Time	4.36 (0.92)	4.31 (1.08)	0.33	0.739
L_Demand	4.41 (0.97)	4.35 (0.95)	0.34	0.728
L_Plan	3.53 (1.20)	3.62 (0.83)	-0.42	0.668
L_Skills	3.20 (1.25)	3.48 (0.99)	-1.38	0.167
L_Relation	3.17 (1.14)	3.35 (0.93)	-0.92	0.355
L_Experience	3.25 (1.17)	3.53 (0.91)	-1.42	0.156
L_Female	1.53 (1.11)	1.62 (1.26)	-0.45	0.648
L_Employees	1.82 (1.28)	1.71 (1.23)	0.53	0.596
L_Revenue	2.01 (1.39)	1.84 (1.31)	0.71	0.473
L_Start-up	2.89 (1.37)	2.48 (1.29)	1.71	0.087
L_Information	3.65 (1.23)	3.93 (1.15)	-1.31	0.191
L_History	4.08 (1.18)	4.13 (1.09)	-0.23	0.814
L_Risky	3.87 (1.18)	4.00 (0.97)	-0.63	0.525
L_Officer	3.80 (1.12)	3.86 (0.94)	-0.33	0.740

Source: authors

According t-test results presented in table 7, it could be observed that the only difference in perceived level of barriers related to getting a loan refers to the age of enterprise. Respectively, non-micro loan borrowers perceived higher level of obstacle to get a loan if an enterprise is newly founded or young.

Considering results presented in tables 6 and 7, our fourth hypothesis cannot be confirmed. It seems that perceived level of business barriers is equal in all MSEs, no matter how they are financed. In Croatia, all MSEs have the same concerns mostly related to products they sell, customers, corruption, legal issues and loan terms.

In our fourth hypothesis we analyse if characteristics that have significant relation with the MSE tendency to be financed by micro loans include enterprise and entrepreneur characteristics as well as perceived environment obstacles.

In order to develop a model which identifies set of characteristics, which have significant relation with the MSE tendency to be financed by micro loan, logistic regression is applied. Results are presented in table 8. With the model, we estimate probability that an enterprise will be financed by micro loan.

Table 8 Results of logistic regression model

Variable	Estimate	Lower CL 95%	Upper CL 95%	p
Group: Entrepreneur				
Knowledge of micro loan	0.5253	0.1315	0.9192	0.0089
Knowledge of special state financing programs	0.6273	0.2304	1.0241	0.0019
Knowledge of current account	-0.5990	-1.1196	-0.0785	0.0241
Group: Enterprise				
Number of employees	0.0895	0.0321	0.1468	0.0022
Age of the enterprise	0.0638	0.0153	0.11234	0.0098
Current ratio	-0.5226	-0.9387	-0.10664	0.0138
ROE	-0.6663	-1.2231	-0.10942	0.0190

Source: authors

In our model, it can be noticed that the important characteristics, which have a significant relationship with the MSE tendency to be financed by micro loan are – knowledge level of financial products such as micro loans, special state financing programs and current accounts then number of employees, age of the enterprise, current ratio and ROE. Probability of being financed by a micro loan is increased if entrepreneurs have higher knowledge of micro loans and special state financing programs and lower knowledge of current account. Also, probability is increased with the increase of the number of employees and the age of enterprises but with the decrease of current ratio and ROE.

Statistics of goodness of fit: AICC=151.32, BIC=175.67, Nagelkerke R^2=0.453.

6. DISCUSSION AND CONCLUSION

This study examines characteristics that can be related to MSE tendency to be financed by micro loan. Based on the empirical analysis, the study came to the conclusion that micro loan borrowers have some different characteristics than non-micro loan borrowers. Moreover, this study established a model that, based on the identified characteristics of the enterprise and the entrepreneur, estimates the probability that the MSE will be financed by a micro loan.

