

THE RELATIONSHIP BETWEEN NATIONAL CULTURE AND INNOVATIVE ENTREPRENEURIAL ORIENTATION: AN ANALYSIS FOR THE SOUTHEAST EUROPEAN COUNTRIES

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Abstract. *This paper aims to examine the relationship between entrepreneurial attitudes of national culture and innovative entrepreneurial orientation (IEO). The empirical research employs multiple linear regression models, utilizing data obtained from the Global Entrepreneurship Monitor. For the purpose of empirical research, we selected samples of early-stage entrepreneurs incorporated in Bosnia & Herzegovina, Bulgaria, Croatia, Greece, and Slovenia. The main findings highlight a significant relationship between national cultural dimensions and innovation, while absorbing the knowledge value and information through media resources equally positively related to IEO, as well as the presence of high status disparity negatively related to IEO. The results can be explained by the specific entrepreneurial context of the SEE region. We also point out recommendations for future research.*

Key words: *national culture, innovative entrepreneurial orientation, total early activity-stage, South East Europe region*

JEL Classification: L26, M14, O30

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1. INTRODUCTION

As a rapidly changing global economic system has forced entrepreneurs to increase their survival ability on the open global market, innovation became one of the most powerful tools by which nations and businesses achieve global success. Thanks to the exponential increase in cross cultural management, the main focus of researchers has been placed on approaches at the macro level conducted to investigate the relationship between national culture and innovations (Wu, 2007; Barichello, 2020). Therefore, through numerous studies, researchers have used different methods and data to investigate this connection. These authors used Hofstede's national culture index database as an open publication from the official website of Geert Hofstede, indicators provided by The World Bank, or annual innovation data per country provided by the Global Innovation Index released by Cornell University, INSEAD and The World Intellectual Property Organization (Činjarević & Veselinović, 2017; Espig et al., 2021), while the others used The Global Competitiveness Index report provided by The World Economic Forum for the purpose of measuring national competitive capacity (Handoyo, 2018), data of national culture support and the Innovation Index rate provided by The Global Entrepreneurship Monitor (Wu, 2007; Song et al., 2020), etc.

With regard to the adopted multidimensional models and typology of national culture presented in literature, it is noticeable that Hofstede's is one of the most commonly used and cited (Song, Park & Kim, 2020). Most findings show that national culture positively affects IEO, while the most desirable situation to boost IEO exists when there is low distance power, long-term orientation, femininity culture characteristics, high individualism, and a higher level of indulgence (Espig et al., 2021). Additionally, low power distance and low uncertainty avoidance are in most cases characteristics of European countries. The impact of individualism versus collectivism is more debatable, but generally in Europe, entrepreneurs from more individualistic countries achieve better innovative results (Strychalska-Rudewich, 2016 p. 121). In highly individualistic societies, creativity is related to individual expression, individuals have the freedom to conduct an experiment and it refers to a high probability of success, entrepreneurial growth, as well as a higher level of IEO (Strychalska-Rudewich, 2016). Papula et al. (2018), when referring to Germany, Austria, Switzerland and the Czech Republic, highlight that cultural aspects have a strong positive impact on perceiving business partners as reliable, having trust in the benefits of mutual cooperation, presenting positive role models or encouragement of innovation.

Therefore, it is evident that previous studies conducted to explain how national culture affects innovation show discrepant results among authors (Espig et al., 2021). However, there is no universal IEO model that can be applied to all strategies and policies, without translation across cultures (Smale, 2016). In this study, we aim to fill the gap that exists in literature and which refers to the relationship between national culture and IEO, in the context of the SEE region. The present empirical research was created to extend our knowledge of factors which determine IEO. We examined the relationship between cultural dimensions and IEO, using Global Entrepreneurship Monitor (GEM) data. Therefore, a combination of terminology proposed by Hofstede and GEM innovation index was used. The research questions were: Do entrepreneurial attitudes of national culture contribute to the modelling of IEO? What factors of national culture are best associated with IEO?

The remainder of this paper has been organized as follows. The following section contains an overview of literature according to the set of hypothesis. This is followed by sections on data, methodology and empirical results. This paper ends with a discussion and conclusion, and notes the limitations and recommendations for future research.

