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From intention to action: Understanding bank credit access through the lens of the theory of planned behavior

JEL Classification: D25; G21; G41; L25; L26

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Abstract

Research background: Bank credit access plays a determining role in enterprises’ financial growth, competitiveness, and internationalization. However, most entrepreneurs are afraid of being rejected from their credit applications due to financial disadvantages that reduce their probability of receiving credits. To minimize credit access concerns, their entrepreneurial behaviors that are included in the Theory of Planned Behavior (TPB), such as personal attitude (PA), perceived behavioral control (PBC), and subjective norm (SN), might be a good solution. However, depending on cultural differences, their attitudes regarding these factors might change, which also causes changes in firms’ probability of receiving credit.

Purpose of the article: This research aims to examine whether the impact of PA, PBC, and SN on credit access of enterprises differ depending on the countries where they do their business.

Methods: The researchers investigate 1367 enterprises from different countries. These firms are selected using a purposive sampling method, and then an online questionnaire is sent to the survey respondents. Binary Logistic Regression analyses are performed for analysis purposes.

Findings & value added: The results indicate that while the impact of PA on bank credit access does not differ depending on the countries where firms are located, international differences exist in the impacts of PBC and SN on the credit access of enterprises. This paper finds international differences in the impact of RBV’s intangible assets (PA, PBC, SN) on a tangible asset of RBV (financial capability) and explains these results with the factors (economic, political, legal systems) included in Institution-based View, and brings all components of both theories RBV and Institution-based View in a unique research. Financial and educational support from governments and universities for fresh graduate individuals can stimulate entrepreneurial attitudes and financing abilities of prospective entrepreneurs to overcome credit access obstacles.

Introduction

Bank credit access is one of the biggest fears of entrepreneurs. Having a lack of internal financial sources and assets (Andrieu et al., 2018; Civelek & Krajčík, 2022) and a fragile financial structure (Jenkins & Hossain, 2017; Civelek et al., 2023a) that causes greater financial risk (Civelek et al., 2023b; Morvai et al., 2022) and low financial performance (Görg & Kersting, 2017; Ključnikov et al., 2022a) can limit entrepreneurs’ ability (Azman & Abdul Majid, 2023) to increase their bank credit access. This ability is based on a tangible resource of the Resource-based View (RBV), called financial capability (Van Rijnsoever & Eveleens, 2021). Another reason for entrepreneurs’ concern about credit access might be information asymmetry between lenders and borrowers. This issue might cause banks to encounter
adverse selection trouble and have more significant non-performing loans in their portfolio because one party in a credit application, banks can be less informed about another party or firms and can make mistakes when selecting the quality firms to finance (Andrieu et al., 2018). Moreover, enterprises' lack of audited financial statements can increase the information asymmetry problem. Firms have more information about their financial power than banks; thus, banks being less informed about this factor can also lead to wrong credit decisions. Banks can ask for more collateral to minimize this adverse selection issue (Duarte et al., 2017) and charge firms with higher interest rates (Carroll & McCann, 2017), increasing entrepreneurs' bank credit access concerns.

To minimize information asymmetry issues and reduce their credit access concerns, entrepreneurs might need to display their entrepreneurial behaviors, such as personal attitude (PA), perceived behavioral control (PBC), and subjective norm (SN) that are based on the Theory of Planned Behavior (TPB). These behaviors do not only determine the entrepreneurial intention of entrepreneurs (Pham et al., 2023; Ilomo & Mwantimwa, 2023; Uctu & Al-Silefanee, 2023) but also affect their financing decisions (Koropp et al., 2014) and access to finance (Purwanto et al., 2022).

Ajzen (1991) is the founder of this theory. Many studies also follow this scholar’s approach when clarifying and defining the indicators of TPB (Luc, 2018; Romaní et al., 2022; Pham et al., 2023). According to these studies, PA refers to individuals' self-evaluation of a specific action and their negative or positive perception regarding performing this activity. Thus, if individuals positively perceive some entrepreneurial activities, they become more interested in achieving their targets (Luc, 2018). In this regard, entrepreneurs who perceive bank credit access positively can also become more likely to access finance. Moreover, PBC is related to individuals' perceptions of the ease or difficulty of performing a particular behavior. Thus, it might differ depending on individuals’ experience and their predictions for prospective barriers before taking action (Romani et al., 2022; Pham et al., 2023). In this regard, if entrepreneurs perceive credit impediments more intensively, they can become reluctant to apply for bank credit and vice versa. PBC is also very similar to self-efficacy behavior (Xiong et al., 2021). When it comes to SN, it represents whether individuals consider the pressures and ideas of their parents, relatives, friends, or other people in their networks when deciding on a specific task (Luc, 2018). Considering those people's positive reactions, entrepreneurs’ motivation to
apply for bank credit can increase and vice versa. Similar to access to bank finance, PA, PBC, and SN are also included in RBV theory. However, while access to bank finance (the ability to raise external capital) is a tangible resource, the capability of RBV, PA, PBC, and SN belong to the intangible resources and capabilities of RBV. This is because PA, PBC, and SN are related to human factors, and they are included in the managerial talents of RBV (Peng, 2009). These resources and capabilities included in RBV enable businesses to survive and increase their performance and competitiveness (Krajcik et al., 2023; Lacko et al., 2023).

Furthermore, many studies confirm the positive association between PA, PBC, SN, and access to finance by analyzing some firms from Pakistan (Purwanto et al., 2022), Germany (Koropp et al., 2014), and 29 other countries in Europe and Asia (Kijkasiwat, 2021). However, some other studies investigate various markets and confirm the different impacts of these variables on credit access of enterprises from Vietnam (Nguyen, 2020), Sri Lanka (Jebarajakirithy & Thaichon, 2016) and Australia (Muzychenko & Liesch, 2015). In this regard, cultural differences might be the reason for the differences in the results of the studies mentioned above. This is because PA, PBC, and SN might differ depending on countries where individuals and businesses are located (St-Jean et al., 2014; García-Rodríguez et al., 2015; Hassan et al., 2016; Morren & Grinstein, 2021; Tomal & Szromnik, 2022; Wach et al., 2023) and the differences in these attitudes can also cause various impacts of those indicators on credit access of enterprises.

For these reasons, this paper aims to indicate cross-country differences in the impact of PA, PBC, and SN on enterprises' credit access. In parallel with this aim, research questions might arise: "Do the impacts of PA, PBC, and SN on bank credit access differ based on firms’ country of origin?" Consistent with the research aim, this research examines 1367 firms located in various members of the European Union, namely, Czechia, Slovakia, Hungary, and Poland. The research team generates an online survey to gain the research data. The research samples are created by applying a purposive sampling method. Moreover, the researchers performed binary logistic regression analyses for analysis purposes. The results of this study are based on the perceptions of survey respondents who are the executives of the analyzed SMEs and large enterprises, including firm owners, shareholders, and managers. This paper considers the firms’ executives’
perceptions related to the role of these people in firms’ financing decisions and financing processes.