Micro loan borrowers are more aware of different financial products, including micro loans as opposed to non-micro loans borrowers. This concurs with findings from Magboul and Hassan (2016). Other variables related to the characteristics of an entrepreneur, such as gender and level of education, are not related to access to microfinance, which seems to be consistent with results from Ruslan et al. (2020), Brana (2013) and Mota (2018) - related to gender, Magboul and Hassan (2016) - related to level of education and Cruz Rambaud et al. (2023) - related to gender and level of education. Therefore, knowledge of the program is a characteristic of an entrepreneur that can be associated with access to micro loan.

MSEs with micro loan are older than non-micro loan borrowers and have higher number of employees, which confirms the findings of Ruslan et al. (2020). Growth aspiration of micro loan borrowers is lower than non-micro loan borrowers. Although micro loan borrowers have a more favourable debt ratio, other financial performance ratios are worse compared to non-micro loan borrowers. This finding can be interpreted in two ways. There are studies that emphasised negative impact of micro loans on the borrowers if micro loans are not used productively, are too small, or have too short term. Novel evaluations of microfinance in various countries show that microfinanced businesses fail to grow due to the insufficiency of those loans or due to other characteristics such as lack of training that is identified as a vital for getting better business performance (Haider et al., 2017; Wanambisi & Bwisa, 2013; Neuberger, 2015). There are also critics of micro loans who emphasize that just providing money for the poor will reduce poverty is a myth (Reifner 2011: 407 in Neuberger, 2015; Chikwira, Vengesai & Mandude, 2022). A successful way of improving financial performance of emerged MSEs is by providing the necessary skills and knowledge to SME owners to run businesses and use micro loans effectively, thus creating more opportunities, increasing income and economic empowerment (Chikwira, Vengesai & Mandude, 2022). OECD in SME Policy Index emphasise that microfinance itself can't enable poor borrowers to turn into successful entrepreneurs. However, some studies evaluate the effect of micro loan through its importance for participants that would not exist without the microfinance program or would stop to operate (Baker, 2000, Hulme, 2000, Islam, 2016 and Nguyen, 2007 in Ruslan et al. 2020). Therefore, low growth opportunities of MSEs and credit constraints due to their low financial performance can be identified as factors that affect MSEs to apply/access micro loan.

Micro loan borrowers don't perceive environment business barriers different than non-micro loan borrowers, except barriers related to age of enterprise and obtaining loans. Non-micro loan borrowers perceive to a greater level that newly established and young enterprises face difficulty to obtain loans. This finding is in line with microfinance purpose because one of the target groups of microfinance are young and newly established enterprises that are credit constrained. However, the absence of differences in the perception of barriers indicates that regardless the obtained financial sources entrepreneurs perceived the same level of growth barriers as well as barriers related to obtaining a loans.

Finally, as a novelty, in our study we provide a combination of characteristics related to MSE tendency to be financed by micro loan and estimate probability that an MSE will be financed by micro loan. We showed that probability of being financed by a micro loan is increased if entrepreneurs have higher knowledge of micro loans and special state financing programs and lower knowledge of current account. Also, probability is increased with the increase of the number of employees and the age of enterprises but with the decrease of current ratio and ROE. Surprisingly, not a single barrier enter the model which shows there are no barriers for microfinance. The model also shows that although financially weaker enterprises are more prone to microfinancing, this type of financing can increase the survival of the enterprises as well as the increase in the number of employees. So, our findings can help micro loan providers to establish tools to strengthen the skills of entrepreneurs who use their loans.

Research limitations refer to the sample size and heterogeneity (MSEs from different business activity and different sources of financing are included in sample) of the research sample. Further research could observe only micro loan borrowers to investigate the impact of micro loan on the business performance as well as the differences in performance depending on whether the entrepreneurs were provided with counselling/training and similar activity. In addition, it is necessary to determine whether the amount of these loans meets the needs of the enterprise and for what purposes they use it (survival or growth).

REFERENCES

Alpeza, M., et al. (2020) Izvješće o malim i srednjim poduzećima u Hrvatskoj – 2019, Zagreb, CEPOR – Centar za politiku razvoja malih i srednjih poduzeća i poduzetništva.

