REVIEW

of the doctoral dissertation titled "The influence of culture and individual characteristics on decision-making logic: A case of Chinese immigrant entrepreneur in Poland" written by mgr Yi Zhang under the supervision of prof. dr hab. Aldona Glińska-Neweś and prof. Miguel Pereira Lopes (Toruń 2024, pp. 204).

The formal basis that allows me to prepare the review of the dissertation titled "The influence of culture and individual characteristics on decision-making logic: A case of Chinese immigrant entrepreneur in Poland" written by mgr Yi Zhang under the supervision of prof. dr hab. Aldona Glińska-Neweś and prof. Miguel Pereira Lopes is the letter number 11.WNEiZ/5301/14/2024 from the chair of the Council of Scientific Discipline of Management and Quality Sciences (Rada Dyscypliny Naukowej Nauk o Zarządzaniu i Jakości) of the Nicolaus Copernicus University in Toruń dr hab. Agata Sudolska, prof. UMK dated 10th of October, 2024. The letter informs me that on 25th of September, 2024 I was selected by that Council to be the reviewer of the dissertation. The dissertation is written on 204 pages, including table of contents, references and appendices. I further present the assessment of the dissertation in following aspects: the scope of the research, dissertation's objectives, research questions, theoretical arguments, employed methods, results and conclusions.

The scope of the research, dissertation's objectives and research questions

The topic of the dissertation is very important both from the scientific and practical perspectives. In terms of scientific investigation, there is still a lack of research examining the situation of immigrant entrepreneurs. There is evidence that this group is quite unique. The level of entrepreneurship among them seems to be higher than among the rest of the population and it is high despite the fact that they face many challenges, far more than people who do business in their home country. On the other hand, immigrant entrepreneurs might have an advantage, as they can transfer some solutions unknown or not very common in the host country, and additionally they can run a transnational business between home and host countries, allowing them to utilize transnational opportunities and mitigate risk (David, Terstriep, & Zbierowski, 2023). From the practical perspective, the share of immigrants in many countries is growing and governments are eager to use that resource to boost startup rate, hence, understanding how really immigrant entrepreneurs function allows for designing better entrepreneurship support policy. The choice of home and host countries that are analysed in the dissertation is probably partly determined by the life circumstances of the Author, but is very fortunate as China and Poland are quite culturally distant which gives the

opportunity to explain some general processes and relationships. Also, from the practical perspective, conducting research in that setting allows to formulate valuable practical recommendations for Polish policy makers.

The background of the research is comprehensively described. The Author refers to reliable literature sources in painting the big picture of entrepreneurship in Poland and the role that Chinese immigrants play and might play in that picture. Also, the introduction presents cultural differences between China and Poland. More importantly, the critical terms are presented and defined in the introduction along with the presentation of the theoretical basis for the study. I would prefer the introduction to be a bit more concise and to start with more focus on the gap in the knowledge without referring to specific situation to try to address some more general understanding of immigrant entrepreneurship, but it is the choice of the Author to frame the introduction as it is, and, at the end of the day, it presents all the necessary information.

The objective of the dissertation is very clear and relevant. The Author is very up-front when it comes to specific issues and variables representing those issues that will be investigated. The choice if very rational and based appropriately on existing theories and previous empirical evidence. I especially applaud the Author for making a step-by-step introduction of research objectives, each supported by the relevant literature (pp. 18-21). This makes the reader go with understanding from one question to another and I have to admit that this way of communicating the research questions provides a coherent story that I am eager to follow in what is yet to come in the dissertation.

The introduction also explains in detail the methodology that was used in the dissertation, but I will assess that in the appropriate section. In general I think that employing mixed methods approach is very beneficial and provides an in-depth understanding of the processes described in the dissertation.

Theoretical arguments

The theoretical part of the dissertation is composed of three chapters. Chapter 1 reviews different types of entrepreneurs, such as immigrants, ethnic groups, and those working across countries. The Author applies concepts from theories like mixed embeddedness, cultural frameworks, and capital theory to better understand these entrepreneurs. This chapter also explores the complex entrepreneurial process, concentrating on how entrepreneurs identify, discover, and evaluate opportunities and the risks and uncertainties they face. Then, the theory of effectual and causal decision-making logic is introduced. The description of terms is very precise. The Author skilfully navigates between terms like 'entrepreneur', 'business owner', 'owner manager' which assures that the theoretical approach and empirical research is very precise and leads to robust conclusions. Also, the theories of immigrant entrepreneurship are presented comprehensively and with appropriate academic rigour. The last part of the chapter is critical for understanding the decision making logics that entrepreneurs are using.

