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Doctoral dissertation

The Influence of culture and individual characteristics on decision-making

logic: A case of Chinese immigrant entrepreneur in Poland

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Abstract

The purpose of this study is to investigate how Chinese immigrant entrepreneurs' use of effectual and causal logic in the entrepreneurial process is influenced by individual characteristics and cultural factors in a cross-national context.

Entrepreneurs' decision-making logic throughout their business journey is shaped by various underlying factors. Literature review shows that entrepreneurs' experiences, educational levels, risk perceptions, and cultural dimensions like uncertainty avoidance, individualism, and long-term orientation affect their preference for effectual or causal logic. It was found that adept entrepreneurs are capable of employing both logics flexibly, adapting to the needs of specific situations. It is worthwhile examining how these decision-making logics evolve with business development and identifying factors that may trigger shifts between effectual and causal logics.

To address the research topic, two studies were designed. In Study One, a configurational approach is used to investigate the impact of six factors on the preferred decision-making logic. The data was collected through a questionnaire survey, and in-depth data analysis using the fuzzy set qualitative comparative analysis (fsQCA) methodology helped identify the most influential factors and complex causal relationships in entrepreneurial decision-making logic. In Study Two, a qualitative research approach, based on in-depth interviews, was used to gain insights into potential shifts in entrepreneurs' decision-making logic in different entrepreneurial processes, and the factors that influence the shifts.

This research enriches the literature by exploring how individual and cultural factors influence entrepreneurs' decision-making logic, offering a perspective that considers multiple interacting factors. It confirms that entrepreneurs shift between causal and effectual logic at different stages of business development. This study also contributes new perspectives to the decision science literature by demonstrating the application of fsQCA in decision-making logic research. Practical implications include providing guidance for entrepreneurs in cross-cultural settings to adjust their decision-making strategies, thereby enhancing resource

efficiency and market competitiveness.

Key words: Chinese immigrant entrepreneurs, decision-making logic, effectual and causal logic, entrepreneurial process, individual characteristics, cultural factors, cross-national context

Abstract

Celem tej pracy jest zbadanie, w jaki sposób cechy indywidualne i czynniki kulturowe wpływają na stosowanie przez chińskich imigrantów-przedsiębiorców logiki przyczynowo-skutkowej i efektuacji w procesie przedsiębiorczym w kontekście międzynarodowym.

Badanie literatury pokazuje, że doświadczenia przedsiębiorców, ich poziom edukacji, percepcja ryzyka i wymiary kulturowe takie jak unikanie niepewności, indywidualizm i orientacja długoterminowa wpływają na ich preferencje dotyczące logiki przyczynowo-skutkowej i efektuacji. Stwierdzono, że zdolni przedsiębiorcy potrafią elastycznie stosować obie logiki, dostosowując się do potrzeb konkretnej sytuacji. Warto zbadać, jak te logiki decyzyjne ewoluują wraz z dojrzewaniem biznesu i identyfikować czynniki, które mogą wywoływać zmiany między tymi logikami.

Aby zbadać ten temat, zaprojektowano dwa badania. W pierwszym badaniu, stosując podejście konfiguracyjne, zbadano wpływ sześciu czynników na preferowaną logikę decyzyjną. Wpływ czynników zmierzono ilościowo za pomocą ankiety, a dogłębna analiza danych przy użyciu rozmytej jakościowej analizy porównawczej (fuzzy set Qualitative Comparative Analysis - fsQCA) pomogła zidentyfikować najbardziej istotne czynniki i złożone związki przyczynowe w decyzjach przedsiębiorczych. W drugim badaniu zastosowano podejście jakościowe, wykorzystujące pogłębione wywiady indywidualne, aby uzyskać wgląd w potencjalne zmiany w logice decyzyjnej przedsiębiorców w różnych procesach przedsiębiorczych i czynniki wpływające na te zmiany.

Badanie to wzbogaca literaturę, eksplorując jak indywidualne i kulturowe czynniki wpływają na logikę decyzyjną przedsiębiorców, oferując perspektywę, która uwzględnia wiele współdziałających czynników. Potwierdza, że przedsiębiorcy zmieniają logikę przyczynowo-skutkową i efektuację na różnych etapach rozwoju biznesu. Badanie to wnosi także nowe perspektywy do literatury z zakresu podejmowania decyzji, demonstrując zastosowanie fsQCA w badaniach nad logiką decyzyjną. Implikacje praktyczne obejmują dostarczenie wskazówek dla przedsiębiorców w środowiskach międzykulturowych, w

zakresie dostosowywania ich strategii decyzyjnych, co zwiększa efektywność zasobów i konkurencyjność rynkową przedsiębiorstw.

Key words: Chińscy przedsiębiorcy-imigranci, logika decyzyjna, efektuacja, logika przyczynowo-skutkowa, proces przedsiębiorczy, cechy indywidualne, czynniki kulturowe, kontekst międzynarodowy

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Introduction

Research background

This research investigates how Chinese immigrant entrepreneurs choose and apply effectual and causal decision-making logic in the process of entrepreneurship in Poland under the influence of their national culture and individual characteristics. In the complex transnational context, entrepreneurs must face the challenge of big cultural differences from their home countries and make choices about the most adaptive decision-making logic based on their business experiences, educational backgrounds, and social networks.

- Business opportunities for immigrant entrepreneurs in Poland

Over the past few decades, Poland has experienced remarkable economic changes, which have provided a wealth of opportunities for entrepreneurs (Bogdan et al., 2015). According to the GEM Poland National Report, Poland's society is highly entrepreneurial, and quite a number of people think they are capable of setting and managing business. The report highlights that 78% of Poles consider self-employment as a favorable career path, reflecting a positive attitude towards entrepreneurship. Poland's geographical position in Europe and economic progression has led to a lot of immigrants coming in with a capital seeking business, who have found an environment of both challenges and opportunities here (Glinka, 2020; Bite et al., 2020). Business in Poland is consistently growing and has been offering broad development space for both local and foreign entrepreneurs (Andrzejczyk, 2021). Poland's strategic position as a member of the European Union makes it an ideal choice for many companies looking to expand their business (Głodowska et al., 2016). According to the World Bank report, Poland has achieved impressive results in optimizing the business environment, attracting more foreign direct investment by simplifying regulations, and strengthening investor protection while stimulating entrepreneurship (World Bank, 2020).

Poland's business environment is highly regarded for its regulatory system facilitating

all business activities. Strategically located in Central Europe, Poland is a gateway to Western European markets and is also a crucial junction for the economy of Eastern Europe (Polish Institute of International Affairs, 2014). The economy has continued to grow steadily, and combined with effective measures in response to the pandemic, making it a preferred market for investors. As the sixth largest economy in the European Union, Poland has a sophisticated infrastructure, a sound banking system, and a high level of foreign direct investment, which guarantees stable economic growth (Polish Investment and Trade Agency, 2023), and entrepreneurial intentions are at a relative high level (Zbierowski, 2015). Poland's legal system, which combines national laws with EU regulations, provides a solid legal basis for business activities (PwC, 2023). Foreign investors can choose to set up a branch or a commercial company in Poland based on nationality. In addition, Poland's labor force is both cost-competitive and highly educated, providing investors with an attractive market for skilled labor (World Bank, 2020). Therefore, Poland offers many opportunities for investors looking to establish or expand their business.

- Chinese immigrants in Poland

The history of Chinese immigration to Poland began in the 1950s, with the first immigrants settling mainly in the northern Tri-city area of Gdańsk-Sopot-Gdynia. Over time, the number of Chinese nationals living in Poland has steadily risen to more than 8,400 who have permanent or temporary residency (Feng, 2018). Since Poland acceded to the European Union in 2004, the number of immigrants from China has increased even more notably (Rozkrut, 2018). The announcement of a bilateral strategic partnership between China and Poland in 2011 further boosted Chinese investment in Poland, with a number of Chinese companies opening subsidiaries in the country (Warsaw Institute, 2023). Although the freedom of movement of people within the Schengen Area makes it difficult to count the current number of Chinese nationals in Poland accurately, the Chinese community has certainly become one of the essential minorities in Poland. They are actively involved in the business sector and educational or cultural activities, adding diversity and dynamism to Polish society (Mikulska,

2021).

Highly skilled Chinese immigrants in Poland, including managers, technologists, professionals, and entrepreneurs, are a valuable asset to society due to their unique backgrounds and talents. Qian (2021) explored the migration paths of highly skilled Chinese in Poland and how they construct their identities in a transnational context, finding that most of them come from privileged families in China and seek a broader life experience, desiring to experience European life, broaden their horizons, and enhance their cultural heritage. Although they showed positive attitudes towards life and career in Poland, most of them viewed their time abroad as an enriching experience rather than a permanent settlement option. They look forward to returning to China one day, motivated by their responsibilities to their families and their desire to contribute to China's development (Qian, 2021). With their entrepreneurial spirit and professionalism, this group of immigrants has played a significant role in trade, manufacturing, and services, promoting innovation in the industry and creating many new business opportunities (Mikulska, 2021). According to Bashko (2021), Chinese entrepreneurs have greatly contributed to the Polish economy, especially in creating jobs and promoting knowledge exchange. It has boosted the Polish economy, made Polish society more diverse, and added new perspectives.

- The cultural differences between Chinese immigrants and Polish locals

China, a country with over 5000 years of civilization, has a social and cultural structure that is fundamentally different from the West (Redding, 1980; Ralston et al., 1997; Rarick, 2007). Confucianism, in particular, has profoundly influenced Chinese society and even today's corporate culture and management styles (Ahmed & Li, 1996; Yeung & Tung, 1996; Robertson & Hoffman, 2000). Chinese entrepreneurs typically emphasize family stability, avoid excessive displays of wealth, and are less inclined to publicize their accomplishments (Pistrui et al., 2001). These characteristics of the Chinese business community tend to be more familial, collectivist, and hierarchical than the openness and individualism of the West, while also stressing diligence and caution about the future (Zapalska & Edwards, 2001). Although

Chinese business people may have more reservations about the future, they display greater willingness and courage in the face of risk, reflected in their unique orientation towards innovation, initiative, and enterprise (McGrath & MacMillan, 1992; Tan, 2002).

Polish culture is heavily influenced by Roman Catholicism, a religious tradition that plays a crucial role in the lives of Poles (Eberts, 1998). Over a thousand years, Polish culture has developed its uniqueness, partly due to its interaction with the rest of Europe (Szymczak et al., 2022). Regarding workplace culture, Poles place a high value on punctuality, work-life balance, and hierarchy. Research shows that in specific industries in Poland, decision makers prefer to share knowledge for non-monetary reasons and value team solidarity and common understanding. They transfer knowledge through direct communication between team members, a method known as “knowledge transformer”. Decision-making processes in Poland are often slow, as they emphasize thorough analysis and team consensus, which is a marked difference from work cultures where decisions are made quickly and flexibly (Sopińska & Glińska-Neweś, 2021, Nasierowski & Mikuła, 1998). In addition, formal and respectful communication, addressing colleagues and superiors appropriately, and finding a healthy balance between work and personal life are all important parts of Polish work culture (Dębczyńska, 2018). Understanding these cultural differences is essential for Chinese entrepreneurs wishing to establish successful partnerships (Hofstede, 1980). Such an understanding can facilitate cross-cultural communication and lay a good foundation for cooperation.

Theoretical basis for the study

- Entrepreneur and entrepreneurship

Schumpeter (1934) first proposed that an entrepreneur is a person who identifies and exploits profitable opportunities to solve problems, thereby gaining a sense of accomplishment. On the other hand, Carland et al. (1984) viewed the entrepreneur’s role as one of creating and managing a business in pursuit of profit and growth. In contrast to the view of entrepreneurs

as “innovators”. Harbison (1956) saw entrepreneurs as “organization builders” who optimize the structure of the organization by integrating different innovations. While Casson (2005) argued that entrepreneurs are those who specialize in coordinating scarce resources and making important decisions.

Early research on entrepreneurship identified “risk” as one of its key characteristics (Watkins & Knight, 1922). Subsequent studies expanded to include service and product opportunities (Penrose, 1959), access to information (Kirzner, 1979), and personal qualities (Loasby & Casson, 1983). Although these studies did not provide a uniform definition, they all emphasized risk-taking as a core trait of entrepreneurship. Hills and Hultman (2013) defined entrepreneurship as an innovative process transforming the economic system by creating or seizing economic opportunities to create value for individuals and society.

International migration has become an important phenomenon in the context of globalization, with far-reaching effects on the receiving countries’ societies and economies. Research has confirmed the excellent performance of Chinese immigrant entrepreneurs in various host countries, such as the United States (Zhou & Liu, 2015), Canada (Vissak & Zhang, 2014), Australia (Xu et al., 2019), Italy (Cologna, 2005), and Spain (Badanta et al., 2020). In Poland, there are also some studies on the immigrant community, such as Glinka et al. (2023), Zbierowski et al. (2019), Brzozowska and Postuła (2019), Kardaszewicz (2018), and Glinka and Brzozowska (2015). However, most of these studies focus on Vietnamese or other Far East immigrants, while research on Chinese immigrant entrepreneurs is insufficient. As the number of Chinese immigrants in Poland grows, it becomes essential to study this particular group in depth. In addition, many research attempts to characterize Chinese entrepreneurs and analyze whether they have a “typical” image (Ahlstrom et al., 2004; Liang, 1987). These studies usually focus on demographic characteristics, such as educational background, business experience, and social networks, which are also considered in this study as key factors influencing entrepreneurs’ decision-making logic choices.

- Effectual and causal logic of entrepreneurial decision-making

Sarasvathy's (2001, 2008) study analyzed the entrepreneurial process and proposed two different approaches to entrepreneurship: causal logic (causation) and effectual logic (effectuation). Understanding the behavior of entrepreneurs is essential to reveal the nature of entrepreneurial activity.

The causal logic approach is a traditional method that guides decision making primarily through pre-planning, forecasting and business planning. This approach is rooted in economics and strategic management theory and explores how entrepreneurs utilize resources to reach set goals (Lemos & Andreassi, 2015). The planning process of causal logic seeks to avoid surprises and employs competitive analysis to guide decision making (Chetty et al., 2015; Lemos & Andreassi, 2015; Smolka et al, 2018).

As Sarasvathy (2008) described, effectual logic is a creative process that creates something new through dynamic interactions. This logic was initially proposed in the theoretical framework of entrepreneurial creativity, and it has been further developed by subsequent research (Sarasvathy & Dew, 2005; Sarasvathy, 2008). The effectual logic is based on four principles: affordable losses, strategic partnerships, exploiting serendipity, and controlling uncertain. Rather than pursuing predefined goals, it focuses on utilizing available resources (Sarasvathy, 2001, 2008).

Research has identified a connection between some factors and the entrepreneurial decision-making preference. For example, Melo et al. (2019) and Yang et al. (2020) argued that gender influences the use of causal and effectual logic, with women are more inclined to adopt causal logic, and female entrepreneurs better able to enhance the positive impact of effectual logic. Dew et al. (2009) found that expert entrepreneurs tend to use effectual logic, while beginners prefer causal logic. In addition, networks are seen as a link between effectuation logic and internationalization strategies. Although it has been argued that individual characteristics alter the operation of effectual logic, Sarasvathy and Dew have a different view on this. Therefore, understanding how specific factors relate to decision-making logic requires deeper study.

- Entrepreneurial process

Bhave (1994) presented a comprehensive view of the entrepreneurial process by dividing it into three stages: the opportunity identification stage, the organization creation stage, and the exchange stage. As Sarasvathy (2006) suggested, entrepreneurs may alternate between causal and effectual logic as needed in different situations. Adept entrepreneurs can use both ways flexibly. In the early stages of entrepreneurship, they are more inclined to use effectual decision-making logic, which emphasizes using available resources to explore and realize possible business opportunities. However, a research gap emerges as entrepreneurs transition to later stages, where the requirement shifts towards a more structured causal logic. Many entrepreneurs face challenges adapting to this shift, indicating a need for further investigation into how entrepreneurs make the shifts between effectual and causal logic as their businesses develop. It is also necessary to identify the factors that made this shift happen.

- Cultural studies

Scholars view culture as a collection of shared characteristics of a society manifested through the interactions among its members (Clark, 1990; Hofstede, 1980, 2001; Steenkamp, 2001). Culture has deep roots, and changes are gradual. Therefore, the study of culture is crucial to understanding human behavior, especially in explaining the influence of national culture on human behavior. The theories of Hofstede (2002), Schwartz (2006), Inglehart and Baker (2000), and Steenkamp (2001) are widely cited for this field of research.

Hofstede and Bond (1988) defined culture as collective mental programming distinguishing members of different groups or societies. Culture is reflected in people's worldviews, values, understanding of collective character, and perception of beauty. The cultural dimensions theory proposed by Hofstede encompasses six essential dimensions, including power distance, differences in masculinity and femininity, uncertainty avoidance, individualism versus collectivism, long-term orientation, and indulgence versus restraint,

which influence patterns of behavior (Hofstede, 1980, 2001; Hofstede et al., 2010).

Many studies have focused on the link between culture and entrepreneurship (Laskovaia et al., 2017). These studies have concentrated on how cultural values influence various aspects of entrepreneurship. At the same time, several studies have demonstrated the relationship between cultural differences and entrepreneurship rates in different countries (Pinillos & Reyes, 2011). Due to the high influence of national culture on entrepreneurial activity in general (Zahra, 2007), researchers have begun to explore how entrepreneurs' decision-making processes are affected by various cultural dimensions (Thomas & Mueller, 2000). A study by Laskovaia et al. (2017) suggested that the cognitive logics of entrepreneurs are not only developed from their individual traits but also their cultural backgrounds, which are factors that cannot be ignored. In addition, some scholars identify culture as a critical factor influencing certain aspects of effectual and causal logic in entrepreneurial decision-making (Krijgsman, 2012; Magalhaes & Abouzeid, 2018). For example, Magalhaes and Abouzeid (2018) found that even high scruples against uncertainty, do not make an entrepreneur adopt effectual logic in specific cultural contexts. EstradaCruz et al.'s (2019) study also evidenced that decision-making is strongly influenced by cultural factors: avoidance of uncertainty, individualism, long-term orientation, and power distance. Nonetheless, how culture influences entrepreneurs' decision-making logic remains to be explored in depth. In particular, exploring how cultural values influence the logic adopted by Chinese immigrant entrepreneurs in Poland when making decisions is also a research direction of interest.

Research questions

Each country develops a unique entrepreneurial environment influenced by its history, culture, family, society, and educational institutions. These factors shape people's life choices, including their decisions to pursue entrepreneurial careers (Wasilczuk & Licznarska, 2024). Although there has been considerable discussion in the literature about the factors influencing decision-making logic, there still needs to be a greater understanding of some fundamental

factors behind decisions, especially in specific contexts. Particularly, further study is required to study how individual characteristics affect decision-making logic and how cultural backgrounds influence entrepreneurs' decision-making processes. Therefore, these issues are explored and presented in the following research questions based on the literature review.

Schenk et al. (1998) showed that experienced entrepreneurs accumulate valuable knowledge through trial and error in real-world operations. In contrast, novices, such as MBA students, typically learn their skills in the classroom, which is at odds with real-world decision-making scenarios. This discrepancy reveals that novices need more feedback and analysis mechanisms than experienced entrepreneurs. As a result, novices may predict future developments (Baron & Ensley, 2006). Harms and Schiel (2012) found that experienced entrepreneurs were more inclined to adopt effectuation logic. When considering the structured training that MBA students receive, their decision-making logic differs from that of experienced entrepreneurs. Baron and Henry (2010) highlighted that education influences decision-making styles, with university education often promoting analytical skills and causal logic—a direct, goal-driven approach. Wasilczuk and Licznarska (2024) investigated how the field of study influences entrepreneurial intentions. Haynie and Shepherd (2009) shown that entrepreneurs' education level affects how they handle failure. Highly educated entrepreneurs often learn better from failures due to their analytical skills. Based on this, two research questions are proposed:

RQ1a. How does the related entrepreneurial experience influence the entrepreneurs employing effectual logic compared to novices who tend to use causal logic?

RQ1b. How does educational level influence the entrepreneurial decision-making logic preferences?

Risk perception, which refers to how people evaluate opportunities and probabilities, critically influences entrepreneurs' decision-making logic of choosing predictive or non-predictive (Krueger & Dickson, 1994; Ghosh & Ray, 1992; Sarasvathy, 2008). Entrepreneurs'

decision-making behavior is influenced by how they make sense of information about their surroundings. A high perception of risk drives entrepreneurs to adopt a non-predictive approach to decision-making, focusing more on process than outcome (Martínez et al., 2015). Faced with perceived environmental risks, entrepreneurs carefully consider their next steps. To cope with the risk, they may take small steps to assess future environmental changes (Sitkin & Weingart, 1995). Having understood how risk perception affects the entrepreneurial decision-making process, we further explored the impact of this perception on the logic of choice decisions. Then, it leads to the second research question:

RQ2. How does entrepreneurs' risk perception affect their preference for decision-making logics?

Low uncertainty avoidance is associated with a greater willingness to take risks and be more comfortable with uncertainty (Hofstede, 2001). Meanwhile, one of the main principles of effectuation theory (Sarasvathy, 2001) is 'affordable loss,' which emphasizes enterprises where losses are affordable in the worst-case situation (Chandler et al., 2011). It suggests that when faced with uncertainty, effectual entrepreneurs consider how much they can afford to lose rather than planning in detail. Thus, the research question is as follows:

RQ3: How does uncertainty avoidance influence entrepreneurs' decisions?

Understanding and maintaining interpersonal relationships is especially important in collectivist societies, where network and organizational alliances are emphasized (Hofstede, 2001). The effectuation theory states that resources dependent on effectuation logic are particularly critical in the entrepreneurial process, and an individual's social network serves as one of those resources (Glinka et al., 2023; Sarasvathy, 2001, 2008). Unlike causal-logic entrepreneurs, who use competitive analysis, effectual-logic entrepreneurs focus more on launching new ventures through social networks and alliances. Considering that highly collectivist countries tend to utilize alliances or networks, the research question is as follows:

RQ4. How do collectivist versus individualist cultural orientations influence entrepreneurs' decision-making logic?

The long-term orientation encourages future-oriented values such as perseverance and thrift (Hofstede, 2001). It requires individuals to be open to the future and ready to take advantage of upcoming opportunities. This openness to the future and adaptability to opportunities is a central feature of effectuation logic (Dew et al., 2009). Entrepreneurs with effectual logic usually do not try to predict the future but are ready to adjust their goals and strategies flexibly to the current situation and available resources. It is similar to entrepreneurs with a long-term orientation, who focus on enduring growth and value accumulation. Thus, here is the proposition:

RQ5. How does long-term orientation impact the use of decision-making logic?

Sarasvathy (2006) indicated that the same person can apply both causal and effectual decision-making logic at different times depending on what the circumstances require. The excellent entrepreneurs are able and use both modes flexibly. However, they prefer effectual logic over causal logic in the early stages of a new venture. Most entrepreneurs struggle to make the shift to the later phases, which need for more causal decision-making logic. Thus, two research questions are designed to investigate the influencing factors of the shift between the effect and the causal logic of entrepreneurs during the primary three entrepreneurial stages:

RQ6. Do entrepreneurs exhibit a shift between effectual and causal logic in their decision-making processes at different stages of entrepreneurship?

RQ7. How do individual characteristics and cultural factors influence entrepreneurs to make the shifts in their decision-making logic at different entrepreneurial stages?

Methodology

This research used two-study approach to explore the influence of cultural and individual characteristic factors on entrepreneurs' use of decision-making logic. Study One used configurational approach to identify the causal complexity between relevant cultural factors,

individual characteristics, and decision-making logic. Study Two used qualitative research to analyze the application of effectual and causal logic when transitioning between entrepreneurial stages.

- Study One: Configurational approach - fsQCA

Configuration theory focuses on the conditions under which things occur, based on the principle of causal asymmetry (Fiss, 2011; Ragin, 2008). Fuzzy-set Qualitative Comparative Analysis (fsQCA) is designed to offer a practical way to apply the ideas of the configurational approach to actual research (Schneider & Wagemann, 2010). FsQCA is a social science research methodology that combines the strengths of qualitative and quantitative analysis (Ragin, 2008). It assumes that social science phenomena can be analyzed by whether cases (e.g., countries, firms, individuals) belong to a “set” of particular attributes or conditions (Liebersson & Ragin, 2001). Unlike traditional analysis of variance, fsQCA emphasizes the configuration of conditions, i.e., how multiple factors combine in a particular way to produce an outcome (Fiss, 2011). Data for fsQCA analysis is usually collected using a questionnaire from a few cases or individuals. Prior QCA research has typically focused on smaller sample sizes (10 to 50 cases) (Greckhamer et al., 2013), due to the fact that even with limited sample sizes, rich case information can demonstrate complex causal relationships (Marx et al., 2013). On the other hand, fsQCA limits the number of antecedents. As the number of preconditions increases, the number of possible configurations rises dramatically, complicating the analysis process and leading to results that are difficult to interpret or verify (Marx et al., 2013; Fainshmidt et al., 2020). Therefore, the choice of antecedents must be carefully selected based on theory.

The data for this section was collected in a questionnaire. A configurational approach was used to test the proposed theoretical model in order to investigate the impact of the entrepreneur’s individual characteristics and cultural factors on the preferred use of effectual or causal logic. The study’s respondents are Chinese immigrant entrepreneurs in Poland, with a sample size of 37. There are a few conditions to screen the participants, which include: 1)

Chinese immigrant entrepreneurs, 2) who migrated to Poland, 3) were born in China, and 4) established and sustained operation for at least one year.

