

FOREWORD

The book investigates the innovation culture in Croatia from the theoretical and empirical point of view. Innovation culture is seriously under-investigated, not only in Croatia but at the global level. It is usually identified with organizational innovation culture, which mostly includes studies in business management about the ability of a company's management to build an innovation-friendly environment, to provide incentives for innovation, and to investigate employees' motivation to be creative and innovative within a certain organizational culture. This approach completely neglects the broader perspective: social or "collective" cultural aspects of national or sub-national propensity to innovation (in Hofstede's terms, "collective programming of the mind") which might have a significant influence on innovation activities at the level of broader social groups, including whole nations or regions within a nation.

Our interest in innovation culture is driven by a lack of theoretical studies which could provide the analytical and normative framework for studying the social aspects of Croatia's innovation lagging and sluggish economic growth. This interest was initiated by Croatia's long-term recession and a decrease in GDP which threatens not only economic development, but also the civil society and welfare state. Next, the great economic disparities among Croatia's regions inspired us to explore the regional differences in innovation culture using Hofstede's cultural model – still the leading model for studying cultural impacts on development. The main aim was to understand the workings of the "invisible hand" of cultural factors which, presumably, shape regional innovation capacities and development without our consent or will, operating through our mind-set, mentality or deeper layers of unconscious convictions. We simply wanted to find out whether our inclination to individualism or collectivism, masculinity or femininity, authoritarianism or liberality, orientation to future or immediate satisfaction of desires etc. is related to our innovativeness, development of Croatia's regions and, consequently, the whole of Croatia.

We start from the presumption that the national culture, innovation and entrepreneurship interact in a way that affects innovation and social progress. The empirical study that makes the core of this book will therefore test our main thesis that a weak and deficient innovation culture is the main obstacle to innovation dynamics, innovation propensity and the related economic growth. It is based on empirical research of innovation culture in different regions of Croatia using Hofstede's dimensions of national culture.

Our empirical research addresses the innovation culture in Croatia's regions on the basis of Hofstede's dimensions of national culture, a model which is globally popular. The data were collected in the Spring of 2015 using Hofstede VSM 2013 questionnaire within Pilar's Barometer of Croatian society omnibus survey on a national representative sample of 1,000. We chose to implement Hofstede's approach thanks to its widespread popularity, the wealth of published research and online availability of Hofstede's original data for Croatia. Our final aim was not only to shed additional light on the national innovation culture in Croatia but also to test our results against Hofstede's original results and to identify changes in cultural dimensions since 1970, when this type of research was first carried out in Croatian companies in ex-Yugoslavia.

On this journey with Hofstede's model, we had to deal with many questions, doubts and, lastly, disappointing final results. We believe that Hofstede's model is not very well tuned when applied at a small scale, e.g. in a single country (despite of claims that regional differences may be greater than those between countries), and is, therefore, better suited and more accurate when applied to study cross-cultural differences at the global level. We realized that in order to understand the socio-cultural factors which influence the weak innovation capacities and slow economic growth in Croatia, we should better research the transition process from the perspectives of political economics and sociology. In the end, however, we believe that our endeavor was worthy of all the time and effort we invested in it.

The book is written in English to allow the broader scientific community an insight into the results of our empirical study and our theoretical inquiries. We hope it will further the dialogue with colleagues who are also searching for answers to the questions posed below.

Chapter 8 reproduces a segment of our article entitled „Socio-political approach in exploring the innovation culture in post-socialist countries: the case of Croatia”, which is published in “Post-communist economies” journal. Parts of Chapters from 4 to 7 are used in a manuscript submitted for publication to a different journal.

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INTRODUCTION: WHAT IS THE BOOK ABOUT?

Scholars nowadays by and large agree that innovation and entrepreneurship contribute to national competitiveness, economic prosperity and social welfare. This belief is widely accepted among Croatia's political and economic elites and the general public. Why then is Croatia lagging behind *all* the EU member states in innovation, entrepreneurship and economic growth? Cross-country comparisons reveal that Croatia lags behind both the old EU members, which mostly belong to globally advanced economies, and the new member states, traditionally less developed than Croatia.