Chapter 2 explores key theoretical frameworks of national culture, examining different cultural types and their diversity. The Author reviews prominent theories such as Hofstede's cultural dimensions, Gesteland's cultural model, Confucian values, and a comparison of national culture dimensions between China and Poland. The biggest focus is put on Hofstede's framework. As a researcher of cultural background of entrepreneurship I would probably prefer to use the Schwartz model and being more precise and useful for researching entrepreneurs. This does not mean that I consider employing Hofstede's framework as a mistake. I have one more comment to that application which I present further on in 'methods' section of the review.

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Chapter 3 summarizes the key findings of previous research through an in-depth analysis. The Author points out the gaps in the existing research, identifying the research questions that the study seeks to explore. This is the critical part of the development of research model and research questions. The chapter is rather short, build in the paper-like manner more commonly seen in journal publications. I have to say that this form appeals to me, the arguments are clear and precise, and they refer to appropriate literature.

Methods

Methods of the research are presented in chapter 4. It explains the research design and methodological framework for the two exploratory studies – the first based on fsQCA and the second of qualitative nature. First, the chapter describes the reason for selecting particular research methods, emphasizing their applicability and effectiveness in addressing the research questions. It is followed by a description of the data collection process, including the sources of data, the means of collection, and the criteria for participant selection. In the data analysis section, the chapter demonstrates the analytical techniques employed.

The methods of both studies are appropriate and well adjusted to research questions, researched population and other circumstances. The methods are also well described, well justified and referenced. When it comes to study one, the size of the sample is appropriate for Fuzzy-set Qualitative Comparative Analysis. Having a bigger sample would allow for application of traditional statistics, but being entrepreneurship researcher myself, I realize how difficult it is to collect a decent sample of business owners, who are very busy people and reluctant to participate in the research. I can only imagine that attempting to collect a sample from such a small population of Chinese business owners in Poland must be very challenging, so the application of fsQCA to the collected sample is fully appropriate.

The measures are well chosen and adjusted for the chosen research strategy. I have two concerns though. The first is that better measures of uncertainty, individualism and long-term orientation could be employed. In general, Geert Hofstede designed his questionnaire to measure the culture perception and not the individual characteristics. I think that employing those measures provides relevant information, however, there are some better tailored measures to capture individual level variables. Having said that, I have to admit that there is a problem with measuring entrepreneurial uncertainty. Having conducted research in that area I had to either use the adaptations of measures that have been designed for other purposes (for instance role clarity – role ambiguity as a measure of uncertainty) or create my own measures. To conclude, I think that the solution employed by the Author is not perfect, but quite reasonable taking into consideration the lack of more reliable measures.

My other concern is that more comprehensive and precise measurement of demographic properties of respondents could be applied. For instance, age could be measured as precise age instead of range. Some other questions could be more precise or split into two questions, for instance the question on current and former employment. Asking specifically about current employment would allow to identify hybrid entrepreneurs and use that data for controlling purposes.

When it comes to study two, methods are equally appropriate as in study one. What improves the clarity of linking methods to theoretical part is that research questions are clearly split between study one and study two allowing the reader to easily track the research strategy that is employed. The sample for study two is also well chosen, what is important is that there is a wide coverage of industry sectors, the respondents also vary by gender, age, education and experience which allows to draw reliable conclusions.

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Results and conclusions

The results of the empirical research are presented in chapters 5 and 6. Chapter 5 presents the results and analysis of the fsQCA used in study one, especially the impact of three cultural dimensions – individualism, long-term orientation, and uncertainty avoidance-combined with entrepreneurial experience and risk perception on preferences for effectual and causal decision-making logic. The fsQCA allowed to identify different configurations related to two decision-making logics with complex interactions behind them. Chapter 6 reports the outcomes and discussion of the interviews used in study two on the entrepreneurial decision-making logic at different stages of the entrepreneurial process, particularly on the early growth and maturity of the business. The results suggest that entrepreneurs flexibly shift between the two decision-making logics of causal and effectual decision-making, depending on the specific context and needs of the business's development.

