

Ivana Simić<sup>1</sup>, Vinko Lepojević  
University of Niš, Faculty of Economics, Serbia

# The Relationship between National and Entrepreneurial Culture: The Role of National Wealth

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## Abstract:

**Research Question:** The paper examines the impact of specific Hofstede's dimensions of national culture on entrepreneurial culture, depending on the wealth of the national economy. **Motivation:** Based on the results of some previous research focused on the relationship between national culture and various indicators associated with entrepreneurship (Hayton, George & Zahra, 2002; Pinillos & Reyes, 2011; Zhao, Li & Rauch, 2012; Hayton & Cacciotti, 2013), the paper analyses the impact of national culture on entrepreneurial culture, as a category closely related to entrepreneurship. The identification of the national culture's dimensions contributing to the affirmation of entrepreneurial culture, provides an insight into the entrepreneurial potential of a particular national economy. **Idea:** The main idea of the paper is to examine whether selected Hofstede's dimensions of national culture (power distance - PD, uncertainty avoidance - UA, individualism - IDV) affect entrepreneurial culture (EC) in a manner identical to that affecting the other indicators of entrepreneurship. The mentioned relationship is not examined as unmediated, but in the context of the effect that national wealth (measured as Gross National Income per capita - GNI) has on it. **Data:** The survey covered a total of 108 countries for which the data on the values of three selected dimensions of national culture, the index of entrepreneurial culture and the Gross National Income per capita are available. **Tools:** In order to examine the effect of three selected Hofstede's dimensions of national culture on entrepreneurial culture, correlation and standard multiple regression analyses were conducted. For data processing, statistical software SPSS (version 22.0) was used. **Findings:** The obtained results of the research show that in national economies with higher levels of IDV and lower levels of UA, higher scores of the EC index are manifested, regardless of the national wealth. On the other hand, the impact of PD on EC is determined by the level of a particular economy's wealth. In high-income economies (HIE), the index of EC is higher if PD is lower. In low- and middle-income economies (LIE), higher values of EC index are manifested if PD is higher. **Contribution:** The paper expands the knowledge and research base on entrepreneurial culture and the influence that national culture has on it.

**Keywords:** national culture, entrepreneurial culture, national wealth, entrepreneurship

**JEL Classification:** L260, L290, Z190

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## 1. Introduction

Although the last decades of the 20th century were characterized, among other things, by an intensive transition from „managerial“ to the so-called „entrepreneurial“ economy (Audretsch & Thurik, 2001), today, at the beginning of the third decade of the 21st century, the achieved levels of entrepreneurship, measured by various indicators, differ from country to country (Zhao et al., 2012; Suddle et al., 2007, p. 5). Differences in levels of entrepreneurial activity between countries can be explained by whole sets of economic, technological, demographic, cultural and institutional factors (Hofstede et al., 2004, p. 7; Wennekers, 2006, p. 68). Although predominant among the research conducted so far are those focused on economic factors and their relationship with entrepreneurship (Thurik & Wennekers, 2001; Carree & Thurik, 2010; Lugo & Espina, 2014; Gbadeyan et al., 2017), there are also some studies in which the attention is paid to cultural factors, especially to national culture and its impact on entrepreneurship. According to James C. Hayton and

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\* Corresponding author: Ivana Simić, e-mail: ivana.simic@ekonomski.rs

Gabriella Cacciotti, "how and to what extent a national culture influences entrepreneurial action, the rate of new firm formation and ultimately economic development" is "one of the oldest research questions in the field of entrepreneurship" (Hayton & Cacciotti, 2013).

Despite the fact that the idea of the relationship between national and entrepreneurial culture is almost a century old (Noseleit, 2009, p. 43), the character of that link has not been explained uniquely in the literature. This can be partly attributed to heterogeneous indicators of entrepreneurship that were used in various studies in which the mentioned relation is analyzed (Scott, 1992; Scott, 1993; Sun, 2009; Rinne, Steel & Fairweather, 2012; Baum et al., 1993; Acs et al., 1994; Hofstede et al., 2004; Wennekers et al., 2007; Pinillos & Reyes, 2011; Hayton & Cacciotti, 2013).