The theoretical and practical contributions of this research are threefold. First, although the studies mentioned above investigate the impacts of PA, PBC, and SN on access to finance, their research samples are limited to firms from a unique country (Koropp et al., 2014; Purwanto et al., 2022). Moreover, some studies examine cross-country differences regarding the entrepreneurial intention of university students and individuals (Liñán et al., 2013; Soltwisch et al., 2023; Wach et al., 2023). However, many unanswered questions remain regarding international differences in the impact of PA, PBC, and SN on bank credit access. This is the research gap that this paper aims to fill, and this fact is the main difference between this research and other studies. Unlike other studies, this paper also focuses on the perception of firm executives when evaluating PA, PBC, SN, and credit access. The policies and recommendations this study suggests can also increase the entrepreneurial initiatives of company executives and their firms’ bank credit access.

Second, this paper investigates international differences in the impact of RBV’s intangible assets (the variables of TPB) on tangible assets (financial capability, ability to raise external capital). Therefore, both tangible and intangible resources and RBV assets are included in this study. Furthermore, this paper considers cross-cultural dimensions that belong to the informal rules of the game of Institution-based View to set research hypotheses. This study considers individualism, power distance, and uncertainty avoidance indicators of the Hofstede Index, which are prevalent when explaining cross-country differences. Various researchers have also applied these indicators when comparing the entrepreneurial intention of individuals from various countries (Liñán & Chen, 2009; Tomal & Szromnik, 2022; Soltwisch et al., 2023; Wach et al., 2023).

Third, this paper finds international differences in the investigated impacts of the variables of TPB on access to finance and discusses these differences by mentioning the Formal Rules of the game of Institution-based view, namely, economic, political, and legal systems. For these reasons, this research brings two theories, the RBV and the institution-based view, into a single study. Academicians might also apply this approach when working on new studies. The international differences that this study confirms can also draw international financing institutions’ attention. When providing credits for borrowers, they can differentiate
their credit policies and implement a more localized approach that aligns with the entrepreneurial attitudes of firms with different cultures.

The rest of this research will be presented as follows: The literature backbone and the research hypotheses will be explained in the next section. This study expresses the applied methodological approaches and data collection methods in the Research method section. Comments on hypotheses testing and research results will be made in the Results section. The researchers compare their findings with other studies and propose reasons for their results in the Discussion section. The researchers clearly summarize the crucial points of this study in the Conclusions section and suggest some implications and recommendations for policymakers, financing institutions, and academicians in the Conclusions.

Literature review

Individualism/collectivism

Regarding the differences between PA of collectivist and individualistic societies, some researchers explain that people in individualistic cultures are more interested in performing their attitudes, preferences, and ideas to achieve their goals compared to individuals from collectivist cultures (Yang et al., 2015). This is because individualistic cultures encourage people to achieve their entrepreneurial goals by providing individual rewards and a more supportive environment for individual actions (Soltwisch et al., 2023). However, people in a collectivist culture also show greater dependency and loyalty to groups, companies, and organizations (Hassan et al., 2016). This unity, loyalty, and dependency can restrict entrepreneurial activities and abilities, since people can not take independent actions and make their own decisions regarding specific business operations and their goals, financing decisions, and credit access. For instance, Morren and Grinstein (2021) also confirm the differences between individualistic and collectivistic countries regarding the relationship between PA and entrepreneurial intention. The researchers also emphasize the more substantial impact of PA on entrepreneurial intention in individualistic countries than their collectivistic counterparts. This fact is also highlighted by Hassan et al. (2016). Concerning the PBC, people in individualistic societies are motivated to achieve specific tasks.
and temp to achieve their aims. They also have a greater PBC when they hit
their targets than individuals from collectivist societies (Soltwisch et al.,
2023). For this reason, their PBC can also direct them to fulfill credit
requirements when they want to receive finance.

When it comes to SN of people and businesses from collectivist and
individualistic countries, many researchers also emphasize the differences
(Liñán & Chen, 2009; García-Rodríguez et al., 2015). SN determines an
individual’s attitude, since they can be influenced by people who are very
important to them (Jin et al., 2012). Since people from collectivistic societies
are more interdependent with each other and prioritize the group’s goal
over their personal goals, they can feel more concerned about other
people’s perceptions regarding specific tasks (Morren & Grinstein, 2021).
Therefore, they would like to be in tune with group members to show
loyalty to the group, family, and friends (Jin et al., 2012). The strong
relationship between individuals and their friends and family members can
also enable them to receive more moral and material support (García-
Rodríguez et al., 2015; Soltwisch et al., 2023) when making financing and
entrepreneurial decisions. Thus, the impact of SN on entrepreneurial
intention has been more significant in collectivist cultures than
individualistic cultures (Liñán & Chen, 2009; Hassan et al., 2016).

Since entrepreneurs from individualistic countries might receive less
support from people in their network, this can also cause them to provide
less collateral and be unable to fulfill the required conditions for credit
application. Moreover, since people in this culture behave more
autonomously, make their own decisions, and have a more risk-taking
attitude (Ključnikov et al., 2022b), these characteristics of entrepreneurs can
be negatively perceived by credit officers when making financing
decisions. The majority of people from individualistic societies also care
only for themselves; therefore, their relationships with their partners and
other organizations can be loose. In this regard, company executives can be
less likely to share information, which causes information asymmetry
between lenders and borrowers. These information asymmetry issues
between firms and banks can reduce credit access for them (Moro et al.,
2021). Furthermore, Lin et al. (2024) analyze businesses from 58 countries
and confirm that firm owners in individualistic countries have negative
perceptions of bank credit access. This is because firms in individualistic
societies might face strict credit contracts, rules, and regulations that create
credit obstacles. Boubakri and Saffar (2016) analyze firms from 56 and
declare that institutions in individualistic societies direct firms to fulfill contractual rules that minimize transaction costs and information asymmetries.

Power distance

Power distance also impacts the entrepreneurial intention, PA, and PBC of entrepreneurs from different countries (Tomal & Szromnik, 2022). Hierarchical levels in higher power distance societies influence people’s attitudes and can determine their relationships with managers and subordinates. Thus, people in a high power distance culture can not feel comfortable performing their attitudes and preferences, and other people’s opinions might limit them. For this reason, people in such a society are not prone to adopt entrepreneurial attitudes as they are in a country with a lower power distance (Hassan et al., 2016). Liñán et al. (2013) compare individuals in Spain and Britain and state that individuals in a country with a greater power distance (Spain) are less likely to implement entrepreneurial activities compared to a country with a lower power distance (Britain). Therefore, individuals from a low power distance country can show greater propensity and PA to gain financial resources, become more likely to fulfill credit requirements and increase their probability of receiving credit access. Concerning PBC, people at low power distances indicate greater PBC and are more effective in decision-making (Hassan et al., 2016). Tomal and Szromnik (2022) also substantiate PBC’s different impacts on prospective entrepreneurs' entrepreneurial intention from Poland, Czechia, Slovakia, Russia, and Latvia. Since greater PBC of individuals from a low power distance society can also enable them to signal firms’ ability to afford credit costs, it might increase firms’ creditworthiness and reduce firms’ credit access obstacles.