Anis, O., & Mohamed, F. (2012). How entrepreneurs identify opportunities and access to external financing in Tunisians micro-enterprises? African Journal of Business Management, 6(12), 4635-4647. https://doi.org/10.5897/AJBM11.1849

Aremu, M. A., & Adeyemi, S. L. (2011). Small and medium scale enterprises as a survival strategy for employment generation in Nigeria. Journal of sustainable development, 4(1), 200. https://doi.org/ 10.5539/jsd.v4n1p200

Artola, C., & Genre, V. (2011). Euro area SMEs under financial constraints: belief or reality? https://doi.org/ 10.2139/ssrn.1966955

Asad, M., Sharif, M. N. M., & Alekam, J. M. E. (2016). Moderating effect of entrepreneurial networking on the relationship between access to finance and performance of micro and small enterprises. Paradigms, 10(1), 1. https://doi.org/10.24312/paradigms100101

Bartlett, W., & Bukvič, V. (2001). Barriers to SME growth in Slovenia. MOST: Economic Policy in Transitional Economies, 11, 177-195. https://doi.org/10.1023/A:1012206414785

Berger, A. N., & Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. Journal of banking & finance, 22(6), 613-673. https://doi.org/ 10.1016/S0378-4266(98)00038-7

Brana, S. (2013). Microcredit: an answer to the gender problem in funding?. Small business economics, 40, 87-100. https://doi.org/10.1007/s11187-011-9346-3

Chikwira, C., Vengesai, E., & Mandude, P. (2022). The impact of microfinance institutions on poverty alleviation. Journal of Risk and Financial Management, 15(9), 393. https://doi.org/10.3390/jrfm15090393

Cole, R. A., & Mehran, H. (2018). Gender and the availability of credit to privately held firms: evidence from the surveys of small business finances. FRB of New York Staff Report, (383).

Cotei, C., & Farhat, J. (2017). The evolution of financing structure in US startups. The Journal of Entrepreneurial Finance, 19(1), 4. https://doi.org/10.57229/2373-1761.1307

Cruz Rambaud, S., López Pascual, J., Moro-Visconti, R., & Santandreu, E. M. (2022). Should gender be a determinant factor for granting crowdfunded microloans?. Humanities and Social Sciences Communications, 9(1), 1-13. https://doi.org/10.1057/s41599-022-01475-z

Cruz Rambaud, S., López Pascual, J., & Santandreu, E. M. (2023). A socioeconomic approach to the profile of microcredit holders from the Hispanic minority in the USA. Financial Innovation, 9(1), 1-25. https://doi.org/10.1186/s40854-022-00422-w

Czepiel, S. A. (2002). Maximum likelihood estimation of logistic regression models: theory and implementation. Available at czep. net/stat/mlelr.pdf

Drexler, B., van Bork, G., Mueffelmann, S., Hashemian, C., Siek, H., Sturm, M., ... & Pytkowska, J. (2020). Microfinance in the European Union: Market analysis and recommendations for delivery options in 2021-2027. Luxembourg: Publications Office of the European Union.

Fatoki, O. O., & David, G. (2010). Obstacles to the growth of new SMEs in South Africa: A principal component analysis approach. African journal of Business management, 4(5), 729-738. https://doi.org/10.5539/ibr.v4n2p161

Fatoki, O., & Asah, F. (2011). The impact of firm and entrepreneurial characteristics on access to debt finance by SMEs in King Williams' Town, South Africa. International Journal of Business and Management, 6(8), 170.

Fatoki, O., & Odeyemi, A. (2010). The determinants of access to trade credit by new SMEs in South Africa. African Journal of Business Management, 4(13), 2763-2770.

Gill, A., & Biger, N. (2012). Barriers to small business growth in Canada. Journal of Small Business and Enterprise Development, 19(4), 656-668. https://doi.org/10.1108/14626001211277451

Giurca Vasilescu, L. (2010). Financijski jaz za mala i srednja poduzeća i mezzanine kapital. Economic research-Ekonomska istraživanja, 23(3), 57-67. https://doi.org/10.1080/1331677X.2010.11517423

Haider, S. H., Officer, C. S., Asad, M., Fatima, M., & Abidin, R. Z. (2017). Microfinance and performance of micro and small enterprises; Does training have an impact. indicators, 4(1). https://doi.org/ 10.5296/jebi.v4i1.10566

Hill, S., Ionescu-Somers, A., Coduras, A., Guerrero, M., Roomi, M. A., Bosma, N., ... & Shay, J. (2022, February). Global entrepreneurship monitor 2021/2022 global report: Opportunity amid disruption. In Expo 2020 Dubai.