The results are well described and interpreted. Some of the arguments that are used to discuss the findings are questionable, for instance: "China's uncertainty avoidance score is low, while Poland scores very high on this cultural dimension. So, with the UAI in this set of configurations, it can be understood that Chinese entrepreneurs need to have a high degree of uncertainty avoidance to start a business in Poland. It means that they act cautiously in a foreign country; in addition, because Poland has a higher score, it enables these Chinese entrepreneurs to be more in line with the local country's entrepreneurial or cooperation rules during the entrepreneurial process." (p. 105). First of all, it is a bit self-contradictory. Second, I would not agree that Chinese entrepreneurs have to adjust their personal uncertainty avoidance to Polish score to be able to effectively run a business. Quite the opposite, I would think that the difference in UAI between China and Poland (as a cultural dimension, left aside the individual propensities as discussed above) gives Chinese immigrants the advantage over Poles in overcoming fear of failure and taking more risk. In fact, high uncertainty avoidance as a cultural dimension might lead to low-uncertainty-avoiding individuals to start businesses as they will not fit in the typical, uncertainty-avoidant workplace (e.g. McGrath & MacMillan, 1992). Despite that comment, the Author manages to nuance differing viewpoints in discussing the research findings.

Similarly, the results of the qualitative study (interviews) are well presented and discussed. The Author manages to make an insight not only into the issues that are captured in the research questions, but makes a broader investigation of processes of start-up and growth of businesses led by Chinese immigrants in Poland. The analysis is supported by abundance of quotes from the interviews which makes reading the analysis a journey through real entrepreneurial experiences.

Conclusions from the conducted research in both studies are presented in chapter seven which serves as a conclusion of the whole dissertation. It presents the way in which the findings enrich the current theoretical framework and shed new light on the field of practice. It also identifies limitations of the studies, and, along with them, challenges, opportunities and possible directions for future research. Also in this part the contributions are presented clearly and concisely. What is also important, the Author refers to the previous literature which clearly outlines the steps forward that the conducted research allowed to take. What is valuable, practical recommendations are presented for various groups of respondents: entrepreneurs, educators and policy makers. The dissertation provides a framework to help entrepreneurs in cross-cultural environments identify and adjust their decision-making logic to adapt to changes in the entrepreneurial process. For educators, the research highlights the importance of developing courses on the complexity of cross-cultural entrepreneurship. For policymakers, it provides suggestions to help foreign entrepreneurs adapt to the business environment and improve the success rate of cross-border entrepreneurship. The

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recommendations are valuable, however, all the parts of the conclusion (contributions, practical recommendations, limitations and future research directions) could be more elaborate, especially practical recommendations could be more expanded and offer some more specific solutions to entrepreneurs, educators and policy makers.

Conclusion

In my opinion the dissertation makes a very valuable contribution to the body of knowledge on entrepreneurship, especially to the research on decision making logic. It enriches existing literature by analyzing how individual and cultural factors work together in the process of entrepreneurial decision-making logic. Importantly, it contrasts previous studies that have focused on a single factor by providing a more holistic and dynamic perspective that considers the interplay of different factors, and breaks down the previous view of decision-making logic. The dissertation also reveals the variability of decisionmaking logic in the entrepreneurial process, pointing out that entrepreneurs shift between causal and effectual logic at different stages of business development. This finding challenges the view of decision-making logic as stable and determined by fixed conditions. Instead, it emphasizes the need for entrepreneurs to flexibly adjust their decision-making logic in response to risk levels and uncertainty changes. Factors such as entrepreneurial experience, individual characteristics, networks, and the ability to adapt to cross-cultural environments are shown to have a significant impact on shifts in decision-making logic. The dissertation also contributes new insights into the decision-making literature by demonstrating the application of Fuzzy-set Qualitative Comparative Analysis in decision-making logic research. Unlike the previous qualitative studies, experimental methods, and traditional quantitative approaches, fsQCA is able to consider both independent and combined effects among variables, revealing key combinations of conditions that lead to changes in decision-making logic in different contexts.