Due to the importance of entrepreneurship during the last decades, the idea of the relationship between national and entrepreneurial culture has been gaining in importance (Hayton et al., 2002; Dogan, 2016; Osowska, 2016; Valliere, 2019; Urban & Ratsimanetrimanana, 2015; Pinillos & Reyes, 2011; Zhao et al., 2012). Using entrepreneurial culture as an indicator of entrepreneurship, the paper analyzes the influence of national on entrepreneurial culture in high- and low/middle-income economies.

## 2. Theoretical Background and Hypotheses

### 2.1 Entrepreneurial culture

In theory, entrepreneurial culture is defined in different ways. Among other things, this is due to the fact that it is possible to analyze it from different aspects and at various levels. For example, studying entrepreneurial culture in more detail, Matthew A. Wong identifies two basic levels of its analysis: the level of organization and the national level (Wong, 2014, p. 1).

The paper focuses its attention on the national level of entrepreneurial culture. From the national perspective, entrepreneurial culture reflects the level of national or social orientation towards entrepreneurship (Wong, 2014, p. 1). According to Global Competitiveness Report 2018, entrepreneurial culture is defined as "a country's willingness to take risks and embrace disruptive ideas" (World Economic Forum, 2018, p. 10). Duane Ireland and his colleagues treat entrepreneurial culture as „a national system of shared values in a particular society that embrace and supports entrepreneurship“ (Ireland et al., 2008). Starting from Hofstede's definition of national culture, Michael Stuetzer and his colleagues define entrepreneurial culture as "a collective programming of the mind toward entrepreneurial values and norms such as proactiveness, risk taking, accepting failure, openness to new ideas, individualism, independence and achievement" (Stuetzer et al., 2018). Alison Morrison defines entrepreneurial culture as "one where a positive social attitude towards personal enterprise is prevalent, enabling and supporting entrepreneurial activity" (Morrison, 2000), while Ebru Dogan views it as "a combination of personal values, management skills, experiences and behaviour describing the entrepreneur in terms of entrepreneurial spirit, risk tendency, innovation capacity and managing the relations of company with the circle" (Dogan, 2016). As such, entrepreneurial culture is considered as an important factor of innovation, growth and economic success (Beugelsdijk, 2007) and a significant predictor of newborn entrepreneurship (Suddle et al., 2007).

Apart from precise determination, a serious problem closely related to entrepreneurial culture is the fact that in theory there are no sole criteria or unique indicators for monitoring and evaluating entrepreneurial culture. Thus, for example, in one of their research works, Kashita Suddle and his colleagues point out the following indicators of entrepreneurial culture: qualities that children can be encouraged to learn at home; aspects of a job people say are important; some political views; measures for the loci of control (Suddle et al., 2007, p. 7). In this context, a significant contribution was made by Nadim Ahmad and Anders Hofmann, who state that indicators relevant for evaluating the entrepreneurial culture are: cultural and social norms; entrepreneurial motivation; self-employment preference; the wish to own one's own business; desirability of becoming self-employed; proclivity to take risk (Ahmad & Hofmann, 2007, p. 32). Different indicators are highlighted by Mariem Khadhraoui and her colleagues. According to them, the most important indicators are: managerial skills; taking responsibility; fear for managing business; entrepreneurial traits; looking for opportunities; entrepreneurial motivation (Khadhraoui et al., 2016). The last two Global Competitiveness Reports (2018; 2019) also contain entrepreneurial culture as one out of many sets of indicators relevant for assessing the competitive position of the state, i.e., for the global ranking of national economies. It is a set of indicators positioned within the pillar 11 – Business dynamism, which contains a total of eight indicators, four of which relate to entrepreneurial culture (World Economic Forum, 2018, pp. 9-10). These are the following: attitudes towards entrepreneurial risk (to what extent people have an appetite for entrepreneurial

risk), willingness to delegate authority (to what extent does senior management delegate authority to subordinates), growth of innovative companies (to what extent new companies with innovative ideas grow rapidly), companies embracing disruptive ideas (to what extent companies embrace risky or disruptive business ideas) (World Economic Forum, 2018, p. 57; World Economic Forum, 2019, p. 51, 623-624).