2. LITERATURE REVIEW

The majority of individuals from a particular country or group share certain cultural characteristics. National culture, as a value system peculiar to a specific group, society or country, configures individuals' attitudes and behaviour to act in a specific way that may not be applicable in other societies (Hofstede, 2001). In view of this definition, culture has been considered to affect not only social norms but also, in terms of economy, the level of entrepreneurial orientation (innovative orientation, international orientation, marketing orientation, etc.). Innovative entrepreneurial orientation (IEO), as one of the most desirable individual characteristics, is a multifaceted construct which relates to an innovation-based strategic orientation (Neely et al., 2001; Norris & Ciesielska, 2019). The term orientation is used to describe the overall approach that represents the competitive capabilities and strategic focus of entrepreneurs (Human & Naude, 2010). IEO pertains to entrepreneurial attitudes, capabilities and skills (Stock & Zacharias, 2011) such as competition-based understanding, organisational skills (Jalilvand, 2017; Zobel et al., 2017), and knowledge capabilities (Dobni, 2010). IEO deals with exploring new ideas, novelties and other creative processes that may result in a formation of new products, services or processes. In addition, IEO is relevant for managers and executives and those in charge of making decisions and innovation management (Norris & Ciesielska, 2019). Furthermore, a group of scholars states that IEO is a reflection of the uniqueness and a new entrepreneurial solution (Lall & Sahai, 2008).

Hofstede's original work described national culture as a set of four dimensions. They are: power distance, individualism vs. collectivism, masculinity vs. femininity, and uncertainty avoidance, while Hofstede's revised national culture consists of long-term orientation and indulgence (Hofstede, Hofstede & Minkov, 2010).

Power distance affects many organizational processes and outcomes (Keltner, Gruenfield & Anderson, 2003). It refers to the degree in which individuals or societies accept inequalities as legitimate, unavoidable or functional (Daniels & Greguras, 2014). Power distance affects the level of decision-making and formal hierarchy within organizations. Individuals lower on the power distance do not perceive many distinctions based on hierarchical position, social strata or power, they believe that all people should have equal rights and equal opportunities to succeed. Those with less power accept their place in the hierarchy, they trust their leaders, and are loyal to them (Kirkman et al., 2009). As such, cultures or individuals higher on the power distance believe that individuals with authority should be respected and show difference; those with higher power are more likely to value status and prestige (Jaw et al., 2007). At the individual level, power distance positively correlates with job satisfaction, perceptions of directive leadership, openness to experience, while lower power distance negatively correlates with team commitment, employee self-esteem, and perceptions of participative leadership (Taras et al., 2010). Some findings show a strong negative relationship between high power distance citizens and a lower level of IEO (Činjurević & Veselinović, 2017). High power distance societies may find it hard to encourage their people to participate in innovation

process as inequalities among people are expected, and social networking is limited between those from different strata (Hofstede et al., 2010). However, people, in high power distance nations, belonging to the lower strata may feel little motivation to be innovatively oriented (Rinne, Steel & Fairweather, 2011).

Individualism refers to societies where self-responsibility, accomplishment, independence of groups, and personal freedom are common dominant behaviours (Handoyo, 2018). The main indicators for rewarding individuals in individualistic societies are their abilities and achievements such as innovations, important discoveries, and all actions that make an individual stand out. This dimension bears negatively on cooperation, valuing harmony and relations with superiors (Gorodnichenko & Rodnin, 2012). In contrast, a collectivistic society emphasizes the individual as part of a group, and therefore collectivist national culture has norms, values and beliefs such as a group membership identity, loyalty to the group, and solidarity (Handoyo, 2018). Thus, according to Hofstede's explanation of collectivistic societies, citizens are encouraged to equally absorb knowledge value and information through media resources. In collectivistic cultures, individuals are more prone to not reveal their opinions, which often results in slowing down of innovation, while to the opposite, in individualistic cultures people tend to express their opinions (Činjarević & Veselinović, 2017). Furthermore, some recent findings show that collectivism leads to higher economic efficiency while individualism results in higher IEO because of the social status of rewarding innovation. In other words, a higher innovation rate leads to a higher level of productivity and output in the long run versus collectivism that affects static economic efficiency (Gorodnichenko & Rodnin, 2012).