The culture dimension was measured using the most recent Values Survey Module 2013 (VSM 2013), which was developed based on the work of Hofstede, Hofstede, and Minkov (2010). Risk perception was measured using Likert scale devised by Podoyntsyna et al. (2012). In accordance with Chandler et al.'s (2011) approach, effectuation and causation were treated as a formative construct. FsQCA 3.0 software is used as a data analysis tool.

- Study Two: Qualitative Approach – in-depth interviews

In Study Two, an in-depth interview methodology is applied, which includes key event analysis techniques to dig deeper into the experiences and insights of immigrant entrepreneurs. Twelve interviewees were interviewed. To analyze the information collected, coding, writing research memos, and using specialized analysis software such as NVivo were employed to assist in identifying key themes and patterns in the data. Combining theoretical analysis and critical thinking, the data collected was systematically organized, presented, and analyzed in-depth to draw valuable research conclusions.

Research contribution

This research makes a few contributions to theory. First, it enriches existing literature by analyzing how individual and cultural factors work together on entrepreneurial decision-making logic. It contrasts previous studies that have focused on a single factor; in turn, this study provides a more holistic and dynamic perspective that considers the interplay of different factors, and breaks down the previous view of decision-making logic.

Second, this study reveals the variability of decision-making 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

fixed 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 related experience, individual characteristics, networks, and the ability to adapt to cross-cultural environments were shown to have a significant impact on shifts in decision-making logic.

Finally, the study contributes new perspectives to the decision science literature by demonstrating the application of fuzzy set qualitative comparative analysis (fsQCA) 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 logic in different contexts. In particular, when dealing with social science problems with unclear boundaries and multifactorial interactions, fsQCA demonstrates its unique strengths in capturing complex causal relationships that may be overlooked by traditional statistical models, providing strong evidence for understanding the formation of decision-making logic.

The findings of this research lead to some practical implications. This study 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, which is crucial to improving resource efficiency, market competitiveness, and corporate sustainable development. The research also highlights the impact of personal cultural background on decision-making strategies, guiding entrepreneurs to explore new opportunities and adapt to the international market. In addition, 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.

Limitations

This dissertation provides insights into the decision-making logic of Chinese entrepreneurs in Poland. However, the limitation of this research is that the scope of its cultural background mainly focuses on Chinese immigrant entrepreneurs in Poland. Although the logic of decision-making in a cross-cultural context is revealed, its applicability may vary between national cultures or entrepreneurs from different backgrounds. Additionally, this study did not cover a comparative analysis of the cultural backgrounds of native Poles and Chinese people in Poland, particularly lacking a specific measurement of the cultural distance between Chinese and Polish entrepreneurs. Therefore, future research should be extended to immigrant entrepreneurs from other countries and backgrounds, and incorporate an assessment of cultural distance to enhance universality.

In addition, although the fsQCA method combines the advantages of variable-oriented and case-oriented studies, it is easily affected by parameter selection and changes in model specifications, resulting in causal conditions that depend on the subjective choice of researchers. Future research could validate respondents' self-rated reliability by collecting business growth data or obtaining information from colleagues and partners.

Finally, in view of the dynamic nature of entrepreneurial decision-making, this study captures the decision-making logic of entrepreneurs in specific entrepreneurial stages. Future research should adopt a vertical approach to capture the change and evolution of decision-making logic in the enterprise life cycle.

Structure of the thesis

Chapter 1 reviews different types of entrepreneurs, such as immigrants, ethnic groups, and those working across countries. This chapter 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.

Chapter 2 explores key theoretical frameworks of national culture studies, examining different cultural types and diversity. It reviews prominent theories such as Hofstede's cultural dimensions, Gesteland's cultural model, the study of Confucian values, and a comparison of national culture dimensions between China and Poland.

Chapter 3 summarizes the key findings of previous research through an in-depth analysis. It points out the gaps in the existing research, identifying the research questions this study seeks to explore.

Chapter 4 details the research design and methodological framework for the two exploratory studies - Study One and Study Two. 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.

Chapter 5 presents the results and analysis of the fsQCA used in Study One. The study explored 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 tool identified different configurations oriented to two decision-making logics. The analysis demonstrates the complex interactions behind decision-making logic.

Chapter 6 reports the outcomes and discussion of the in-depth interviews used in Study Two. It examined the entrepreneurial decision-making logic at different stages of the entrepreneurial process, particularly on the early growth and maturity of the business. The results reveal how entrepreneurs flexibly shift between the two decision-making logics of causal and effectual decision-making logic, depending on the specific context and needs of the business's development.

Chapter 7 points out how the findings enrich the current theoretical framework and shed new light on the field of practice. At the same time, it identifies limitations of the studies, such as the sample size and choice of research methodology, which present challenges and opportunities for future research. Finally, specific recommendations are made for future research directions.

Chapter 1: Literature Review on Entrepreneurship and the Entrepreneurial Process

1.1 Introduction

There is a growing interest in the contribution of entrepreneurs and entrepreneurship in driving economic growth, innovation, and social progress. Discussions of immigration, ethnic, and transnational entrepreneurship have revealed the interplay between individual dynamics, cultural dimensions, and economic contexts. Entrepreneurship has been further analyzed through various theoretical perspectives, including mixed embeddedness, cultural frameworks, and capital theory.

The entrepreneurial process is quite complicated, and understanding this process involves examining the actions, decisions, and conditions that lead to the creation and development of new ventures. In this chapter, the process that entrepreneurs use to determine, identify, discover, and evaluate opportunities are explored. The risks and uncertainties faced by entrepreneurs are then revealed. In discussing entrepreneurial behavior, the effectual and causal logic theory is introduced to examine entrepreneurial behavior.

1.2 Entrepreneur

This section explores the concept of entrepreneurship, recognizing that the definition of an entrepreneur varies widely. It explores how entrepreneurs are shaped by their environments and provides insights into the different categories of entrepreneurs, such as immigrant, ethnic, and transnational entrepreneurs.

1.2.1 The definition of the entrepreneur

The concept of the entrepreneur is a complex and evolving concept with numerous

perspectives and definitions. Cantillon (1755) emphasized the role of entrepreneurs as individuals who are willing to undertake uncertain costs to generate income; these costs are majorly identified with financial risks and innovatively tended to (Thornton, 2020). Schumpeter (1934) further developed this concept, viewing entrepreneurs as individuals with vision who perceive and seize profitable market opportunities—motivated not only by the desire to improve their standard of living but also by pursuing non-hedonistic goals, deriving satisfaction from utilizing their skills to overcome challenges. Carland et al. (1984) defined entrepreneurs as people who start and run businesses primarily for profitability and growth. Harbison (1956) offered a different perspective, arguing that entrepreneurs are more than innovators; they are organizational builders who can integrate new ideas from many innovators for the organization's benefit. Entrepreneur in this process drive innovation, leading to increased economic efficiency and well-being (Rogoff & Lee, 1996). Casson (2005) broadly viewed an entrepreneur as a person competent to make judgmental decisions on how limited resources could be coordinated. This definition has evolved to describe entrepreneurs as individuals who manage and take risks in businesses, inducing economic development by combining resources (Carlsson et al., 2013).

Previous research has explored the differences that exist between entrepreneurs, business owners, and managers. Entrepreneurs were found to be stronger in major personality traits such as a preference for innovation, risk-taking, and a need for achievement compared to managers (Carland & Carland, 1991). This was further supported by Busenitz and Barney (1997), who suggested that entrepreneurs are more likely to use decision-making biases and heuristics, particularly when uncertainty is high. It was also noted that entrepreneurs have a distinct cognitive typology, while small business owners and managers do not differ significantly in this regard (Carland & Carland, 1991). Although entrepreneurs have been seen to be more creative than business owners (Stewart et al., 1999; Wagener et al., 2010), and Chen et al. (1998) stated that managers display lower entrepreneurial self-efficacy, and less adventurous spirit (Stewart & Roth, 2001).

However, historical perspectives in the literature present a complex view. Initial research

recognized that there may be differences in the psychological traits and decision-making styles of entrepreneurs, business owners, and managers (Busenitz & Barney, 1997), but subsequent research has found that these differences may be minimal or non-existent (Brockhaus and Horwitz 1986; Low and MacMillan 1988). Some academic studies used the terms “entrepreneur” and “business owner” interchangeably (e.g., Collins & Low, 2010), while others did not distinguish between “entrepreneur” and “manager” (e.g., Anderson & Goldsmith, 1997; Collins & Norman, 2018). Nonetheless, it is still believed that there are subtle differences between entrepreneurs, managers and business owners (Xu, 2017). These findings indicated that entrepreneurs are distinguished by specific characteristics and qualities, differentiating them from business owners and managers. This research aims explicitly to understand entrepreneurs and focuses solely on the entrepreneurial segment.

1.2.2 Immigrant entrepreneur

International migration has grown to be an important social and economic element with its own developed industrialized economy, and in some countries or regions, the cross-border flow of international migrants continues to rise (Xu, 2017). Actually, data would imply that in many OECD countries, immigrants are more likely to be self-employed compared to native people (Andersson & Hammarstedt, 2010). Furthermore, certain regions and nations, such as United States (Zhou & Liu, 2015), Canada (Vissak & Zhang, 2014), Australia (Xu et al., 2019), Italy (Cologna, 2005), and Spain (Badanta et al., 2020), are highly impacted by the social and economic phenomenon of international migration.

According to Wadhwa et al. (2007), an immigrant is a person who was born in one country, moved to another country, and intends to live permanently in the new country. Within this group, immigrant entrepreneurs are those immigrants who, by choice or necessity, engage in entrepreneurial activities in the host country (Zolfagharian & Iyer, 2020). Butler and Greene (1997) identified that these entrepreneurs are characterized by starting a business as soon as they arrive in a new country and using it to earn a living (Chaganti & Greene, 2002).

Enhancing the sociological understanding of immigrant entrepreneurs is crucial because they perform an essential function in promoting economic development and enriching the cultural diversity of their host countries (Zolfagharian & Iyer, 2020).

Research on immigrant entrepreneurs has explored various factors influencing their success and experiences. Many researchers believe that immigrants in host countries encounter numerous obstacles, such as barriers to language proficiency and educational achievement (Li, 2001; Raijman & Tienda, 2000). Sahin et al. (2009) found that personal characteristics, such as personality, work discipline, and business aspirations, were key to success, while immigrant networks and support systems had little impact. Robertson and Grant (2016) stressed the psychosocial influences on immigrant entrepreneurship, including social capital, cultural and ethnic identity, acculturation, and perceived discrimination. Singh and DeNoble (2004) introduced the concept of psycho-cultural adaptation and its impact on immigrant entrepreneurs' business decisions, showing that different modes of cultural adaptation can influence their behavior. Yang et al. (2012) applied evolutionary psychology to the study of family and ethnic solidarity in immigrant startups. Some research also suggested that entrepreneurship among specific immigrant groups is culturally driven and that their unique cultural characteristics lead to business success (Teixeira et al., 2011). There have also been calls for more detailed research on how national culture and human capital affect immigrant entrepreneurship (Vinogradov & Kolvereid, 2007).

1.2.3 Ethnic entrepreneurs

Common ethnic origins, culture, or shared immigration experiences foster mutual trust between individuals. This enhanced trust facilitates the accelerated exchange of information and resources (Aldrich & Waldinger, 1990), thereby supporting the creation and expansion of startups (Rath & Kloosterman, 2000; Li, 2019). For immigrant entrepreneurs, the significance of this national phenomenon is a noteworthy consideration (Bonacich, 1973). Entrepreneurs from ethnic minority backgrounds are united by socio-cultural ties and having similar national

traditions or immigrant backgrounds.

The study of ethnic entrepreneurs usually includes the theory of the middleman minority, which is conceptualized as a minority group that acts as an intermediary between the dominant and subordinate groups in society (Bonacich, 1973). Middlemen minorities are characterized by their ability to mediate economic transactions, bridge cultural divides, and navigate complex social dynamics. These entrepreneurs seek labor through immigrant networks and tend to hire within their ethnic groups, mainly for clients from their own or similar ethnic groups (Xu, 2017; Zhang, 2010). Minority entrepreneurs realize that they are on the margins of the host country's social structure, and they often face challenges, including discrimination and competition, which reinforces their strong sense of ethnic identity (Guan et al., 2021). They rely heavily on ethnic networks, which act as platforms for sharing business information and offer support in building their businesses (Feagin & Van Den Berghe, 1981). Because of their strong sense of intra-ethnic solidarity, some scholars have argued that ethnic minorities tend to maintain a structural separation from both their own and host communities, often resisting cultural assimilation (Bonacich, 1973; Nee & Sanders, 2001).

1.2.4 Transnational entrepreneurs

Transnational entrepreneurs are an important branch of immigrant entrepreneurs who utilize unique resources to engage in business activities in two or more social settings (Crick & Chaudhry, 2013). By maintaining trade links with their home countries, they preserve their cultural heritage and employ internationalization strategies (Dimitratos et al., 2016). These entrepreneurs had the opportunity to participate in multiple social contexts, enabling them to build meaningful global relationships. It dynamically enhances their creativity and logistical capabilities, expanding their access to resources. Their frequent travel between host and home countries gives them a unique edge in identifying and seizing opportunities, using their bicultural or multicultural insights to navigate different markets effectively (Xu, 2017).

The understanding of transnational entrepreneurs has developed into two different

interpretations. The first perspective views transnational entrepreneurs as individuals skilled at taking risks and utilizing strategies to build, integrate, and sustain businesses abroad (Yeung, 2000). However, this view fails to emphasize the advantages of transnational operations in establishing a network of resources between two countries. Some scholars argue that it might be more appropriate to refer to such individuals as international entrepreneurs (Drori et al., 2009). The second interpretation, based on transnationalism theory, stresses the role of entrepreneurs' transnational networks in exploiting business opportunities and advantages (Henn, 2012). As explained by Portes et al. (2002), 'transnational entrepreneurs' is used to describe self-employed migrants whose business operations require regular overseas travel and whose businesses are dependent on relationships and support systems in their home countries (Henn, 2012).

1.3 Theories of immigrant entrepreneurship

Immigrant entrepreneurship viewed as a driver of social renewal and economic revitalization (Aliaga-Isla & Rialp, 2013). It is important to recognize the social and economic contributions made by these immigrant entrepreneurs (Ensign & Robinson, 2011). From small family businesses to large corporations, these immigrant businesses have increased regional economic development and have become an important aspect of economic growth and integration in the host country. Moreover, immigrant enterprises play a key position in promoting cultural exchange and social integration, and their businesses often reflect the characteristics of their original cultures, adding diversity to the local society (Zhou, 2004). Since immigrant entrepreneurship contributes to social and regional development, job creation, innovation, and cultural diversity (Ndofor & Priem, 2011), it has received increasing attention from researchers.

A study by Dabić et al. (2020) found that six theoretical frameworks are widely used in entrepreneurship research. These frameworks include mixed embeddedness theory, cultural theory framework, institutional theory, capital theory, intersectionality theory, and

immigration theory, as detailed in Table 1.1.

Table 1.1 Six theoretical frames

Theory	Content	Key points
Mixed Embeddedness Theory	Focuses on the interplay between micro-level entrepreneurial actions and macro-level societal contexts, highlighting the external factors in entrepreneurship.	Emphasizes context and environment more than individual traits.
Cultural Theoretical Frameworks	Examines how cultural backgrounds and norms shape entrepreneurial behavior in business practices.	Places a significant emphasis on cultural influences
Institution Theory	Looks at the influence of formal and informal institutions, including policies and social structures, on entrepreneurship.	Focuses on the external regulatory and normative frameworks affecting entrepreneurship.
Capital Theory	Analyzes the forms of capital (social, human, cultural) that entrepreneurs utilize for business success.	Concentrates on the individual's resources and capabilities
Intersectionality Theory	Considers the intersecting social identities (e.g., race, gender, class) and how they impact entrepreneurial experiences.	Provides an understanding of individual experiences by considering multiple identity factors.
Immigration Theories	Explores migration motivations, integration processes, and how these influence economic entrepreneurial activities.	Offers a macro perspective on the movement of people and its implications for entrepreneurship.

Source: the summary based on Dabić et al. (2020).

1.3.1 Embeddedness theory

Mixed-embeddedness theory is a conceptual framework used to explain the multifaceted nature of immigrant entrepreneurship (Wang & Warn, 2018). It argues that the entrepreneurial process of immigrant entrepreneurs is influenced not only by their attributes and resources but also by the broader socio-economic and institutional environment in which they operate. Kloosterman and Rath developed this theory in the late 1990s and early 2000s to overcome the limitations of earlier models that focused either narrowly on entrepreneurs' individual

characteristics or only on the host society's structural aspects (Kloosterman & Rath, 2001).

The mixed embedded theory has three key components, including the micro level, the meso level, and the macro level. The micro level considers the individual characteristics of the entrepreneur, such as human capital (education, skills), social capital (networks, family connections), and financial capital. It also includes their motivation, ambition, and entrepreneurial drive (Kloosterman et al., 1999). The meso-level focuses on local market conditions, including demand for goods or services, niche markets, competition, and the role of social networks and community support in this context (Kloosterman, 2010). At the macro level, explain the regulatory and institutional frameworks that affect entrepreneurial activity, including immigration policies, business regulations, access to financial services, and specific support programs for entrepreneurs (Kloosterman & Rath, 2003).

In fact, immigrant entrepreneurs face a highly competitive environment in their host countries, and the potential strength of their human, social, and financial capital may be limited by gender, race, or class (Ram et al., 2017). For example, studies have shown that while new immigrants to the UK have high levels of education and professional skills, they still face disadvantages such as cultural dislocation and lack of experience. As a result, they follow the entrepreneurial path of previous generations, focusing on low-barrier and low-margin restaurant and retail businesses (Jones et al., 2012). Many immigrant entrepreneurs fall into the trap of low barriers to entry and low incomes (Wang & Warn, 2018).

The mix-embedded model helps understand how entrepreneurs enter into high - or low-value business contributions, and it can consider changes in the broader business and institutional environment. In addition, the model has the potential to explain a range of previously unexplained entrepreneurial outcomes, especially those that emphasize socio-culturally dominant influencing factors (Kloosterman et al., 1999; Kloosterman & Rath, 2001).

1.3.2 Cultural theoretical frameworks

Hofstede (1980) conceptualized culture as a collective programming that distinguishes one

group of people from another. It is an informal system that establishes rules or norms that influence individual behavior (North, 1990). Studies on immigrant entrepreneurs from different regions consistently show that national culture plays a key role in successfully establishing and developing entrepreneurial enterprises (e.g., Morris & Schindehutte, 2005; Basu & Altinay, 2002).

Social sciences often refer to Hofstede's cultural dimensions to examine the impact of culture on immigrant entrepreneurship, which investigates the tendency of immigrants from specific cultural backgrounds to self-employment (Vinogradov & Kolvereid, 2007). For example, one research using individualistic and collectivist dimensions of analysis found that Indian immigrant entrepreneurs are more inclined than Chinese entrepreneurs to hire family members (Chand & Ghorbani, 2011). Additionally, immigrants with distinct specific ethnic characteristics often possess abundant human capital, such as a deeper understanding of necessary business processes, laws, and regulations, which enhances their entrepreneurial capabilities in the new country (Vinogradov & Kolvereid, 2007). Other studies highlight that Chinese culture, with its emphasis on family support, hard work, education, diligence, and reinvestment of income in business, plays a crucial role in the entrepreneurial success of overseas Chinese (Wu, 1983; Lee, 2009).

The cultural theoretical framework in immigrant entrepreneurship research underscores the importance of cultural context, values, and practices in shaping immigrant entrepreneurial efforts (Dana, 1997). It helps examine how cultural factors influence immigrants' entrepreneurial behavior, strategies, and success rates. Furthermore, it offers a theoretical foundation for understanding how resource allocation behavior differs between immigrant and native entrepreneurs due to cultural influences (Dabić et al., 2020).

1.3.3 Capital theory

Human and social capital, as the core elements of capital theory, play an essential part in the creation of an enterprise (De Clercq et al., 2013; Sahasranamm & Nandakumar, 2021). Unlike

physical capital, human and social capital are intangible. Human capital consists of skills and knowledge acquired by individuals, while social capital exists in the network of relationships between people (Coleman, 1988).

Human capital

Human capital includes entrepreneurs' skills, knowledge, education, and experience. For immigrants, human capital includes not only formal education and professional experience but also language skills and knowledge of business practices in the host country (Becker, 1994). Human capital theory suggests that individual value can be increased through education and training, which means that entrepreneurs who invest in developing their human capital can see substantial benefits in their businesses (Wasilczuk et al., 2021; Marvel et al., 2016). Human capital is identified into general and specific types. The general type of human capital includes transferable skills and knowledge, such as education and work experience, while the specific type includes specialized skills and domain-specific knowledge (Becker, 1975; Ucbasaran et al., 2008).

Education enhances an individual's skills and competencies in various areas, including specialized knowledge in marketing, accounting, and sales, the ability to identify market trends, interpersonal skills, and strategies to strengthen competitive advantage and support business performance (Peteraf, 1993). Research has shown a positive correlation between the higher educational achievement of Chinese entrepreneurs and their higher business success rate (Chu et al., 2011). Higher education lays the foundation for a professional career and well-paid positions that lead to the accumulation of wealth and prestige, which is why education has been gradually emphasized since the second generation of Chinese immigrants (Zhou & Kim, 2006).

Human capital comes not only from education but also from work experience (Lee, 2009). Research has shown a positive relationship between prior work experience within the same industry and entrepreneurial success (Carter et al., 1997; Cooper et al., 1994). Not only

accomplishes work experience help entrepreneurs understand specific market trends, identify potential market opportunities, and exploit them, but it also increases an individual's access to a variety of social networks that can be used for market information, capital, recruitment, and the development of supplier and customer relationships (Kim et al., 2003). Experience is an important part of an entrepreneur's human capital and can impact how they engage in the entrepreneurial process by influencing their cognitive behavior. Experience is often viewed as an asset that includes management, finance, attitudes, and networks, or a combination of these factors that can build business competencies to highlight individual opportunities (Goss, 1991). Studies have found that combining knowledge gained in formal education with experience in the host country has a positive impact on increasing the probability of success for Chinese immigrant entrepreneurs in founding and running a business (Wang & Thorns, 2009; Zhang, 2010)

Social capital

Social capital consists of networks and relationships that entrepreneurs can utilize (Bhagavatula et al., 2010), an essential resource in the entrepreneurial ecosystem (Nahapiet & Ghoshal, 1998). In ethnic communities, entrepreneurs utilize social capital from community sources or connections to employees, suppliers, and markets of the same ethnic group (Lee, 2009). Cohesion within ethnical groups can significantly contribute to ethnical enterprises' establishment and continued success (Adler & Kwon, 2002).

In China, the culture of "guanxi" emphasizes connections between individuals based on shared social, family, or educational backgrounds, as well as long-term interpersonal relationships (Tsui et al., 2000). Trust and reciprocity are built through interpersonal networks to facilitate business and social activities in a business environment (Yang, 2002). Having good "guanxi" is considered a key success factor as it helps overcome bureaucratic barriers, access critical information and resources, and build trust (Wang, 2012). Although "guanxi" occupies a unique position and practice pattern in Chinese social and business environments,

similar concepts and practices exist in other countries and cultures.

Western countries such as the United States and European countries also emphasize the importance of social capital, such as the resources and advantages individuals gain through social networks (Putnam, 2000). Although operationalization methods may differ, networking, maintaining good relationships, and benefiting from social relationships are similar to “guanxi” (Park & Luo, 2001; Tsang, 1998). In Arab culture, “wasta” is a concept refers to the practice of utilizing one’s network and influence to obtain jobs, services, or other benefits (Cunningham & Sarayrah, 1993). Many Latin American countries have a system of social networks based on godparent relationships that facilitate social and economic transactions (Foster, 1965). These examples suggest that while the manifestations and specific practices of a culture of “guanxi” may vary from culture to culture, the basic principles of utilizing interpersonal networks to achieve business and social goals are universal.

1.4 The entrepreneurial process

Entrepreneurship is a multifaceted and dynamic process that includes creating new business activities and developing new market offerings (Wiklund et al., 2011). It is often viewed as a series of events or activities aimed at achieving a specific outcome, with each stage marked by particular activities (Zbierowski & Gojny-Zbierowska, 2022; Scheaf et al., 2020). The process involves identifying and discovering opportunities, forming social networks, and selecting innovations (Leyden, 2016). It also includes the recognition, evaluation, and development of entrepreneurial opportunities, as well as the establishment and expansion of businesses (Volkman et al., 2010).

Numerous academic works have explored the entrepreneurial process, proposing various theories to explain this complex phenomenon. Sarasvathy (2001) introduced effectuation theory from a decision-making perspective, distinguishing it from traditional goal-oriented models. This theory suggests that entrepreneurs start with available resources and clarify their goals through stakeholder interactions. Alvarez and Barney (2007) proposed a two-stage

value creation theory, offering a brief view of the entrepreneurial process, which comprises opportunity identification and value creation from an entrepreneurial perspective. This theory simplifies Bhave's (1994) three-stage model—opportunity identification, opportunity development, and resource exchange—into two stages. Su et al. (2020) explored the psychology of entrepreneurship, uncovering the relationship between entrepreneurial emotions and motivation.