To conclude, in my opinion the dissertation is a very good piece of theoretical considerations and empirical research. Among the strengths of the dissertation the most important are:

- The dissertation is very ambitious in setting a goal of such multi-factor investigation of decision making logic of immigrant entrepreneurs,
- The theoretical background is presented comprehensively with good knowledge of the literature and robust arguments which lead to very interesting research questions,
- The research questions combine a variety of factors influencing decision making logic, including personal characteristics and cultural factors,
- The design of the empirical research is well constructed. The research itself is very ambitions and takes into consideration the lack of possibility of applying traditional quantitative research methods, the choice of mixed method approach is fully appropriate,
- The application of Fuzzy-set Qualitative Comparative Analysis is an ambitious choice and is well justified and conducted,
- Also the qualitative study is well designed and conducted, the sample is wisely chosen,
- The results of both studies are very interesting and the Author goes beyond the scope of the research questions and presents some very intriguing findings from the interviews.

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Taking into consideration the language, the thesis is written very well, the language is not only appropriate from purely linguistic perspective, but well adjusted to scientific argumentation. The tables and figures are very clear to follow.

After carefully reading the dissertation two questions arise:

1. What is the potential of conducted empirical research and formulated conclusions to make more general conclusions on decision-making logic of immigrant entrepreneurs worldwide? How does the context of the research (Chinese immigrants in Poland) affect the findings?

2. How could the findings be confirmed in large-scale quantitative research? I wonder what kind of design would be best to allow for theory-formulating

conclusions?

Taking into consideration the strengths of the dissertation and marginal shortcomings, I conclude that the doctoral dissertation titled "A case of Chinese immigrant entrepreneur in Poland" written by mgr Yi Zhang under the supervision of prof. dr hab. Aldona Glińska-Neweś and prof. Miguel Pereira Lopes at the Faculty of Economic Sciences and Management of Nicolaus Copernicus University fully meets all the requirements set for doctoral dissertations (Ustawa z dnia 14 marca 2003 roku o stopniach i tytule naukowym oraz stopniach i tytule w zakresie sztuki - Dz. U. 2003 Nr 65, poz. 595 z późn. zm.; Ustawa z dnia 20 lipca 2018 r. – Dz. U. 2018 poz. 1669 z późn. zm., art. 179.2.). I therefore recommend the Council of Scientific Discipline of Management and Quality Sciences (Rada Dyscypliny Naukowej Nauk o Zarządzaniu i Jakości) of the Nicolaus Copernicus University to allow the public defence of the dissertation. In my opinion the dissertation should be awarded for its quality and academic rigor. The research is ambitious in theoretical argumentations and empirical research and brings valuable contributions to the body of knowledge of entrepreneurship by analyzing how individual and cultural factors work together in the process of entrepreneurial decision-making logic, revealing the variability of decisionmaking logic in the entrepreneurial process and demonstrating the application of Fuzzyset Qualitative Comparative Analysis in decision-making logic research.

Biorąc pod uwagę zalety recenzowanej pracy i drobne niedociągnięcia, uważam, że rozprawa doktorska pt. "A case of Chinese immigrant entrepreneur in Poland" napisana przez mgr Yi Zhang pod opieką naukową prof. dr hab. Aldony Glińskiej-Neweś oraz prof. Miguela Pereiry Lopesa w Wydziale Nauk Ekonomicznych i Zarządzania Uniwersytetu Mikołaja Kopernika w Toruniu w całości spełnia kryteria stawiane przed rozprawami doktorskimi (Ustawa z dnia 14 marca 2003 roku o stopniach i tytule naukowym oraz stopniach i tytule w zakresie sztuki - Dz. U. 2003 Nr 65, poz. 595 z późn. zm.; Ustawa z dnia 20 lipca 2018 r. – Dz. U. 2018 poz. 1669 z późn. zm., art. 179.2.). W związku z powyższym rekomenduję Radzie Dyscypliny Naukowej Nauk o Zarządzaniu i Jakości wniosek o dopuszczenie jej do publicznej obrony. W moim przekonaniu ze względu na jakość i rygor akademicki praca powinna być nagrodzona. Jest ona ambitna w sferze teoretycznej i przeprowadzonych badaniach, a także wnosi wartościowy wkład w wiedzę o przedsiębiorczości poprzez przeanalizowanie jak czynniki kulturowe i indywidualne wpływają na sposób podejmowania decyzji przez decyzji zmienności logik podejmowania odkrycie przedsiębiorców, zademonstrowanie zastosowania metody fsQCA w nad logikami badaniach podejmowania decyzji.

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