The standard explanation refers to Croatia's inability to implement the structural reforms undertaken by peer countries during transition and global financial recession in order to transform an innovation-adverse business (as well as legal, financial, fiscal etc.) environment into a setting more favourable to innovation and entrepreneurship. The classical economists believe that an appropriate and efficiently implemented economic and innovation policy will produce more or less the same results notwithstanding the socio-political context and culture. By contrast, the evolutionary and institutional economists dealing with economics of innovation and the endogenous factors of growth, such as knowledge or education, have clearly demonstrated that countries differ significantly in innovation capacities and economic growth despite the fact that all of them have the same resources at their disposal. Namely, that advanced technologies, scientific discoveries and knowledge are globally available. They suggest that innovation is a complex and contextual social phenomenon and that economies grow faster when innovation is fostered by an appropriate socio-economic environment. It depends on a society's ability to create an institutional set up for encouraging innovation, i.e. the national innovation system.

In principle, the transformation of Croatia's socialist economy into a modern, capitalist, market-driven economy occurred in circumstances which were similar to those found in other countries of Central and Eastern Europe. The only exception is Croatia's homeland war for independence, but experiences of other countries, e.g. Israel, showed that a threat to national security and identity could contribute to the strengthening of the national economy. Moreover, Croatian economy was rather more developed and internationalized in the 1990s, at the beginning of the transition period, than, for example, Polish or Czech economy. At the time, many Croatian citizens looked down on the rest of the countries of the former Eastern bloc. They appeared

less capable of capitalist transformation and less likely to quickly catch up with the advanced Western countries. The situation now, 25 years later, is just the opposite.

Many intriguing questions have arisen: Why has Croatia demonstrated a social inability for change towards an internationally competitive and innovation-driven prosperous economy? Why has it not used its potentials in industry, science and human capital to make a smooth transition to capitalism and knowledge-driven economy? Why have the impediments to innovation persisted so long in Croatia, causing close to eight years of economic recession in the wake of the 2008 crisis? Can we attribute our economic underdevelopment to culture, i.e. our social values and worldview?

Scholars around the globe, especially economists, developed many methods and instruments to define and measure innovation-adverse factors in an objective, quantified and economically relevant manner. Both the broad cross-country comparisons, e.g. Global Competitiveness Index (GCI), Global Entrepreneurship Index (GEDI) and Innovation Union Scoreboard (IUS), and nation-specific analyses identify a long list of constraints to entrepreneurship and innovation in Croatia. They regularly detect obstacles such as the lack of financial resources, red tape, corruption, business-adverse environment, inefficient judiciary, weak entrepreneurship education, deficient managerial competences, etc. However, we still do not know what drives these impediments and negative factors of growth.

Since economists have mainly exhausted their explanations for lags in innovation and economy and proposed structural reforms remain unfulfilled, we started to believe that other factors influencing the low innovation and entrepreneurship abilities throughout the society should be considered from a different perspective, one dealing with the socio-political and dominantly cultural determinants of economic growth with innovation and entrepreneurship as its drivers.

Our research focus is on innovation and social determinants of the national innovation culture in Croatia. Our interest in the influence of cultural factors on innovation and entrepreneurship potentials of Croatia was initially driven by the slow and disappointing pace of economic growth during Croatia's transition towards a market economy after the collapse of socialism and establishment of the independent state in 1991. The interest has recently been renewed by a prolonged economic recession. It lasted for nearly eight years, which was a rather unique phenomenon among the EU member states. Initiated by the global financial crisis of 2008, the crisis has been dragging out to the present day as a result of the deep structural deficiencies of the Croatian economy.

We have to ask ourselves why Croatia failed to overcome its structural deficits and, despite reforms, finds itself lagging behind in economic growth, competitiveness and

social prosperity. Why is Croatia the weakest of all European Union states in terms of economic and innovation issues when it has fulfilled most of the political goals set at the beginning of the 1990s?

Following the break-up of socialist Yugoslavia, Croatia became an independent democratic state and a member of the European Union. In the process, its socialist self-managed economy transformed into a capitalist market economy. Judging by its natural, geographic and economic features, by its educational and scientific potential and other characteristics, Croatia should not be at the tail of Europe in terms of economic growth, innovation and competitiveness, and yet this is the case.

Many scholars are prone to attribute Croatia's economic backwardness to its socialist heritage and cultural inertia, to inherited socialist values and norms that impede the adoption of pro-Western values underpinning entrepreneurship and innovation as the principal agents of modern economic growth. This approach overlooks the fact that Croatia is lagging behind both the "old" EU member states of the Western bloc and the former communist countries of the Eastern bloc, where it used to belong in the past. Moreover, when the iron curtain fell, Croatia had a significant advantage over Poland, Hungary, the Czech Republic and Slovakia, the countries which suffered under the "communist boot". Twenty years after the fall of communism, the situation is reversed and Croatia is lagging behind these countries in economic growth, entrepreneurship and innovation. Inevitably, the arguments relying on "cultural lag" or "cultural inertia" lose some of their credibility and strength. Since Croatia is threatened with bankruptcy and widespread impoverishment, it is necessary to develop new approaches and look for additional factors to explain the weak competitiveness and low innovation capacities of the Croatian economy.