Dimensions of uncertainty avoidance express the degree to which individuals avoid uncertainty and ambiguity, and prefer a predictable future. Strong uncertainty avoidance societies prefer to avoid risks associated with uncertainty by emphasizing formal rules, procedures, and other constructs designed to reduce ambiguity. Societies with high uncertainty avoidance have rigid beliefs and behaviour which does not tolerate different ideas (Espig et al., 2021). For example, some findings indicate that people are ambiguous because of an ambivalent perception of technology (Shane, 1993). Research that relates this dimension to IEO mostly found that uncertainty avoidance is common to individuals who are less willing to take a risk and engage in activities that might lead to innovation (Činjarević & Veselinović, 2017). Furthermore, Handoyo (2018) found that uncertainty avoidance indicates a weak association with national innovative capacity, given the explanation that the way that society behaves is rooted in the value of national culture and will determine national innovative capacity (p. 147).

Hofstede's fourth cultural dimension, Masculinity versus Femininity, relates to the division of emotional roles between women and men. The characteristics of feminine societies refer to existing on a minimal emotional and social differentiation between gender roles. While the relationship between men and women should be modest and caring as well as that there should be a balance between family and work. Femininity is a management manner characterized by a low level of conflict and emotional support to employees (Papula, 2018). Masculine values refer to achievement, higher goals and hard work. A positive correlation has also been observed between masculinity and entrepreneurship (Leković & Petrović, 2020). In addition, in masculine societies, entrepreneurs enjoy a higher level of innovative orientation (Papula, 2018).

Long-term Orientation versus Short-term orientation and Indulgence versus Restrained are, recently added, Hofstede's dimensions of national culture. Long-Term Orientation has to

do with the tendency of a society to accept societal changes. Societies that score low see societal change with suspicion, deal with the past and the present, and respect tradition. Societies that score high might also be defined as pragmatic, and societies scoring low (short-term) might be defined as normative (Salis & Flegl, 2021). Indulgent society allows basic human drives related to enjoying life, while a restrained society suppresses their needs and has strict social norms (Salis & Flegl, 2021). Recent findings have shown that long-term orientation and indulgence relates to IEO. These results contribute to innovation and competitiveness perspectives, in which the intrinsic values of a national culture can favour the development of innovation and raise the level of competitiveness of nations as well as organizations (Prim et al., 2017, p. 1).

Based on the previous statements, we have developed our research hypothesis:

H1 – Explanatory variables of national culture predict the outcome of response variable IEO, thus, a significant relationship exists between national culture and IEO.

Furthermore, taking under consideration previous studies which investigated the construct of national culture and innovation, mostly in the context of European countries, we delved deeper and presumed the characteristics of a relationship between some national culture dimensions (refers to participants' attitudes), and IEO. That is:

H1.1 – There is a significant and *positive* relationship between *equally absorbing knowledge value and information through media resources* (referring to collectivistic societies), and IEO (according to the entrepreneurial statement that in their country, most people can see the stories in media about successful business).

H1.2 – There is a significant but *negative* relationship between *entrepreneurial attitudes confirming that successful entrepreneurs receive a high level of status and respect* (refers to power distance), and the IEO.

3. METHODOLOGY

Empirical research was conducted on data derived from the Adult Population Survey (APS), GEM database for the year 2017. The GEM also includes the monitoring of entrepreneurial activities by using the indicator *Total early-stage entrepreneurial activity* (TEA) (GEM, 2018). The TEA implies: 1) entrepreneurs in the stage prior to commencing with work, 2) nascent entrepreneurs who have been settling their obligations and paying wages for at least three months, and 3) owning managers who have been paying wages in continuity for forty-two months (Reynolds et al., 2004; Wagner, 2004; Stephan et al., 2015).

For the purpose of this empirical research, we selected a research sample which involved entrepreneurs incorporated in Bosnia & Herzegovina, Bulgaria, Croatia, Greece and Slovenia. Two criteria were used for selecting these five countries. Firstly, the regional aspect and similar cultural features which were observed, and secondly, we selected GEM participant countries from the SEE region for 2017. The research sample totalled 10,047 participants, with 60.1% belonging to a country marked as an *efficiency driven country* (Bosnia & Herzegovina, Bulgaria, Croatia), and 39.9% belonging to an *innovative driven country* (Greece, Slovenia). Out of the research sample, 537 individuals were involved in the TEA stage and entrepreneurial activities that included a new product market combination.