Regarding the impact of SN on entrepreneurial activities, St-Jean et al. (2014) compare the impact of SN on the entrepreneurial intention of high power distance (Algeria) and low power distance societies (Belgium, France, Canada) and prove the more substantial effect of SN on the entrepreneurial intention of higher power distance culture. Moreover, Warner et al. (2009) analyze the impact of SN on the entrepreneurial intention of entrepreneurs from Sweden and Turkey and substantiate different impacts in these samples. Since SN plays a more motivating role
for entrepreneurs in high power distance cultures, they can be positively influenced by their networks’ perception of access to financial resources.

Lin et al. (2024) declare that businesses in high power distance cultures encounter more barriers to bank credit access and are less likely to access bank finance than firms operating in low power distance societies. This is because the hierarchical structure in high power distance societies creates information asymmetry issues between lenders and borrowers, such as managers having greater hierarchy status can hide information when asking for credit from banks (Jain & Jain, 2018). Since banks make credit decisions, their status makes businesses hide information. A lack of business information also makes banks reject credit access to enterprises (Berger & Udell, 2006). Moro et al. (2021) also express that businesses in high power distance societies can not receive bank credit access because power distance in the relationship between banks and businesses causes information asymmetry problems. Moreover, rigid hierarchical structures in high power distance societies limit individuals’ financing decisions (Kanagaretnam et al., 2011). Boubakri and Saffar (2016) also state the fact that due to having more bureaucracy, strict controlling mechanisms, rules and procedures, and agency conflicts in high power distance societies, businesses in low power distance societies have more abilities to cope with financial obstacles and have more opportunities to have external finance. Furthermore, Marfo-Yiadom and Tweneboah (2022) emphasize that subordinates of banks in high power distance societies determine the financial innovation of banks. Therefore, they will be reluctant to make radical, innovative decisions. Their resistance to change might also limit them when providing innovative solutions for credit access to enterprises. Dority et al. (2019) analyze individuals from 70 different countries and prove the negative impact of power distance on access to private finance. These researchers also highlight that when individuals are more tolerant of uncertain situations, their credit access ability increases. Ashraf et al. (2016) examine 75 banks from several countries and explain that banks in low-uncertainty avoidance societies can take more risks than banks in high-uncertainty avoidance societies. Risky approaches of banks can increase firms’ opportunities to receive credit access.
Uncertainty avoidance

Uncertainty avoidance refers to the degree of threat sensitivity of people from various cultures in case of facing uncertain conditions (Tomal & Szromnik, 2022). This factor is also related to individuals’ risk-taking attitudes and risk perception. This is because people from high uncertainty avoidance cultures do not like taking risks, while people from low uncertainty avoidance cultures can take more risks under unknown situations (Civelek et al., 2022). In this regard, people from a high uncertainty avoidance culture might perceive entrepreneurial activities as more risky. Thus, they can have lower entrepreneurial intentions and tendencies to take required actions (Wach et al., 2023). For instance, Liñán et al. (2013) compare some British and Spanish individuals’ entrepreneurial intentions and state that Spanish individuals are less tolerant of uncertainty, and their level of uncertainty avoidance is more significant than their British counterparts. This might make Spanish people less prone to implement entrepreneurial activities than British people (Liñán et al., 2013).

A higher fear of failure in high uncertainty avoidance cultures also causes lower PBC for entrepreneurial activities in these countries than in low power distance cultures. Wach et al. (2023) compare the impact of Namibian and German entrepreneurs’ PBC on their entrepreneurial intention and verify the more substantial effect of PBC on entrepreneurial intention in a lower uncertainty avoidance culture, namely, Namibia, than Germany. Similarly, García-Rodríguez et al. (2015) analyze the impact of PBC on the entrepreneurial intention of low (Senegal) and high power distance cultures (Spain) and substantiate the stronger influence of PBC on the entrepreneurial intention of individuals from Senegal compared to their Spanish counterparts. For this reason, the impact of PBC on entrepreneurial intention is more significant in a low uncertainty avoidance culture. On the other hand, Wach et al. (2023) and Liñán and Chen (2009) bear out the fact that the impact of SN on entrepreneurial intention is more substantial in a high uncertainty avoidance culture compared to a low uncertainty avoidance culture. More intensive moral and material support that people receive in low uncertainty avoidance cultures can enable them to achieve their bank access objective compared to their counterparts in high uncertainty avoidance cultures.
Aggarwal and Goodell (2014) also investigated firms from 142 countries, proving that financing access is more difficult for enterprises in higher uncertainty avoidance societies. This is because a greater uncertainty avoidance environment enables banks to ask for many requirements that complicate bank credit access processes. Moro et al. (2021) examine firms from 16 European countries and verify that banks in high uncertainty avoidance societies are cautious when making loan decisions. For these reasons, banks create more barriers for businesses to access finance (Tang & Moro, 2020), and the costs of credit increase for firms (Howorth & Moro, 2012). Thus, firms in low uncertainty avoidance societies enjoy having more credits (Dority et al., 2019). Lin et al. (2024) also observe similar results by analyzing the informal credit access of enterprises.

**Country classification and hypotheses**

Concerning the volume of the investigated countries, including individualism, power distance, and uncertainty avoidance dimensions of the Hofstede Index (2024), Czechia, Slovakia, Hungary, and Poland have various results. Corresponding to the individualism scores of these countries from Hofstede’s Index (2024), while Czechia, Hungary, and Slovakia can be identified as individualistic countries, Poland can not be called an individualistic society (The volumes are 70, 71, 57, and 47, respectively). Regarding the uncertainty avoidance variable, Hofstede’s Index (2024) indicates that while Hungary is an example of a low power distance society, Czechia, Poland, and Slovakia are examples of high power distance societies. (The volumes are 46, 57, 68, and 100 for Hungary, Czechia, Poland, and Slovakia, respectively). When it comes to the values of countries from the uncertainty avoidance dimension of the Hofstede Index (2024), while Poland, Hungary, and Czechia are examples of high uncertainty avoidance cultures, Slovakia is not (The volumes are 93, 82, 74, and, 51 for Poland, Hungary, Czechia and Slovakia, respectively). The empirical findings of the studies mentioned above in previous subsections and the volumes of the countries from Hofstede’s dimensions make this paper presume that the impact of PA, SN, and PBC on access to finance can differ depending on the countries where enterprises are located. Thus, the research hypotheses might be set as follows:
H1: **PA’s impact on access to bank finance differs depending on the countries where enterprises are located.**

H2: **The impact of PBC on access to bank finance differs depending on the countries where enterprises are located.**

H3: **SN’s impact on bank finance access differs depending on the countries where enterprises are located.**

**Research methods**

This research investigates whether the impacts of PA, PBC, and SN on bank credit access differ depending on the countries where enterprises do their business. The researchers asked the following question to measure the credit access of businesses: “Have you ever had a loan from a bank?”. The respondents who replied “No” to this question have not received credit from a bank and vice versa. The dependent variable of the research models, access to finance, is coded as 1, and no access is coded as 0. Since the dependent variable is measured by a dichotomous (yes, no) question, a logit model will be used for analysis purposes.