1.4.1 Opportunity recognition and evaluation

Entrepreneurial opportunities are fundamental to venture creation, focusing on the conditions enabling the introduction of new resources (e.g., products, services, markets, methods) by creating new means, endings, or relationships (Casson, 1982; Shane, 2003). Previous research has suggested three insightful ways of categorizing opportunities: based on the location of the change that brings opportunity, the origin of the opportunity itself, and the entity that triggers the change (Eckhardt & Shane, 2003). Similarly, Ardichvili et al. (2003) argued that the evolution of opportunities should be viewed as a process involving perception, discovery, and creation rather than mere identification or recognition. These perspectives shed light on the dynamic and multifaceted nature of entrepreneurial opportunities, suggesting that developing entrepreneurial opportunities is not a linear process but involves recognizing existing possibilities, uncovering new possibilities, and creating entirely new ones through innovative thinking and action.

Sarasvathy et al. (2003) described how opportunities can be identified from a supply-demand perspective. If there is precise supply and demand in the marketplace, the key is to “recognize” the opportunity to combine supply and demand and to meet the need through existing or start-up firms (Sarasvathy et al., 2003). It can be understood that if there is demand with no supply or supply without demand, they must “discover” the missing piece that makes the two matches. In simple terms, opportunity discovery is finding or recognizing the potential of existing and possible markets. Nevertheless, many scholars agree that recognizing an

opportunity is a thought event or process that occurs in an individual's mind (Baron, 2004). Because emotions can influence many critical aspects of the thought process, and because identifying opportunities is at least in part a thought process, it is reasonable to believe that emotions can impact this aspect of entrepreneurship (Baron, 2004).

Some people are more likely to identify opportunities than others because people have different sensitivities to identifying and creating new value opportunities (Ardichvili et al., 2003). This distinction may be due to differences in each person's educational background, work experience, available resources, and the information they have. The more value-creating or value-providing opportunities a person can identify, the more likely they are to recognize a wide range of opportunities around them. The more accurately and comprehensively these opportunities are analyzed, the easier it is to identify the uncertainties and risks associated with them (Ray & Cardozo, 1996).

In the process of starting a business, the evaluation of opportunities is crucial. It affects whether an entrepreneur or investor devotes more resources to promoting a new technology, service, or product (Haynie et al., 2009; Wood & Williams, 2014). Over time, evaluating opportunities becomes critical in deciding whether to take entrepreneurial action (Scheaf et al., 2020).

Recently, a number of researchers have explored the criteria and factors when evaluating opportunities. Rastkhiz et al. (2019) summarized seven groups: economic and financial conditions, market and industry conditions, product or service characteristics, project desirability and feasibility, human resources, and business environment. Rastkhiz et al. (2019) divided the methods of opportunity assessment into two categories: one is from the perspective of psychology, focusing on personal beliefs, intentions, emotions, and psychological interpretation of opportunities, emphasizing the subjectivity of assessment; the other one is from an economic perspective, focuses on how to maximize economic utility, resource allocation, market problems and changes in the business environment, focusing on the characteristics of opportunities. Four core evaluation criteria are proposed by Scheaf et al. (2020): benefit estimation, loss estimation, perceived desirability, and feasibility. It suggests

that different entrepreneurs may have different perceptions of potential benefits, risks, and feasibility when evaluating the same opportunity.

1.4.2 Organization creation

Commitment to the physical creation, production technology, and its development and organization creation are three critical steps in the organization creation process (Bhave, 1994). Commitment to physical creation requires entrepreneurs to strongly believe in their business concept and be prepared to invest many personal resources, such as time and energy, and sometimes, this process can take years to perfect and prepare (Oliver, 1990).

The next step is the production technology and its development phase, which leads to set up the organizational structure and production system (Bhave, 1994). This includes setting up everything from basic office equipment to complex production facilities, depending on the type of service or product the business provides. Funding may come from personal savings, venture capital, or funding from the parent company (Corner & Wu, 2011). This stage is full of risk and uncertainty that the development of new technologies, products, or services requires, and entrepreneurs need to be prepared to face financial and market challenges (Bhave, 1994).

Organization creation mainly involves establishing structures and processes related to core production technologies (Thompson, 1967; Spender & Kessler, 1995). Based on the US website Failory, up to 90% of businesses fail, 20% go bankrupt in less than a year, and the remaining 50% do not survive for more than five years (Kotashev, 2024). The “Polish Startups 2023” report indicated that 23% of companies have been established for less than one year, 28% for two years, 31% for three to four years, and companies that have been around for over five years account for 15%. (Dziewit, 2023). These newly established firms usually have unclear departmental boundaries and low functional differentiation, and job titles do not have much practical significance. Entrepreneurs often need to operate in multiple roles, and customer feedback and hands-on learning drive business processes. Effective methods of

operation continue to be used until a new need for change arises. These organizations grow rapidly through each iteration of the business, typically supporting growth with increased investment (Kor et al., 2001).

1.4.3 Exchange stage

In Bhave's (1994) study, the exchange stage is categorized into three main parts: product and product development, supply and demand boundaries, and customer feedback. These three components comprise the complete process of taking a product from concept to market, and each is critical to the organization's success. First, the product and its development are the starting point of the exchange phase. In this part, enterprises turn ideas into tangible products. This process includes several key activities, such as product design, prototyping, and functional testing. Product development requires not only innovative thinking but also thorough market research to ensure that the new product meets the needs of the target market. In addition, efficiency and cost control during the development process are important factors to consider (Smith, 2018; Gurbuz, 2018).

Secondly, the supply-demand boundary is a critical part of the post-product development process, where the focus shifts to bringing the product to market. To ensure the product reaches its target customers, entrepreneurs must identify the most effective distribution channels, establish a supply chain management system, and craft a market entry strategy. Other key components include market positioning, pricing strategy, and the design of promotional activities. Entrepreneurs need to continuously adjust these strategies to optimize the product's market performance, taking into account market conditions and competitor behavior (Kotler et al., 2016).

Customer feedback is the last step in the exchange phase. After a product enters the market, it becomes crucial to collect and analyze customer feedback (Anderson & Sullivan, 1993). This feedback may cover various aspects, such as the product's quality, functionality, and user experience, as well as customer evaluations of service, support, or overall value

(Kumar & Reinartz, 2012). By systematically analyzing this data, enterprises can understand the strengths and weaknesses of their products, further improve them, and increase customer satisfaction. In addition, positive customer feedback can be transformed into a company's marketing materials, helping to build brand image and attract more potential customers (Kotler et al., 2016).

1.5 The entrepreneur's perception of entrepreneurial venture

Taking risks is a key topic in entrepreneurship studies ((Busenitz, 1999). Entrepreneurship is seen as a high-risk activity, mainly because in the absence of complete information, entrepreneurs need to make a series of decisions for the survival and growth of the new business. The quality of these decisions is directly related to the future development of enterprises (Alvarez et al., 2007; Bosma et al., 2004). Forlani and Mullins (2000) pointed out that entrepreneurs usually rely on their perception of risk when making decisions and that intuitive judgments based on experience play an essential role in this process. In entrepreneurship, the environment is uncertain (Knight, 1921), so assessing and considering risks and uncertainties has become the core issue entrepreneurs must face in various decision-making scenarios (Forlani & Mullins, 2000).

1.5.1 Risk perception

Earlier research focused on risk in the entrepreneurial environment, such as how investors make decisions, ways to manage investment risk, and how to improve portfolio performance (Kuratko, 2019). Unlike other types of companies, startups tend to take greater risks and proactively seek new business opportunities (Zbierowski, 2020). Then, scholars began to explore risk-taking more from the perspective of entrepreneurs. Risk perception, the way individuals evaluate opportunities and possibilities, becomes the key to determining whether they adopt predictive or non-predictive decision-making logic (Ghosh & Ray, 1992; Sarasvathy, 2008).

Entrepreneurs' perception of the risk environment affects their confidence in the outcome of their control, which in turn affects their willingness to set fixed goals, stick to plans, and make investments (Giordano et al., 2021). When perceiving high risk, entrepreneurs are more likely to employ non-predictive decision-making logic and emphasize managing processes rather than results. According to the study, entrepreneurs have a greater tendency than non-entrepreneurs to view the business environment positively, seeing strengths and opportunities, whereas others see only weaknesses and threats (Palich & Bagby, 1995).

Entrepreneurs view themselves not as risk-takers but as pursuers of opportunities that others may overlook, because they perceive and analyze situations from unique perspectives. Aware of their environmental risks, they will carefully weigh their next steps and proceed cautiously with entrepreneurial projects, considering environmental changes (Sitkin & Weingart, 1995). They also seek support and pre-commitment from partners to deal with potential risks (Read et al., 2009). Sitkin and Pablo (1992) proposed that decision-makers' tendency to take risks is a key factor influencing their actions, which determines behavior more than many other factors, such as expected return and risk. Lopes' (1987) research showed that when making decisions, some people are more inclined to value positive possible outcomes, while others are more inclined to value adverse possible outcomes, which reflects that some people pursue potential opportunities for advancement while others seek safety. Sitkin and Weingart (1995) found that people have different tendencies toward risk, which can affect their risk perception of a particular decision. People with a higher risk propensity perceive lower risk, which affects how they choose risk.

Through psychometric analysis, Stewart and Roth (2001) found that entrepreneurs are more likely to take risks than managers. However, a study by Miner and Raju (2004) challenged this finding, arguing that entrepreneurs and growth-oriented people are more risk-averse than managers. It suggests that the debate about the role of risk propensity in entrepreneurship still needs to be more conclusive.

1.5.2 Uncertainty

Scholars generally agree that the entrepreneurial process is uncertain (Packard, 2017). The challenge for entrepreneurs is finding relative certainty among the many uncertainties (Miształ, 2001). Uncertainty can relate to the business's operational aspects (Shane, 2003), such as product, market, and competition, or it can be about possible outcomes, best practices, and numerous details of the decision-making process (Sarasvathy, 2008). As a result, research usually focuses on how entrepreneurs make judgments based on acceptable losses, potential partners, contingencies, and available skills and resources (Sarasvathy, 2001).

Milliken (1987) categorized uncertainty into three groups: state uncertainty, effect uncertainty, and response uncertainty. State uncertainty, or environmental uncertainty, refers to difficulties in predicting and understanding environmental changes. Effect uncertainty relates to the ability to predict future impacts. Response uncertainty, on the other hand, is about the entrepreneurs' lack of understanding of coping strategies and their possible consequences.

1.6. Effectuation theory. Effectual versus causal decision-making logic

Entrepreneurial behavior is an important unit of analysis in the study of the entrepreneurial process, which focuses on how entrepreneurs achieve their entrepreneurial goals through their behavior. These behaviors are observable and crucial to understanding the entrepreneurial process. Earlier studies on entrepreneurial behavior include Sarasvathy's (2001) causal and effectual approach, Baker and Nelson's (2005) entrepreneurial bricolage approach, Alvarez and Barney's (2007) creation perspective, and Shah and Tripsas' (2007) user entrepreneurship (Fisher, 2012). One of the classic frameworks for analyzing entrepreneurial intentions and behaviors is the theory of planned behavior (Ajzen, 2011), which attempted to predict how entrepreneurial behavior will occur. Subsequently, effectuation theory (Sarasvathy, 2001) and entrepreneurial bricolage theory (Baker & Nelson, 2005) have emerged as new research paradigms that offered different perspectives on understanding how entrepreneurs conduct

business practices. These two theories focus more on the practical aspects of the entrepreneurial process, and the ability to integrate resources than the traditional theory of planned behavior, providing insights into how entrepreneurs create new business opportunities with limited resources (Gadenne et al., 2011).

Effectual decision-making logic

Sarasvathy (2001) first introduced the theory of effectuation, which was subsequently developed in depth by Sarasvathy and Dew (2005) and Sarasvathy (2008). This theory claims that when faced with uncertainty, entrepreneurs adopt a different decision-making logic than the traditional causal decision-making logic. Specifically, effectuation emphasizes that goals may change or even be redefined in changing environments over time, and sometimes such changes occur by chance (Read et al., 2016). Instead of focusing solely on the final goal, entrepreneurs persist in controlling those resources within their capability, including personal knowledge, skills, social networks, and material and human resources (Barney, 1991; Sarasvathy, 2001).

Entrepreneurs usually start with the most readily available resources and only need a partial plan. They begin by assessing their traits, abilities, and preferences, i.e., “who they are,” then consider their educational background, expertise, and experience, “what they know,” and finally, their social and professional networks, “whom they know” (Sarasvathy, 2006). With these resources, entrepreneurs explore and implement various possible courses of action.

Sarasvathy (2001, 2006) outlined four core principles that illustrate the application of effectual decision-making logic to the entrepreneurial process: the principle of affordable loss, the principle of strategic partnerships, the principle of exploiting contingencies, and the principle of controlling the unpredictable future. These principles encourage entrepreneurs to try out various strategies with limited resources and focus on approaches that open up future possibilities, rather than only seeking to maximize current benefits. In addition, it highlights the importance of collaborating with others over competing and turning unexpected events

into opportunities. In short, effectual decision-making logic indicates that entrepreneurs should take control of the variables within their power rather than attempting to forecast uncontrollably unknown future events (Jiang & Riling, 2017; Smolka et al., 2018).

Causal decision-making logic

Causation, or predictive decision-making, as defined by Sarasvathy (2001, 2008), describes the traditional view of entrepreneurial behavior. In causal models, entrepreneurs analyze and estimate to identify goals and choose the best path to reach those goals. This process involves predicting future scenarios, estimating possible consequences, and evaluating different options to develop a comprehensive strategy (Wiltbank et al., 2009; Matalamiki, 2017). For example, entrepreneurs select the most appropriate options based on causal reasoning, such as purchasing decisions, target market selection, portfolio allocation, and recruiting the most suitable talent.

Under causal decision-making logic, the entrepreneurial process emphasizes commercialization through opportunity identification, goal setting, and planning to capitalize on and satisfy market demand. The entrepreneur gathers resources, finds and implements solutions in the process, and further product or service refinement relies on market feedback (Fisher, 2012). It requires that the potential market for the product or service exists and that the entrepreneur can access sufficient historical information to evaluate the opportunity and its means of implementation (Sarasvathy, 2001).

Although empirical research on this emerging theory is scarce, several studies support the tendency of expert entrepreneurs to use effectual thinking (Dew et al., 2009; Read et al., 2009). Martn-Navarro et al. (2023) further confirmed that effectual logic is more applicable in the early stages of entrepreneurship. In contrast, causal decision-making logic is more often used in later stages of the process. Fisher's (2012) case study found that causal and effectual decision-making logic can co-exist in the same venture. It shows that the two logics can work together to explain the complex relationship between entrepreneurs, controllable resources,

and unpredictable markets.

1.7 Conclusion

This literature review explores the concept of entrepreneurs and immigrant entrepreneurship, it focuses on mixed embeddedness, cultural theoretical framework, and capital theories. The mixed embeddedness perspective emphasizes how socio-economic and institutional contexts influence entrepreneurial activity. Cultural and capital theories highlight the role of cultural norms and the importance of capital in entrepreneurship. The review creates a framework for the entrepreneurial process, the effects of risk and uncertainty, and diverse entrepreneurial behaviors. It also examines how effectuation theory explains the way entrepreneurs make decisions.

Chapter 2: Main Frameworks of National Culture Studies

2.1 Introduction

Chapter 2 reviews the main theoretical frameworks of national culture studies and explores cultural types and diversity. It provides a theoretical basis for the dissertation and a practical foundation for this study through a specific Sino-Polish cultural comparison. This review covers crucial national culture theories such as Hofstede's cultural dimensions, Gesteland's cultural model, the study of Confucian values, and a comparative study of China and Poland in terms of national culture dimensions. This chapter aims to analyze the core elements of Chinese culture and compare them with Polish cultural norms, in order to better understand the behavioral patterns of Chinese entrepreneurs in the Polish business environment.

2.2 Typologies of culture and cultural diversity

According to the different operating definitions, scholars in the field of social sciences have introduced a few frameworks of national culture. A lot of different dimensions were proposed to compare and categorize. Hence, one type (Schein, 1985) or dimension (Hofstede, 1980) of culture must be studied in order to understand its influence on society for analyzing the behaviors, activities, and values of social individuals (Ali, 2006). Scholars have different opinions on the definition of national culture and the significance of studying national culture. They commonly believe that culture is the shared traits and customs within a country (Clark, 1990; Hofstede, 1980, 2001; Steenkamp, 2001). However, some analysts argue that it is inaccurate to suppose a nation contains only one culture, and using the nation as a unit to measure culture may not be the most appropriate. These views suggest that globalization and advanced communication technologies have made interactions between people from different cultural backgrounds more frequent, accelerating the blending and changing of cultures (Craig & Douglas, 2006; Douglas & Craig, 1997, 2006).

On the other hand, many scholars still emphasize the significant relevance of national

culture theory in explaining human behavior, such as Hofstede (2002), Schwartz (2006), Inglehart and Baker (2000), and Steenkamp (2001). They argue that although subcultural groups do exist, it is very difficult to split them out inside a nation. The nation serves as a meaningful unit for cultural studies because there are similarities and contrasts between nations (Schwartz, 2006; Steenkamp, 2001). Culture is deeply ingrained, and its evolution is quite gradual. Therefore, it remains necessary to explore culture at the national level (Hsu et al., 2012).

Schwartz's Cultural Value Orientations

Schwartz's cross-cultural research has proposed two theoretical frameworks: the personal values theory, which is used to differentiate the values of individuals in different cultures (Schwartz, 2012), and the cultural value orientation theory, which aims to delineate the cultural values of different societies (Schwartz, 2014). These two theories have not only sparked extensive discussion at the individual level, but have also stimulated numerous studies at the cultural level (Knafo et al., 2011), providing a theoretical basis for understanding and comparing different cultures and individual values worldwide. Schwartz (2006) explained how cultural value orientations shape various aspects of social life, including socioeconomic development, democratization, family dynamics, gender equality, moral standards, attitudes toward immigrants, and political participation. The study argues that these cultural orientations reflect key socio-structural variables and influence them, serving as mediators of the impact these variables have on people's attitudes and behaviors. The study confirms the validity of the theory by utilizing data collected from 73 countries through two different methods: the Schwartz Values Survey and the Portrait Values Questionnaire. The following are the seven culture level value types defined and labeled by Schwartz (2006):

1. Embeddedness and Autonomy:

- Embeddedness emphasizes the importance of social order and tradition, requiring the individual to be closely tied to the collective, to follow norms, and to value safety and

obedience.

- Autonomy, on the other hand, represents the individual's right to make free choices without being bound by excessive external rules and is divided into two categories:

Emotional autonomy: the pursuit of personal pleasure and fulfillment, although society may sometimes limit this pursuit; Intellectual autonomy: the pursuit of independent thinking, covering freedom of thought in theory and politics.

2. Mastery and Harmony:

- Mastery cultures promote success and progress through individual endeavors, even if this may affect others or the collective.
- Harmonious cultures do not pursue individual achievement but focus on living in harmony with the world, emphasizing the collective good over the individual.

3. Hierarchy vs. Egalitarianism:

- Hierarchical cultures have clear social stratification, where individuals accept and respect their place in society and emphasize humility and self-control.
- Egalitarian cultures view everyone as equal and promote mutual care and support. Both Hofstede (1980) and Schwartz (1994) Hofstede (1980) and Schwartz (1994) tried to define national cultural dimensions for use in cultural comparisons, as well as both scholars, have empirically investigated their frameworks with large-scale multi-country samples (Ng et al., 2007).

Inglehart's World Values

The World Values Survey (WVS), created by Inglehart et al. (1998), is a cross-national study that explores how values influence social, political, and economic development (Haerpfer & Kizilova, 2016). This survey has interviewed about 1,400 people in 81 countries, covering more than 80% of the world's population (Hsu et al., 2012). The WVS study provides insights

into the structure and dimensions of values and shows common patterns of value orientations at the individual level (Held et al., 2009).

Inglehart and Baker (2000) and Inglehart and Norris (2003) developed two dimensions of values: tradition and secular rationality, survival and self-expression. These studies examine if economic modernization and globalization are making global cultures more similar (Inglehart & Baker, 2000) or if they have had minimal impact on traditional values (Ji, 2010). This cross-national study provides valuable information for understanding global value change and a reliable foundation for analyzing cultural similarities and differences. The following is a summary of the two dimensions (Inglehart & Baker, 2000):

- **Traditional and Secular Rationality:** it concerns individual attitudes toward authority. Religious beliefs, national loyalties, and family ties are central to life in traditionally oriented societies. In contrast, secular-rationally oriented societies place less emphasis on the importance of these factors, and people are more inclined to question authority and seek personal freedom and independence.
- **Survival and Self-Expression:** it explores the relationship between the individual and the community. Survival values highlight the need for financial and physical security. In a survival-centered society, people are conservative about novelty and social change and avoid risk. On the other hand, self-expression values stress the well-being and the quality of life, emphasizing innovation and acceptance of social diversity. People in such a society, are more willing to accept and appreciate differences and have a more positive perspective on life.

These two dimensions reveal differences in people's attitudes towards authority, security, personal well-being, social change, and values across cultures (Inglehart & Baker, 2000).

Hofstede's cultural dimensions

The preferred definition of Hofstede (1980) is that "culture is the collective programming of

the mind which distinguishes the members of one group or society from those of another (p. 25).” Culture reflects how people make sense of the world and their place in it, including their values, beliefs, and morals, as well as their perceptions of collective character and aesthetics (Hofstede, 1980). In short, culture is a set of meaning systems shared by people that influence the way they think, act, and feel.

The six main dimensions identified by Hofstede include power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity, long-term versus short-term orientation, and indulgence versus restraint. In Hofstede’s (1980) book *Culture’s Consequences*, he identified four core cultural dimensions: power distance, uncertainty avoidance, individualism versus collectivism, and masculinity versus femininity. Hofstede’s theories have been widely confirmed in later studies (Hofstede, 2011).

Hofstede’s research has influenced many scholars. For instance, Bond and his Chinese colleagues added a fifth dimension called “long-term versus short-term orientation”. This dimension was based on Chinese cultural perspectives, which aimed to overcome the limitations of Hofstede’s research method that were biased toward Western cultural values (Hofstede & Bond, 1988).

Further, using data from the World Values Survey, Bulgarian scholar Michael Minkov proposed a sixth dimension, “indulgence versus restraint,” which became a new part of Hofstede’s theory of value dimensions (Hofstede, Hofstede & Minkov, 2010). These findings suggest that cultural differences are fundamental and lasting, and they are essential for understanding behaviors and values in different countries and regions.

Recently, Hofstede’s cultural dimensions were updated to better match changes in social values and attitudes. The dimension “Masculinity vs. Femininity” has been renamed “Motivation towards Achievement and Success”¹. This change modernizes the terms better to reflect today’s focus on achievement and success, moving away from traditional gender

¹ Motivation towards Achievement and Success: the official statement indicates that changing the name does not imply a reinterpretation of the dimensions, and the national scores remain unchanged (Hofstede Insights, 2023).

implications. The update keeps the core ideas of the dimension, emphasizing that society values competition, achievement, and success more than just cooperation and quality of life (Hofstede et al., 2010; Hofstede Insights, 2023). A brief overview of the six dimensions in Table 2.1:

Table 2.1 Hofstede’s cultural dimensions

Dimension	Short Description	Score Meaning
Power Distance	Degree to which less powerful members accept uneven power distribution.	High: accept hierarchical order, authority, and inequality. Low: strive for equality and challenge authority figures.
Individualism vs. Collectivism	Focus on the individual versus the group.	High individualism: a society with loose ties between individuals; personal achievements are emphasized. High collectivism: strong group cohesion and loyalty; group interests prevail.
Masculinity vs. Femininity	Distribution of roles between the genders.	High masculinity: preference for achievement, heroism, assertiveness, and material rewards for success. High femininity: preference for cooperation, modesty, care for the weak, and quality of life.
Uncertainty Avoidance	Tolerance for ambiguity and unstructured situations.	High uncertainty avoidance cultures have strict norms and a low tolerance for unconventional behavior and ideas.
Long Term Orientation vs. Short Term Orientation	The focus on future rewards versus respect for traditions and social obligations.	Long-term orientation: a focus on future rewards, saving, and persistence. Short-term orientation: respect for tradition, fulfilling social obligations, and protecting one's 'face'.
Indulgence vs. Restraint	The extent to which people try to control their desires and impulses.	Indulgence: allow relatively free gratification and enjoy life and fun. Restraint reflects a society that suppresses gratification by means of strict social norms.

Source: based on Hofstede (1980, 1991, 2000), Hofstede, Minkov (2010); Ji (2010);
Reference online from: <https://geert-hofstede.com>

Hofstede's Value Survey Module (VSM) is widely used to measure cultural dimensions at the individual level, offering insights into how personal values align with societal norms. Despite its popularity, the VSM has faced criticism for its reliability and validity. Early versions, like VSM 80, were based on a homogeneous sample of IBM employees, raising concerns about generalizability (Eriksson & Gerlach, 2021). Spector et al. (2001) found poor reliability in VSM 94 when used at the individual level. Later revisions, including VSM 2013, aim to address these issues by refining the measurement of cultural dimensions like indulgence, power distance, and individualism. Several studies highlight the utility of VSM. For instance, Beugelsdijk et al. (2017) used VSM to link cultural dimensions to individual innovation behaviors, finding important correlations. Similarly, Kirkman et al. (2006) examined how cultural values impact work-related attitudes in different cultures. In another example, Taras et al. (2010) conducted a meta-analysis and found that individual-level cultural values greatly affect various outcomes, including job performance, organizational commitment, and employee attitudes. Hofstede's framework remains crucial in cross-cultural research. VSM's measure of understanding cultural differences at the individual level continues to be widely cited and applied, and updated to better capture cultural complexities.