The research model consisted of one dependent variable *TEA_{yy}NPMC* (TEA New product market combination), which is one of the GEM Innovation Indices; it measured the IEO by indicating the level of introduction of a new (innovative) product on a market by participants between the ages of 18-64. The model also consisted of six predictor

variables conducted to measure the level of the participants' attitudes towards national culture. They were: 1) *Equalinc* Qi5. In my country, most people would prefer that everyone had a similar standard of living (according to GEM methodology it refers to a similar standard of living rate, and shows the percentage of the 18-64 population who agree with the statement that in their country, everyone had a similar standard of living); 2) *Nbgoodc* Qi6. In my country, most people consider starting a new business a desirable career choice (it refers to *Entrepreneurship as a Good Career Choice Rate*, and shows the percentage of the 18-64 population who agree with the statement that in their country, most people consider starting a business as a desirable career choice); 3) *Nbstatus* Qi7. In my country, those successful at starting a new business have a high level of status and respect (it refers to a *High Status to Successful Entrepreneurs Rate*, and shows the percentage of the 18-64 population who agree with the statement that in their country, successful entrepreneurs receive high status); 4) *Nbmedia* Qi8. In my country, you will often see stories in the public media and/or internet about successful new business choices (it refers to a media support rate and shows the percentage of the 18-64 population who agree with the statement that in their country, most people can see stories in media about successful businesses); 5) *Easystart* Qi9. In my country, it is easy to start a business choice (it refers to an entrepreneurial rate which shows the percentage of the 18-64 population who agree with the statement that in their country, most people easily made the choice of starting a new business), and 6) *Nbsocent* Qi10. In my country, you will often see a business that primarily aims to solve social problems (it refers to an entrepreneurial rate which measures the level of businesses that aim to solve social problems).

4. RESULTS

In order to research the set of hypotheses, SPSS software was used for data analyses. A multiple linear regression analysis (MLR) is a statistical technique that uses several explanatory variables to predict the outcome of a response variable. MLR was used to predict the values of innovative entrepreneurial orientation, given a set of explanatory variables such as entrepreneurial attitudes about national culture. In this research, we also used MLR to determinate which variables are better predictors than others.

We forced all variables into a linear regression model (method: enter). First, we tested the assumptions for MLR, and the multicollinearity. The results showed that none of the correlations appear to be large, while none of the correlations were higher than .80. Table 1 Correlations Matrix shows that multicollinearity is not presents between variables.

Table 1 Correlations Matrix

Variable	1	2	3	4	5	6	7
TEAyyNPMC	1						
equalinc	0.069	1					
nbgoodc	-0.07	.125**	1				
nbstatus	-.090*	.108**	.236**	1			
nbmedia	.079*	.099**	.170**	.184**	1		
easystart	.080*	.075**	.105**	.072**	.166**	1	
nbsocent	-0.03	.103**	.129**	.099**	.212**	.163**	1

*Correlation is significant at the 0.05 level

**Correlation is significant at the 0.01 level

Source: Authors based on GEM database

Table 2 shows the MLR model summary and overall fit statistics. The R from our model is .201 with the coefficient of determinations $R^2=.040$ which is relatively low. This suggests: 1) that there may be subgroups of participants from whom the effect size would be larger, and subgroups of participants for whom the effect size would be smaller; 2) depending on the field, small R^2 can have scientific and theoretical significance too, which may be small, but reliable (Vacha-Haase & Thompson, 2004; Lecuna & Chohen & Chavez, 2016 p. 153). The value of Durbin-Watson statistic was $d=1,805$ which is between the critical values of $1.5 < d < 2.5$. These results show that there is no first order linear auto-correlation in our data of the model, which is adequate and allows us to proceed with model analysis.

Table 2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.201	.040	.027	.417	1.805

Source: Authors based on GEM database

Table 3 Anova presents the F-test. The linear regressions F-test has the null hypothesis that the model explains zero variance in the response variable. While the F-test is significant and we can assume that the model explains the variance of innovative entrepreneurial orientation: $F(6, 423) = 2.958, p < .05$. The ANOVA table indicates that the model, as a whole, is a significant fit to the data.

Table 3 ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.090	6	.515	2.958	.008
	Residual	73.654	423	.174		
	Total	76.744	429			

Source: Authors based on GEM database

According to Table 4, we also see that: 1) VIF values for all variables are less than 10, as they do not exceed 1.048 and 2) Tolerance value is higher than .10. In addition to these, there are no multiple relations among the explanatory variables.