To hit the research target, the researchers examined 1367 firms operating in various countries, including Czechia, Slovakia, Hungary, and Poland. The researchers generated an online survey using Google Forms and shared it via Facebook. Although the researchers used the same survey questions and created the survey in English, the experts translated the questionnaire into the local languages. The researchers applied a purposive sampling method by focusing on the age group of the survey respondents, covering firm executives, such as firm owners, shareholders, and managers of the analyzed firms. The data collection period took almost six months, starting in January 2023.

Although the entire survey includes different sections for evaluating various firms and respondents’ characteristics and attitudes, this paper focuses on 15 survey questions that assess enterprises’ PA, PBC, SN, and credit access. These questions are presented in Table 1. While the researchers evaluated credit access of enterprises by a dichotomous question (Yes, No), the researchers employed a 7-point Likert Scale to scale the responses for different survey questions that evaluate PA, PBC, and SN, respectively.
While the researchers measured PA with five survey questions, PBC and SN were measured with six and three different survey questions, respectively. Table 1 is depicted to illustrate these survey questions. All 14 survey questions evaluating the constructs of TPB were taken from the studies of Liñán and Chen (2009). Liñán and Chen (2009) made analyses for the reliability and validity of PA, PBC, and SN and measured these variables with five, six, and three different survey questions, respectively. Nabi and Liñán (2013), Trivedi (2016), and Maresch et al. (2016) also used some of the survey questions that Liñán and Chen (2009) created when evaluating PA, PBC, and SN.

PA, PBC, and SN variables were created as a summation score of 5, 6 and 3 items (the items are presented in Table 1), measured on a scale of 1 to 7 (a 7-point Likert Scale). Thus, the raw scores for these variables can be ranged between 5 to 35, 6 to 42 and 3 to 21 for PA, PBC and SN variables, respectively. For instance, while the minimum value for PA can be 5 points, the maximum value for PA can be 35 points.

Due to having a dependent variable (access to bank finance) that is measured by a dichotomous question with binary outcomes such as “Yes” or “No,” the researchers perform Binary Logistic Regression analyses. Moreover, the independent variables of the research questions are PA, PBC, and SN for the 1st, 2nd, and 3rd research models, respectively.

In the logit model, the dependent variable \( y_i^* \) is qualitative and latent, representing the potential for access to bank finance or not. Thus, \( y_i^* \) only takes two values 1 or 0. Regression model can be presented as follows (Maddala & Lahiri, 2009):

\[
y_i^* = \beta_0 + \sum_{j=1}^{k} \beta_j x_{ij} + u_i
\]

where:
- \( y_i^* \) an unobserved variable
- \( x_{ij} \) independent variables

The observed variable \( y_i \) can be described as follows:

\[
y_i = \begin{cases} 
1, & \text{if a firm accessed to bank credit} \\
0, & \text{otherwise}
\end{cases}
\]
The following dependence can be created by following the equations (1) and 2):

\[ P_t = P(y_t = 1) = F\left( \beta_0 + \sum_{j=1}^{k} \beta_j x_{ij} \right) \]  

where:

- \( F \) The distribution of the variable \( U \).

Since \( F \) represents the logistic distribution of the variable \( U \), the logit model can be created as follows:

\[ z_t = \frac{F(x_t)}{1+F(x_t)} = \log \frac{P_t}{1-P_t} = \beta_0 + \sum_{j=1}^{k} \beta_j x_{ij} \]  

where:

- \( z_t \) logarithm of the odds ratio.

The researchers also ran 2 Log Likelihood (-2LL), Cox&Snell and Nagelkerke, Hosmer, and Lemeshow, and Durbin Watson Tests to measure the assumptions of Logistic Regression Models, namely, Model Fit and Independence of Errors. Table 2 indicates the results of these analyses.

The researchers consider the volumes from 2 Log Likelihood (-2LL), Cox and Nagelkerke, Hosmer, and Lemeshow indicators when measuring Model Fit. Concerning 2 Log Likelihood (-2LL) statistics in Table, “Base models’ -2 Log likelihood” only consists of a constant term, while “— 2 Log likelihood with predictors” includes the independent variables of the research models, namely, PA (1st model), PBC (2nd model) and SN (3rd model). Lower values of “— 2 Log likelihood with predictors” than “Base models’ -2 Log likelihood” represent better prediction abilities for the variations in the dependent variable. Notably, the decrease in predictors caused by Base Models must be statistically significant at a 5% significance level. While the decreases are presented under the “Chi-square” column next to the “— 2 Log likelihood with predictors”, p values indicate the significance of the decreases that the predictors cause. Although the values for “— 2 Log likelihood with predictors” are all lower than the volumes of “Base models’ — 2 Log likelihood”, there are just a few significant results. According to Table 2, p values for the Czech sample in the 2nd and 3rd research models and p value for the Polish sample in the 2nd research model are lower than 5% significance level. In this regard, it can be clarified...
that 2nd research model that includes perceived behavioral control as a predictor has a better predicting ability of access to bank finance than the Base Models for Czech and Polish businesses. Moreover, 3rd research model, having a subjective norm as a predictor, has a better predicting ability of the changes in access to finance than the Base Model only in the Czech sample. However, since the decreases that the independent variable (PA) causes in Base models’ — 2 Log likelihood” are not significant for the 1st research model, this model does not fit well.

Cox & Snell and Nagelkerke R2 indicators not only measure model fit, but also indicate the percentage of changes that independent variables cause in the dependent variable. Greater volumes from these indicators represent a better model fit. These indicators are also called the components of the Pseudo R-square (Ho, 2013). When focusing on the results from Nagelkerke R2, it can be declared that perceived behavioral control (the independent variable of the 2nd research model) causes 1.7% and 2% of the changes in access to finance in Czech and Polish samples, respectively. Moreover, 1.7% of the changes in access to finance can be explained by SN (the independent variable of the 3rd research model) in the Czech sample.

Corresponding to the Hosmer and Lemeshow test values, these tests evaluate the compatibility between observed and predicted values of the dependent variables. A greater volume of differences between observed and predicted values indicates a lower predicting ability of the research models. P values greater than a 5% significance level confirm the compatibility of observed and predicted values of the dependent values. As indicated in Table 2, all p-values are more significant than the selected significance level and differ between 0.124 and 0.899. For this reason, the dependent variable’s observed and predicted values do not differ significantly, and they are compatible.

On the other hand, the researchers perform the Durbin-Watson Test to evaluate the assumption of independence of errors. This test measures whether an autocorrelation exists between errors or not and whether the same cases in the research data are repetitively tested at different times (Field, 2009). Closer values of 2 indicate that autocorrelations between errors are not in existence. As can be seen from Table 2, the values from this test are close to 2 (differ between 1.751 and 2.043), and they confirm the nonexistence of autocorrelation between errors. In this regard, this research fulfills the assumption of independence of errors.
Table 3 presents the results of the linearity assumption. This assumption evaluates the significance of the interaction terms between predictors and their log transformation. P values lower than a 5% significance level make the researchers invalidate this assumption, and vice versa. Since all p values presented in Table 3 are more significant than a 5% significance level and differ between 0.132 and 0.939, this study also fulfills the Linearity Assumption.