## 2.2 National culture

Although often "exploited" in the literature, national culture is a category that is not yet defined by a single definition. One of the often cited definitions is the one offered by Geert Hofstede. According to Hofstede, national culture is "a collective programming of the mind which distinguishes the members of one human group of people from another..." (Hofstede et al., 2004, p. 171). Slightly different is the definition of national culture given by Helen Deresky who claims that national culture represents "shared values, understandings, assumptions, and goals, that are learned from earlier generations, imposed by present members of a society and passed on to succeeding generations" (Deresky, 2013, p. 83). Only somewhat similar to Deresky's is the definition of national culture given by Robert House and his colleagues who see national culture as "shared motives, values, beliefs, identities and interpretations or meaning of significant events that result from common experiences of members of a collective and are transmitted across age generations" (House et al., 2002).

Apart from the fact that national culture is defined in different ways, the literature also interprets its dimension differently, according to which it is possible to compare national cultures (Schwartz, 2014; McCrae et al., 2008; Trompenaars & Hampden-Turner, 1997, p. 8-10). A significant number of categorizations of national culture's dimensions present in the literature rely to some extent on the categorization offered by Geert Hofstede (Hofstede, 1980). His categorization initially included 4 basic dimensions of national culture: power distance (PD) (from small to large), individualism (IDV) versus collectivism (COL), femininity (FEM) versus masculinity (MAS), uncertainty avoidance (UA) (from weak to strong) (Hofstede et al., 2010, p. 31, 38, 45). The power distance reflects the degree to which an unequal distribution of power is tolerated within society. In societies with a lower power distance, the degree of tolerance for unequal distribution of power is lower. The situation is reversed in societies with a higher power distance. Uncertainty avoidance shows the extent to which members of the nation feel threatened in situations that are uncertain and ambiguous. Nations that exhibit lower levels of uncertainty avoidance are characterized by higher levels of acceptance of risky and uncertain situations. In societies with a higher level of uncertainty avoidance, the level of acceptance of risky and uncertain events is lower. In societies that are predominantly individualistic, people care only about themselves and, eventually, about their immediate family members. The ties among other members of an individualistic society are quite weak. Collectivist societies are dominated by strong, cohesive groups that protect their members and expect loyalty in return. Society's orientation towards masculine or feminine values reflects the extent to which members of one nation are predominantly prone to achievement, heroism, assertiveness, material rewards and competition (emphasized masculine values) or cooperation, care for the weak, quality of life, consensus (emphasized feminine values) (Hofstede et al., 2010). Later, the list of basic dimensions of national culture was expanded with two new dimensions: long-term versus short-term orientation and indulgence versus restraint (Hofstede et al., 2010).

## 2.3 Literature review

There is a consensus among theorists that national culture does influence entrepreneurship. Studying the relationship between national culture and entrepreneurship in more detail, Renata Osowska, for example, concludes that "the cultural context is important in understanding how and why entrepreneurship happens and who becomes involved" (Osowska, 2016). On the other hand, Ebru Dogan believes that the "cultural environment of a country plays an effective role in shaping and development of entrepreneurial identity and behavioral patterns" (Dogan, 2016), i.e., that "culture shapes cognitive schemas which attribute value and meaning to motivational variables and guide the choices, commitments and behavioral standards" (Dogan, 2016), as well as that "different entrepreneurial activity levels of countries with similar income levels originate from their cultural differences" (Stel et al., 2005). Also, without questioning the obvious impact that economic factors make on entrepreneurship, Hofstede and his colleagues point out that differences in levels of entrepreneurship between countries should also be explained in the context of the effects that national culture does have on entrepreneurship (Hofstede et al., 2004).