Table 4 Coefficients

Model	Non-standard. Coeff.		Stand. Coeff. Beta	t	Sig.	95,0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Toler.	VIF
(Const.) 1	.237	.054	-	4.431	.000	.132	.343	-	-
equalinc	.075	.044	.082	1.719	.086	-.011	.161	.997	1.003
nbgoodc	-.065	.043	-.074	-1.524	.128	-.149	.019	.955	1.048
nbstatus	-.094	.043	-.108	-2.219	.027	-.178	-.011	.962	1.040
nbmedia	.090	.041	.106	2.180	.030	.009	.171	.960	1.042
easystart	.051	.050	.049	1.018	.309	-.047	.149	.982	1.018
nbsocent	-.059	.046	-.062	-1.282	.201	-.149	.031	.967	1.034

Source: Authors based on GEM database

Following the results from the table above it is evident that explanatory variables *Nbstatus*, and *Nbmedia*, are statistically significant at the level, $p < 0.05$, as well as being better predictors than others. The variable that represents *High Status to Successful Entrepreneurs Rate*, has a negative beta value coefficient ($b = -0.094$, $p < 0.05$), while national media support rate has a positive coefficient ($b = 0.090$, $p < 0.05$). For explanatory variable *Nbmedia* a greater percentage is associated with a higher level of IEO, while *Nbstatus* is associated with a lower level of IEO. Taking % of *High Status to Successful Entrepreneurs Rate*, we see that if we hold all other explanatory constant, for every 1% increase in the % of this rate, there is a decrease of 9% in the predicted value of IEO. Furthermore, taking % of the national media support rate, we see that if we hold all other explanatory constant, for every 1% increase in the % of this rate there is an increase of 9% in the predicted value. Other predictors of national culture indicate a weak association (*Equalinc*, $b = 0.075$, $p < 0.1$), /or not significant, but they also add, to a lower extent, to the prediction model.

The estimated regression equation can be written as follows:

$$TEA_{yyNPMC} = 0.237 + 0.075Equalinc - 0.065Nbgoodc - 0.094Nbstatus + 0.09Nbmedia + 0.051Easystart - 0.059Nbsocent \quad (1)$$

5. DISCUSSION

In line with our expectations, the results of the MLR analysis confirm that explanatory variables of national culture predict the outcome of response variable IEO, thus a significant relationship exists between national culture and IEO. Considering the adjusted coefficient of determination we conclude that, altogether, explanatory variables can explain 4% of the innovative entrepreneurial orientation. We have made useful conclusions about the data even when there is a weak relationship, as some data sets have an inherently larger unexpected variation. Moreover, the results of the pronounced model indicate that national culture, as a set of shared attitudes, values and practices that characterize organizations or groups, contributes to the IEO such as when introducing a new product on a markets. This finding is in line with previous studies that indicate the confirmation of this construct (Strychalska-Rudewich, 2016; Papula et al., 2018; Espig et al., 2021). Therefore, our findings suggest a confirmation of H1. Furthermore, in our analysis we went even further and assumed a significant and positive relationship between *equally absorbing knowledge value and information through media resources* and IEO. Our findings suggest confirmation of H1.1. The results are in agreement with Hofstede's explanation of collectivistic societies where citizens are encouraged to equally absorb knowledge value and information through media resources. This means that SEE countries have a mostly collectivistic environment which refers to the scores of individualistic preferences measured by Hofstede's Culture Compass. In addition, SEE countries mostly contribute to collectivistic societies, while, for example, Hungary (80%), Poland (60%) and Slovakia (52%) are among mostly individualistic societies. A positive relationship between national media support and IEO can be explained in the context of early entrepreneurs who aim to achieve business success from the very start. Those proactive and innovative oriented early-stage entrepreneurs receive valuable information through different social media, transforming it into essential knowledge that is valuable for their further development. This finding is in line with the argument that innovation depends on the flow of information sharing (Papula et al., 2018). Furthermore, our third hypothesis H1.2 has also

been confirmed. A significant but negative relationship exists between entrepreneurial attitudes related to the statement that successful entrepreneurs receive a high level of status and respect, and the IEO. The result suggests that a high level of status and respect refers to high power distance societies where a low level of innovation rate exists. This statement is in line with previous research results. In addition, high power distance may prevent the spread of innovative aspirations, while a low power distance society supports knowledge sharing and ideas (Papula et al., 2018). For example, Switzerland or Sweden, as some of the most innovative countries, present one of the lowest levels of power distance according to the beliefs of their citizens that everyone should have equal right, decentralized power, open communication among hierarchical strata and consequently the exchange of innovation (Espig et al., 2021). However, other research confirms that long-run, individualistic cultures with high power distance societies and low uncertainty avoidance have a greater predisposition to translate new ideas into innovations and achieve the benefits of economic prosperity (Gorodnichenko & Rodnin, 2012). Also, the results of our research can be explained within the context of the research (SEE region) where a specific historical and economic influence exists since its citizens have faced periods of transitions and reforms. In addition, the entrepreneurs from the SEE region have been, for decades, operating within a restrictive economic system, so they are quite unprepared and distrustful of new challenges while government policies and institutional arrangements have an assignment to encourage entrepreneurs to act more innovatively. This is a question of time, so we have been witness to the establishment of a number of successful innovation oriented firms which established their business in the SEE region.