To sum up, since the values for Hosmer and Lemeshow Test, Durbin Watson Test, and Linearity analyses indicate the good predicting ability of research models and fulfill Independence of Errors and Linearity Assumptions, respectively, the researchers employ Binary Logistic Regression analyses via SPSS statistical program. Furthermore, this research does not consider the Multicollinearity Assumption due to having only an independent variable in all research models.

Concerning the details of the investigated firms, while the number of firms in the Czech sample is 568, this value for Slovak, Hungarian, and Polish samples is 376, 92, and 331, respectively. While the majority of firms in the Polish sample are in the microenterprise segment (55.59% of the Polish sample, 184 firms), Czech, Slovak, and Hungarian samples mainly consist of small, medium, and larger-sized enterprises (66.55%, 68.09% and 66.30% of Czech, Slovak and Hungarian samples, respectively). While the length of doing business for the majority of Polish businesses is up to ten years (50.76% of the Polish sample, 168 firms), the majority of firms in Czech, Slovak, and Hungarian samples have been operating for more than ten years (66.02%, 62.77%, and 71.74% of Czech, Slovak and Hungarian samples, respectively).

Concerning the details of survey respondents, most Czech and Slovakian respondents are up to 45 years old (72.54% of the Czech respondents and 65.96% of the Slovakian respondents). However, most of the survey respondents in Hungarian and Polish samples are older than 45 (58.70% of the Hungarian respondents and 54.98% of the Polish respondents). On the other hand, while most Czech and Slovak respondents have a lower educational status (less than a bachelor’s degree), most Hungarian and Polish survey respondents have a minimum bachelor’s degree. The percentages of the well-educated respondents (respondents having minimum bachelor’s degree) in Czech, Slovak, Hungarian, and Polish samples are 33.98%, 48.40%, 60.87%, and 83.38%, respectively.
The researchers select a 5% level of significance for hypotheses testing. Thus, p values greater than this significance level support null hypotheses. Null hypotheses assume the nonexistence of country-level differences in the impacts of PA, PBC, and SN on enterprises’ bank credit access.

Results

The variables in Tables 4, 5, and 6 show the Wald chi-square statistic that represents whether each coefficient (β) in the models is statistically significant or not (Ho, 2013). This is because the Wald chi-square statistic tests whether each independent variable makes a significant contribution when holding constant the other predictors (Field, 2009; Ho, 2013).

Based on the Wald test, PBC is a significant predictor of access to finance for Czech and Polish enterprises. The coefficients (β) in Table 5 for Czech and Polish samples represent that PBC positively influences bank credit access of Czech and Polish firms. On the other hand, while PA is not a significant predictor of access to finance for all research samples, SN is only found to be a significant variable in predicting whether Czech firms access finance or not. The coefficient (β) in Table 6 states that SN negatively influences bank credit access of Czech firms. Due to these results, the researchers fail to support the H1 hypothesis. However, the researchers support the H2 and H3 hypotheses that assume country-level differences in the impact of PBC and SN on access to finance, respectively.

The odds ratio is another critical indicator explaining the logistic regression analysis results. The odds ratio shows how many times higher the odds of occurrence are when predictor variables increase by a unit (Ho, 2013). Odds ratios are indicated in the column “OR” in Tables 4, 5, and 6. In this paper, the authors have made ranges for OR and OR values greater than 1 indicate positive influence and vice versa. However, detailed interpretation of odds ratios will be based on the following formula:

\[
(e^\beta - 1) \times 100\% \tag{5}
\]

According to Table 5, β values for PBC variable in Czech and Polish samples are 0.144 and 0.166, respectively. Moreover, β value in Table 6 for
SN variable is -0.153 for Czech sample. In this regard, the following transactions can be performed:

\[(e^{0.144} - 1) \times 100\% = 15.49\%\]

\[(e^{0.166} - 1) \times 100\% = 18.06\%\]

\[(e^{-0.153} - 1) \times 100\% = -14.18\%\]

In their case of an increase in the value of the PBC variable, the probability of bank credit access was higher by 15.49 percent and 18.06 percent, respectively for Czech and Polish samples. However, in case of an increase in the value of the SN variable, the probability of bank credit access was lower by 14.18 percent.

In other words, each one-unit increase on the PBC variable increases the odds of accessing bank finance for Czech and Polish firms by 15.49 percent and 18.06 percent, respectively. For instance, a Czech firm that measures its PBC higher (e.g., with a score of 42, in the summation of 6 items of PBC in a 7-point Likert scale) than another Czech firm (that assess its PBC with a score of 41, the summation of 6 items of PBC on the 7 point Likert Scale) is 15.49 percent more likely to access to bank finance. Similarly, a Polish firm that assesses its PBC higher (e.g., with a score of 42, in the summation of 6 items of PBC on a 7-point Likert scale) than another Polish firm (that measures its PBC with a score of 41, the summation of 6 items of PBC on the 7 point Likert Scale) is 18.06 percent more likely to access to bank finance than its counterpart. These facts also confirm the positive impact of PBC on bank credit access of Czech and Polish enterprises.

According to Table 6, and the result presented above, each one-unit increase on the SN variable decreases the odds of accessing bank finance for Czech firms by 14.18 percent. Thus, a Czech firm that measures its SN higher (e.g., with a score of 42, in the summation of 6 items of PBC in a 7-point Likert scale) than another Czech firm (that assess its PBC with a score of 41, the summation of 6 items of PBC on the 7 point Likert Scale) is 14.18 percent less likely to access to bank finance.
Discussion

Since PA does not determine the credit access of enterprises in the entire research sample, this study does not support the international differences in the impact of PA on credit access. Thus, this result is incompatible with the studies of Yang et al. (2015) and Soltwisch et al. (2023), which find country-level differences. However, this paper finds similar results to the findings of Moriano et al. (2012) since those researchers do not confirm differences in PA of entrepreneurs from different countries, including India, Iran, Spain, Poland, Germany, and The Netherlands. The reason why the impact of PA on access to finance does not differ depending on countries might be related to the quality of the business environment, which includes some indicators such as trade freedom, business freedom, financial freedom, and monetary freedom. According to IMD’s Competitiveness Index (2024), the volumes of the countries investigated by these indicators are quite similar. The quality of the environment that provides free entrepreneurial activities for Czech, Slovak, Hungarian, and Polish entrepreneurs might have made them feel secure and reluctant to implement entrepreneurial actions. These entrepreneurs might believe that even though they do not make an entrepreneurial effort to receive credit, the quality of the environment where they work can bring them benefits to having credit access. For these reasons, the PA of entrepreneurs might not affect their credit access.