Kariv, Dafna & Coleman, Susan. (2015). Toward a theory of financial bricolage: The impact of small loans on new businesses. Journal of Small Business and Enterprise Development. 22. 196-224. 10.1108/JSBED-02-2013-0020.

Kebede, S. N., & Abera, N. (2014). Determinants of micro and small enterprises access to finance. Developing countries studies, 4(21), 90-104.

Kessy, S. S. (2012). Microfinance Intervention and Enterprises Growth: An Application of Structural Equation Modelling. Mathematical Theory and Modeling, 2(8), 47-57.

Khalid, H. A., & Kalsom, A. W. (2014). Financing of small and medium enterprises (SMEs): Determinants of bank loan application. African Journal of Business Management, 8(17), 717-727. https://doi.org/10.5897/AJBM2013.7222

Kisaka, S. E., & Mwewa, N. M. (2014). Effects of micro-credit, micro-savings and training on the growth of small and medium enterprises in Machakos County in Kenya. Research Journal of Finance and Accounting, 5(7), 43-49.

Kolaković, M., Turuk, M., & Turčić, I. (2019). Access to Finance–Experiences of SMEs in Croatia. Zagreb International Review of Economics & Business, 22(SCI), 1-14. https://doi.org/10.2478/zireb-2019-0001

Kumar, S., & Rao, P. (2015). A conceptual framework for identifying financing preferences of SMEs. Small Enterprise Research, 22(1), 99-112. https://doi.org/10.1080/13215906.2015.1036504

Landström, H. (2017) Advanced introduction to entrepreneurial finance. London: Edward Elgar Publishing Ltd.

Leach, J. C., & Melicher, R. W. (2011). Entrepreneurial finance. Cengage Learning.

Magboul, A., & Hassan, R. (2016). DETERMINANTS OF SMALL-SCALE BUSINESS OWNERS'PARTICIPATION IN FORMAL MICROCREDIT MARKETS IN SUDAN. The Journal of Developing Areas, 50(5), 229-240. https://doi.org/10.1353/jda.2016.0063

Moritz, A., Block, J. H., & Heinz, A. (2016). Financing patterns of European SMEs–an empirical taxonomy. Venture Capital, 18(2), 115-148. https://doi.org/10.1080/13691066.2016.1145900

Mota, J., Moreira, A. C., & Brandão, C. (2018). Determinants of microcredit repayment in Portugal: analysis of borrowers, loans and business projects. Portuguese Economic Journal, 17, 141-171. https://doi.org/10.1007/s10258-018-0148-2

Neuberger, D. (2015). Financial inclusion, regulation, and education in Germany. https://doi.org/10.2139/ssrn.2627488

Nyikos, G., & Soós, G. (2018). Microfinance and access to finance of SMES. INNOVATION MANAGEMENT, ENTREPRENEURSHIP AND SUSTAINABILITY 2018, 831.

Oukes, T. & Von Raesfeld, A. (2016). A start-up in interaction with its partners, IMP Journal, 113 10(1), pp. 50–80. https://doi.org/10.1108/IMP-06-2015-0026

Pepur, S., Kovač, D., & Ćurak, M. (2020). Factors Behind Trade Credit Financing of SMEs in Croatia. Zbornik Veleučilišta u Rijeci, 8(1), 59-76. https://doi.org/10.31784/zvr.8.1.11

Rahman, A., Rahman, M. T., & Belas, J. (2017). Determinants of SME finance: Evidence from three central European countries. Review of economic perspectives, 17(3), 263-285. https://doi.org/10.1515/revecp-2017-0014

Robu, M. (2013). The dynamic and importance of SMEs in economy. The USV annals of economics and public administration, 13(1 (17)), 84-89.