4. CONCLUSION

The total early-stage entrepreneurial activity in transitional countries of the SEE is significantly lower compared to highly developed European countries (Ivanović-Đukić et al., 2018). In addition, the levels of entrepreneurial activity differ between countries, even when speaking about countries which enjoy similar levels of economic development. This led us to propose that disparity is not only the output of variables of economic nature, but that other factors might affect it. In this research, we have focused on entrepreneurs' attitudes about national culture and concluded that a significant relationship exists between dimensions of national culture and the level of innovative entrepreneurial orientation.

Our results suggest a series of implications both at the theoretical and the practical level. Apart from the fact that only a limited number of authors have examined the role of national culture in innovation, observing it within the context of the SEE region, we have contributed to filling the gap in literature. Our empirical research conducted on 537 participants from SEE countries provides empirical evidence that a relationship exists between national cultural dimensions and IEO. The results can be useful to practitioners because it provides empirical evidence supporting the following conclusion: firstly, our findings show that collectivistic culture as a dominant characteristic for nations and organizations in the SEE region seems to be positively connected to IEO, while a high power distance dimension seems to be negatively related to IEO. We found an explanation of these results in the specific entrepreneurial context of the SEE region. In addition, such results contribute to early-stage entrepreneurs from SEE countries that have a similar cultural and historical heritage that might not be prevalent in other societies. Meaning that the results of

one study may not strictly apply to other countries or regions. Thus, our findings are in line with some previous studies which explain the role of national culture in innovation (Strychalska-Rudewich, 2016; Papula et al., 2018). Moreover, the results of this research can be useful to entrepreneurs who are planning to start a business, as well as entrepreneurs in the early stages of entrepreneurial activity, i.e., when the company's resources (financial, human, etc.) are limited and when the company is most vulnerable. The entrepreneurial perception that a product can be developed and positioned on markets with greater support programs at the national level can strengthen the entrepreneurial spirit as well as entrepreneurial innovative orientation.

Lastly, it is necessary to consider some of the possible limitations of the study. The limitation lies in the fact that empirical results can be generalized only on early-stage entrepreneurs from Bosnia & Herzegovina, Bulgaria, Croatia, Greece and Slovenia. Serbia, North Macedonia and Montenegro did not participate in the GEM survey for the year 2017. Also, adding more predicted variables of national culture to a regression model tends to increase the variability of IEO. A statistical analysis with time flow i.e., more than a year, would also be desirable.

Further research might examine how the other factors of national culture affect the level of IEO. It would also be interesting to find out if Hofstede's revised dimensions as long-term orientation versus short-term orientation, and indulgence versus restrained could affect the IEO.