On the other hand, this research vindicates the differences between Czech-Polish and Slovak-Hungarian firms regarding the impact of PBC on credit access. While a positive effect of PBC exists on bank credit access for Czech and Polish businesses, this factor does not determine credit access for Slovak and Hungarian businesses. For this reason, this paper substantiates country-level differences in the analyzed impact. This fact makes this study consistent with the study of Nowiński and Haddoud, (2019), which also finds cross-country differences in PBC of entrepreneurs or enterprises. However, this research finds incompatible results with the study of Wach et al. (2023) that observe similarities in the impact of PBC on the commercial entrepreneurial intention of Namibian and German entrepreneurs. The reason why positive impacts of PBC on access to finance are in existence only in Czech and Polish samples might be related to the competitiveness in the banking industry of these nations. A 5-bank asset concentration ratio can be considered to evaluate the competitiveness
in the banking industry. This is because it evaluates the five largest banks’ share in the entire commercial banking asset (The World Bank, 2023). Lower ratios from this indicator represent lower bank competition, which increases bank credit availability for businesses (Jenkins & Hossain, 2017). Banks having more shares in commercial banking assets can become more potent in limiting the credit access of borrowers by asking for more credit requirements (Mahmood et al., 2020). According to the World Bank 5-bank asset concentration ratio (2023), the ratios of Poland, Czechia, Hungary, and Slovakia are 72.7, 76, 80.3, and 99.1, respectively. Lower ratios in Poland and Czechia might have made banks face lower competitiveness in their operations. Thus, banks in those countries might have applied lax credit standards that might have given entrepreneurs in these countries greater PBC when accessing bank finance.

Corresponding to SN and credit access, this paper validates the country-level differences by finding the significant impact of SN on credit access only for Czech firms. At the same time, this factor is not a significant predictor for bank credit access of Slovakian, Hungarian, and Polish firms. Therefore, this study finds similar results to the studies of Jin et al. (2012) and St-Jean et al. (2014) that substantiate country-level variations in SN of firms. However, since García-Rodríguez et al. (2015) do not confirm the different impacts of SN on the entrepreneurial intention of entrepreneurs from Senegal and Spain, this research’s result regarding SN is not in line with the study of these researchers. Moreover, this paper contradicts the results of Çera et al. (2018) since these researchers verify the similarities in the entrepreneurial intention of Czech and Slovakian entrepreneurs, while this study supports the differences. SN negatively impacts Czech firms’ credit access, which might stem from the entrepreneurial environment in Czechia. Czechia is one of the most competitive countries and is ranked in the top 25 countries in the world (Statista, 2023). The Czech business environment also has an adequate legal and regulatory framework that provides easier conditions for doing business. Therefore, it increases the entrepreneurial intention of individuals (Bilan et al., 2019). These conditions might have made Czech entrepreneurs not belong to their families or close friends and behave more individualistically when applying for bank credit. The economic situation also motivates individuals to implement entrepreneurial activities to maintain their lives (St-Jean et al., 2014). According to the World Bank (2022), the GDP per capita of Czechia is greater than that of Slovakia, Hungary, and Poland. With a higher income,
Czech entrepreneurs might have behaved more autonomously and might not need support from their family and friends when applying for bank finance.

To sum up, a solid regulatory and legislative framework and better economic conditions might have made Czech entrepreneurs not rely on people in their network and have the self-confidence to receive bank credit. In this regard, the government’s role is very crucial for the entrepreneurial activities of countries (Calisto et al., 2023). This is because policymakers can increase the quality of the entrepreneurial environment to stimulate the financing of enterprises that play a substantial role in the economic development of countries (Osman et al., 2023). To increase the quality of the entrepreneurial environment, governments can take some actions regarding legal, economic, and political systems that belong to the Formal Rules of the Game included in the Institution-Based view. This research provides more policy implications in the Conclusions section.

**Conclusions**

Access to bank finance is one of the most significant issues that enterprises face, and entrepreneurs are concerned about doing their business operations in the long term. Firms with this problem can also not compete with their rivals and can not make the required investments to differentiate their products and services. The reason for this issue might not only depend on the credit and financial risks of enterprises but also might be related to information asymmetry problems between borrowers and lenders. To reduce financial risk and information asymmetry problems and receive credit access, determining factors of entrepreneurial intention included in the Theory of Planned Behavior (TPB), such as personal attitude (PA), perceived behavioral control (PBC), and subjective norm (SN), can be a good solution. However, since various countries have different cultural characteristics, values, and norms, the impact of these factors on bank credit access can differ. In this regard, this research aims to determine whether the impacts of PA, PBC, and SN on bank credit access differ depending on the countries where enterprises do their business.

The researchers analyzed some Czechia, Slovakia, Hungary, and Poland enterprises to hit this target. The researchers applied a purposive sampling method to create a research sample. Then, they directed an internet-
mediated questionnaire to the survey respondents - owners, shareholders, and managers of different firms. The researchers perform a Binary Logistic Regression test to find the research results. According to the results, PA does not determine credit access of Czech, Slovak, Hungarian, and Polish enterprises. Thus, this study does not find international differences in the impact of PA on bank credit access. This result might be related to similar characteristics of these countries regarding market competitiveness for entrepreneurship activities.

On the other hand, this paper confirms international differences in the impact of PBC on bank credit access. The findings show that PBC positively affects credit access of Czech and Polish firms. The competitiveness in the banking industry can explain this result. Lower competitiveness in the Czech and Polish banking industries might have made the firms in these countries gain easier credit access compared to their counterparts in Slovakia and Hungary, which have a more competitive banking environment. Moreover, while subjective norms do not influence credit access for Slovak, Hungarian, and Polish enterprises, they negatively impact bank credit access for Czech enterprises. Having a better GDP per capita and a solid regulatory and legal structure of Czechia might be a strong argument to explain this result.

Since the financial conditions of individuals affect their entrepreneurial intention, including PA, PBC, and SN, governments’ subsidies, incentives, and funds for entrepreneurship are crucial. Such support reduces countries’ unemployment rates and increases the quality of life for entrepreneurs. Entrepreneurial activities and attitudes among the population can also be increased. Governments, especially in countries having collectivistic, high power distance, and high uncertainty avoidance cultures, can provide funds for fresh graduate individuals to increase their entrepreneurial intention and lower their fear of failure. This is because people from those societies are reluctant to take risks and have less self-confidence to achieve their goals. These financial funds or incentives might enable people in those countries to overcome entrepreneurial barriers and take more initiative regarding receiving financial resources. Governments can also create a unique system that brings financial institutions and entrepreneurs together. Entrepreneurs can share their projects via this system, and banks seeing potential for these projects can select some entrepreneurs. Such a system not only stimulates the innovativeness and creativity of entrepreneurs, but also motivates them to take entrepreneurial initiatives.
Universities can also motivate their students to become effective entrepreneurs. For instance, they can create some entrepreneurship competitions that provide financial awards for university students. Students can present their projects in such an event to be funded. Universities can also call investors and companies to support students who get the best entrepreneurship project prize financially. Students not participating in such an event can also become informed about various entrepreneurial ideas and opportunities. Seed-funding or incubation facilities can also be provided for successful students. Student clubs in universities can also call successful entrepreneurs to some specific events that increase the network of university students. These clubs can also collaborate with businesses that provide internship and training opportunities for students. Academicians can also increase their students’ awareness regarding these events and other associations and supporting institutions that motivate entrepreneurial and financing activities.