Gesteland's cultural model

Richard Gesteland (2004) stressed the need to deeply understand different cultures in international business. He developed a handbook that teaches how to better understand and cope with cultural differences to minimize conflicts in international exchanges (Mulder, 2017). Gesteland (2004) suggested that in international business, the seller should adapt to the cultural requirements of the buyer, especially in international transactions, where the seller needs to have a deeper understanding of cultural differences than the buyer. Furthermore, he stated that respecting local cultures, customs, and traditions is necessary, whether negotiating a deal or discussing cooperation. Gesteland's concept of business culture is unique because his theories are based on real-world experiences rather than rigorous research (Glinska-Newes

et al., 2018).

Gesteland (2004) proposed four cultural dimensions to characterize the culture of different countries:

- Deal-Focused versus Relationship-Focused: In deal-focused cultures, task orientation is strong, and it is relatively easy to establish connections with strangers; whereas in relationship-focused cultures, building and maintaining good relationships is the key to business success.
- Formal vs. Informal: In formal cultures, communications must follow specific protocols and rules, while informal cultures are more easygoing and have a higher tolerance for informal behavior.
- Monochronic vs. Polychronic: In monochronic cultures, time is strictly regulated, and punctuality and schedules are very important, whereas in polychronic cultures, interpersonal relationships and flexibility are seen as more important.
- Expressive vs. Reserved Cultures: People in expressive cultures are direct in their expression, preferring physical contact and using rich body language, while people in conservative cultures are more subtle, avoiding excessive body movements and constant eye contact.

These dimensions help international business people understand better, adapt to different cultural environments, and conduct international business effectively.

The basic comparison among cultural frameworks

According to Fernandez et al. (1997), Hofstede's conceptualization of national culture is a theoretically and empirically meaningful framework that has the potential to become the most influential conceptual foundation in cross-cultural studies. There are many similarities between the many cultural typologies that correspond to his national cultural dimension (Clark, 1990). Another equally common theory to explain cultural differences is that proposed

by Schwartz (1999), who argued that a person's motivation to achieve a goal determines his or her values. Schwartz's cultural value dimensions are founded on a priori theorizing, in contrast to Hofstede's frameworks, which are based on a posteriori theorizing (Schwartz, 2006). Compared to Hofstede's model, Schwartz's has more recent data and solid theoretical underpinnings (Hsu et al., 2012). Although Hofstede's model has been applied more widely in research areas than Inglehart's (1990) work, which emphasizes the changeable aspects of culture, his framework still deserves scholarly attention due to its sound methodology and the large and long-term scope of the data he collected (Hsu et al., 2012). With more detail on how to understand other cultures and reduce barriers between parties in different countries, Gesteland (2004) provided a guide and established four dimensions that characterizing each country's culture (Gémar, 2014). Key dimensions related these frameworks are summarized in the Table.2.2.

Table.2.2 Comparison of cultural theories

Concept	National Cultural Value Dimensions	Gesteland's model	Schwartz's Cultural Value Orientations	Inglehart's World Values
	(1980, 2001)	(1999, 2004)	(2006)	(2000, 2003)
Attitude to time	Short-/long- term orientation	Rigid/fluid		
Attitude to power	Small/large power distance	Formal/ informal	Egalitarianism vs. hierarchy	Traditional vs. secular-rational
Individual& group	Individualism/ collectivism		Autonomy vs. embeddedness	Survival vs. self-expression
Attitude to change	Low/high uncertainty avoidance		Openness to change	
Relationships	Masculinity/ femininity	Transaction-oriented/ relationship-oriented	Conservatism (conformity, tradition, security)	
Behaviors	Indulgence/restraint	Expressive/ conservative	Universalism and kindness to people	

Source: based on Brzozowska& Postuła (2014), and combined with Hsu et al. (2012).

2.3 Chinese Culture

Chinese people, whether living at home or abroad, can be found to share specific core cultural

values. Chinese culture is an essential foundation of Chinese identity, and these core values have a long history and are transmitted and sustained by a common language. Even though China has many ethnic groups and social customs, they vary among them, and the cultural values of the entire Chinese nation are unified. This system of cultural values is the hallmark of China's uniqueness and is significantly different from Western culture (Chinese Culture Connection, 1987; Fan, 2000).

2.3.1 Chinese Value Survey and its further development

In 1987, Bond organized an international research network, the China Cultural Connection, which focused on Chinese values. Drawing on Hofstede's work (1980), the study explored the issue of cultural values from a Chinese perspective and came up with 40 core Chinese values, all of which were presented in Chinese and developed into a questionnaire. In order to better capture the essence of these values, the researcher also designed a corresponding English questionnaire for the survey. The survey involved 22 countries worldwide, with approximately 100 university students participating in each country. The results revealed four main factors: integration, Confucian dynamism, human-heartedness, and moderation (Chinese Culture Connection, 1987).

Further data analysis revealed that integration, human-heartedness, and moderation were closely related to Hofstede's dimensions of power distance, individualism, and masculinity. Researchers stated the "Confucian dynamism" factor, as it had no counterpart in Hofstede's dimensions (Chinese Culture Connection, 1987). Subsequently, Hofstede and Bond (1988) redefined this factor, arguing that specific Confucian values have positive effects, such as perseverance, orderly relationships, thrift, and shame sense, and point to the future. On the other hand, Confucian values with adverse effects, such as personal stability, face-saving, and respect for tradition, are more focused on the past and present and represent a short-term orientation (Ji, 2010). Hofstede identified long-term/short-term orientation as the fifth cultural dimension and claimed that positive Confucian values contribute to wealth accumulation and

economic growth (Hofstede & Bond, 1988).

2.3.2 The contemporary value of traditional culture

Contemporary Chinese culture is a dynamic balance between traditional values and modern influences. This balance is heavily influenced by historical heritage and closely linked to globalization (Fan, 2000). Modern Chinese society rapidly evolves under the combined influence of Western culture and local traditions, especially in urban areas. However, despite this change, traditional values remain at the core of Chinese society and culture (Liu, 2010).

China's traditional culture is a blend of many philosophies, including Confucianism, Taoism, and Buddhism, and sometimes they even conflict with each other. These philosophical schools and the richness of regional cultures constitute the diversity of Chinese culture. Among these traditions, Confucianism is undoubtedly the most far-reaching, which laid the foundation of China's cultural traditions; until today, the teachings and principles of Confucianism are still important references guiding Chinese people's daily interpersonal interactions and standards of behavior (Hamamura & Xu, 2015).

Confucianism originated with China's greatest thinker, Confucius (551-479 B.C.), and it is a profound system of philosophy and moral education (Yao, 2000). Confucius developed the concepts of benevolent (仁) and rites (礼), emphasizing the importance of kindness, forgiveness, and social etiquette. Ancient Chinese monarchs highly valued these concepts because they contributed to social stability. Until the beginning of the 20th century, these Confucian teachings were central to China's official education system (Ji, 2010).

The Doctrine of the Mean- Zhongyong (中庸), emphasizes not going to extremes in behavior, advocates steadiness and moderation, and promotes the pursuit of balance in life, similar to the strategic pursuit of satisfaction rather than optimal solutions (Redding, 1980). The Confucian doctrine of the Five Virtues- Wulun (五伦), the mutual obligations to be observed in different social relationships, is seen as an important element in maintaining the order of the family and society (Chew & Lim, 1995). These relationships include loyal kings

and subjects, loving fathers and sons, respectful couples, orderly brothers, and friends with mutual trust. Confucianism also advocates the Five Constants- Wuchang (五常), which are the virtues of benevolence, righteousness, propriety, wisdom, and trust, essential for personal cultivation (Rarick, 2007). Among them, ‘benevolence’ is caring and kindness to others; ‘righteousness’ means that one should choose between personal interests and morality; ‘propriety’ is social etiquette; ‘wisdom’ is intelligence; and ‘trust’ refers to credit and trust, which are the cornerstones of interpersonal relationships.

2.3.3 Chinese business culture and behavior

Building a harmonious society and rationalizing interpersonal relationships are fundamental features of Chinese culture and play a key role in the stability and development of society (Buckley et al., 2006). Sociologists have emphasized that Chinese people often use native concepts such as “guanxi” (relationship) and “mianzi (face)” when dealing with interpersonal relationships, and that these concepts are very helpful in gaining a deeper understanding of Chinese social and business behaviors (Lee & Dawes, 2005; Hwang, 1987; Chen et al., 2013).

In China, it is crucial to establish and maintain good social networks, which are usually based on the principle of mutual benefit. How these “relationships” are established and utilized with related sectors or individuals is often the key to business success (Yeung & Tung, 1996). In addition, relationships are essential in providing a sense of security, access to resources, or avoiding distress (Ramasamy et al., 2006). Even though living conditions have improved significantly, Chinese people still use these traditional coping strategies to solve problems.

In Chinese business, “face” is an essential expression of personal dignity, social status, and public image. One’s “face” in social networks is directly related to self-esteem, power, and reputation (Lin, 2010). Having a “face” not only enhances one’s social status but also brings more privileges and an improved quality of life (Chen et al., 2013). While this concept is fundamental in Asia, it is also in many cultures worldwide (Ting-Toomey, 2005). In

business dealings, interpersonal interactions at work, and in resolving disagreements, getting “face” right is important, as the loss of face can endanger long-term business relationships.

2.3.4 Comparison of China and Poland in cultural dimensions

In the context of increasing international and cross-cultural communication, conducting research, and constructing descriptive models of cultural dimensions has become a field of concern for many scholars. The use of proper preparation and received knowledge may avoid harmfulness in practice and achieve the desired outcomes (Dębczyńska, 2018). In order to explore how Chinese culture influences Chinese immigrant entrepreneurs starting their businesses in Poland, we will compare the cultural differences between China and Poland in terms of Hofstede’s cultural dimensions, and Gesteland’s model.

Hofstede’s cultural dimensions

China has a high-power distance index (80), indicating that the culture here accepts hierarchical differences and clear authority relationships between superiors and subordinates (Hofstede, 2001; Hofstede Insights, 2023). This characteristic in China originates from Confucianism, which emphasizes respect for the older and higher-ranking people. In business, Chinese entrepreneurs place great importance on hierarchy and authority, which may conflict with local practices in the international market (World Business Culture, 2017). Poland, as a hierarchical society, has a power distance score of 68 (Hofstede, 2001; Hofstede Insights, 2023). Poles accept the hierarchical order inherent in their society, with subordinates expecting clear instructions from their leaders and preferring bosses with authority. The perception of power distance is stronger in traditional family businesses (Kuźmińska, 2017).

Regarding collectivism versus individualism, China scored 20, highlighting a collectivist culture where individual needs are often subordinated to the collective good (Hofstede, 2001). Conversely, Poland scored 60, indicating a preference for individualism, emphasizing

personal achievement and success^{2,3}. Differences between collectivism and individualism point to the fact that Chinese companies emphasize teamwork and collective interests, while in Poland, individual achievements and individualism are valued more. This difference affects the way teams are managed and motivated. In China, motivations focus more on team rewards and collective honor, while in Poland, individual performance and personal achievement may be the key to motivation (Kuzmińska, 2017).

China and Poland scored similarly on the “motivation towards achievement and success” dimension (66 and 64). It emphasizes work and academic success are generally valued more than leisure and family in both countries. This high score leads to a work-centered lifestyle in both nations, where intense competition exists, managers are decisive, and conflicts are addressed directly (Hofstede Insights, 2023).

The uncertainty avoidance index reflects the difference in attitudes towards uncertainty and change between the two countries (Hofstede, 2001; Hofstede Insights, 2023). China’s lower uncertainty avoidance score (30) implies that Chinese entrepreneurs are likely to be more adaptable to change and have a high degree of flexibility and innovation. In contrast, Poland scored high on this dimension (93), indicating that Poles tend to follow rules and resist uncertainty and change, and Polish companies may prefer stable environments and have a higher reliance on rules and plans (Kuzmińska, 2017). There is also a notably high fear of failure within Polish society (Zbierowski, 2015).

In terms of long-term orientation, China’s high score of 87 reflects its pragmatic cultural traits. Poland, with a lower score (38)⁴, shows that culture may prioritize short-term gains and immediate results. This difference suggests that Chinese culture focuses on long-term

² This study began in 2020 when older data from Hofstede’s cultural dimensions were used. By 2023, these data were updated based on Hofstede Insight and Mediacom’s study of 56 countries later expanded to 102 countries, particularly on the dimensions of Individualism (IDV) and Long-Term Orientation (LTO). These latest updates, while providing new perspectives, have not been widely used in academic research. Therefore, this study uses pre-update data.

³ IDV: China, previously at 20, now increased slightly to 43; Poland, previously at 60, now slightly decreased to 47 (Hofstede Insights, 2023).

⁴ LTO: China, previously at 87, decreased to 77; Poland: Previously at 38, increased to 49 (Hofstede Insights, 2023).

planning and continuous development. In contrast, Polish culture may focus more on short-term results and instant gratification. This may affect the company's strategic planning and decision-making process (Hofstede, 2001; Hofstede, Hofstede & Minkov, 2010).

Finally, both China and Poland scored low on the dimension of restraint and indulgence, implying that both cultures are restrained, do not emphasize pleasurable enjoyment, and are more restrained and self-disciplined. However, in the business world how to balance work pressure and personal life in a business environment, as well as how to manage employee expectations and satisfaction, are issues that need to be considered (Hofstede, 2016; Hofstede, Hofstede & Minkov, 2010).

Gesteland's model

Gesteland's (2004) research categorizes China into relational, formal, monochronic, and reserved cultural types. Building relationships with new business partners in China is crucial, often through shared meals and social activities to enhance understanding and trust. In addition, it is important to respect hierarchy and to show respect and discretion when interacting with those who are older or in higher positions. The concept of "face" in Chinese culture profoundly affects an individual's self-esteem, dignity and social status (Gowers et al., 2018). Avoiding disrespectful or critical attitudes in public is key to maintaining harmonious relationships and successful negotiations. The Chinese prefer face-to-face meetings when negotiating and use indirect and subtle language to avoid direct rejection or offense (Gesteland, 2004).

Polish business culture is similar to China's, emphasizing building proper relationships and focusing on formality (Gesteland, 2004). However, Poles have a more flexible sense of time, which is reflected in their relaxed attitude towards meeting times and deadlines. Communication in the Polish business environment is more direct, and people are more open in their exchanges, unlike in China, which is full of avoidance (Gowers et al., 2018; G emar, 2014).

These cultural differences in the business environment profoundly impact international cooperation and negotiations. Understanding and respecting these differences is key to facilitating successful cross-cultural communication. For example, when working with the Chinese, emphasis should be placed on building interpersonal relationships and avoiding open conflict, which helps to build mutual trust and respect. In Poland, on the other hand, although interpersonal relationships are also valued, communication can be more direct and there is a more flexible attitude towards time (Gesteland, 2005). These understandings help develop business strategies adapted to different cultural contexts and promote effective international cooperation.

2.4 Conclusion

This chapter presents a theoretical perspective on national cultural frameworks, concepts and knowledge about national culture and business behavior in China and Poland. The cultural framework focuses on the theories of Hofstede, Schwartz, Gesteland, and Inglehart. These theories provide a basis for understanding and comparing different cultures, especially Hofstede's model of cultural dimensions, which has important implications for cross-cultural research. However, these Western-centered theories may not be fully applicable to the Chinese context. Chinese Confucian values offer new perspectives for understanding Chinese culture. On Hofstede's six cultural dimensions of individualism, uncertainty avoidance, and long-term orientation, there are certain differences between Chinese and Polish cultures.

Chapter 3. Research questions development

The literature review shows that factors such as entrepreneurs' past experiences, education and risk perceptions affect their use of decision-making logics; risks and uncertainties that arise during the entrepreneurial process also have an impact on decision-making logics. For entrepreneurs who start a business in a foreign country, cultural dimensions also influence their decision-making choices. This chapter explores what has been mentioned in the literature and develops the research questions.

3.1 The role of human capital

According to Schenk et al. (1998), hands-on trial-and-error experience is an important way for experienced entrepreneurs to build knowledge. They point out that this method provides a great learning opportunity for experienced entrepreneurs. However, this contrasts with the theoretical approach to learning for beginners such as MBA students. Beginners typically learn entrepreneurial skills in the classroom or through simulations, but these methods often fail to simulate the complexity and stress of real entrepreneurial decision-making scenarios.

The key to this difference is that novices lack the opportunity to receive feedback and conduct post-hoc analyses in real-world situations, which are essential processes used by seasoned entrepreneurs to develop the ability to filter information automatically. Novices who lack real challenges may not be able to effectively differentiate between different types of information, and sometimes they may place too much weight on all information, including predictive information, especially in complex or uncertain situations, which can lead to poor decision-making (Hutton & Klein, 1999). In comparison, experienced entrepreneurs use a more refined and sophisticated approach when evaluating and processing information. Wasilczuk (2014) found that entrepreneurs who have been in business for a longer period of time value stability and have a lower willingness to expand compared to novice entrepreneurs, and they do not seek external financing sources frequently. According to Baron & Ensley

(2006), they typically employ complex strategies to analyze information and determine its significance. This approach helps them make more informed decisions by focusing on the most relevant and critical data. This ability is developed through deep involvement in real business environments and continually refining their judgment based on actual results.

Harms and Schiel (2012) studied the entrepreneurial process of businesses entering international markets. They found that experienced entrepreneurs use effectual logic more often than the traditional causal decision-making logic when confronted with internationalization. Sarasvathy (2001) described effectual logic as a process similar to evolution rather than a fixed strategic plan. She explained that experienced entrepreneurs use their existing networks, resources, and skills to expand internationally. Based on this idea, Dew et al. (2009) suggested that experience from previous business ventures influences how entrepreneurs' approach new markets, making them more skilled at handling complex situations. Additionally, entrepreneurs who have dealt with various regulations, markets, and cultures tend to prefer a more flexible and adaptable way of making decisions. Wiltbank et al. (2009) showed that in unpredictable environments, entrepreneurs are more likely to depend on effectual logic. This approach helps them stay flexible and responsive to change. Therefore, the following research question is proposed:

RQ1a. How does the related entrepreneurial experience influence the entrepreneurs employing effectual logic compared to novices who tend to use causal logic?

Just as another element mentioned earlier, the level of education, is also worth exploring. When considering the structured training that MBA students receive, their decision-making logic differs from that of experienced entrepreneurs. Research has shown that education plays a significant role in influencing how people think and make decisions, which is important for entrepreneurial success. Baron and Henry (2010) stated that a person's educational background influences his or her thinking and decision-making style. Higher education, especially university education, usually focuses on teaching analytical skills and structured

problem-solving. This education often leads a person to causal decision-making logic, which follows a direct, goal-driven approach (Baron & Markman, 2003). Other studies, such as those by Haynie and Shepherd (2009), have explored how entrepreneurs with different levels of education deal with entrepreneurial failure. They found that highly educated entrepreneurs may be better at learning from failures because of their analytical skills. In contrast, those with less formal education but more practical experience uses intuition and past experience to deal with failure and quickly adjust, which is typical of effectual decision-making logic. Therefore, the second research question is proposed:

RQ1b. How does educational level influence the entrepreneurial decision-making logic preferences?

3.2 The role of risk perception

Risk perception is how a person judges the chance and severity of risks associated with potential business opportunities (Krueger & Dickson, 1994). It is critical to decide whether an entrepreneur will use predictive or non-predictive decision-making styles (Ghosh & Ray, 1992; Sarasvathy, 2008). Essentially, how entrepreneurs view and understand the risks and information in their environment shapes the way they make decisions.

Krueger and Dickson (1994) discussed the foundational concept that risk perception shapes the possibilities of entrepreneurs engaging in new ventures. When risks are perceived as minimal, the psychological barriers to launching a new initiative or making significant investments are reduced. This is similar to Simon et al. 's (2000) findings, which note that entrepreneurs with lower risk perception are not afraid of potential failures, and they are more likely to try business opportunities that are higher risk.

In addition, Forlani and Mullins (2000) argued that entrepreneurs with low-risk perceptions do not always underestimate risks, but rather are more optimistic about their ability to manage or mitigate those risks. This confidence in their ability to manage risk encourages them to pursue opportunities that others may avoid due to perceived higher risk.

Conversely, a high-risk perception makes entrepreneurs more cautious about their decisions. To manage uncertainty, they tend to prefer non-predictive decision-making styles, which involve making smaller, more cautious investments (Sitkin & Weingart, 1995). They also tend to seek additional support and commitment from business partners to increase their sense of security (Read et al., 2009). Instead of thinking only about the results, these entrepreneurs pay attention to managing and reducing risks when they happen. This strategy makes them more flexible and capable of making adjustments, which is very important in business situations where things are uncertain. Therefore, the subsequent research question is presented:

RQ2. How does entrepreneurs' risk perception affect their preference for decision-making logics?

3.3 The role of uncertainty avoidance

Hofstede (2001) defined uncertainty avoidance as the degree to which culture members feel threatened by unknown or uncertain situations. In cultures with low levels of uncertainty avoidance, entrepreneurs tend to be more comfortable relying on relationships in their close networks. This approach allows people to rely on the help of their trusted acquaintances when faced with uncertainty. Especially in business environments where there are not many fixed rules and procedures, being able to trust and rely on the support of acquaintances is crucial for coping with uncertainty and solving problems (Jones & Coviello, 2005).

In contrast, in cultures with high levels of uncertainty avoidance, entrepreneurs prefer pre-existing relationships and deep trust (Hofstede, 2001). They tend to rely on pre-existing interpersonal networks and prefer to follow formal rules and procedures, reflecting their preference for a stable and predictable environment. This implies that they prefer to work in defined and organized environments (Schwartz, 1999).

Based on this, the Effectuation theory, developed by Sarasvathy (2001), introduced the concept of "affordable loss." Unlike traditional approaches that focus on maximizing

expected gains, effectuation emphasizes evaluating the worst-case scenario and considering what losses one can afford (Sarasvathy, 2001; Chandler et al., 2011). This perspective is particularly useful in uncertain environments, where outcomes are difficult to predict, and flexibility is necessary (Wiltbank et al., 2009).

Causal decision-making logic, which often appears in high uncertainty avoidance cultures, involves extensive risk assessment and a structured approach to minimize potential losses (Dew et al., 2009). Causal entrepreneurs typically engage in detailed planning and analysis to predict outcomes and maximize returns, often within known and reliable structures (Shepherd & McMullen, 2007). Therefore, a relevant research question emerges:

RQ3: How does uncertainty avoidance influence entrepreneurs' decisions?

3.4 The role of Collectivism vs. Individualism

In collectivist cultures, the role of social networks and group alliances is emphasized (Hofstede, 2001). It provides rich social and relational resources that motivate entrepreneurs to achieve their business goals through collaboration with known connections rather than relying on pre-set goals and systematic market analysis. Studies by Tiwari et al. (2017) found that entrepreneurs in collectivist societies prefer to work together and focus on building long-term relationships rather than just making short-term deals. This highlights the fact that in these cultures, strong, enduring ties play a major role in business practices. Sarasvathy's effectuation theory (2001, 2008) supported this view by emphasizing that entrepreneurs in collectivist settings utilize their existing social networks to access resources and navigate uncertainties. These networks not only provide material support but also emotional and moral guidance, as demonstrated in collectivist environments (Liñán & Santos, 2007). On the other hand, in individualistic cultures, people prioritize independence and personal achievement. Causal decision-making logic focuses on setting clear goals and taking strategic actions to achieve those goals (Sarasvathy, 2001, 2008), which is consistent individualistic cultures that emphasize the values of personal goal-setting and achievement attainment (Hofstede, 2001).

In this cultural context, entrepreneurs are more likely to adopt a causal decision-making logic, and they optimize resource allocation through detailed market analysis and competitive strategies to maximize expected benefits. However, Shane et al. (1995) indicated that entrepreneurs in individualist cultures are more likely to take risks because they are less held back by group norms and more motivated by their own success. This mindset leads them to pursuit of new business opportunities more aggressively, often bringing about innovation and changes in the market. Then, the following research question is proposed:

RQ4. How do collectivist versus individualist cultural orientations influence entrepreneurs' decision-making logic?

3.5 The role of long-term orientation

Hofstede (1980, 2001) explained that long-term orientation is a cultural dimension that greatly affects how decisions are made in a society. In cultures with a strong long-term orientation, values like perseverance, saving, and planning for the future are important. Entrepreneurs are encouraged to consider future outcomes in a long-term-oriented culture rather than only focusing on immediate benefits or quick returns. In contrast, short-term-oriented individuals may focus more on avoiding risk and uncertainty to protect existing interests and social status (Dew et al., 2009).

Sarasvathy's effectuation theory (2001) fits well with the idea of long-term orientation. This theory says that skilled entrepreneurs use what they already have to find new opportunities, rather than having a fixed goal and then finding ways to achieve it. The theory highlights the importance of being adaptable and flexible, which are key when planning for the long term since future results can often be uncertain.