Rupeika-Apoga, R. (2014). Alternative financing of SMEs in the Baltic states: Myth or reality?. Procedia-Social and Behavioral Sciences, 156, 513-517. https://doi.org/10.1016/j.sbspro.2014.11.231

Ruslan, R. A. H. M., Gan, C., Hu, B., & Quang, N. T. T. (2020). Impact of microcredit on SMEs performance in Malaysia. International Journal of Business and Economics, 19(1), 109-130.

Sidek, S., Mohamad, M. R., & Nasir, W. M. N. W. M. (2015). Entrepreneurial orientation dimensions, barriers of access to finance and small business performance: a proposed conceptual framework. Editors, 239.

Singer, S., Šarlija, N., Pfeifer, S., Oberman Peterka, S. Što Hrvatsku čini (ne) poduzetničkom zemljom? GEM Hrvatska 2019-2020., 2021

Soini, E., & Veseli, L. (2011). Factors influencing SMEs growth in Kosovo. Turku University of Applied Sciences, Bachelor

Trinh, P. T. T., & Thanh, N. D. (2017). Development characteristics of SME sector in Vietnam: Evidence from the Vietnam enterprise census 2006–2015. VEPR [Viet Nam Institute for Economic and Policy Research, supported by The Friedrich Naumann Foundation for Freedom] Working Paper WP-18. Hanoi, Vietnam.

Vidučić, Lj. (2001). Teorijska i praktična motrišta strukture kapitala. Ekonomski pregled, 52(7-8), 784-800.

Vidučić, V., Vidučić, L. & Boras, D. (2014). SMEs Access to Finance in Croatia-Model Approach. U: Proceedings International Science Conference

Waked, B. (2016). Access to Finance by Saudi SMEs: Constraints and the Impact on their Performance (Doctoral dissertation, Victoria University).

Wanambisi, A. N., & Bwisa, H. M. (2013). Effects of microfinance lending on business performance: A survey of micro and small enterprises in Kitale municipality, Kenya. International Journal of Academic Research in Business and Social Sciences, 3(7), 56. https://doi.org/10.6007/IJARBSS/v3-i7/9

Xiang, D., & Worthington, A. (2015). Finance-seeking behaviour and outcomes for small-and medium-sized enterprises. International Journal of Managerial Finance. https://doi.org/10.1108/IJMF-01-2013-0005

FINA: https://www.fina.hr/novosti/-/asset_publisher/pXc9EGB2gb7C/content/rezultati-poslovanja-poduzetnika-u-2021.-godini-razvrstani-po-velicini?_com_liferay_asset_publisher_web_portlet_AssetPublisherPortlet_INSTANCE _ p Xc9EGB2gb7C _assetEntryId=891618 (20.12.2022.)

European Central Bank, Survey on the Access to Finance of Enterprises in the euro area April to September 2021: https://www.ecb.europa.eu/stats/accesstofinancesofenterprises/pdf/ecb.safe202111~0 380b0c0a2.en.pdf (04.01.2023.)

European Central Bank, Euro area bank lending survey: https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/ecb.blssurvey2022q3~f65831209d.en.html#toc5 (04.01.2023.)

SME Performance Review 2021/2022 - Croatia country sheet: https://ec.europa.eu/docsroom/documents/50680/attachments/1/translations/en/renditions/native (04.01.2023.)

CEPOR (2021) MALA I SREDNJA PODUZEĆA U HRVATSKOJ U UVJETIMA PANDEMIJE BOLESTI COVID-19 https://www.cepor.hr/publikacijepolicy-dokumentiprezentacije/izvjesce-o-malim-i-srednjim-poduzecima/ (04.01.2023.)

The World bank, Doing business, https://subnational.doingbusiness.org/en/data/exploretopics/getting-credit/score (04.01.2023.)

OECD, SME policy index, Access to finance, https://www.oecd-ilibrary.org/sites/a0596eb4-en/index.html?itemId=/content/component/a0596eb4-en (04.01.2023.)

The euro area bank lending survey https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/pdf/ecb.blssurvey2022q4~e27b836c04.en.pdf (05.03.2023.)