The main difference between this research and other studies is that this research investigates the cross-country differences in the impact of TPB variables on enterprises’ credit access. Moreover, while this paper sets research hypotheses by focusing on cultural differences based on informal rules of the game of the Institution-based view, the results are explained by factors based on formal rules of the Institution-based view. In this regard, this study brings two crucial concepts, formal and informal rules of the game of Institution-based view. On the other hand, while TPB is related to RBV’s intangible resources, access to finance is also a tangible resource. By examining the impacts of intangible resources on a tangible resource or capability of RBV, this research also includes various factors of RBV in a study. These arguments also prove that this study brings different dimensions of RBV and institution-based views into a single study.

Although this paper makes the contributions that are mentioned above, it has some limitations. For instance, this research is not only limited to bank finance but also to firms from some European countries. The results of this study are also based on the respondents’ perceptions. This paper also does not consider the characteristics of firms and survey respondents when explaining the results. The comparison of firms’ and executives’ characteristics regarding the investigated topic can also indicate other interesting results. In this regard, further studies can include such factors when focusing on entrepreneurial activities and credit access. Besides bank financing, other financing sources can also be included in new studies.
Moreover, researchers can analyze and compare firms from Eastern and Western that have entirely different cultures.

References


IMD World Competitiveness Center, Competitiveness Index (2024). Retrieved from https://www.imd.org/centers/wcc/world-competitiveness-center/rankings/world-competitiveness-ranking/ (01.03.2024).


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Annex

Table 1. Constructs and survey questions

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Survey questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>Indicate your level of agreement with the following sentences from 1 (total disagreement) to 7 (total agreement).</td>
</tr>
<tr>
<td></td>
<td>1. “Being an entrepreneur implies more advantages than disadvantages.”</td>
</tr>
<tr>
<td></td>
<td>2. “A career as an entrepreneur is attractive for me.”</td>
</tr>
<tr>
<td></td>
<td>3. “If I had the opportunity and resources, I would like to start a firm.”</td>
</tr>
<tr>
<td></td>
<td>4. “Being an entrepreneur would entail great satisfaction for me.”</td>
</tr>
<tr>
<td></td>
<td>5. “Among various options, I would rather be an entrepreneur.”</td>
</tr>
<tr>
<td>PBC</td>
<td>To what extent do you agree with the following statements regarding your entrepreneurial capacity? Value them from 1 (total disagreement) to 7 (total agreement).</td>
</tr>
<tr>
<td></td>
<td>1. “To start a firm and keep it working would be easy for me.”</td>
</tr>
<tr>
<td></td>
<td>2. “I am prepared to start a viable firm.”</td>
</tr>
<tr>
<td></td>
<td>3. “I can control the creation process of a new firm.”</td>
</tr>
<tr>
<td></td>
<td>4. “I know the necessary practical details to start a firm.”</td>
</tr>
<tr>
<td></td>
<td>5. “I know how to develop an entrepreneurial project.”</td>
</tr>
<tr>
<td></td>
<td>6. “If I tried to start a firm, I would have a high probability of succeeding.”</td>
</tr>
<tr>
<td>SN</td>
<td>If you decided to create a firm, would people in your close environment approve that decision? Indicate from 1 (total disapproval) to 7 (total approval).</td>
</tr>
<tr>
<td></td>
<td>1. “Your close family.”</td>
</tr>
<tr>
<td></td>
<td>2. “Your friends.”</td>
</tr>
<tr>
<td></td>
<td>3. “Your colleagues.”</td>
</tr>
</tbody>
</table>

Source: Liñán and Chen (2009).

Table 2. Model fit and independence of errors

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Model fitting</th>
<th>Goodness of fit</th>
<th>Hosmer &amp; Lemeshow</th>
<th>Independence of Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>Base models</td>
<td>-2 Log likelihood</td>
<td>Pseudo R-square</td>
<td>Chi-Square</td>
</tr>
<tr>
<td>Models</td>
<td>-2 Log likelihood with predictors</td>
<td>Pseudo R-square</td>
<td>Chi-Square</td>
<td>P value</td>
</tr>
<tr>
<td>Czech Model 1</td>
<td>765.185</td>
<td>765.099</td>
<td>0.086</td>
<td>0.769</td>
</tr>
<tr>
<td>Slovak Model 1</td>
<td>475.359</td>
<td>473.526</td>
<td>1.833</td>
<td>0.176</td>
</tr>
<tr>
<td>Hun Model 1</td>
<td>121.206</td>
<td>120.945</td>
<td>0.261</td>
<td>0.610</td>
</tr>
<tr>
<td>Polish Model 1</td>
<td>430.016</td>
<td>428.882</td>
<td>1.134</td>
<td>0.287</td>
</tr>
<tr>
<td>Czech Model 2</td>
<td>765.185</td>
<td>757.977</td>
<td>7.188</td>
<td>0.007</td>
</tr>
<tr>
<td>Slovak Model 2</td>
<td>475.359</td>
<td>474.700</td>
<td>0.659</td>
<td>0.417</td>
</tr>
<tr>
<td>Hun Model 2</td>
<td>121.206</td>
<td>120.497</td>
<td>0.709</td>
<td>0.400</td>
</tr>
<tr>
<td>Polish Model 2</td>
<td>430.016</td>
<td>425.122</td>
<td>4.894</td>
<td>0.027</td>
</tr>
<tr>
<td>Czech Model 3</td>
<td>765.185</td>
<td>757.849</td>
<td>7.336</td>
<td>0.007</td>
</tr>
<tr>
<td>Slovak Model 3</td>
<td>475.359</td>
<td>474.940</td>
<td>0.419</td>
<td>0.518</td>
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<tr>
<td>Hun Model 3</td>
<td>121.206</td>
<td>120.752</td>
<td>0.454</td>
<td>0.500</td>
</tr>
<tr>
<td>Polish Model 3</td>
<td>430.016</td>
<td>429.858</td>
<td>0.158</td>
<td>0.691</td>
</tr>
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</table>
### Table 3. The results for linearity assumption