Welter and Smallbone (2006) found that entrepreneurs in cultures with a strong long-term orientation are more likely to use effectual logic. It means they use their existing networks and look for chances to grow in the future. These entrepreneurs are willing to try new things and make changes, which is a core part of effectual decision-making logic. Chua

et al. (2012) showed that long-term orientation creates a good environment for this kind of entrepreneurial thinking. It encourages entrepreneurs to change their methods and goals as situations and resources change, instead of sticking strictly to their original plans.

Overall, these studies show that long-term thinking in a culture encourages entrepreneurs to be more flexible and forward-thinking, which helps them adapt and succeed in dynamic environments. Therefore, the next research question is laid out.

RQ5. How does long-term orientation impact the use of decision-making logic?

3.6 The shift between two decision-making logics

Sarasvathy (2006) suggested that entrepreneurs may alternate between causal and effectual logic as needed in different situations. Adept entrepreneurs can use both ways flexibly. In the early stages of entrepreneurship, they are more inclined to use effectual reasoning, which emphasizes using available resources to explore and realize possible business opportunities. However, many entrepreneurs struggle to adapt to this shift as they enter later stages of business development when more precise and organized causal logic is required.

Unlike traditional entrepreneurship research focusing on opportunity identification, Bhave (1994) provides a more complete view of the entrepreneurial process. He divides the entrepreneurial process into three stages: the opportunity identification stage, the organization creation stage, and the exchange stage. When a business opportunity is recognized, an initial business concept is formed. This step marks the transition from idea to operation and represents the beginning of the journey from nothing to something (Shane et al., 2000). At this point, all entrepreneurship-related activities are categorized as the “opportunity stage” and are centered on the business concept. Once the business concept has been defined, the entrepreneur uses resources to start developing technology, building organizational structures, and marketing. This stage is the most prominent part of the entrepreneurial process and continues until the product is first made and delivered to customers. After that, customer feedback becomes especially important, both at the strategic and operational levels, and

directly influences the future decisions of the business. Marketing efforts, initial customer feedback, and subsequent adjustments are all integrated into the “exchange stage” (Vogel, 2017). This process helps companies optimize their products and better understand market needs. Thus, additional two research questions are designed to investigate the influencing factors of the shift between the effect and the causal logic of entrepreneurs during different entrepreneurial stages:

RQ6. Do entrepreneurs exhibit a shift between effectual and causal logic in their decision-making processes at different stages of entrepreneurship?

RQ7. How do individual characteristics and cultural factors influence entrepreneurs to shift their decision-making logic at different stages of entrepreneurship?

Chapter 4 Methodology

4.1 Introduction

This chapter describes the methodology employed in this research to explore how cultural and individual factors influence entrepreneurs' decision-making logic. It begins with a detailed justification of the chosen research methods, including both configurational and qualitative approaches. The chapter outlines the research design and specifies the processes involved in two studies. Study One used a configurational approach to analyze data through the fsQCA method, while Study Two used the in-depth interview method to collect qualitative data. The design of each study included sampling methods, data collection, measurement, and data analysis procedures.

4.2 Research method justification

4.2.1 Configurational approach

Configuration theory focuses on the conditions under which things occur, based on the principle of causal asymmetry (Fiss, 2011; Ragin, 2008). For example, the reasons why a particular outcome occurs may differ from why it does not. In the statistical methods usually used, such as examining correlations between variables or doing regression analysis, it is assumed that things are symmetrically related: if A increases, B increases; if A decreases, B decreases. However, configuration theory suggests that reality may be more complex. For example, A means the usefulness of a tool, and B means a willingness to use it. Then, the usefulness of a tool (A) may indeed lead to the user's willingness to use it (B), which suggests that there is a "sufficiency" relationship between them. However, even if users do not find the tool useful, they may be willing to use it for other reasons, suggesting that the usefulness of the tool is sufficient but not necessary for willingness to use it. Sometimes, the usefulness of a tool must be present in conjunction with other conditions to trigger willingness to use. It is also possible that the usefulness of a system will affect willingness to use only if some third

condition is present (or absent) (e.g., the user finds the tool very easy to use or not). These complex combinations of factors show that the same conditions may lead to different outcomes in different contexts (Pappas & Woodside, 2021).

Researchers need methods that can handle this complexity effectively. It becomes important when using the configurational approach in real-world studies. Fuzzy-set Qualitative Comparative Analysis (fsQCA) is designed to meet this need (Ragin, 2008). It helps researchers break down and understand how different conditions work together to create specific outcomes. In this way, fsQCA offers a practical way to apply the ideas of the configurational approach to actual research (Schneider & Wagemann, 2010).

One of the main features of fsQCA is that it uses fuzzy-set theory to identify whether or not a particular condition affects an outcome, and it can determine what factors contribute to an outcome. For example, explaining an outcome may be that a condition is insufficient but becomes necessary when combined with other conditions (Mackie, 1965). Such conditions vary in their presence in different solutions, and there are times when they may have a strong influence on the outcome and other times when they may have little influence, or we may not even care whether they occur (Pappas & Woodside, 2021). In such an analysis, conditions are categorized into core and peripheral conditions. There is a strong link between the core conditions and the outcome, and if these conditions occur, the outcome is likely to occur; the peripheral conditions have much less impact (Fiss, 2011). In this way, researchers are able to identify which conditions are key to the occurrence of an outcome (or which are not) and which of the multiple influences are more important.

In this study, the configurational approach was chosen because it is believed that decision-making involves a variety of factors related to cultural dimensions and individual characteristics that form complex causal relationships. Traditional regression analysis methods tend to explore only the direct links between separate factors and outcomes. They are insufficient to reveal the connections between multiple factors, making it difficult to capture this complexity entirely (Cheng et al., 2021). In contrast, fsQCA is more adept at identifying multiple combinations of conditions that can cause a particular outcome. It

combines qualitative and quantitative assessment methods, bridging the gap between qualitative and quantitative approaches by calculating the affiliation of cases to a set, i.e., converting the data to a range of 0 to 1 (Ragin, 2000; Rihoux & Ragin, 2009). While more common in the natural sciences, this methodological calibration technique has also shown its unique value in the social sciences, providing interpretations that meet the needs of qualitative research as well as the precision requirements of quantitative research (Ragin, 2008; Vis, 2012; Pappas & Woodside, 2021).

The unique advantage of fsQCA is that it can be applied flexibly to samples of different sizes, whether it is a small-scale study with only a dozen cases or a large-scale study containing thousands of cases. More than that, it provides researchers with a wide range of applications, for example, it is useful for both deep exploration of single cases and also to find general patterns across various cases (Greckhamer et al., 2013). Considering the limited sample size of Chinese immigrants in Poland, only about 8,831 residence permits were issued in 2017 and 9,001 in 2018 (Office for Foreigners, 2019; Glinka & Jelonek, 2020), which make the choice to use fuzzy-set qualitative comparative analysis (fsQCA) in this study is appropriate. Additionally, fsQCA is able to handle many types of data, such as Likert scales, website click traffic, and multimodal data, provided that the researcher is able to effectively transform these data into fuzzy sets (Pappas & Woodside, 2021). Therefore, the use of this methodology allows for a more accurate understanding of the complex causal relationships in entrepreneurial decision-making logic, which meets the needs of this study.

4.2.2 Qualitative approach

As Klag and Langley (2012) pointed out, qualitative research methods are well suited for theory creation, providing a complete description of phenomena and stimulating reflection on deeper matters. In the current literature, there are few systematic studies on how immigrant entrepreneurs interact and operate in cross-cultural contexts (Dabić et al., 2020; Dheer, 2018), which highlights the need for a qualitative research approach in this study (Corbin & Strauss,

2008; Creswell et al., 2007). The qualitative research permits a deeper insight into the experiences of immigrant entrepreneurs in varying cultural settings and an understanding of how they adapt and develop. Similar qualitative research is especially rare in international business and intercultural studies. Stahl and Tung (2015) strongly recommended conducting refined qualitative research that emphasizes the importance of understanding the uniqueness of different cultural environments from an emotional perspective and explaining individuals' behavioral patterns in cross-cultural contexts. The effective approach, which relies on a deeper understanding of cultural phenomena from the perspective of individuals (Berry, 2006), fits well with the goal of exploring the cultural dimensions of entrepreneurial decision-making, with the aim to get a full understanding of how culture affects entrepreneurial thoughts and actions. Aliaga-Isla and Rialp (2013) stressed the need for a more detailed understanding and theory-building in research on migrant entrepreneurship, further supporting the qualitative research approach. Qualitative research is well-positioned to offer detailed knowledge, contribute to theory development in immigrant entrepreneurship, and fill identified gaps in the literature.

The decision to use both configurational approach and qualitative approach as research methods was motivated by a need for a more profound insight into how entrepreneurial decision-making logic works. Combining these two methods overcomes the possible limitations of a single research method, and explores the research topic from different perspectives. Through configurational comparative analysis, it can be able to reveal the complex causal relationships between cultural factors, individual characteristics, and decision-making logic. At the same time, qualitative interviews go deeper into understanding how entrepreneurs' decision-making logic changes and adapts, especially in a multicultural setting. Qualitative interviews complement the possible limitations of configurational comparative analysis by providing a more profound perspective than a general overview (Mason, 2010). More importantly, qualitative research traces the changes in entrepreneurs' decision-making logic and the reasons behind them at different stages of their entrepreneurial journeys on a timeline. Synthesizing these two research methods not only strengthens our

understanding of the factors influencing entrepreneurial decision-making but also ensures a comprehensive grasp of the study's objectives, providing rich insights into understanding decision-making logic in the entrepreneurial process.

4.3 Research design

There are two studies designed to dig into how entrepreneurs make their choices in decision-making logics and what influences these choices during their entrepreneurial journeys. Study One focused on exploring how entrepreneurs' individual characteristics and cross-cultural background influence their preference for effectual or causal decision-making logic. This research initiative was driven by variables identified from the literature, which included uncertainty avoidance, collectivism versus individualism, and long-term versus short-term orientation. Although personal characteristics like age and gender are recognized as potential variables in entrepreneurial decision-making logic, they have been extensively explored in previous studies. However, variables such as entrepreneurs' risk perception, experience, and educational background have received less attention in the literature. This study aims to fill this gap by focusing on these less-studied areas, and ensure a reasonable balance between research depth and operational feasibility to provide valuable insights without exceeding practical constraints.

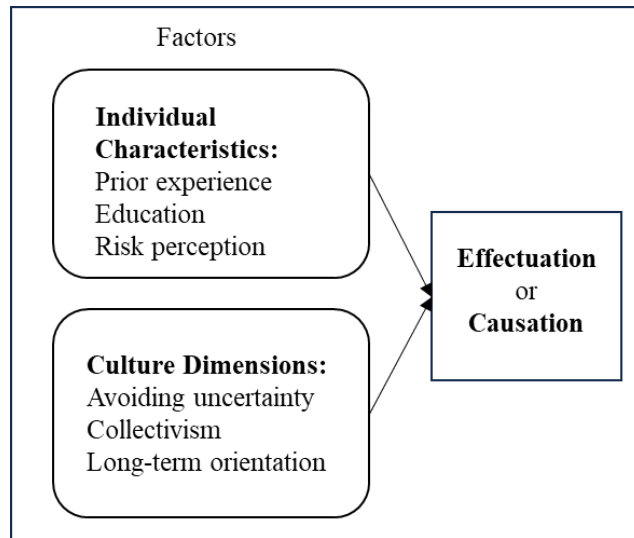
When using the fsQCA approach, it's crucial to keep the number of antecedent variables under control. Guidance from works like Schneider et al. (2010) and Pappas & Woodside (2021) recommended the use of four to six variables for medium-sized samples (typically 20 to 50 cases). The purpose of this recommendation is to find a balance between the complexity of the model and the understandability of its results. In this way, the study provides a comprehensive understanding of the problem while maintaining a controlled and manageable operational process.

In Study Two, a qualitative research approach is used to analyze how entrepreneurs shift between effectual and causal decision-making logics at different stages of the entrepreneurial

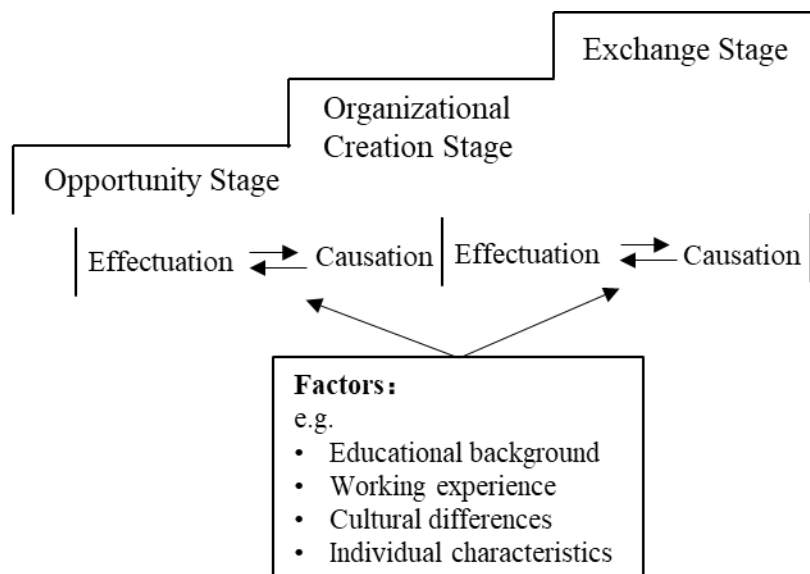
process. It follows the entrepreneurial process theory described by Bhawe (1994). Thus, two research questions are designed to investigate the influencing factors of the shift between the effect and the causal logic of entrepreneurs during different entrepreneurial stages. In sum, the whole structure of the research model is presented in Figure. 4.1

Figure. 4.1 Research Model

Study One:



Study Two:



4.4 Study One

4.4.1. Research questions addressed by the study

Study One was designed to explore the effect of entrepreneurial experience and risk perception of entrepreneurs, as well as the national cultural dimensions on the preferred use of either effectual or causal logic. This study aimed to find the answer to the following research questions:

RQ1a. How does the related entrepreneurial experience influence the entrepreneurs employing effectual logic compared to novices who tend to use causal logic?

RQ1b. How does educational level influence the entrepreneurial decision-making logic preferences?

RQ2. How does entrepreneurs' risk perception affect their preference for decision-making logics?

RQ3: How does uncertainty avoidance influence entrepreneurs' decisions?

RQ4. How do collectivist versus individualist cultural orientations influence entrepreneurs' decision-making logic?

RQ5. How does long-term orientation impact the use of decision-making logic?

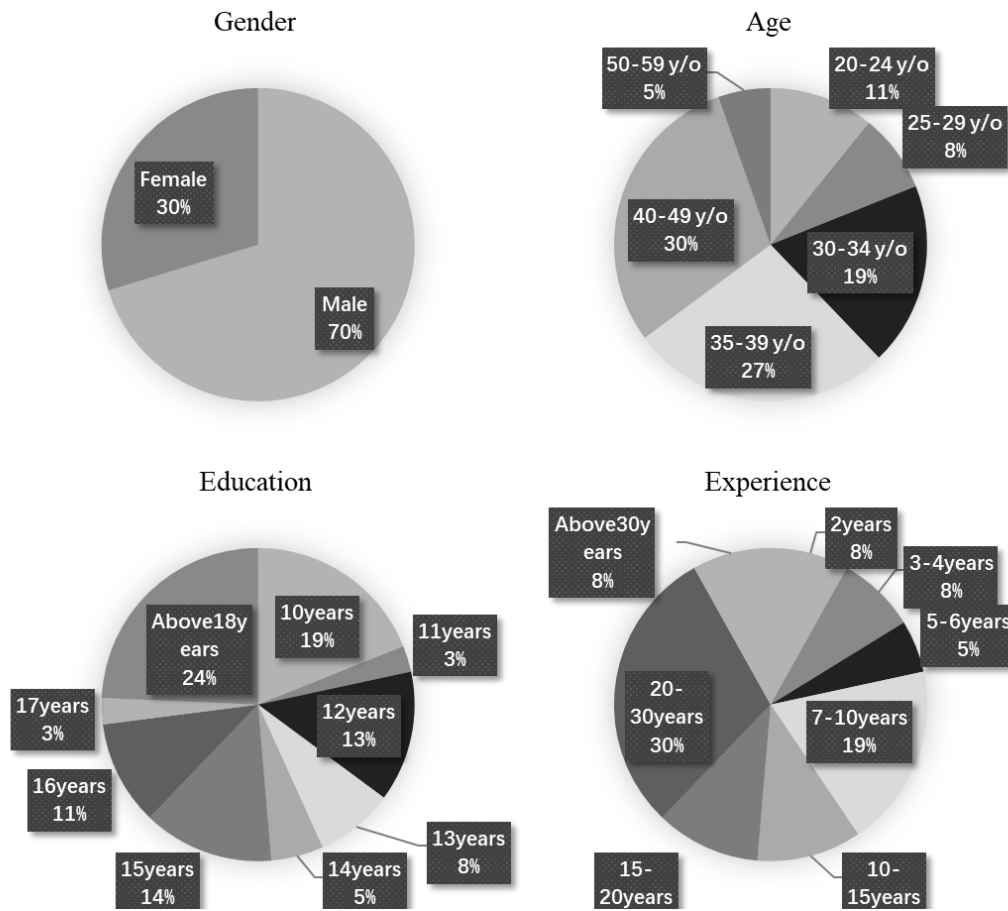
4.4.2 Sampling

This study focuses on Chinese immigrant entrepreneurs living in Poland, which has received relatively little attention in past research. Compared to other European countries, there is less research on immigrant entrepreneurship in Poland. Therefore, there are multiple reasons for choosing Chinese immigrant entrepreneurs as the object of study. First, the number of immigrants from China has increased rapidly with the advancement of the Belt and Road Initiative. This makes Chinese immigrants an important group in exploring the phenomenon of immigrant entrepreneurship. Second, Chinese immigrants tend to start their own businesses

more often than immigrants from other countries, and this trend is heavily shaped by traditional Chinese culture where being a successful entrepreneur is seen as a sign of success and social status (Tan, 2002; Xu, 2017). Chinese immigrant entrepreneurs in Poland may face more challenges due to cultural differences than immigrants from Europe or other Western countries. This situation provides a unique exploration into their entrepreneurial experiences and the cultural factors behind them. Therefore, this study aims to further understand the impact of cultural and personal characteristics on entrepreneurial decision-making by exploring the experiences and challenges of Chinese immigrant entrepreneurs in Poland. Thus, it addresses a significant gap in research on this specific group of entrepreneurs.

The sample size for this study is 37 individuals. Participants were screened under several conditions that required them to be: 1) Chinese immigrant entrepreneurs, 2) born in China, 3) migrated to Poland, and 4) successfully established and maintained a business for a minimum of one year. The sample consisted mainly of males (70%; 26 persons) while there were only 11 females (30%). The age groups varied, with the largest age groups being 35-49 years old (57%), and smaller proportions of young people aged 20-24 years old (11%) and 25-29 years old (8%). The smallest age group is 50-59 years old with only 5%. In terms of education, 24% of people have studied for more than 18 years, which is the most common. The lowest levels of education are 11 and 17 years, are each representing only 3% of the sample. Most of the respondents have a lot of work experience, with 30% having worked for 20-30 years. The groups with the least experience, those who have worked for 2 years, 5-6 years, and more than 30 years, each make up 8%. Descriptive statistics for the measures are presented in the set of charts, Figure. 4.2.

Figure. 4.2. Descriptive statistics of sample



4.4.3 Data collection

In this study, the author adopted the “snowball” sampling method, which is a way to find more potential respondents through known contacts. Suitable interviewees were focused on within Poland’s Chinese entrepreneurial circles, various business organizations, and personal social networks. Given China’s traditional Confucian cultural background, participants may feel cautious when first interacting with researchers and have reservations about sharing information. Therefore, contacting respondents directly through individuals’ networks became an effective and necessary way to ensure the accuracy and authenticity of information (Tsang, 1998; Chuang et al., 2015).

To facilitate data collection, WeChat, a popular social networking platform in China, was

utilized to distribute the survey questionnaire. WeChat is not only widely used, but it is also powerful enough to send questionnaire links to targeted respondents quickly and efficiently. Participants could click on the link to fill out the questionnaire directly after receiving it and were encouraged to share it with friends whom they felt met the criteria of the study once completed, thus expanding the sample size of the study. Such an approach ensured efficient data collection and increased participation.

4.4.4 Measurements

The cultural dimension constructs were assessed through the utilization of the most recent Values Survey Module 2013 (VSM 2013), derived from the foundational work of Hofstede and Minkov (2010). The applied 18 items from VSM 2013, 6 questions designed to gather demographic information and 4 questions for each dimension under consideration. Among them, 12 questions were formulated based on a 5-point Likert-type scale for responses.

In keeping with the study's research questions, specific question items related to uncertainty avoidance, individualism, and long-term orientation from the VSM were integrated into the questionnaire. For individualism (IDV), the sample questions include: "Have sufficient time for your personal or home life?", and "Have security of employment?" For long-term orientation (LTO), the questions are "Thrift (not spending more than needed)?", and "Persistent efforts are the surest way to results?" For the dimension of uncertainty avoidance (UAI), the questions include: "How often do you feel nervous or tense?", and "A company's or organization's rules should not be broken -not even when the employee thinks breaking the rule would be in the organization's best interest." The full version of the questionnaire is provided in Appendix A, and demographic questions are provided in Appendix B. Although the VSM 2013 was originally released in English, this study chose the Chinese version, officially translated and published by other scholars previously, to suit the Chinese respondents better. It was done to ensure that the questionnaire's content would be more relevant to the respondents' cultural background and language habits, thus improving

the accuracy and response rate of the survey.

Risk perception was measured using a Likert scale devised by Podoynitsyna, Van der Bij, and Song (2012). The question was “How would you characterize the challenges (e.g., threats from new competitors, volatile markets and technologies, and rapidly changing customer preferences) that you encounter in your new venture?” Sample items were “as opportunities” (reversed) and “as threats.” Items were rated on a five-point Likert scale.

The causation was measured following the procedure described by Chandler et al. (2011). Causation examines toward long-term opportunity analysis (e.g. “we analyzed long run opportunities and selected what we thought would provide the best return”), strategic resource utilization (e.g. “we developed a strategy to best take advantage of resources and capabilities”), and systematic planning in business strategies (e.g. “We designed and planned business strategies”), control processes, market selection (e.g. “we researched and selected target market and did meaningful competitive analysis”), and the clarity and consistency of their vision for the future, including production and marketing plans.

Effectuation, also following the approach of Chandler et al. (2011) is defined as a composite construct containing several sub-dimensions: Experimentation (EXP), Affordable Loss (AL), Flexibility (FL), Pre-commitments (PC). As demonstrated in the studies of Chandler et al. (2011) and Frese (2014), each subscale contains several measurement items. These subscales were chosen for two reasons: first, Chandler et al.’s study was the first attempt to systematically summarize Sarasvathy’s (2001) original conceptualization of effectuation, including the basic dimensions and sub-dimensions, which is instructive for refinement in subsequent research, and second, despite some argument, the core conceptualization of these subscales is generally accepted in the academic community and has been cited frequently in the current entrepreneurship research literature. Several items were included in each subscale, as detailed by Chandler et al. (2011) and Frese (2014).

- Experimentation (EXP), to measure how much entrepreneurs engage in trying out different products or business models, and if their final service or product differs

significantly from their initial conception (e.g. “We experimented with different products and/ or business model.”, “The product/ service that we now provide is essentially the same as originally conceptualized.”).

- Affordable Loss (AL), to examine the entrepreneurs’ cautiousness in resource allocation, ensuring that they do not exceed what they can afford to lose, thereby avoiding critical financial jeopardy for the company (e.g. “We were careful not to commit more resources than we could afford to lose.”, “We were careful not to risk more money than we were willing to lose with our initial idea.”).
- Flexibility (FL) is assessed by how entrepreneurs allow their business to evolve with emerging opportunities and adapt to the resources available, avoiding rigid actions that could limit their flexibility and adaptability (e.g. “We were flexible and took advantage of opportunities as they arose.”).
- Pre-commitments (PC) are evaluated by the agreements with stakeholders that entrepreneurs use to mitigate uncertainty, their frequent reliance on pre-commitments from customers and suppliers, and the role of network contacts in providing low-cost resources and expanding business capabilities through external alliances (e.g. “We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty.”).

4.4.5 Data analysis - fsQCA method

Qualitative comparative analysis (QCA) is a unique approach to data analysis that combines the strengths of in-depth qualitative research with the ability of quantitative research to deal extensively with data (Pappas & Woodside, 2021). One of the core features of QCA is its asymmetrical nature. This means it does not only look at the effect of factors increasing or decreasing on the outcome, as traditional quantitative research does, but instead considers how the factors combine to create the outcome. It is very different from traditional analysis methods based only on numbers and statistical significance. QCA helps in finding the “recipe”

of different factors that combine to predict an outcome in a given situation. These recipes are called configurations, representing unique combinations of factors that influence outcomes. The uniqueness of QCA is illustrated by the work of Ragin (1987, 2008), whose research emphasized the importance of the configurational approach and how it can be used to capture complex real-world problems.