Regardless of the theorists' agreement that national culture does influence entrepreneurship, practical research on those effects is not intensive enough (Hayton et al., 2002). Besides, the obtained results are not uniform and unambiguous (Hofstede et al., 2004, p. 17; Dogan, 2016). While in a significant number of con-

ducted research national culture was observed in the context of Hofstede's dimensions (Valliere, 2019; Zhao et al., 2012), entrepreneurship was evaluated from the aspect of various indicators closely related to it. Among other things, this created a confusion in the obtained results. For example, in 1992 Shane Scott, in one of his papers, explained the relationship between individualism and power distance, on the one hand, and the number of invention patents, on the other, and pointed out that "countries with small power distance and high individualism are more inventive than others" (Scott, 1992). In 1993, the same author published another paper in which he explained the relationship between individualism, power distance, uncertainty avoidance and masculinity in national rates of innovation in 33 countries in 1975 and 1980, respectively. He discovered that: uncertainty avoidance was negatively associated with innovation in both time periods; individualism was found to be positively associated with innovation in 1975, but not in 1980; power distance was found to be negatively associated with innovation in 1975 but not in 1980; masculinity had no significant association with innovation at the national level (Scott, 1993; Hayton et al., 2002). Based on the results of the research conducted by Shane Scott, Tiffany Rinne and her colleagues examined the impact of certain dimensions of national culture (individualism, uncertainty avoidance and power distance) on innovation rates identified by the Global Innovation Index (GII). Their analysis showed "a strong negative relationship between power distance and GII innovation scores, as well as a strong positive relationship between individualism and GII innovation scores. No relationship was found between GII innovation scores and uncertainty avoidance" (Rinne et al., 2012).

By choosing different indicators of entrepreneurship different results were obtained. For example, analyzing the impact of national culture on self-employment, Zoltan J. Acs and his colleagues conclude that higher levels of uncertainty avoidance and lower levels of individualism lead to higher levels of self-employment (Acs et al., 1994). A higher level of uncertainty avoidance as a category that favours the growth of business ownership rates across countries, was also identified by Sander Wennekers and his colleagues (Wennekers et al., 2007) who analyzed that relationship across 21 OECD countries. However, they found that this relationship was not stable over time (Hayton & Cacciotti, 2013).

The unstable relationship between Hofstede's dimensions of national culture and entrepreneurship is also pointed out by Mariá-José Pinillos and Luisa Reyes (2011) who examined how the orientation towards individualism or collectivism was related to total entrepreneurial activity. Using data from the Global Entrepreneurship Monitor including 52 countries, they found that the impact of individualism on entrepreneurial activity depended on the economic development of the country. In low or middle developed countries higher levels of individualism are negatively related to the rate of entrepreneurial activity, while in countries with a higher level of economic development this relationship is positive (Pinillos & Reyes, 2011).

Based on various studies James C. Hayton and his colleagues created a general hypothesis that explains the unmediated relationship between national culture and entrepreneurship: "entrepreneurship is facilitated by cultures that are high in individualism, low in uncertainty avoidance, low in power distance, and high in masculinity" (Hayton et al., 2002). However, according to Ebru Dogan, the validity of the research on the basis of which this hypothesis was created is "still disputable" (Dogan, 2016).

Xiangyang Zhao and his colleagues also pointed out that the hypothesized link between national culture and entrepreneurship is not well-established (Zhao et al., 2012). They believe that one of the main reasons is the fact that a number of studies assumed a direct relationship between national culture and entrepreneurship (Zhao et al., 2012), and indicate that some other variables need to be included in this analysis. Therefore, their analysis of the relationship between national culture and entrepreneurial activity includes GDP per capita, (a proxy for national wealth) which "plays a moderating role between national culture and entrepreneurial activity" (Zhao et al., 2012). Zhao and his colleagues based the assessment of national cultures on the dimensions identified within the GLOBE project (Javidan et al., 2006). Some of these dimensions are almost identical to certain Hofstede's dimensions (for example: power distance, uncertainty avoidance, collectivism II), while others are very different (Hofstede, 2011). The results they obtained showed that the relationship between national culture and entrepreneurship depends on the level of GDP. Among other things, Zhao and his colleagues have proved that: 1) the relationship between power distance and the quantity of entrepreneurship is positive in countries with low or medium GDP, and that such a relationship does not exist in countries with high GDP; 2) the relationship between collectivism II and entrepreneurship is positive in countries with a low or medium level of GDP and that it is not the case in countries with high GDP. At the same time, although they started the research with the hypothesis that uncertainty avoidance, generally observed, is positively correlated with high quality entrepreneurship and that this relationship is more pronounced in countries with high GDP, compared to countries with low or medium GDP, this hypothesis has not been confirmed in their research (Zhao et al., 2012).