<table>
<thead>
<tr>
<th>Sample</th>
<th>Variable</th>
<th>β</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>P values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOGISTIC REGRESSION MODEL-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Czech</td>
<td>LinPA by PA</td>
<td>-0.006</td>
<td>0.006</td>
<td>0.901</td>
<td>1</td>
<td>0.343</td>
</tr>
<tr>
<td>Slovak</td>
<td>LinPA by PA</td>
<td>-0.010</td>
<td>0.008</td>
<td>1.949</td>
<td>1</td>
<td>0.163</td>
</tr>
<tr>
<td>Hun</td>
<td>LinPA by PA</td>
<td>0.006</td>
<td>0.015</td>
<td>0.175</td>
<td>1</td>
<td>0.676</td>
</tr>
<tr>
<td>Polish</td>
<td>LinPA by PA</td>
<td>0.010</td>
<td>0.009</td>
<td>1.320</td>
<td>1</td>
<td>0.251</td>
</tr>
<tr>
<td></td>
<td>LOGISTIC REGRESSION MODEL-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Czech</td>
<td>LinPBC by PBC</td>
<td>0.449</td>
<td>0.097</td>
<td>1.276</td>
<td>1</td>
<td>0.259</td>
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<tr>
<td>Slovak</td>
<td>LinPBC by PBC</td>
<td>0.770</td>
<td>0.129</td>
<td>0.540</td>
<td>1</td>
<td>0.463</td>
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<tr>
<td>Hun</td>
<td>LinPBC by PBC</td>
<td>0.544</td>
<td>0.252</td>
<td>0.006</td>
<td>1</td>
<td>0.939</td>
</tr>
<tr>
<td>Polish</td>
<td>LinPBC by PBC</td>
<td>0.517</td>
<td>0.130</td>
<td>1.835</td>
<td>1</td>
<td>0.176</td>
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<tr>
<td></td>
<td>LOGISTIC REGRESSION MODEL-3</td>
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<td></td>
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</tr>
<tr>
<td>Czech</td>
<td>LinSN by SN</td>
<td>0.252</td>
<td>0.218</td>
<td>1.345</td>
<td>1</td>
<td>0.246</td>
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<tr>
<td>Slovak</td>
<td>LinSN by SN</td>
<td>0.022</td>
<td>0.015</td>
<td>2.183</td>
<td>1</td>
<td>0.140</td>
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<tr>
<td>Hun</td>
<td>LinSN by SN</td>
<td>0.047</td>
<td>0.031</td>
<td>2.248</td>
<td>1</td>
<td>0.134</td>
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<tr>
<td>Polish</td>
<td>LinSN by SN</td>
<td>0.023</td>
<td>0.015</td>
<td>2.274</td>
<td>1</td>
<td>0.132</td>
</tr>
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</table>

### Table 4. The results of the 1st research model

<table>
<thead>
<tr>
<th>Sample</th>
<th>Variable</th>
<th>β</th>
<th>SE</th>
<th>OR</th>
<th>95% CI</th>
<th>Wald Statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech</td>
<td>PA</td>
<td>-0.014</td>
<td>0.049</td>
<td>0.986</td>
<td>[0.896 1.085]</td>
<td>0.086</td>
<td>0.769</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>0.454</td>
<td>0.206</td>
<td>1.575</td>
<td></td>
<td>4.886</td>
<td>0.027</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Model-1 Access to finance = 0.454 - 0.014*personal attitude</td>
<td></td>
</tr>
<tr>
<td>Slovak</td>
<td>PA</td>
<td>-0.083</td>
<td>0.062</td>
<td>0.920</td>
<td>[0.815 1.038]</td>
<td>1.820</td>
<td>0.177</td>
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<tr>
<td></td>
<td>Constant</td>
<td>1.063</td>
<td>0.279</td>
<td>2.896</td>
<td></td>
<td>14.502</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Model-1 Access to finance = 1.063 - 0.083*personal attitude</td>
<td></td>
</tr>
<tr>
<td>Hun</td>
<td>PA</td>
<td>0.059</td>
<td>0.115</td>
<td>1.060</td>
<td>[0.847 1.328]</td>
<td>0.260</td>
<td>0.610</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>0.305</td>
<td>0.495</td>
<td>1.357</td>
<td></td>
<td>0.380</td>
<td>0.538</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Model-1 Access to finance = 0.305 + 0.059*personal attitude</td>
<td></td>
</tr>
<tr>
<td>Polish</td>
<td>PA</td>
<td>0.069</td>
<td>0.065</td>
<td>1.072</td>
<td>[0.943 1.218]</td>
<td>1.129</td>
<td>0.288</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>0.348</td>
<td>0.265</td>
<td>1.417</td>
<td></td>
<td>1.730</td>
<td>0.188</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Model-1 Access to finance = 0.348 + 0.069*personal attitude</td>
<td></td>
</tr>
</tbody>
</table>
### Table 5. The results of the 2\textsuperscript{nd} research model

<table>
<thead>
<tr>
<th>Sample</th>
<th>Variable</th>
<th>(\beta)</th>
<th>SE</th>
<th>OR</th>
<th>95% CI</th>
<th>Wald Statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech</td>
<td>PBC</td>
<td>0.144</td>
<td>0.054</td>
<td>1.155</td>
<td>[1.039 1.286]</td>
<td>7.044</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-0.059</td>
<td>0.191</td>
<td>0.943</td>
<td>0.094</td>
<td>0.759</td>
<td></td>
</tr>
</tbody>
</table>

*Model-1 Access to finance = -0.059 + 0.144*perceived behavioral control

| Slovak | PBC      | 0.056          | 0.069 | 1.057          | [0.924 1.210]   | 0.656          | 0.418   |
|        | Constant | 0.525          | 0.264 | 1.691          | 3.952           | 0.047          |         |

*Model-1 Access to finance = 0.525 + 0.056*perceived behavioral control

| Hun    | PBC      | 0.108          | 0.129 | 1.114          | [0.865 1.435]   | 0.702          | 0.402   |
|        | Constant | 0.145          | 0.508 | 1.156          | 0.082           | 0.775          |         |

*Model-1 Access to finance = 0.145 + 0.108*perceived behavioral control

| Polish | PBC      | 0.166          | 0.076 | 1.180          | [1.017 1.370]   | 4.785          | 0.029   |
|        | Constant | 0.073          | 0.265 | 1.075          | 0.075           | 0.784          |         |

*Model-1 Access to finance = 0.073 + 0.166*perceived behavioral control

### Table 6. The results of the 3\textsuperscript{rd} research model

<table>
<thead>
<tr>
<th>Status</th>
<th>Variable</th>
<th>(\beta)</th>
<th>SE</th>
<th>OR</th>
<th>95% CI</th>
<th>Wald Statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech</td>
<td>SN</td>
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<td>0.057</td>
<td>0.858</td>
<td>[0.767 0.960]</td>
<td>7.160</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
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<td>0.286</td>
<td>3.074</td>
<td>15.428</td>
<td>0.000</td>
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</tr>
</tbody>
</table>

*Model-1 Access to finance = 1.123 - 0.153*subjective norm

| Slovak | SN       | -0.043         | 0.066 | 0.958          | [0.841 1.091]   | 0.416          | 0.519   |
|        | Constant | 0.920          | 0.329 | 2.510          | 7.837           | 0.005          |         |

*Model-1 Access to finance = 0.920 - 0.043* subjective norm

| Hun    | SN       | -0.094         | 0.140 | 0.911          | [0.692 1.198]   | 0.449          | 0.503   |
|        | Constant | 0.966          | 0.683 | 2.626          | 1.996           | 0.158          |         |

*Model-1 Access to finance = 0.966 - 0.094*subjective norm

| Polish | SN       | 0.029          | 0.073 | 1.029          | [0.893 1.186]   | 0.158          | 0.691   |
|        | Constant | 0.459          | 0.380 | 1.583          | 1.458           | 0.227          |         |

*Model-1 Access to finance = 1.057 + 0.040* subjective norm