Data calibration

Each condition (the influencing factors) and result (effectual or causal logic) are treated as separate configurations in the fsQCA. In these configurations, every case is assigned an affiliation score. Calibration is the process of distributing affiliation scores to sets of cases (Schneider and Wagemann, 2012). According to Ragin's (2008) research, calibration is categorized as direct and indirect. Direct calibration requires the researcher to explicitly set three thresholds -fully affiliated, partially affiliated, and not affiliated- to determine whether the cases belong to a particular set. Comparatively, indirect calibration criteria are more flexible and require fine-tuning of the data based on qualitative evaluation. Choosing between these two methods depends largely on how the researcher interprets the data and its theoretical context. According to Liu et al. (2015), if a five-point Likert scale is used to measure a variable, a score of 1, 3, and 5 is usually mapped to 0, 0.5, and 1, respectively; based on a linear function, the values of 2 and 4 would fall between 0 and 1. This study assessed each scale on a 5-point Likert scale, with higher scores indicating higher levels of agreement. In order to translate these qualitative responses into quantifiable data, the scores for "Strongly Disagree" and "Strongly Agree" were set at 0.05 and 0.95, respectively. For the options in between, depending on their proximity to these extremes, the values were also set between 0.05 and 0.95. This method adjusts the spacing between the options in the Likert scale so that they are not equally spaced, which helps to more accurately reflect differences in responses.

In this research, fsQCA was employed to examine how causal conditions such as individualism (IDV), long-term orientation (LTO), uncertainty avoidance (UAI),

entrepreneurial experience (EXP), education level (EDU) and risk perception (RISK) influence the decision-making logic of effectuation (EFF) and causation (CAU). The software used for the analysis was fsQCA 3.0. According to Ragin (2008), the raw data should be transformed into fuzzy set membership values by relevant theoretical knowledge for all conditions and outcomes. He also suggested a direct calibrating approach for this reason. The method defines three qualitative anchor points: a full membership threshold, a crossover point, and a full non-membership threshold. These anchors were created with 95%, 50%, and 5%. The calculation was done in Excel using the PERCENTILE.INC function. Because there is a possibility that the anchor point value after the calculation is the same as the original data, which will cause the subsequent calculation to present errors, in order to avoid this situation, the generated anchor point value must be manually fine-tuned. Import the original data and the adjusted anchor point values into fsQCA and run COMPUTE to get the calibrated data.

Necessity and sufficiency analysis

When conducting research using the fsQCA methodology, it is critical to understand which conditions are necessary to produce a particular outcome. It can be said that a condition is necessary if every time the expected outcome occurs, a condition also always occurs (Ragin, 2008). To measure whether a condition is truly necessary, an indicator called consistency is utilized. If this consistency indicator is 90% or higher, the condition is necessary for the outcome (Ragin, 2008; Schneider & Wagemann, 2012). Unlike the analysis of necessary conditions, the investigation of configurations focuses more on whether a configuration of different conditions is sufficient to lead to an outcome. From a set-theoretic perspective, this is about exploring whether a collection of multiple conditions constitutes a subset of the outcomes (Zhang et al., 2019). Sufficiency of configurations is also measured through consistency, but its minimum acceptable level of consistency and the way it is calculated differs from the analysis of necessary conditions. Generally, sufficiency's consistency level should be no less than 75% (Schneider and Wagemann, 2012).

In this study, after calibrating all variables, the dataset includes both original and calibrated versions of each variable. The following steps involve running the fuzzy-set algorithm and generating the truth table, which identifies all possible variable configurations. Truth tables must be filtered by frequency and consistency (Ragin, 2008). The recommended minimum value for the consistency threshold is 0.75 (Rihoux & Ragin, 2009). After sorting the consistency in the data, no natural breakpoints were found, so the default value of 0.8 was used. Another column in the truth table is the PRI consistency, which stands for “Proportionate Reduction of Inconsistency”, and the score should be close to the original consistency score and not be lower than 0.5 (Greckhamer et al., 2018). Therefore, the value of PRI consistency used in this study is 0.75.

4.5 Study Two

4.5.1. Research questions addressed by the study

According to Sarasvathy (2008), entrepreneurs’ decision-making should be flexible, and they should be able to utilize both causal and effectual logic depending on the prevailing environmental conditions. With this background, Study Two focused on an in-depth study of the key factors influencing entrepreneurs’ choice of effectual decision-making logic or causal logic at different stages of their entrepreneurial process. Specifically, the main objective is to answer two research questions:

RQ6. Do entrepreneurs exhibit a shift between effectual and causal logic in their decision-making processes at different stages of entrepreneurship?

RQ7. How do individual characteristics and cultural factors influence entrepreneurs to shift their decision-making logic at different stages of entrepreneurship?

4.5.2. In-depth interviews’ design

Interviewing is a flexible and widely adopted research instrument commonly used to conduct

social science research in various fields. It enables the systematic collection of participants' perspectives and experiences (Mason, 2010; Gubrium & Holstein, 2002). In-depth interviews, in particular, are valued for their ability to tap into deep information and capture the richness of data in a problematic way that matches surveys in general (Mason, 2010). Among the different interviewing methods, personal face-to-face communication is simple and direct, which can get immediate answers and dig deeper during the investigation process (Fontana & Frey, 2005). In-depth interviews focus on capturing the views and experiences of the interviewee in their own words, underscoring the unique value of each participant's perspective (Creswell et al., 2007; Marshall & Rossman, 2006). This approach is from an empiricist perspective, consistent with the principles of critical realism in research, and emphasizes understanding the complexity of real-world experiences (Brönnimann, 2021).

Interviews can be categorized as structured, semi-structured, or unstructured based on the rigor of the questions guiding them (Gubrium & Holstein, 2002). In this study, semi-structured interviews were chosen because they allow interviewees to freely express their thoughts. At the same time, the researcher ensures that the information gathered is relevant to the research by keeping the topic focused. A series of questions were prepared in advance to serve as an interview guide, which ensured consistency of discussion with all participants and comparability of data (Bernard & Ryan, 2010). In this way, interviewees had the opportunity to share their experiences, thoughts, and feelings in detail, and the researcher was able to dig deeper into the meaning behind the interviewees' views (Murray & Sixsmith, 1998).

In the literature review, the different stages entrepreneurs go through during the whole entrepreneurial process were discussed in depth, potentially generating different decision logics at different stages. In order to validate the research proposal, appropriate investigations were conducted with the interviewees. The questions such as "What drove you to choose entrepreneurship?" and "Why did you select your current industry?" were posed to unearth their foundational motivations. Further, it was explored how they identified and capitalized on opportunities. The subsequent phase involved requesting entrepreneurs to assess their current business stage, confront any encountered challenges, and reflect on their

entrepreneurial aspirations. Questions such as “At what stage is your company currently?” “Do you establish objectives for each stage of development?” “What challenges have you faced in your entrepreneurial journey?” and “How have your thought processes and perspectives evolved?” In the previous chapters, we proposed that various factors can influence entrepreneurs’ decision-making logic, such as educational and professional background, interpersonal networks, and personal characteristics. In order to explore these aspects in depth, we asked our respondents questions such as “Did you have any relevant work or entrepreneurial experience before starting your own business?” “What was your education level before you launched your entrepreneurial journey?” “Did you have extensive business knowledge or specific expertise?” “Have you been actively learning about the subject since starting your business?” “Do you have relatives or friends who are also entrepreneurs? Did they provide support for your business start-up?” “During your entrepreneurship in Poland, did you experience culture shock in your interactions or cooperation with colleagues, partners, or customers? For example, differences in behavior, values, work attitudes or cooperation patterns.” “Do you believe that the local culture in Poland plays a positive role in the entrepreneurial or business environment?” The interview questions and guidance for interviewees are provided in Appendix C and Appendix D.

4.5.3 Sampling and data collection

A total of twelve interviewees were invited to participate in the study. Some interviewees were selected from among participants of the Study One where in the questionnaire the participants were asked in advance if they were interested in more in-depth interviews; those who were willing to participate were selected accordingly. In order to ensure the coherence of the study, several people were proactively invited to complete data collection for both phases of the study. In addition, some interviewees were invited to participate through personal contacts to enrich the research sample. The basic information of interviewees is shown in Table 4.1.

Table 4.1 The basic information about interviewees

NO.	Industry	Code	Gender	Age	Education	Experience (Year)
Interview 01	International logistics	IL	F	30-35	BA	0
Interview 02	Bubble tea shop	BT	M	20-25	MA	0
Interview 03	Clothing wholesale	CW01	M	25-30	BA	3-5
Interview 04	International trading	IT	M	40-45	BA	5-8
Interview 05	Retail store	RS01	M	25-30	Secondary	0
Interview 06	Clothing wholesale	CW02	M	35-40	Secondary	5-8
Interview 07	Nail salon	NS	F	30-35	Secondary	0
Interview 08	Architectural construction	AC	M	40-45	BA	5-8
Interview 09	Language school	LS	M	30-35	MA+MBA	3-5
Interview 10	Retail store	RS02	M	25-30	BA	1-3
Interview 11	Electric vehicle	EV	M	40-45	BA	5-8
Interview 12	Chinese restaurant	CR	F	40-45	BA	0

In order to accommodate their language ability and preferences, both Chinese and English versions of the interview guide were prepared, and the interviewees could choose to use the language according to their preferences. All of the respondents chose to conduct the interviews in Chinese. This practice ensured the smooth conduct of the interviews, the accurate communication of the questions, and the validity of the interview guide.

4.5.4 Pilot study

Pilot interviews were conducted with two Chinese immigrant entrepreneurs to test the validity of the interview questions and responses (Stebbins, 2001). This step helped to refine the interview process by checking for unclear questions and pointing out possible difficulties in understanding the questions. The two entrepreneurs were selected to consider their different stages in the entrepreneurial process, which allowed for a clearer understanding of decision-making patterns at each stage.

During the pilot interviews, great attention was paid to the participants' reactions and feedback. Participants were encouraged to give honest feedback on the questions' relevance

and the presentation's clarity. This step helped identify and correct areas of confusion in the interview guide, and improved the specific questions might trigger different interpretations. Participant feedback was important for fine-tuning the questions' wording to ensure the content's sensitivity and appropriateness. Based on this feedback, some questions were also reordered to make the conversations smoother and more natural. As a result of these efforts, the interview protocol was improved to better capture the unique experiences and perspectives of Chinese immigrant entrepreneurs, thus providing a more valid and credible basis for the main study.

4.5.5. Interview procedures

At the beginning of the interviews, the researcher established a friendly connection with the interviewees through a relaxed conversation, introduced the research background and project objectives, and explained the strict confidentiality of the data collection to the interviewees to ensure the confidentiality of the interviewees' identities. In addition, the interviews were conducted with the explicit consent of the interviewees, and the interviews were audio-recorded to ensure the accuracy and reliability of the data. The consent form is provided in Appendix E. Some interviewees were interested in the researcher's academic background, and the researcher patiently answered their questions, which led to a more relaxed conversation afterward. This initial exchange created an open and relaxed environment for the following in-depth discussions. Interviews lasted approximately one hour, ranging from 40 minutes to two hours, depending on the richness of the participant's narrative. Audio recordings were made with the participants' consent, and the recording software transcribed the interviews directly into text, which simplified subsequent data analysis. After the interviews were completed, the researcher organized the interview notes, corrected voice transcription errors, and compiled background information on the interviewees.

4.5.5 Data analysis

Thematic analysis

Thematic analysis is a simple and robust method for researchers conducting qualitative analysis. It centers on identifying, analyzing, and interpreting patterns, or themes, in a data set by systematically coding the data (Guest et al., 2012). These themes represent the core of the analysis and are critical to the findings (Braun & Clarke, 2012). Thematic analysis is a method of extracting interesting and meaningful information from data. As defined by Braun and Clarke (2012), themes reflect what is important in the data relevant to the research question and manifest themselves as specific patterns or meanings in the data set. Correctly identifying these themes relies on the researcher's judgment (Braun & Clarke, 2012; Harding, 2013). Themes can be identified in two ways: inductively, where themes are extracted directly from the data without the constraints of preconceived notions, and deductively, where themes are identified based on theories or research interests that are usually directly related to the research question.

The thematic analysis process generally includes in-depth reading, coding, comparison, and construction of themes. This process was conducted sparingly but required iteration while including a great deal of reflection and data review to ensure depth and breadth of analysis. The analytic process was designed to link each interviewee's situation to the overall case context, demonstrating the inseparable link between the part and the whole in phenomenology (Sokolowski, 2000). In this process, coding is crucial in understanding and interpreting the themes and the basis for constructing theories and drawing final conclusions.

The whole process of thematic analysis was a constant back-and-forth, reflective, and deepening process based on the model proposed by Braun and Clarke (2008), which was adapted accordingly to the needs of the study. The first step was to familiarize the content by transcribing and repeatedly reading the data and recording initial observations. Then, it was necessary to code essential information from the data and categorize relevant information under each initial code. These codes were further consolidated into possible themes, and

relevant data were collected to support each theme. Subsequently, the themes were reviewed to ensure that they represent both the data segments and the data set as a whole, during which time a thematic map of the analysis may be formed. Defining and naming each theme was a further analytic step to clarify the specific connotations of each theme and the story being told by the analysis. Further exploration into the deeper meaning behind the themes involved selecting typical data segments for theorizing and interpretation. At this final stage, the results of our analysis were related to the research questions and existing literature to clarify theoretical contributions.

Coding and Theorizing

Coding is extracting and identifying words or phrases with specific meanings from text data. Although the code does not directly contain meaning, it implies the meaning of those words or phrases through context (Miles & Huberman, 1994). The core purpose of coding is to discover critical elements in the data and to construct a story frame for the study based on the similarities and patterns inherent in the data (Saldaña, 2021). Coding is employed in the first step of data analysis when the researcher first skims through the interview text and labels compelling information. However, the coding process is not limited to the initial stage; it is used throughout all stages of analysis. The researcher would categorize the codes based on their connections, leading to more abstract thematic groupings (Guest et al., 2012).

Three coding techniques were employed in this study, as described by Miles and Huberman (1994):

1. Open coding: this is the initial phase of analysis where the data is first approached. It involves breaking down the raw data into discrete parts, examining and categorizing it. During open coding, researchers create preliminary codes by labeling and categorizing the data based on their features and meanings. For example, the codes are from specific sentences that mention “existing partnership in”, “just felt right”, and “seek new directions”. This stage is exploratory and allows the researcher to remain open to all possible theoretical directions,

which facilitates the development of new theories or concepts as suggested by Punch (2008). The outcome codes such as “business opportunities provided by friends”, “personal feelings and experiences”, and “Change to other/related industries” serve as building blocks for more focused analysis in the subsequent stages.

2. Axial Coding: following open coding, axial coding serves to reassemble the data in new ways after open coding has fractured it. It involves identifying a core category and exploring its attributes and dimensions. In axial coding, researchers focus on one core category at a time and examine the relationships between a category and its subcategories, as described by Miles and Huberman (1994). It is necessary to look at the relationships between the initial codes to form broader categories. For example, “business opportunities provided by friends” and “financial support provided by family” might be linked under a broader category of “resource-based decisions.”

3. Selective coding: this final stage of coding is the refinement and integration of all the categories and codes to form a consistent and comprehensive theoretical framework. It involves identifying the core categories or themes that are central to the research question and relating all other categories around these core themes. According to Guest et al. (2012), this stage marks the completion of the coding process and establishes a deep theoretical foundation for the analysis. This step integrates previously identified categories into distinct entrepreneurial stages. The coding book is provided in Appendix H.

By analyzing the content of the interviews and having in mind the research questions, two main themes and eight categories were derived from the 12 interview materials (as illustrated in Table 4.2).

Table 4.2 Coding map of different entrepreneurial stages

Code	Category	Sub-theme	Theme
Personal feelings and experiences	Gut feeling	Opportunity stage	Initial decision to start a business
Financial support provided by family	Resource-based decisions		
Supply/business opportunities provided by friends			
Sudden events	Improvisation		
Change to other industries	Career adaptability		
Change to related industries			
Change from employee to employer			
Adjusting development strategies for survival	Structured planning	Organization creation &	Mature stage decision-making
Predictability challenges	Forecasting	The exchange stage	
Cost and profit considerations	Data-driven strategies	The exchange stage	
Shorten the capital recovery period			
Improve capital utilization			
Pursuit of good quality of life	Goal-oriented processes		
Strengthen social networks			
Corporate social responsibility			

In Bhave's model (1994), the entrepreneurial process is structured into three stages: opportunity identification, organization creation, and the exchange stage. However, when applying this theoretical framework to real-life interview texts, it was found that these stages were not as clear-cut as explained in the model. In practice, transitions between these stages are fluid and overlapping. In this case, based on the reality in the interview data, it makes more sense to divide the entrepreneurial process into two parts: the initial decision and the mature stage.

- Initial decision to start a business: In the early stages of entrepreneurial activity, decisions are driven primarily by intuition and the entrepreneur's gut feeling about market opportunities. Entrepreneurs also need to think about the resources at their disposal, making decisions based on available capital, skills and networks. They improvise, make innovative use of limited resources to deal with uncertainty, and show career adaptability, adjusting their career goals to match the entrepreneurial opportunity.
 - Mature decision-making stage: Entrepreneurial activity in this stage may favor more

structured planning strategies to maintain and expand the business. Entrepreneurs usually adjust their strategies by predicting future situations. At this stage they tend to adopt a data-driven strategy, making decisions based on better data analysis to optimize results. Entrepreneurs use a goal-oriented process to set specific, measurable, and time-bound objectives to achieve long-term business goals.

The factors influencing decision-making logic are comprised of three themes and six categories, as detailed in Table 4.3:

Table. 4.3 Coding map of influence factors during entrepreneurial process

Code	Category	Theme
Formal education	Education and learning intention	Human capital
Learning initiative and continuous development		
Relevance of previous work experience	Experience	
Learning from past entrepreneurial ventures		
Networking for opportunity recognition	Networking	Social capital
Networking for resource acquisition		
Networking for problem-solving		
Cultural shock	Cross-cultural interaction	Cultural adaptation
Communication with local colleagues		
Resilience and persistence	Persistent and aspiration	Individual characteristics
Optimism and ambition		

- **Human capital:** The interviews revealed that the relevance of entrepreneurs' formal education and previous work experience shaped their approach to decision-making. Learning from past entrepreneurial ventures and the continuous development of a mindset contribute to a more complex decision-making framework.
- **Social capital:** Networks are identified as essential for opportunity recognition and resource acquisition. Networking is not only critical for information collection but also provide support to entrepreneurs to help them cope with uncertainty in business.
- **Cultural factors:** Cultural shock and its impact are highlighted as important factors in the need for entrepreneurs to adapt their business models to different cultures. This section will discuss the strategies for cross-cultural management and the importance of adapting to various business environments.
- **Characteristics:** The majority of the interviewed Chinese entrepreneurs in Poland, having

withstood the trials of recent global crises, their resilience, adaptability, and innovative approaches in facing these adversities highlight the crucial role of strategic planning and flexibility in ensuring business continuity and growth during times of global crises.

4.6 Conclusion

This study examines the key factors that drive entrepreneurial decision-making through a combination of configurational methods and qualitative analysis. First, the impact of these characteristics was quantitatively assessed through a questionnaire survey, followed by an in-depth data analysis using the fsQCA methodology to identify complex causal relationships and the factors that have the greatest impact on entrepreneurial decision-making. The second study supplemented the qualitative depth with in-depth interviews to gain insights into the possible shift of entrepreneurs' decision-making logic in different entrepreneurial processes. The pilot study and rigorous interview process ensured the reliability and depth of qualitative data collection.

Chapter 5. Results and Discussion of Study One

5.1 Introduction

Study One was conducted to determine the influence of entrepreneurs' risk perception, entrepreneurial experience, and national cultural dimensions on their preference for using effectual or causal decision-making logic. The study reviewed the existing literature and identified research gaps in immigrant entrepreneurship, and the role that individual and cultural factors play in the choice of decision-making logic. In the following sections, the analytical steps of the investigation are first briefly reviewed to set the stage for the subsequent description of the findings. By examining the necessity and sufficiency analyses in depth, differences in the combinations of sufficient conditions in the configurations of the two decision-making logics were revealed. Additionally, their applicability in different situations was explored through a visualization of the results, which reveals the core conditions or combinations in which each logic prevails.

5.2 Key findings

5.2.1 Analysis of necessity

Ragin (2008) described that a necessary condition is one that must be present for an outcome to occur. After completing the test of necessary conditions in the fsQCA software, if the score of a specific condition exceeds 0.9, this condition is determined to be a necessary condition (Fiss, 2011; Schneider & Wagemann, 2012). According to the results presented in Table 5.1, none of these conditions achieved this threshold to be necessary conditions that are essential for the occurrence of either causation or effectuation outcomes.

Table 5.1 Analysis of Necessary Conditions

Conditions	Outcome			
	Effectuation		Causation	
	Consistency	Coverage	Consistency	Coverage
IDV	0.683218	0.774768	0.667808	0.833927
~IDV	0.684475	0.545318	0.660388	0.579369
LTO	0.805783	0.711037	0.755137	0.733777
~LTO	0.571967	0.569818	0.576484	0.632436
UAI	0.663734	0.701661	0.64726	0.753488
~UAI	0.623507	0.523483	0.627283	0.579947
RISK	0.698303	0.701389	0.659247	0.729167
~RISK	0.690132	0.604626	0.683219	0.659141
EDU	0.628536	0.586855	0.640982	0.659038
~EDU	0.594595	0.557783	0.579909	0.599057
EXP	0.708988	0.585366	0.686644	0.624286
~EXP	0.590195	0.637475	0.553653	0.65852

5.2.2 Analysis of sufficiency

After analyzing necessity, a sufficiency analysis was performed with the help of a truth table to identify the single condition or combinations of conditions that can motivate an effectual or causal outcome. FsQCA always offers three solutions: complex, parsimonious, and intermediate. According to Rihoux and Ragin (2009), although the core and peripheral conditions are included in the intermediate solution, it is still necessary to find a way to distinguish between these two kinds of conditions for a clearer understanding and presentation of the results. This simple way is to analyze parsimonious and intermediate solutions in combination (Fiss, 2011). The full version of truth table analysis output is provided in Appendix F and Appendix G. This involves marking the parsimonious solutions that appear in the intermediate solution and identifying them as core conditions. Through this way, all the core and peripheral conditions can be clearly recognized to interpret the results effectively. Typically, situations may arise where multiple core conditions appear simultaneously in a

given situation (Rihoux & Ragin, 2009). In order to better present the results of the study, the solutions output by fsQCA can be converted into a more readable table format. As a general rule, presence conditions are indicated by black circles ‘●’, absence conditions by underlined circles (⊗); large ones represent the “core,” small ones represent the “periphery,” and blank spaces indicate that the condition is not important for that particular configuration (Fiss, 2011).

Table 5.2 presents the results of the sufficiency analysis, which shows the relationship between configurations composed of different conditions and the occurrence of the desired outcome: causation or effectuation. The table presents five configurations for effectuation and five configurations for causation, each one with a different combination of conditions. The consistency values for each configuration are very high, mostly above 0.95, indicating the results’ accuracy and reliability. Raw coverage values show the proportion of cases each configuration represents; a higher coverage score reflects a better empirical explanation of the outcome (Ragin, 2008). Overall solution coverage is generally high: effectuation is 0.567, and causation is 0.600. In addition, overall solution consistency was high for both outcomes, 0.929 for effectuation and 0.941 for causation, implying their sufficiency for the presence of the outcome.

Table 5.2 Analysis of sufficiency

Conditions	Outcome									
	Effectuation (EFF)					Causation (CAU)				
Configuration	EFF1a	EFF1b	EFF2a	EFF2b	EFF2c	CAU1a	CAU1b	CAU1c	CAU2	CAU3
IDV	●	⊗	●	●	●	●	●	●	⊗	
LTO	⊗	●	●	●	●	⊗	⊗	●	⊗	●
UAI	●	●	●	●	⊗		●	⊗	●	●
RISK	⊗	⊗	●	⊗	●	⊗	⊗	●	●	⊗
EDU (higher)	●	●	⊗	⊗	●	●	●	●	⊗	⊗
EXP	⊗	⊗	⊗	●	●	⊗		●	⊗	●
Consistency	0.97	0.97	0.98	0.95	0.88	0.94	0.96	0.92	0.99	0.96
Raw coverage	0.19	0.16	0.20	0.26	0.25	0.22	0.21	0.24	0.16	0.28
Unique coverage	0.07	0.04	0.03	0.10	0.12	0.04	0.02	0.11	0.02	0.12
Overall solution consistency	0.93					0.94				
Overall solution coverage	0.57					0.60				

The results of effectuation:

Configuration EFF1a implies the presence of uncertainty avoidance (UAI) and the absence of risk perception (\sim RISK) and entrepreneurial experience (\sim EXP) as the core conditions. They are sufficient conditions to choose effectual decision-making logic. While the peripheral conditions, individualism (IDV) and higher education (EDU), are present, long-term orientation (LTO) is absent, indicating these factors may variably influence effectuation but are not emphasized. Compared with EFF1a's core conditions, EFF1b retains the essential combination of UAI presence and the absence of RISK and EXP. EFF1b shows the absence of IDV and the presence of LTO and EDU as the peripheral conditions, suggesting a differentiation from EFF1a in how these conditions might influence effectuation.