Based on the above-mentioned theoretical explanations and results of previously presented research, the following hypotheses were created:

H1: Power distance (PD) is negatively related to Entrepreneurial Culture (EC) in high-income economies (HIE)

H2: Power distance (PD) is positively related to Entrepreneurial Culture (EC) in low- and middle-income economies (LIE)

H3: Individualism (IDV) is positively related to Entrepreneurial Culture (EC) in high-income economies (HIE)

H4: Individualism (IDV) is negatively related to Entrepreneurial Culture (EC) in low- and middle-income economies (LIE)

H5: Uncertainty avoidance (UA) is positively related to Entrepreneurial Culture (EC) in high-income economies (HIE)

H6: Uncertainty avoidance (UA) is negatively related to Entrepreneurial Culture (EC) in low- and middle-income economies (LIE)

### 3. Sample and Variables

The survey covered a total of 108 countries for which the data on the values of three selected Hofstede's dimensions of national culture (PD, UA, IDV), the index of entrepreneurial culture (EC) and the Gross National Income per capita (GNI) are available.

*National Culture.* In this paper, the assessment of national culture is based on three, in previous research the most frequently used Hofstede's dimensions (PD, UA, IDV). The values of these dimensions were initially identified by Geert Hofstede and his colleagues (Hofstede et al., 2010). Their systematic overview is also available at <https://www.hofstede-insights.com/product/compare-countries>. Even though these data are from 2010, the fact that national culture is a slowly changing category (Beugelsdijk et al., 2015) provides to some extent a possibility for comparing it with the data on entrepreneurial culture and GNI per capita from 2018 (Zhao et al., 2012).

*Entrepreneurial Culture (EC).* For the assessment of entrepreneurial culture, the index of entrepreneurial culture was used. It is a composite index and its scores in 2018 (the second year of its calculation) (World Economic Forum, 2019) range from 0 to 100. Higher scores reflect higher values of entrepreneurial culture.

*Gross National Income (GNI) per capita.* The Gross National Income (GNI) per capita in US \$ was used as an indicator for grouping economies according to their wealth. Like Gross Domestic Product (GDP), GNI is also intensively used by the World Bank. For analytical purposes, every year in July, the World Bank categorizes world economies into four main income groups: low-income, lower-middle-income, upper-middle-income, and high-income (World Bank, 2018). This paper uses available data for 2018 for 108 selected countries (World Bank, 2018). From the aspect of GNI per capita, out of 108 countries included in the analysis, 46 were classified in the group of high-income economies – HIE, while 62 countries belong to one of the remaining categories: upper-middle-income, lower-middle-income, low-income economies – LIE.

For data processing, statistical software SPSS (version 22.0) was used.

### 4. Results

To examine the relationship between EC, as dependent variable, and PD, UA and IDV, as selected independent ones, within identified HIE and LIE national economies, correlation analysis and standard multiple regression analysis were used.

If all countries included in the analysis are taken into account, the data (Table 1) indicate a strong and significant inverse correlation between EC, on one hand, and PD and UA, on the other. At the same time, a significant direct correlation was identified between EC and IDV. According to Cohen, a strong correlation exists if the value of Pearson's correlation coefficient is higher than 0.30 (Cohen, 1988, p. 79-81). When it comes to countries within the HIE group, statistically significant inverse correlation was found between EC and the independent variables PD and UA, while the correlation between EC and IDV was significant and direct. Within the LIE group, the correlation between EC and all independent variables (PD, IDV, UA) was not strong.