REFERENCES

- Barrichello, A., Gomes dos Santos, E., & Morano, R. S. (2020). Determinant and priority factors of innovation for the development of nations. *Innovation & Management Review*, 17(3), 307-320. <https://doi.org/10.1108/INMR-04-2019-0040>
- Daniels, M. A., & Greguras, G. J. (2014). Exploring the Nature of Power Distance: Implications for Micro- and Macro-Level Theories, Processes, and Outcomes. *Journal of Management*, 40(5), 1202-1229. <https://psycnet.apa.org/doi/10.1177/0149206314527131>
- Dobni, C. B. (2010). The relationship between an innovation orientation and competitive strategy. *International Journal of Innovation Management*, 14(2), 331-357. <https://doi.org/10.1142/S1363919610002660>
- Espig, A., Mazzini, I. T., Zimmermann, C., & Castro de Carvalho, L. (2021). National Culture and innovations: a multidimensional analysis. *Innovation & Management Review*, (ahead of print). <https://doi.org/10.1108/INMR-09-2020-0121>
- Filho, L. S., & Zamur, G. A. C & Di Serio, L. C. (2017). Relationship between national culture dimensions and degree of innovation. *International Journal of Innovation Management*, 21(01),1730001.
- Global Entrepreneurship Monitor (2018). *Global Report 2017/2018*. Babson college.
- Gorodnichenko, Y., & Roland, G. (2012). Understanding the Individualism-Collectivism Cleavage and Its Effects: Lessons from Cultural Psychology. In *Institutions and Comparative Economic Development*, 1, 213–236. https://doi.org/10.1057/9781137034014_12
- Handoyo, S. (2018). The Role of National Culture in National Innovative Capacity. *The Asian Journal of Technology Management*, 118(2), 137-149. <http://dx.doi.org/10.12695/ajtm.2018.11.2.6>
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviours, Institutions and Organisations Across Nations*. Sage, Beverly Hills, CA.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind* (3rd ed.). New York: McGraw-Hill.
- Human, G., & Naude, P. (2010). Relationship and innovation orientation in a business-to-business context. *Journal of Business Management*, 41(4), 23-36.
- Ivanović-Đukić, M., Lepojević, V., Stefanovic, S., van Stel, A., & Petrović, J. (2018). Contribution of Entrepreneurship to Economic Growth: A Comparative Analysis of South-East Transition and Developed European Countries. *International Review of Entrepreneurship*, 16(2), 257-276.

- Jalilvand, M. R. (2017). The effect of innovativeness and customer-oriented systems on performance in the hotel industry of Iran. *Journal of Science and Technology Policy Management*, 8(1), 43-61. <https://doi.org/10.1108/JSTPM-08-2016-0018>
- Jaw, B., Ling, Y., Wang, C. Y., & Chang, W. (2007). The impact of culture on Chinese employees' work values. *Personnel Review*, 36(1), 128-144. <https://psycnet.apa.org/doi/10.1108/00483480710716759>
- Keltner, D., Gruenfield, J., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110(2), 265-284. <https://doi.org/10.1037/0033-295x.110.2.265>
- Kirkman, B. L., Chen, G., Farh, J. L., Chen, Z. X., & Lowe, K. B. (2009). Individual power distance orientation and follower reactions to transformational leaders: A cross-level, cross-cultural examination. *Academy of Management Journal*, 52(4), 744-764. <https://doi.org/10.5465/amj.2009.43669971>
- Lall, M., & Sahai, S. (2008). *Entrepreneurship*. 2nd Edition. Excel books: New Delhi.
- Lecuna, A., Cohen, B., & Chavez, R. (2017). Characteristics of high-growth entrepreneurs in Latin America. *International Entrepreneurship and Management Journal*, 13(1), 141-159. <https://doi.org/10.1007/s11365-016-0402-y>
- Leković, B., & Petrović, M. (2020). Characteristics of agro-entrepreneurs in Southeast Europe, in: *Handbook of Research on Agricultural Policy, Rural Development, and Entrepreneurship in Contemporary Economies* (21-42). IGI Global. <https://doi.org/10.4018/978-1-5225-9837-4.ch002>
- Neely, A., Filippini, R., Forza, C., Vinelli, A., & Hii, J. (2001). A framework for analyzing business performance, firm innovation and related contextual factors: perceptions of managers and policy makers in two European regions. *Integrated Manufacturing Systems*, 12(2), 114-124. <http://dx.doi.org/10.1108/09576060110384307>
- Norris, D., & Ciesielska, M. (2019). Towards a framework for innovation orientation within business and management studies. *Journal of Organizational Change Management*, 32(1), 123-144. <https://doi.org/10.1108/jocm-02-2018-0051>
- Papula, J., Papulova, Z., & Kohnova, L. (2018). Impact of national culture on innovation activities of companies: A case of Germany, Austria, Switzerland and the Czech Republic. *Economic Annals*, 169(1-2), 26-30. <https://doi.org/10.21003/ea.V169-05>
- Reynolds, P. D., Carter, N. M., Gartner, W. B., & Greene, P. G. (2004). The Prevalence of Nascent Entrepreneurs in the United States: Evidence from the Panel Study of Entrepreneurial Dynamics. *Small Business Economics*, 23(4), 263-284. <https://doi.org/10.1023/B:SBEJ.0000032046.59790.45>
- Rinne, T., Steel, G. D., & Fairweather, J. (2011). Hofstede and Shane Revisited. *Cross-Cultural Research*, 46(2), 91-108. <https://doi.org/10.1177%2F1069397111423898>
- Salis, G., & Flegl, M. (2021). Cross-Cultural Analysis of Gender Gap Entrepreneurship. *Changing societies and personalities*, 5(1), 83-102. <https://doi.org/10.15826/csp.2021.5.1.123>
- Shane, S. (1993) Cultural influences on national rates of innovation. *Journal of Business Venturing* 8(1), 59-73. [https://doi.org/10.1016/0883-9026\(93\)90011-S](https://doi.org/10.1016/0883-9026(93)90011-S)
- Smale, T. (2016). Why National Culture Should Be at the Heart of Innovation Management. *Technology Innovation Management Review*, 6(4), 18-25. <http://doi.org/10.22215/timreview/978>
- Song, C., Park, K. M., & Kim, Y. (2020). Socio-cultural factors explaining technology-based entrepreneurial activity: Direct and indirect role of social security. *Technology in society*, 61, 1-9. <https://doi.org/10.1016/j.techsoc.2020.101246>
- Stephan, U., Hart, M., Mickiewicz, T., & Drews, C. C. (2015). *Understanding motivation for entrepreneurship*. Big Research Paper No.212. Department for Business Innovation and Skills Aston Business School: Birgminham, UK.
- Stock, R. M., & Zacharias, N. A. (2011). Patterns and performance outcomes of innovation orientation. *Journal of the Academy of Marketing Science*, 39(6), 870-888. <https://doi.org/10.1007/s11747-010-0225-2>
- Strychalska-Rudewicz, A. (2016). The Impact of National Culture on the Level of Innovation. *Journal of Intercultural Management*, 8(1), 121-145. <https://doi.org/10.1515/joim-2016-0006>
- Taras, V., Kirkman, B. L., & Steel, P. (2010). Examining the impact of Culture's Consequences: A three-decade, multilevel, meta-analytic review of Hofstede's cultural value dimensions. *Journal of Applied Psychology*, 95(3), 405-439. <https://doi.org/10.1037/a0018938>
- Vacha-Haase, T., & Thompson, B. (2004). How to Estimate and Interpret Various Effect Sizes. *Journal of Counseling Psychology*. 51(4), 473-481. <https://psycnet.apa.org/doi/10.1037/0022-0167.51.4.473>
- Wagner, J. (2004). *Nascent entrepreneurs. The life cycle of entrepreneurial ventures Boon*. Germany: Institute for the study of labour.
- Wu, S. (2007). The relationship between national culture and national entrepreneurial activity. *World Review of Entrepreneurship, management and Sustainable Development*, 3(2), 127-141. <https://doi.org/10.1504/WREMSD.2007.013607>
- Zobel, A.-K., Lokshin, B., & Hagedoorn, J. (2017). Formal and informal appropriation mechanisms: the role of openness and innovativeness. *Technovation*, 59(C), 44-54. <https://doi.org/10.1016/j.technovation.2016.10.001>