In the configuration of EFF2a, IDV and LTO are core conditions. At the same time, it was also found that in the remaining two configurations (EFF2b and EFF2c) that cause this effectuation to appear, they share the same core conditions. It is worth noting that EFF2a is the most consistent among all configurations of EFF outcome. It takes the presence of UAI and RISK and the absence of EDU and EXP as peripheral conditions. Configuration EFF2b is consistent with the core conditions of EFF2a, but differs in peripheral conditions, especially with regard to RISK and EXP. This means that when the core conditions are the same, changes in the presence or absence of peripheral conditions can cause the same results to occur. In the EFF2c configuration, IDV and LTO are still the core conditions. It was discovered that the uncertainty avoidance (UAI) is quite special. In all configurations that cause EFF to occur, the UAI appears in the form of presence, whether it is a core condition or not. In the configuration of EFF2, it appears in the form of absence. Although it is not a core condition, it is worth discussing.

The results of causation:

Although IDV was not tested as a necessary condition leading to the appearance of causation, it was the only core condition in configurations CAU1a, CAU1b, and CAU1c. The differences

in these configurations arise from different combinations of peripheral conditions. CAU1a and CAU1b differ significantly in terms of UAI and EXP levels. That is, holding all other four conditions constant, entrepreneurs having less entrepreneurial experience or having a stronger uncertainty avoidance could lead to causal outcomes. CAU1c differs from the CAU1a and CAU1b configurations because all five conditions occur. When comparing with EFF2c, an interesting phenomenon emerges. These two configurations are very similar, and the only difference is the condition LTO. When leading to the outcome EFF, LTO appears as a core condition; while when leading to the CAU outcome, LTO appears as a peripheral condition. Whether LTO is a core condition or not plays a significant role in the likelihood of leading to the emergence of the two decision logics.

Configuration CAU2 takes the presence of UAI, the absence of EXP and EDU as the core conditions, the absence of IDV and LTO, and the presence of RISK as the peripheral conditions. That is, if the entrepreneur does not possess a high level of knowledge, less entrepreneurial experience, and, at the same time, a high degree of uncertainty avoidance, it is highly likely that this entrepreneur will favor causal decision-making logic.

The configuration CAU3 comprises five conditions: the presence of LTO, UAI and EXP, and the absence of RISK and EDU. All these are core conditions. It means that an entrepreneur who simultaneously possesses long-term planning, a higher degree of uncertainty avoidance, and extensive entrepreneurial experience; while needing to be more sensitive to risk perception and having more academic training, is more inclined to use casual decision-making logic.

5.3 Summary of results

This study examines the impact of entrepreneurs' experience, education, risk perception, and cultural dimensions- individualism, uncertainty avoidance, and long-term orientation- on their decision-making logic preferences. Theoretically, the influence on an entrepreneur's decision-making is explored based on findings from previous research. Even in this research proposal,

it is assumed that a particular condition triggers the generation of a specific decision-making logic. However, it is known that, in reality, the decisions made by entrepreneurs must be based on the consideration of a variety of situations and their own characteristics. Because of this, the fsQCA identifies whether a single factor determines an individual's choices but also takes into account the combination of multiple conditions that lead to the output of different outcomes. The results show that, although no condition is necessary to produce the outcome, ten configurations lead to either a causal logic or an effectual logic. The findings are divided into five groups (A-E) based on the principle of the same core conditions, which as shown in the following Table. 5.3:

Table. 5.3 Five groups of core conditions

Configurations	Core conditions
Effectuation	
EFF1a: IDV*~LTO*UAI*~RISK*EDU*~EXP EFF1b: ~IDV*LTO*UAI*~RISK*EDU*~EXP	Group A: UAI*~RISK*~EXP
EFF2a: IDV*LTO*UAI*RISK*~EDU*~EXP EFF2b: IDV*LTO*UAI*~RISK*~EDU*EXP EFF2c: IDV*LTO*~UAI*RISK*EDU*EXP	Group B: IDV*LTO
Causation	
CAU1a: IDV*~LTO*~RISK*EDU*~EXP CAU1b: IDV*~LTO*UAI*~RISK*EDU CAU1c: IDV*LTO*~UAI*RISK*EDU*EXP	Group C: IDV
CAU2: ~IDV*~LTO*UAI*RISK*~EDU*~EXP	Group D: UAI*~EDU*~EXP
CAU3: LTO*UAI*~RISK*~EDU*EXP	Group E: LTO*UAI*~RISK*~EDU*EXP

5.3.1 Configurations of effectual logic

Group A.: UAI*~RISK*~EXP

In Group A, the conditions of high uncertainty avoidance, low-risk perception, and limited entrepreneurial experience played a crucial role in the various configurations for achieving the desired outcome (effectual decision-making logic). It means the entrepreneurs have limited entrepreneurial experience, which may contribute to their insensitivity to risk perception. It coupled with their avoidance of uncertainty, also contributes to his tendency to

use measures-driven strategies rather than goal-driven ones in the entrepreneurial process.

Nevertheless, the assumption was that high-risk perception, rich entrepreneurial experience, and low uncertainty avoidance, the conditions that appeared separately, would facilitate the entrepreneur's use of effectual decision-making logic.

Although it would be incorrect to discuss the impact of separate core conditions on effectual decision-making logic in isolation, a deeper understanding of each core condition and linking them can achieve a concrete sense of how configurations behave in the entrepreneurial process. “~EXP” refers to people who lack practical experience in entrepreneurship. These entrepreneurs may face higher levels of uncertainty and risk because they do not have the opportunity to use prior experience to guide their decisions and actions (Read et al., 2009). In this configuration, it is not difficult to understand the co-occurrence of “~RISK” and “~EXP.” Risk perception can be understood as how entrepreneurs react in unfamiliar decision-making environments depending on how well they recognize environmental risk signals (Stroe et al., 2018). The entrepreneurs' lack of experience most likely leads to their low perception of unknown risks, as they do not learn from their past practical experience. At the same time, however, it is also possible that the perceived insensitivity to risk makes it more courageous to take risks.

Hofstede (2001) defined “uncertainty avoidance” as the extent to which people feel threatened by some unknown factor in an uncertain situation. It is worth noting that the respondents were entrepreneurs from China, where almost all of them grew up. As discussed in the previous chapters, 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.

Group B.: IDV*LTO

In Group B, the combination of Individualism (IDV) and Long-Term Orientation (LTO) as core conditions is crucial in all configurations for leading to the emergence of effectual decision-making logic. In Hofstede's cultural dimensions model, individualism is closely related to personal freedom and independence. There is a cultural difference between China and Poland, where groups and collectivism are more emphasized in Chinese culture. It may happen that Chinese people are individualistic in that, as Chinese entrepreneurs live longer in Poland and have more opportunities to spend time with Polish colleagues and partners, they may encounter more individualistic demonstrations such as autonomous choices, creative thinking, and personal responsibility. They are more likely to follow the values of Polish culture that place more emphasis on personal freedom and independence. The more culturally integrated the Chinese are in Poland, the more likely they are to accept and understand the individualistic values of Polish culture. There is also the possibility that in China's group orientation, individual needs and desires are sublimated to the higher interests of the whole is manifested in the context of collectivism, which can be understood as if people around "me" are inclined to collectivism, then it is natural for "me" to practice collectivism; however, when "I" is placed in an individualistic context, the notion of collectivism will disintegrate. Integrated with the above, the Chinese may also favor individualistic values. Individualism emphasizes personal autonomy and independence, which makes Chinese entrepreneurs more inclined to rely on their own resources and capabilities and to adopt flexible strategies to cope with uncertain market environments.

Hofstede's cultural dimensions theory indicates that China has a highly long-term-oriented culture. This cultural dimension is driven by Confucianism, which emphasizes patience, perseverance, and a sense of responsibility for the greater good. In such a cultural context, individuals tend to plan and solve problems over the long term rather than pursue short-term gains. They have the ability to adapt quickly to change, a strong tendency to save and invest, thrift and frugality, and the perseverance to achieve results (Hofstede, 2011; Hofstede et al., 2010). The long-term orientation possessed by entrepreneurs is then reflected

in the importance of investing in the future and sustaining growth, which enables them to stick to their entrepreneurial ideas and goals in the face of short-term challenges and achieve long-term success through constant adjustment and adaptation. The combination of individualistic traits, such as the values of independence and self-expression with a long-term orientation, motivates entrepreneurs to stick to their entrepreneurial ideas in an environment of high uncertainty by adopting and adhering to their entrepreneurial concepts, which, based on the currently available resources and opportunities, and by continuously adapting during the entrepreneurial process, they tend to adopt an effectual decision-making logic.

5.3.2 Configuration of causal logic

Group C.: IDV

Within the three configurations in Group C, there is only one core condition: individualism. It suggests that cultural orientations that value individual autonomy, independence, and self-expression are central to the adoption of causal decision-making logic. As discussed in Group B, even though collectivism scores high in the national culture dimension in China, there is still a situation for Chinese entrepreneurs with individualistic traits who have been working and living in Poland for a long time. The proposal argued that in collectivist societies, people are born into strong, cohesive groups that understand and care for each other. In more collectivist societies, knowing the relevant personal connections is crucial, whereas in more individualistic countries, individual competence is most critical (Hofstede, 2001). Countries with a higher degree of collectivism are associated with alliances or associations, and effectual entrepreneurs pay more attention to social network alliances when starting a new business. Therefore, it is believed that collectivism affects decision-making logic in an efficient way. Although we do not have direct evidence to prove that our proposal is entirely valid, it is not inconsistent with the conclusions of the study. It even contributes more to understanding the effects of individualism and collectivism on decision-making logic tendencies.

It was also observed that compared to the two core conditions IDV and LTO in Group B,

Group C only has one less condition, LTO, but the results of the two groups are diametrically opposite. This further validates the scientific validity of our fsQCA analysis approach. Although IDV was not a necessary condition leading to the results, it appeared as a core condition inside the configurations in the two different outcomes, suggesting that it played an essential role in generating both outcomes. All that is reasonably clear is that the outcome that leads to causal decision-making logic or effectual logic production should synthesize the results of a combination of factors, not a single factor.

Group D.: $UAI * \sim EDU * \sim EXP$

These core conditions suggest that a deep concern for avoiding uncertainty (UAI), combined with lower levels of formal education ($\sim EDU$) and less entrepreneurial experience ($\sim EXP$), are the core conditions that lead to a preference for causation in decision-making. It suggests that individuals with these characteristics favor a more structured, planned, and predictive approach to strategic decision-making. Because of a lack of theoretical and practical experience regarding entrepreneurship, these entrepreneurs must be cautious to navigate their way through the entrepreneurial process and try to avoid making mistakes to minimize the occurrence of uncertainty. The emphasis on $\sim EDU$ and $\sim EXP$ as corequisites implies that causal decision-making logic is not only a preference but may be necessary for individuals with these characteristics. Lack of formal education and practical experience may limit their ability to engage in more intuitive, experience-based decision-making processes. Using causal decision-making logic under specific conditions may be a more viable strategy for them.

Group E.: $LTO * UAI * \sim RISK * \sim EDU * EXP$

In Group E, the core conditions are long-term orientation (LTO), high uncertainty avoidance (UAI), low-risk perception ($\sim RISK$), less emphasis on formal education ($\sim EDU$), and high entrepreneurial experience (EXP). All conditions of this specific configuration are core conditions, and the combination of these conditions leads to causal decision-making logic.

This configuration is characterized by the requirement for entrepreneurs to plan for the long term in the entrepreneurial process, to be insensitive to potential risks, but still do their best to avoid uncertainty and rely more on experience to make decisions.

It has been shown in much of the literature that experienced entrepreneurs tend to favor application effects over causation in the entrepreneurial process (Harms & Schiel, 2012). Those novices who have received systematic training in the classroom will be more inclined to apply structured, predictive causal decision-making logic (Schenk et al., 1998). However, in Group E where causal decision-making logic was used as a conclusion, it was found that lower levels of education and richer entrepreneurial experience co-occurred. In this causal configuration, practical knowledge and experience are more valuable than theoretical knowledge in formal education. Low-risk perception (~RISK) is consistent with the causal approach's emphasis on minimizing uncertainty and making decisions based on analysis and planning.

It may seem not easy to fulfill all the conditions simultaneously, but it is possible to imagine what kind of profile an entrepreneur with these conditions can actually present. First, Chinese entrepreneurs are themselves long-term-oriented. Some came to Poland as blue-collar workers and did not have higher education, but they had more social experience because they had entered society earlier. They have a lower risk perception due to their more homogenous working and living environments and limited knowledge of the outside world. The instability of the job or the long time spent in Poland has led them to a higher level of uncertainty avoidance. Therefore, such entrepreneurs will be more inclined to use goal-oriented, predictable, and controllable causal decision-making logic.

5.4 Discussion and answers to the research questions

The table 5.4 presents the answers to research questions (RQ1-RQ5) which have been developed through data analysis.

Table 5.4 Summary the answer to the research questions

Research	Effectuation	Causation
RQ1a	UAI*~RISK*~EXP	UAI*~EDU*~EXP
		LTO*UAI*~RISK*~EDU*EXP
RQ1b		UAI*~EDU*~EXP
		LTO*UAI*~RISK*~EDU*EXP
RQ2	UAI*~RISK*~EXP	LTO*UAI*~RISK*~EDU*EXP
RQ3	UAI*~RISK*~EXP	UAI*~EDU*~EXP
		LTO*UAI*~RISK*~EDU*EXP
RQ4	IDV*LTO	IDV
RQ5	IDV*LTO	LTO*UAI*~RISK*~EDU*EXP

5.4.1 Entrepreneurial experience and educational level

RQ1a. How does the related entrepreneurial experience influence the entrepreneurs employing effectual logic compared to novices who tend to use causal logic?

The research findings indicate that for effectuation, the core condition is UAI*~RISK*~EXP, which means that high uncertainty avoidance combined with low risk perception and limited experience leads to effectual logic. In causation, the core conditions are UAI*~EDU*~EXP and LTO*UAI*~RISK*~EDU*EXP, where high uncertainty avoidance with limited education and limited experience or a combination of long-term orientation, high uncertainty avoidance, low risk perception, and limited education with experience lead to causal logic.

Although some literature argues that experienced entrepreneurs tend to use effectual logic (e.g., Sarasvathy, 2001; Dew et al., 2009; Wiltbank et al., 2009), the findings challenge this assumption and show that both experienced and inexperienced entrepreneurs can employ either causal or effectual logic, which depends on how they interact with other factors.

For instance, Dew et al. (2009) discussed how entrepreneurial experience improves the ability to deal with complex and uncertain situations, and leads experienced entrepreneurs to

prefer effectual decision-making logic. However, the findings of this study suggest that even entrepreneurs with limited experience (\sim EXP) can employ either effectual or causal logic, which depends on the combination with other factors like uncertainty avoidance (UAI) and low risk perception (\sim RISK). It is important because it indicates that the decision-making style is not only determined by the experience level but also on how entrepreneurs perceive and react to their environment's uncertainties and risks.

Furthermore, Chandler et al. (2011) supported this view and showed that novice and expert entrepreneurs apply effectual and causal logic differently based on their experiences and specific challenges. The results support this view where high uncertainty avoidance combined with limited experience and low-risk perception leads novices towards effectual logic. It means that the context and individual entrepreneur's response to the environment are critical in determining their decision-making logic preference.

RQ1b. How does educational level influence the entrepreneurial decision-making logic preferences?

The configuration $LTO*UAI*\sim RISK*\sim EDU*EXP$ suggests that even with limited education (\sim EDU), entrepreneurs with long-term orientation (LTO), low-risk perception (\sim RISK) and high uncertainty avoidance (UAI), and experience (EXP) tend to use causal logic in their decision-making process. The other configuration, $UAI*\sim EDU*\sim EXP$, suggests that, despite limited education, they similarly prefer causal logic due to high uncertainty avoidance and limited experience.

Generally, higher education is believed to facilitate more analytical and structured decision-making (causal logic) due to better access to formal methodological and theoretical knowledge (Bromiley & Rau, 2016). However, the presence of low education level (\sim EDU) in causal logic configurations demonstrates a counter-intuitive situation. According to Dutta & Crossan (2005), while formal education equips entrepreneurs with certain analytical skills, real-world experience, and business uncertainty can foster similar competencies, thus

compensating for the lack of formal education. Individuals with lower educational backgrounds have both experience (EXP) and higher uncertainty avoidance (UAI), suggesting that these entrepreneurs may rely on structured causal strategies to mitigate perceived risk and uncertainty (Miller & Friesen, 1983). This is consistent with the findings of Guerrieri et al. (2021), who noted that in turbulent environments, even entrepreneurs with less traditional education may adopt causal strategies to enhance predictability and control.

While the literature typically emphasizes the role of education in shaping the logic of decision-making, the findings reveal a more complex picture in which experiential and cultural dimensions (e.g., uncertainty avoidance and long-term orientation) also play an important role. It means that hands-on experience and strategic methods for managing uncertainty enable entrepreneurs with limited formal education to effectively adopt causal decision-making strategies.

5.4.2 Risk perception

RQ2. How does entrepreneurs' risk perception affect their preference for decision-making logics?

The configurations $UAI^* \sim RISK^* \sim EXP$ and $LTO^* UAI^* \sim RISK^* \sim EDU^* EXP$, which show effectual and causal logic respectively under conditions of low risk perception ($\sim RISK$). Entrepreneurs with low risk perceptions exhibit a unique mixture of characteristics. Koudstaal et al. (2016) emphasized that a low perception of risk leads to a low perception of loss. Mahmood (2003) further highlighted that such individuals tend to take risks and are ready to change. However, Wu and Knott (2006) pointed out another perspective: while entrepreneurs may underestimate the risk of uncertainty, they may also be overconfident in their abilities. These findings suggest that entrepreneurs who perceive less risk tend to combine risk-taking, adaptability, and confidence.

When examining how entrepreneurs respond to uncertainty and risk, it is found that those entrepreneurs who truly avoid uncertainty (UAI), perceive less risk ($\sim RISK$), and have less

experience (~EXP) tend to favor the use of effectual logic. Literature supports that entrepreneurs with lower risk perception are less likely to engage in extensive risk analysis and more likely to use an intuitive and adaptive approach as characterized by effectual logic (Forlani & Mullins, 2000; Sitkin & Weingart, 1995). This allows them to better cope with uncertainty with limited experience, and focus on what they can immediately control rather than what they cannot predict.

Conversely, the configuration involving long-term orientation (LTO), high uncertainty avoidance (UAI), low risk perception (~RISK), limited education (~EDU), and experience (EXP) lead to causal logic. Guiso et al. (2012) highlighted that even with a low perception of risk, entrepreneurs can engage in systematic risk management when supported by long-term planning and significant experience. Sarasvathy's (2001) also stated that entrepreneurs adapt their decision-making strategies based on their risk perception. Specifically, those with lower risk perceptions may still choose causal logic if it fits their long-term goals and they have ways to deal with potential problems. Furthermore, Hofstede's insights on cultural dimensions suggest that long-term orientation and uncertainty avoidance not only shape organizational culture, but also make structured, predictive strategies more attractive and feasible, even when risks are perceived to be low. These perspectives emphasize that entrepreneurial decision-making is adaptive and influenced by a combination of personal experiences, cultural values, and individual perceptions of risk.

5.4.3 Uncertainty avoidance

RQ3. How does uncertainty avoidance influence entrepreneurs' decisions?

The configuration $UAI * \sim RISK * \sim EXP$ shows that high uncertainty avoidance (UAI) combined with low risk perception (~RISK) and limited experience (~EXP) leads to the adoption of effectual logic. In this case, the presence of high UAI indicates that entrepreneurs tend to minimize uncertainty, but their low perception of risk and limited experience make them less likely to engage in extensive planning and more likely to rely on flexible and

adaptive approaches to the use of effectuation.

Research showed that high uncertainty avoidance leads individuals to prefer structured environments and clear guidelines to reduce uncertainty (Hofstede, 1980). However, entrepreneurs with low-risk perceptions might choose a more flexible and innovative way of making decisions- effectual logic. This is because low risk perception reduces the risk of uncertainty, and makes decisions more exploratory and opportunistic (Hofstede Insights, 2021). Limited experience often leads to a preference for more cautious, direct and less risky decision-making processes. However, in the presence of high UAI, this lack of experience might shift to a more effectual approach as a way to respond creatively and flexibly to uncertainty (Forlani & Mullins, 2000).

In these configurations, $UAI*~EDU*~EXP$ and $LTO*UAI*~RISK*~EDU*EXP$, high uncertainty avoidance also plays a central role, but here it combines with either limited education ($~EDU$) and limited experience ($~EXP$) or a blend of long-term orientation (LTO) and limited education ($~EDU$) along with experience (EXP), which leads to a preference for causal logic. It means that entrepreneurs with limited formal education ($~EDU$) and experience ($~EXP$) would lead to causal logic in a high-uncertainty avoidance environment, which involves detailed strategic planning and a systematic approach to decision-making, is thought to require a strong foundation of knowledge and experience. When entrepreneurs have no formal education or experience, they often miss out on key strengths such as analytical skills, network resources, and a solid understanding of market dynamics. Bromiley and Rau (2015) suggested that in such cases, structured decision-making frameworks (causal logic) can serve as tools to fill in these gaps. By using such predefined frameworks and models, entrepreneurs can make more informed decisions and rely less on personal expertise. Long-term orientation (LTO) also promotes their adoption of this causal logic. Guiso et al. (2012) noted that entrepreneurs with a long-term perspective are more likely to engage in behaviors that ensure stability and consistent growth, which are supported by causal decision-making strategies.

5.4.4 Individualism

RQ4. How do collectivist versus individualist cultural orientations influence entrepreneurs' decision-making logic?

The combination of high individualism (IDV) with long-term orientation (LTO) produces an effectuation logic. This configuration suggests that entrepreneurs prioritize personal autonomy and are guided by a vision of future opportunities. When individualism (IDV) is considered alone, it leads to causation. This suggests that while entrepreneurs value autonomy, they also engage in systematic and planned approaches when individualism is not along with other factors such as LTO.

Some scholars have argued that individualism can also support the effectual logic under certain conditions. Sarasvathy (2001) stated that the autonomy and flexibility valued by individualistic cultures contribute to the adaptability and innovation of effectuation. This view is supported by Read et al. (2009) who noted that individualistic entrepreneurs use their independence to experiment and innovate, to take advantage of emerging opportunities without being constrained by predefined goals.

Entrepreneurs in highly individualistic cultures value independence and are more likely to be innovative and adaptable (Hayton et al., 2002). In Poland, the predominant individualism could influence Chinese entrepreneurs to adapt and adopt more individualistic approaches in their decision-making and business practices. This adaptation is often necessary for integration and success in a foreign market where individual achievements and innovations are highly valued. A long-term orientation involves both planning for the future and adapting to change. The combination supports effectuation as it allows for goal adjustment based on changing circumstances and new information, which is the core aspect of effectual logic.

In contrast, Hofstede (1980) suggested that individualistic societies favor direct and transparent approaches to problem-solving, which is inherent in causal strategies. Shane (2003) extended this view by arguing that individualistic entrepreneurs are likely to employ

causation strategies because they plan to take advantage of opportunities that directly benefit their personal goals. With individualism as the only condition, entrepreneurs might still prefer structured and systematic approaches to exploit market opportunities effectively (Autio et al., 2000). This can be attributed to the entrepreneur's desire to maximize personal gains through well-planned strategies. Individualistic entrepreneurs are likely to use causal strategies when dealing with uncertain markets to minimize risks through detailed planning and analysis (Shane, 2003). This strategic approach helps to reduce uncertainty and keeps decisions close to personal business goals.

5.4.5 Long-term orientation

RQ.5 How does long-term orientation impact the use of decision-making logic?

When individualism and long-term orientation come together (IDV*LTO), they often lead to effectuation. Sarasvathy (2001) mentioned that long-term orientation gives entrepreneurs the flexibility to adjust their strategies as conditions change, which is key for grabbing new opportunities as they come up. This flexibility is critical for "effectuation" as entrepreneurs dynamically use what they have to seize opportunities. This view is reinforced by Wiltbank et al. (2006), who argued that entrepreneurs with LTO and IDV tend to choose adaptive, goal-driven approaches to meet market needs and seize opportunities. Gupta et al. (2015) also emphasized that long-term orientation can promote effectuation. A flexible and innovative strategy is used to help entrepreneurs target long-term goals. In this case, entrepreneurs may use their foresight and adaptability to effectively manage and seize new opportunities.

The combination of long-term orientation with high uncertainty avoidance, low-risk perception, limited education, and experience (LTO*UAI*~RISK*~EDU*EXP) tends to favor causation logic. Research also demonstrates that long-term orientation favors careful strategic planning and preparation, which is closely related to the structured nature of causal logic. The literature suggested that cultures with strong LTO prioritize planning and risk

minimization, which supports systematic approaches characteristic of causation (Hofstede,2001; Trompenaars & Hampden-Turner, 1997; Sternad & Kennelly, 2017). This view is further supported by Lumpkin and Brigham (2011), who note that long-term orientation enhances entrepreneurs' ability to predict and mitigate long-term risks through planned strategies.

5.5 Conclusion

This chapter explored the findings of Study One, identified necessary and sufficient conditions, and analyzed the factors that shape the entrepreneurial decision-making logic. It also explores the different configurations of effectual and causal logics in the entrepreneurial setting. In addition, the research questions are answered and the role of several key factors is revealed: entrepreneurial experience, level of education, risk perception, uncertainty avoidance, individualism, and long-term orientation. These factors were carefully analyzed to demonstrate their impact on the entrepreneurial decision-making process.

Chapter 6. Results and Discussion of Study Two

6.1 Introduction

This chapter provides an in-depth analysis of data from interviews with twelve entrepreneurs to explore the key factors that influence entrepreneurs when making decisions at different stages of entrepreneurship. The decision-making process is explored from the initial stage to the mature stage of the business, and then identify how educational and professional background, networks and social capital, cultural factors, as well as personal characteristics, influence entrepreneurial decision-making logic.