Paraphrasing Harrison's famous question (Harrison, 2000, p. xvi¹) we asked ourselves: If socialist legacy is not responsible for our economic underdevelopment, what is?

Initially we hypothesised that the presence of innovation-adverse factors and the consequent lag of the Croatian economy can be explained by the negative effects of Croatia's weak innovation and entrepreneurial culture on its entrepreneurial and innovative capacity, the two fundamental factors of international competitiveness and economic growth. Many studies confirmed that the national culture, manifested through social values and norms, influences the corporate/company culture and behaviour of individuals, which might help to increase the national rate of innovation and competitiveness.

¹ The original Harrison's question: "If dependency and imperialism are *not* responsible for our economic underdevelopment, our authoritarian political traditions, and our extreme social injustice, what *is*?" (authors' italics).

Although Hofstede's theory of national culture has received heavy criticism as being too simplistic, meaningless, reductionist, theoretically and methodologically flawed, and out-dated (Dermot, 2002; Taylor and Wilson, 2012; McSweeney, 2016), there is evidence that Hofstede's dimensions have a strong convergent validity compared to other on-going cultural frameworks (Magnusson *et al.*, 2008) and represent a predictive and replicable tool for economic outcomes (Williams and Mcguire, 2010 p. 397). This led scholars to conclude that Hofstede's model remains a highly valid tool for exploring national innovation culture (Efrat, 2014) and a leading concept in studying the relationship of national culture and national rate of innovations. Besides this, the simplicity of the model and the availability of methodology led us to apply it in our study of the innovation capacity of Croatia. Hofstede's model was applied to study the cross-regional cultural differences in Croatia and their possible implications for the regional innovation capacities and overall development. On the one hand, our research was motivated by Croatia's large regional disparities. On the other hand, we wanted to test some commonly held beliefs, almost stereotypes about the behaviour of people from different regions, presumably as a result of their historic and geographic heritage (Goić and Bilić, 2008). To put it simply, we wanted to see whether regional cultural characteristics (based on Hofstede's dimensions) can be predictors of low innovativeness and weak economic growth or there is no relationship between the two.

We also discuss, based on the obtained empirical data, the relevance of Hofstede's model for explaining the cultural factors which hinder/stimulate innovation in Croatia. In this context, our study represents a different approach to exploring the innovation culture in Croatia, one based on socio-political studies of the transition process and Croatia's socialist legacy.

Our main hypothesis is that regions with innovation-supporting dimensions of national culture (for example, high individualism, long-term orientation, etc.) are more developed than other regions since a pro-innovation culture boosts innovation propensity and entrepreneurial activities, the rule of law, professional management and similar characteristics, which are, in turn, less pronounced in less developed regions.

The main aim of this book is to conceptualise regional innovation cultures in Croatia and to explore whether (or not) the regional innovation culture influences regional innovation capacities and overall prosperity. The study is focused on the following main issues:

- Concept of national and regional innovation culture;
- Empirical research of the dimensions of national culture at regional level in Croatia using Hofstede's model;

- The relevance of Hofstede’s model of national culture for studying regional innovation culture in Croatia; and
- Proposal for an alternative approach to the investigation of innovation culture.

Our research of regional innovation culture in Croatia draws on Hofstede’s concept of six dimensions of national culture. It is based on the presumption that each of the cultural dimensions represents a set of value orientations and norms which influence innovation and similar capacities at the regional level. The research was carried out on the level of six pre-defined regions which differ in terms of BDP, overall development, innovation capacity, education, political orientation, the rule of law, professionalism of managers, etc. Exploration of the links between these factors and the dimensions of national culture is expected to reveal which cultural dimensions of specific regions are adverse or favourable to innovation.

We used Pilar’s Barometer of Croatian society² (research conducted in 2015) to collect the relevant data on a representative sample, to investigate Hofstede’s dimensions of national culture in Croatia and explore how these dimensions might influence our innovation culture.