**Table 1:** Pearson Correlation

		EC	PD	IDV	UA
<b>All Economies</b>	EC	1.000	-.438**	.516**	-.366**
	PD		1.000	-.689**	.238**
	IDV			1.000	-.182*
	UA				1.000
<b>HIE</b>	EC	1.000	-.484**	.401**	-.545**
	PD		1.000	-.683**	.273*
	IDV			1.000	-.202
	UA				1.000
<b>LIE</b>	EC	1.000	.093	.194	-.226*
	PD		1.000	-.203	.229*
	IDV			1.000	-.255**
	UA				1.000

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Based on standard multiple regression analysis (Table 2), three regression models were formulated. The first one examines the relationship between EC and three selected dimensions of national culture (PD, UA, IDV) within a group of 108 countries included in the analyses. The second model assesses the mentioned relationship within the HIE group, while the third model refers to the same relation within the LIE group.

**Table 2:** Regression analysis - Estimation results of Model (1) - (3)<sup>a, b</sup>

	Model 1 (All Economies)	Model 2 (HIE)	Model 3 (LIE)
Constant	57.716**	74.240**	44.128**
PD	-.057 (-.127)	-.122* (-.281)	.097 (.179)
IDV	.169** (.400)	.051 (.120)	.111 (.173)
UA	-.111** (-.255)	-.187** (-.444)	-.076* (-.223)
R <sup>2</sup>	.361	.426	.101
Adjusted R <sup>2</sup>	.342	.385	.054
N	108	46	62

<sup>a</sup>Dependent Variable: Entrepreneurship Culture

<sup>b</sup>Standardized Coefficients Beta are in the brackets

\* Significant at 0.05 level.

\*\* Significant at 0.10 level

Model 1 explains 36.1% of the total EC variability (adjusted R<sup>2</sup>= .342). According to this model, an increase in PD and UA results in a decrease in EC. At the same time, the increase in IDV improves the values of EC. These trends confirm the results presented in Table 1. The strongest influence on the change of EC values is realized by IDV, while the impact of PD is the weakest.

The higher percentage (42.6%) of the total EC variability (adjusted R<sup>2</sup>= .385) is explained by Model 2. Regression coefficients in this model show that, in countries within the HIE group, an enhancement in PD and UA values lessens the values of EC. On the other hand, any improvement in the value of IDV raises the value of EC. These results are consistent with the Pearson correlation values shown in Table 1.

Only 10.1% of the total EC variability is explained by Model 3. This means that, within the LIE group, the EC is, to a greater extent, influenced by some other factors than by the selected dimensions of national culture. According to this model, any increase in PD raises the values of EC. The statistical significance of this regression coefficient has not been proven. A similar relationship has been identified between IDV and EC; as the first variable increases, so does the second. This regression coefficient is not statistically significant ei-

ther. When it comes to the third regression coefficient (related to UA from Model 3) the results show that enhancement in UA cuts back the values of EC. This coefficient is statistically significant. Within this model, the strongest influence on EC exerts UA, while the impact of IDV is the weakest.

## 5. Discussion

The results obtained in Model 1 reflect the character of the unmediated relationship between the selected dimensions of national culture (PD, UA, IDV) and EC. They show that there is a direct negative correlation between PD and UA, on the one hand, and EC, on the other. At the same time, there is a direct positive correlation between IDV and EC. These results are compatible with those on the basis of which Hayton and his colleagues (Hayton et al., 2002) formulated a general hypothesis about the unmediated relationship between certain Hofstede's dimensions of national culture and entrepreneurship. As such, they represent a reliable confirmation that entrepreneurial culture can be considered a valid indicator of entrepreneurship.