VEZA IZMEĐU NACIONALNE KULTURE I INOVATIVNE PREDUZETNIČKE ORIJENTACIJE: ANALIZA ZA ZEMLJE JUGOISTOČNE EVROPE

Cilj ovog rada je da istraži vezu između preduzetničkih stavova o nacionalnoj kulturi i inovativne preduzetničke orijentacije. Empirijsko istraživanje uključuje višestruku linearnu regresiju, a podaci za istraživanje su selektovani iz baze podataka Global Entrepreneurship Monitora. Za potrebe istraživanja odabrali smo uzorak u kojem su učestvovali preduzetnici u ranoj fazi preduzetničke aktivnosti, iz sledećih zemalja: Bosna i Hercegovina, Bugarska, Hrvatska, Grčka i Slovenija. Rezultati istraživanja potvrđuju vezu između dimenzija nacionalne kulture i inovacija. Naime, podjednaka apsorpcija znanja i informisanje putem različitih medija doprinosi višem stepenu inovativne orijentacije preduzetnika, dok percepcija preduzetnika o prisustvu viših statusnih razlika je u negativnoj vezi sa stepenom inovativne preduzetničke orijentacije. Rezultati istraživanja se mogu objasniti specifičnim preduzetničkim kontekstom regiona jugoistočne Evrope. U radu smo istakli i preporuke za buduća istraživanja.

Ključne reči: Nacionalna kultura, inovativna preduzetnička orijentacija, rana faza preduzetničke aktivnosti, jugoistočna Evropa.