Upon completion of our research, however, we experienced a double disappointment. Firstly, the methodology used did not allow for a cross-comparison of the data and, secondly, Hofstede’s model had a low explanatory power when applied to our circumstances. Although we made careful predictions about possible results, we were so eager to collect the data on national culture that we neglected the warnings that cross-country results and research are incomparable. Consequently, we experienced a painful and disappointing moment when we realized that our and Hofstede’s results cannot be compared. Moreover, it was impossible to compare our results with the results of other research studies, e.g. the results obtained by the Institute of Economics from Zagreb, which had researched the same topic several months earlier and unbeknownst to us. In Hofstede’s words, we behaved like typical “enthusiastic amateurs” (Hofstede and Minkov, 2013) who tried to compare the results for one country with the country scores obtained in Hofstede’s study. We completely neglected Hofstede’s warning that “one-country replications are meaningless because they have no match to compare with”. Hofstede’s claim that the Value Survey Modul (VSM) is like a thermometer that has to be re-calibrated at each use became clear to us only after we had calculated the values for each cultural dimension: in order to obtain scores between 0 and 100, one needs

² <http://barometar.pilar.hr/en/>

to adjust the received values using certain “constants”. The values of these constants can be chosen freely as they do not affect the comparison of units in question (e.g. countries, regions), but they are valid for only one specific research study. As a result, it is impossible to compare the obtained scores with Hofstede’s original scores or with scores from other research studies. Maybe our rashness and our lack of understanding can be explained by our deeply internalized sense that all scientific research must be repeatable and verifiable.

Our disappointment grew as we realized that Hofstede’s model and the results we obtained for each of the dimensions had little explanatory power. Drawing on our empirical research and the research of the Institute of Economics we concluded that Hofstede’s model does not significantly contribute to our understanding of the innovation culture or economic lag in Croatia. All of our results are highly contextual and open to ambiguity as their interpretation depends on one’s previous understanding of the wider socio-political, cultural and economic context. For example, the finding that the capital city of Zagreb with surroundings has the highest values for power distance of all six examined regions is both confusing and surprising. This would mean that people in the most developed region of Croatia prefer authoritarian relationships, relationships of dominance and subordination, and require a boss who “thinks for them”. This conclusion does not resonate with the level of development found in the Zagreb region. Even more surprisingly, we identified the most pro-innovation cultural dimensions in the least economically developed, mostly agrarian region of Slavonia and Baranya. Obviously, such findings are not at all self-explanatory. They require further elaboration before they can be considered as meaningful and conducive to any social action aimed at “social change” and democratisation of social relationships. Our criticism is in line with the writings of other authors who find that, although Hofstede’s dimensions are by far the most widely used, they fall short of describing all important aspects of national cultures (Van Everdingen et al., 2003).

For us, this research study spells farewell to Hofstede’s model of exploring the national culture in Croatia. In our opinion, Hofstede’s model should be left to the Hofstede research centre and investigations of cultural dimensions on the global scale. It is of little relevance for us in terms of practical application and social action. We need, by contrast, specific analyses and approaches which will address the specific, practical and down-to-earth social issues which hinder innovation in Croatia. Such problems may be much closer to the issues in political economics (e.g. corruption) and sociology (e.g. attitudes towards business climate) than the abstract constructs of masculinity, individualism, etc. despite their analytical and normative relevance at the global level. Most importantly, we can deal with sociological and political issues and try to shape them by the values and practices supportive to innovation.

The book has three main parts. The **first part** presents the theoretical framework of the concept of innovation and innovation culture. It consists of five subchapters. The *first subchapter* describes the concept of innovation in general and its role within the context of European economy. We discuss the evolution of the concept from its origins as a product feature to its contemporary meaning: a complex social phenomenon in the service-based economy. The evolution involves the transformation of technology- and science-based concept of innovation, developed within the industrial society, into a soft concept of innovation, identified with almost every creative action within the currently dominant digitalised and service economy. The shift from innovation as a product of large industrial corporations towards innovation as a product of small and medium-sized enterprises is described through the transition from the managed to the entrepreneurial economy. The *next subchapter* reviews contributions from the fields of sociology, economics of innovation and social capital theory to define the social determinants of innovation and construct the concept of innovation as a social process subjected to cultural and political influences of the broader environment. It goes without saying that such processes should not be overlooked by analyses of the cultural aspects of innovation propensity and development.

The *third subchapter* provides the general framework for studying innovation culture with a particular reference to organizational culture. Drawing on many authors, namely Huntington, Harrison, Schein, Landes, Herbig and Dunphy, Kumar, Taylor and Wilson etc., this subchapter discusses the complexity of the concept of national innovation culture, its high contextuality and contingency. The difficulties in defining pro-innovation cultural characteristics and problems in determining a uniform definition of innovation culture are elaborated. Organizational innovation culture is discussed separately to familiarise the readers with the concept and to show that organizational innovation culture cannot be identified with national or regional innovation culture as innovation is affected by completely different factors at these aggregate levels.