The results presented in Model 2 and Model 3 reflect the character of the mediated relationship between the selected dimensions of national culture and EC. They confirm or dispute the hypotheses set up in this paper. Accordingly, the results showed that the impact of PD on EC was determined by the level of national wealth. In high-income economies (HIE), the relationship between PD and EC is negative. This result supported Hypothesis 1. On the other hand, the results showed that in low- and middle-income economies (LIE), PD was positively related to EC. This result supported Hypothesis 2. Both of these results are consistent with those obtained by Zhao and his colleagues (Zhao et al., 2012). When it comes to the relationship between IDV and EC, the obtained results did not confirm that the character of this relationship was determined by the level of national wealth. Namely, the results showed that in high-income economies (HIE) IDV is positively related to EC, which unequivocally confirmed Hypothesis 3. This is also consistent with the results obtained by Mariá-José Pinillos and Luisa Reyes (Pinillos & Reyes, 2011), as well as Zhao and his colleagues (Zhao et al., 2012). Contrary to expectations and the content of Hypothesis 4, the negative relationship between IDV and EC in low- and middle-income economies (LIE) is not confirmed in this paper. In general, the relationship between IDV and entrepreneurship, in countries with different levels of economic development, is not a simple one. The specific character of this relationship is also indicated by Zhao and his colleagues who start from a rather controversial premise that in low- and medium-GDP countries the collectivist culture is more conducive to entrepreneurship. They explain this by assuming that in these categories of states, due to limited "alternative resources", collectivism, as a dimension of national culture which fosters social support, commitment and provides a protective environment that minimizes uncertainty (Zhao et al., 2012), represents a more significant support for the development of entrepreneurship (compared to individualism). However, the fact is that in our research, the LIE group, analyzed from the aspect of GNI per capita, includes a rather heterogeneous group of 62 countries, among which 19 belong to the category of the so-called upper-middle-income economies in which, due to available alternative resources, individualism, not collectivism, obviously has a more significant role in the affirmation of entrepreneurship and EC. Also, one of the reasons for the positive relationship between IDV and EC within LIE group, in our research, may be the fact that, over the last few decades, entrepreneurship and entrepreneurial culture have been strongly affirmed all around the world. As a result, in our research, some countries within the LIE group, which from the aspect of GNI per capita belong to the category of the so-called low-income economies, manifest even higher scores of EC (e.g., Malawi, Nepal) compared to certain countries belonging to the so-called upper-middle-income economies (e.g., North Macedonia, Ecuador).

According to the research results, the level of national wealth does not affect the relationship between UA and EC. Namely, in all economies (HIE and LIE) UA is negatively related to EC. This relationship is statistically significant in countries within the HIE group, but not in countries belonging to the LIE group. Due to these results, Hypothesis 5 was not confirmed, while Hypothesis 6 was. The negative relationship between UA and entrepreneurship, regardless of the level of national wealth, is also highlighted in the general hypothesis formulated by James C. Hayton and his colleagues (Hayton et al., 2002). On the other hand, the positive relationship between UA and EC in countries belonging to the HIE group (which was discussed in Hypothesis 5), was also not proven in the research conducted by Zhao and his colleagues (Zhao et al., 2012). The fact is that UA is a conceptual cornerstone in the theory of entrepreneurship (Zhao et al., 2012) and one of its key values. The strong affirmation of entrepreneurship led to all of its key values being strongly manifested and implemented in a large number of national economies, regardless of the level of their national wealth.

The study has some limitations that suggest further research. First, the survey covered a total of 108 countries for which the basic data are currently available. Future research should be more comprehensive and

include a wider range of world's economies. A key prerequisite for this is to provide the data relevant for such analysis. In that sense, upcoming studies should be focused on the identification of the values of Hofstede's dimensions of national culture for all global economies. Second, in this paper, the scores of selected dimensions of national culture from 2010 are compared to the index of entrepreneurial culture and the Gross National Income per capita from 2018, which can be considered as another limitation of the article. With that in mind, new research should update the existing data, especially those relating to Hofstede's dimensions of national culture. Further research should also incorporate the analysis of the impact that some other factors (technological, institutional, demographic) have on entrepreneurial culture.

## Conclusion

The paper clearly identifies entrepreneurial culture as a significant indicator of entrepreneurship. The results of the research showed that, based on the character of selected Hofstede's dimensions of national culture, it is possible to identify the entrepreneurial potential of a national economy. In addition, the obtained results indicate certain practical mechanisms for strengthening both the entrepreneurial culture and entrepreneurship at the national level. In the context of the influence of national culture on entrepreneurial culture, and depending on the national wealth of a particular economy, the paper not only expands the theoretical knowledge about entrepreneurial culture and entrepreneurship, but also enriches the fund of practical research on the relationship between national and entrepreneurial culture.

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