The *fourth subchapter* provides a relatively detailed analysis of the “big five” theories of national culture, those of Hofstede, Schwartz, House (GLOBE project), Hampden-Turner and Trompenaars and Inglehart. A special attention is given to the results of relevant explorations carried out in Croatia. Hofstede’s model is described at large since our entire empirical research is based on this model. In addition to the description of Hofstede’s cultural dimensions, we summarise the main critical and apologetic approaches to Hofstede’s theory. A special section is devoted to previous research and findings about the relationship between national culture and propensity to innovation. Finally, we provide a comprehensive overview of cross-cultural studies of national propensity to innovation (based on Hofstede’s cultural dimensions): from the seminal works of Shane to the most recent papers and publications.

The *fifth subchapter* deals with regional innovation culture, the central topic of our research. It explains the concept of regions in the European Union and the concept of the regional innovation system. It discusses the growing recognition of the need to study national sub-cultures since nations are rarely homogeneous in terms of culture. In-country differences in regional cultures can be greater than the differences between countries. The subchapter presents the previous research in this area, stressing that research studies dealing with regional innovation culture are rather scarce.

The **second part** of the book presents our empirical research on cross-regional cultural differences in Croatia. We applied Hofstede's model to identify the possible implications of cultural differences for regional innovation capacities and overall development. The *first sub-chapter* of three is devoted to the description of the purpose, concept and methodology of the research. Our research results are presented in the second *sub-chapter*, which consists of four sections. The *first section* provides a description of the selected five regions in Croatia (the division is conditioned by the previous research and availability of data) according to Hofstede's dimensions of national culture. In the *second section*, the regions are described in terms of pro-innovation and innovation-adverse cultural dimensions. The *third section* deals with our central research question: Do the dimensions of national culture affect innovation capacity? The propensity to innovation is captured through the composite indicator "Technology and innovation" taken from the Regional Competitiveness Index. The relationship between cultural dimensions and other factors related to innovation capacity, such as propensity to entrepreneurship, GDP, development, index, etc. are also analysed. The *fourth section* describes the dimensions of national culture by socio-demographic characteristics (age, gender, political orientation, religiosity and job status).

The *third sub-chapter* brings conclusions and a view of future research directions. Sadly, the empirical research findings turned out to be quite disappointing. Similar to some previous foreign studies, the results have fallen short of expectations. The obtained data do not provide clear evidence that regional innovation culture has an influence on innovation or a role in explaining regional variations in innovation and entrepreneurship. In the case of Croatia, the cultural dimensions defined by Hofstede appeared to be "content empty" as regards the nature of innovation culture. Culture, at least within Hofstede's framework, turned out to be an insufficient condition to explain and understand propensity to innovation and entrepreneurship and the related economic growth.

It basically means that this Hofstede's approach, rather simplistic and tending to hyper empiricism, may prove fruitful at the cross-country global research level, but

cannot be considered as a productive theoretical and analytical framework to explore the influence of in-country regional innovation culture. At least not for Croatia.

Therefore, the **third part** of the book suggests that we should move beyond Hofstede's model and find an alternative approach to study the "hidden" social factors affecting innovation and entrepreneurship dynamic. Papers and publications by a number of Croatian authors who analysed the slow economic growth of Croatia during transition may be a fruitful starting point. The studies, falling into two main groups, are presented in two subchapters. The *first subchapter* is devoted to path-dependent theories mainly developed by sociologists (e.g. egalitarian syndrome), while the *second subchapter* elaborates on the specific type of capitalism which has been developing in Croatia since the transition started: the so-called clientelistic capitalism. The latter theories were mainly developed by political economists. Although path-dependent theories present strong arguments to blame low innovativeness primarily on cultural inertia and the system of social values inherited from socialism, we are more inclined to believe that clientelism and corruption, which developed during the post-socialist period, play a far greater role as factors contributing to low innovativeness. Since we perceive corruption as the main obstacle to innovation and progress in the Croatian society and economy, in the *third subchapter* we made an effort to present several views on the influence of corruption on innovation. The analysis leads to the general conclusion which emphasises the need to defeat corruption and introduce the principles of the moral economy as the main precondition for innovation dynamic and social progress.

Finally, the **epilogue** describes the recent political development related to the collapse of the Croatian government only 6 months after the general elections in December 2015 and the INA-MOL and Agrokor affairs that are still shaking Croatian society. Both confirm our main conclusion that corruption and the divisive political discourse, one based on obsolete ideologies, political attitudes, ethical values, mindset and behaviour, represent the biggest obstacle to innovation, entrepreneurship and economic growth.