6.2 Decision-making in different entrepreneurial stages

6.2.1. Stages of entrepreneurial process

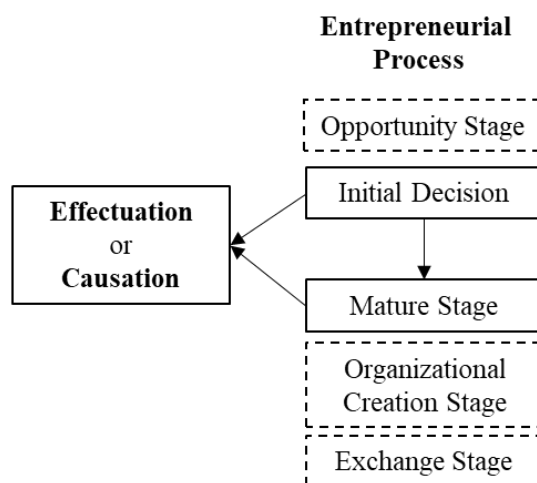
In Bhavé's model (1994), the entrepreneurial process is structured into three distinct stages: opportunity identification, organization creation, and the exchange stage. However, problems are noticed when applying this theoretical framework to real-life data, such as when analyzing the text of entrepreneurial interviews, these stages are not as clear-cut as explained in the model. In practice, transitions between these stages are fluid and overlapping. As a result of such findings from qualitative analysis, it might be more practical to categorize the entrepreneurial process into broader phases that reflect the realities observed in the data. In this case, based on the interviews' data, the process was divided into just two parts: the initial decision and the mature stage. The updated entrepreneurial process model is shown on Figure. 6.1.

- **Initial Decision Stage:** This phase mixes the first steps of identifying an opportunity and starting to set up a business. It includes things like doing the first market research, creating a basic version of the product, and maybe starting to look for funding. At the startup stage, entrepreneurs rely on their gut feeling to make decisions, often based on personal beliefs and

preliminary assessments of market opportunities. Then, resource-based decisions become critical as entrepreneurs position their business according to available resources. Career adaptability is also critical in the startup phase as entrepreneurs need to respond quickly to market feedback and challenges.

- **Mature Stage:** This phase covers the later steps of building the business and starting regular sales or services. It includes fine-tuning the business plan, setting up complete business operations, and having steady transactions with customers and partners. It is also the stage where the business begins to grow and stabilize after getting through the early challenges. Decision making in the maturity stage is more inclined towards structured planning and data-driven strategies as compared to the startup stage. Entrepreneurs employ forecasting to anticipate market trends and prepare their businesses accordingly. Goal-oriented processes are adopted to ensure that the company remains focused on its long-term objectives. Figure 6.1 shows the updated entrepreneurial process model.

Figure. 6.1 The updated entrepreneurial process model



6.2.2 Initial decision to start a business - opportunity stage

The initial decision to start a business is influenced by a range of factors including personal motivation, market opportunities, and resource availability. Key insights from recent research highlight the complexity of this decision-making process. This study provides insights into the motivations behind participants' choice to start a business. Through careful analysis and

identification of interview transcripts, a range of different reasons for starting a business was identified, reflecting individual differences and unique business insights. Based on this, four categories were identified, they are gut feeling, resource-based decisions, improvisation, and career adaptability. They underscore different aspects of entrepreneurial thought processes, ranging from intuitive decision-making to strategic resource management, the ability to improvise in dynamic environments, and the importance of being flexible and adaptable in the face of changing business landscapes. While all these aspects are interrelated and often overlap, each plays a unique role in entrepreneurial success. “Gut feeling” is about internal intuition, “resource-based decisions” emphasizes the assessment and use of available resources, “improvisation” focuses on creative problem-solving in the moment, “career adaptability” involves strategic shifts in response to external changes, and thriving in diverse conditions.

Gut feeling

Gut feeling refers to an individual’s intuitive or instinctive reaction toward a particular situation or decision. This subjective and often unexplained feeling guides individual to make judgments or choices that are not entirely based on rational analysis (Huang, 2018). This gut feeling is usually based on an entrepreneur’s experiences, knowledge, and personal beliefs. It is about trusting the inner feelings and knowing what is right and what is wrong for the business.

I was working as a Mandarin teacher, usually with just a few students at a time. In 2017, the owner of the language school where I taught mentioned he couldn't manage it anymore and offered to sell it to me. Even though I didn't have a clear plan, something deep inside told me it was the right move. It felt more like following my instincts than making a calculated decision. I just knew in my gut that this was a unique chance I couldn't pass up. So, I agreed

to buy the school and started over, and even rented a new space to really make it my own. (LS)

As can be seen from this example, the interviewee's decision to take over the language school was mainly motivated by "gut feeling." This conclusion is from several key points. Firstly, the decision was more instinct than carefully planned. The interviewee's internal response was described as "I had a feeling inside me that it was right," means that he relied on emotional and intuitive judgment rather than logical analysis. This instinctive way, characterized by a strong personal conviction over objective planning, is an indicator of a gut feeling-driven decision. Moreover, the interviewee's spontaneous trust in their intuition, and viewed the opportunity as unique led him act despite not having a clear strategy. This really highlights the importance of gut feeling. His choice is driven by personal belief in the venture's potential, consistent with decisions made based on inner feelings and beliefs, which is typical of an effectuation approach.

Resource-based decisions

In entrepreneurship, the concept of resource-based decision-making is to utilize specific resources to gain a competitive advantage, especially in an international environment (Brouthers et al., 2007). Entrepreneurs who use this approach may choose to operate in a particular region if they have access to unique resources there. Because of these specific resources, they are able to gain a competitive advantage over their competitors in the early stages of their business.

We decided to set up a business largely influenced by our family's background in the same industry, which made choosing the clothing wholesale business a natural decision for me. I personally like this product

and have a good understanding of the supply chain.

The choice to enter the Polish market was strategic, driven by an existing partnership in the region and the market's untapped potential. This decision to choose Polish market because we had a partner here before and felt it had potential. Moreover, we have branches in Western Europe, but not yet in Poland, so we decided to start our venture here in Poland. (CW01)

In this case, it is clear that the interviewee's initial way of starting a business was grounded in resource-based decisions. Firstly, the interviewee's family has a background in the clothing industry. The existing knowledge and experience of the family provided him with a valuable resource to start a business in the same field. Secondly, the supply chain are crucial resources, and the familiarity with the product and the market dynamics provides an advantage in managing the business effectively.

Although the family business already had a branch in Western Europe, it had not yet entered in Poland. Therefore, the entrepreneur's decision to enter the Polish market shows that the he made a resource-based strategic decision. Specifically, the entrepreneur utilized existing partnerships, existing business model, and operational experience to expand into a previously untouched market. The interviewee's decision to start a clothing wholesale business in Poland was heavily influenced by a combination of personal, familial, and market resources, reflecting an effectual decision-making logic.

However, interviewee said that entering the Polish market was a strategic decision, especially because they had local partners and recognized the potential of the market, which illustrates a process involving systematic consideration and analytical decision-making. He identified the resources that could provide a competitive advantage and subsequently developed a strategy to utilize them in the best possible way. This approach is also in line with causal logic.

I started my entrepreneurial journey back in 2009. At that time, the financial crisis led to the collapse of many companies. There was this factory that caught our attention because it was available at a really low price, and we were guided into the industry by people who were knowledgeable about the business, that is the reason we entered this industry. Also, for manufacturing, we needed raw materials.

Initially, the main markets for our supplier's raw materials were in Europe and the US, but we had very little presence in the US market; our main focus was Europe. There were two key suppliers in Poland, so we decided to expand our market in Poland, mainly because it was closer to the raw material supply locations. (IT)

Firstly, due to the financial crisis, the interviewee decided to acquire a factory at a low price, which was a strategic use of existing financial resources. Interviewee took advantage of the economic situation to acquire a significant asset at a lower cost. Not only that, the interviewee's use of the people who are professional in the industry is another sign of resource-based decision making. These people may provide valuable insights, advice, and possibly networks, all of which are critical intangible resources for startups. Third, interviewee chose to focus on the European market, particularly Poland, where key raw material suppliers are located. There is potential for cost reductions and supply chain efficiencies through the location of operations closer to the origin of raw materials.

When I first arrived in Poland, I started working in a retail store, and began to gain some experience and a deeper understanding of the industry. As we gradually gained experience, the idea of starting a business in this field came naturally to us. (RS01)

The interviewee started working in a retail store in Poland, gradually gaining experience and deepening their understanding of the industry. This approach implies a methodical accumulation of knowledge and skills, which are key resources in the business world. Rather than making a sudden, instinctive decision (as in “gut feeling”), or a quick, adaptive response to an immediate situation (as in “improvisation” or “career adaptability”), his decision to start a business was based on a gradual build-up of industry-specific experience.

In this case, the interviewee utilized their growing understanding and skills within the retail industry as a foundational resource, and allowed their business idea to develop organically from their accumulated knowledge and experience, and the elements of effectual logic are present.

On the other hand, the interviewee likely identified opportunities and gaps in the market through their experience, which is a thoughtful use of knowledge as a key resource. The transition from gaining experience to considering entrepreneurship indicates a planned and resource-based approach. It suggests that the decision to start a business was made after careful consideration and assessment of the resources (knowledge and experience) he had accumulated, reflecting causal logic’s emphasis on careful planning and analysis of available resources.

Improvisation

According to Hmieleski and Corbett (2006), improvisation involves three main aspects: first, innovation and creativity; second, the ability to excel under pressure and stressful situations; and third, spontaneity and persistence. In short, improvisation emphasizes the ability to be flexible in using resources at hand and to be spontaneous and creative in finding and seizing opportunities to achieve goals within a limited time frame and in the face of challenges. Social cognitive theory further suggests that improvisation is a central element in driving entrepreneurial behavior and plays a key role in understanding an individual’s entrepreneurial intentions (Hmieleski & Corbett, 2006; Guo et al., 2022). This ability is critical to navigating

unpredictable environments and allows entrepreneurs to think independently and develop practical solutions or strategies without extensive planning.

Actually, my reason for starting a business is just about making money to cover my cost of life in Poland. To be honest, as a PhD student here, my scholarship isn't that much, and I don't want to rely on my family. So, my motivation for entrepreneurship is really just to earn money. I thought, maybe we could open a bubble tea shop. (BT)

In this case, the interviewee had to rely on a meagre scholarship to pay for her living expenses and did not want to rely on her family for financial support, so in this case the interviewee's decision to consider opening a bubble tea shop was most likely driven by the need to find a solution that was both feasible, potentially profitable, low-cost, and could be implemented quickly. This reflects the essence of improvisation - the quick decision to pursue a particular business idea without extensive and long-term strategic planning in order to change the current state of affairs with regard to financial needs and constraints.

I used to work there for more than seven years, but then my boss went bankrupt, then I lost my job. This happened right after I got married, and after the wedding, I felt like I needed to change my lifestyle. Since my husband already had a barber shop in Poland, I thought learning nail art and combining it with his business could be a good idea. So, I decided to open a nail salon. (NS)

The interviewee's decision to start their own business was primarily due to a job loss. This unexpected job loss, combined with the recent life change, created a situation that

required a quick and creative response. Instead of seeking another job in the same field or industry, the interviewee chose to look for a new opportunity. The improvisational aspect is further highlighted by the decision to learn nail art and open a nail salon. This choice was influenced by the desire to complement their husband's existing barber shop business, which indicates a flexible strategic approach to creating a new source of income. Rather than sticking to a pre-planned career path, the interviewee quickly adapted to her new environment, identified a viable business opportunity that matched the family's existing business, and took action to make it a reality.

Career adaptability

Career adaptability refers to an individual's ability to self-regulate in career development, which helps people manage their careers' various tasks and challenges. Specifically, this competency involves proactively responding to pressing career development tasks or transitions and reactively facing unexpected challenges (Tolentino et al., 2014). These adaptive behaviors are designed to help individuals prepare for and cope with current and possible future changes in their careers and accomplish tasks related to their professional roles (Savickas & Porfeli, 2012). In entrepreneurship, career adaptability refers to the willingness and ability to adjust and shift in response to changes in current situations, strategies, or business models. It includes being open to new information, technology, market trends, or customer feedback and changing direction when necessary. Flexible and adaptable entrepreneurs are able to adjust their business plans in response to changes in the external environment and respond effectively to different market, cultural, and economic conditions. They often enhance their responsiveness and likelihood of success by adapting their products, services, or business operations to meet local needs and preferences.

Before I took over, the previous owner had been running this shop for over ten years. After becoming the boss, I changed a lot of the product layout in the

store, as I felt the previous arrangement didn't meet my expectations. I made these changes based on my accumulated experience and personal judgment. For instance, I altered where and how items were displayed. I also focused on beautifying the shop's decor, advertising and other aspects.

Moreover, I have shifted to selling more appealing products to a younger demographic to attract more young people. The previous owner was older and perhaps more conservative in their style. (RS02)

In this case, interviewee's decision to regenerate the product layout and store decor, aiming to better meet market demands and reflect their vision, a clear indication of adaptability. The strategic adjust to target a younger demographic, despite the store's established customer base being older, demonstrates significant flexibility. The interviewee's willingness to experiment with new strategies and adapt to different market segments is a testament to this. In addition, his approach is more modern and advanced as compared to that of the previous owners. This further emphasizes their readiness to respond dynamically to market trends and customer preferences. The adaptive strategy, driven by practical experience and intuitive decision-making, is consistent with the effectual logic of creatively utilizing available means and opportunities.

However, causal logic is reflected in a systematic approach to changing store layouts and improving aesthetics. These changes have clear strategic goals - such as attracting specific customer segments and enhancing the shopping experience - reflecting the structured and goal-oriented mindset, which is typical of causal logic.

6.2.3 Mature stage decision-making- organization creation and exchange stage

This section describes how entrepreneurs make decisions during the maturity stage of their business. During this stage, entrepreneurs' decision-making processes tend to become more

organized and complex, which results in a shift towards structured planning and a greater tendency to develop and implement long-term strategies. Through analysis of the interview transcripts, four key sub-themes were identified that define decision-making at the maturity stage: structured planning, forecasting, data-driven strategies, and goal-oriented processes. Structured planning outlines a clear roadmap, forecasting helps organizations predict future conditions, data-driven strategies ensure decisions are grounded in reality, and goal-oriented processes keep the business focused on specific outcomes. These sub-themes represent a systematic approach to making decisions based on overall planning, predictive analytics, reliable data, and a clear purpose to achieve specific business goals.

Structured planning

Structured planning refers to the development of a detailed and thorough plan for the growth of a business, including setting clear steps, milestones, and roadmaps to achieve specific goals. It helps to organize resources, manage risk, and ensure that every part of the business is in step towards a common goal, while also increasing the chances of success (Dana et al., 2023). This approach becomes particularly relevant when considering the interviewee's insights. He talked about the challenges of working in a dynamic industry, facing competition, and responding to inevitable decline. The need to adapt, evolve, and find new directions while remaining consistent with the core business reflects the essence of structured planning. It is about predicting change, preparing for the emergence of various market situations, and systematically adapting business operations in line with these.

The specific point here is about the company's business direction. When running a company, you're bound to face competition and see the industry go through ups and downs. It's not realistic to expect constant profits because there are definitely going to be downturns. During these tough times, it's crucial to look for new directions to keep the company profitable. I've always seen this as an

ongoing challenge. It's about transforming within the industry, building on what we already have to create new business lines that are still related to our core operations. (IL)

The interviewee realized the necessity of having a strategic plan in order to cope with dynamic changes within the market and the industry. Such changes could be market fluctuations, technological upgrades, changes in consumer demand, and strategic planning is needed to ensure that the company is able to adapt to these changes. It is further underscored by her focus on the company's strategic business direction, especially during periods of industry decline. The interviewee emphasized identifying new directions to ensure ongoing profitability, a cornerstone of structured planning. Additionally, the transformation within the industry, involving the development of new business ventures while staying connected to their core business, indicates a methodical and strategic process. It involves intentionally expanding and diversifying the company's offerings, aligning with its strengths and market position. Lastly, the interviewee's perspective on the continuous challenge of adapting and transforming in the business landscape highlights their commitment to long-term planning.

Forecasting

Forecasting is about predicting future trends, demands, and market conditions based on historical data and market analysis (Ganesh, 2002). It involves anticipating changes in the market, customer behavior, and other external factors that could impact the business. The key difference here is the forward-looking nature, as opposed to reactive or past-focused decision-making.

After observing the lockdown situation in China due to the pandemic, I quickly analyzed the potential impact of this event on global trends, especially in Europe. Based on this trend

forecasting, I realized that the offline teaching model would face significant challenges in the near future. Therefore, I decided to shift to online teaching. While this decision initially met with some resistance from a few students, I firmly believed that, moving to online teaching was the safest bet. Indeed, my prediction turned out to be correct, as similar lockdown measures were later implemented in Europe. Until now, we have maintained online classes as one of our teaching methods. (LS)

In the mature stage of their entrepreneurial journey, this interviewee clearly employed a forecasting strategy. This was evident from his keen observation of the unfolding pandemic situation in China and the subsequent analytical assessment of its potential global impact, particularly on Europe. By foreseeing the challenges that the offline teaching model would face in light of the pandemic, the interviewee proactively pivoted to online teaching. This strategic shift, although initially met with resistance, was based on a forward-looking analysis and anticipation of similar scenarios occurring in Europe, a prediction that was later validated as European countries also implemented lockdown measures. The interviewee valued the role of forecasting and used it as a decision-making tool. By predicting future market trends, entrepreneur can adjust the business model in advance to ensure his organizations remain flexible and sustainable in a fast-changing marketplace.

Data-driven strategies

As organizations grow in size and business complexity, the ability to be able to access and analyze data becomes very important to business success. Data-driven strategies refer to make decisions based on quantitative analysis and empirical evidence rather than intuition or assumptions (Lu et al., 2019). Through in-depth data analysis, it is possible to understand the needs of clients, monitor performance indicators, and provide a foundation for their strategic planning and decision making (Ransbotham et al., 2015). While it is often noted in academic literature that data-driven business decisions typically entail the utilization of advanced

statistical tools and methodologies for data manipulation and interpretation (Donhost & Anfara, 2010), the interviewees did not employ such highly specialized analytical instruments or techniques. Nonetheless, their approach to managing and reviewing key financial metrics, including profit margins, operational costs, and the duration of capital recovery, still aligns with the principles of a data-driven strategy. This categorization is based on that they are skilled in processing financial information to guide business decisions, despite the absence of complex analytical tools.

...the process involved transforming raw materials into products and then transporting them, a journey with its own costs. Initially, we only concentrated on the profit margins without factoring in the capital recovery cycle... upon realizing this inefficiency, we improved our strategy. We moved away from manufacturing to trading, which directly shortened the capital recuperation period and enhanced the utilization of funds...this improvement also expanded our resources and network of suppliers. (IT)

The interviewee has adopted a data-driven strategy to make decisions, as evidenced by several key factors. Firstly, his focus shifted from considering profitability to an in-depth analysis of capital recovery cycles. This shift shows his reliance on detailed financial metrics when making decisions. Secondly, the shift from manufacturing to trading, a strategic choice made after a thorough assessment of financial inefficiencies, reflects the importance he placed on financial data in guiding business change. Further, the interviewee decided to optimize their business model by increasing the frequency of trading, which was a calculated move to improve the overall financial performance, even though the profit per trade may have been lower. This optimization shows how he could use data to guide and refine business strategies. Lastly, the success of this strategic shift, such as the expansion of the supplier network and the increased market credibility gained as a result of improved capital utilization, further

demonstrates the effectiveness of a data-driven approach. The interviewee's strategic adjustments and focus on detailed financial analysis, capital efficiency, and overall financial performance illustrate a clear adoption of data-driven strategies in their mature stage of entrepreneurship.

Goal-oriented processes

Goal orientation is a concept in psychology that focuses on the goal-setting and mental strategies that individuals use when they face achievement challenges (Culbertson et al., 2010). This process sets clear objectives, often with quantifiable targets, and makes decisions that directly contribute to the achievement of those objectives. It differs from the more exploratory or opportunistic approach found in earlier businesses, which resulted in goals that may be variable or less clear.

Goal-oriented process is a decision-making and management strategy. Decisions are set and implemented with specific goals in mind that reflect the company's values and support its growth. It is not only about reaching financial milestones, but also about having a positive and meaningful impact on the company. Some interviewees' strategic decisions and operational behaviors are rooted in this goal-oriented mindset. They demonstrated a clear understanding and application of this approach by continually adapting their business strategies with the fundamental questions of why their business exists and what societal problems it aims to solve.

If you want to run a business well, you can't do it without a clear understanding of its core principles. I often ask myself questions like, 'Why am I here? Why did I start this business?' If you're running a company, you need to be clear about what it's all about, what problem it's solving for society. The ultimate goal is to ensure that the Polish people accept your company and to figure out how much you can contribute to solving local employment issues. So, I drive my

company's operations based on these questions, guiding our direction and decisions. (EV)

This interviewee asked himself questions about the reasons for the existence of his business and its role in solving social problems. He reflects on the underlying reasons for starting the business and focuses on how the business contributes to society, especially in solving the problem of local employment in Poland. This approach shows that specific, purposeful goals drive their business decisions and operations. Rather than being swayed by immediate benefits or market trends, interviewees' strategies focus on achieving clear objectives, such as social recognition and community impact, which are hallmarks of a causal decision-making process.

Since starting my business, I've encountered many different people, significantly broadening my perspective. My entrepreneurial venture was initially driven by enhancing my quality of life through increased earnings. However, as time has passed, my objectives have evolved substantially. Now, I am more open to investing in areas such as social connections and financial opportunities, which I previously deemed unworthy of investment. What I once thought was not worth the effort now seems imperative for growth, and these investments have yielded positive results. (AC)

Initially, the interviewee started his business to improve his quality of life by increasing his income. However, later on, his mindset and goals became more complex and multifaceted. This change signaled a broadening of horizons and a transition to more strategic and goal-oriented decision-making, which was particularly reflected in his newfound willingness to invest in social and financial ventures. Previously, he might have considered these investment areas unworthy, but now he recognizes their value in achieving long-term goals. His willingness to make these investments suggests that he recognizes they are critical to

achieving specific goals. Additionally, the interviewee recognized that these new areas of investment, once considered unviable, are now producing positive results. This shift in mindset- from focusing solely on immediate financial gain to recognizing the broader, long-term benefits of investing in diverse social and financial ventures—demonstrates how effectual logic allows for goals to adapt and expand based on learned experiences and changing circumstances.

A goal-oriented strategy can include both effectual and causal logic because it involves setting clear objectives (causal logic) while also remaining open to adapting these goals based on available resources and new opportunities (effectual logic). In causal logic, the strategy is defined by specific, pre-determined goals, and actions are taken to achieve these objectives systematically. In contrast, effectual logic allows goals to develop as entrepreneurs adapt to changes and opportunities, making decisions based on current resources and circumstances. The following Table. 6.1 is a summary of the belonging of categories to causal and effectual logics:

Table. 6.1 The summary of categories in decision-making logic

	Initial Decision	Mature Stage
Effectuation	Gut feeling Improvisation	
Causation		Structured planning Forecasting Data-driven
Both	Resource-based Career adaptability	Goal-oriented

6.2.4 Shifts of decision-making logic

Entrepreneurs need to stick to more than one path in their decision-making process. They flexibly switch between effectual and causal decision-making logic. This flexibility reflects the complexity of entrepreneurship - a single decision-making logic is not always the best option (Dew et al., 2009; Sarasvathy, 2001). It was also found from the interviews that

entrepreneurs alternate between structured analytical strategies and reliance on intuition, adaptability, and established networks of people depending on the situation. This diversity of strategies allows entrepreneurs to respond more effectively to changing business environments and successfully advance their ventures' launch and growth. We provide the summary of dimensions at different entrepreneurial process.

The data reveals a significant change in decision-making logic as entrepreneurs move from the early stages of their business to a more mature stage. In the initial decision-making process, it can be seen that a predominance of effectual decision-making logic, emphasizing improvisation, gut feeling, and utilizing available resources. For example, interviewee BT and NS prefer improvisation, suggesting that these entrepreneurs value the flexible, emergent strategies that characterize the effectual approach. Interviewee LS's reliance on gut feeling emphasizes the valid principle of making decisions based on empirical judgment. As these ventures grew and moved into a more mature stage, there was a clear shift towards causal decision-making logic, whereby structured planning, data-driven strategies, and forecasting of future developments became dominant. This shift is reflected in interviewee IL, BT, RS01 and CR, where structured planning is emphasized as a key element in the later stages. This strategic turn suggests that objectives become more apparent as the business environment becomes less uncertain and requires a more predictive and systematic approach. The shift from the resource-based to the data-driven approach, as seen in interviewee IT, suggests the importance of collecting and analyzing information to inform decision-making at a mature stage of the business. Table. 6.2 summarizes the changes in the interviewees' decision-making styles as they move through the different stages of entrepreneurship.

Table. 6.2 Summary of changes of decision-making preference

Code	Initial Decision	Mature Stage
IL	Resource-based	Structured planning Goal-oriented
BT	Improvisation	Structured planning
CW01	Resource-based	Forecasting Structured planning
IT	Resource-based Improvisation	Data-driven
RS01	Resource-based	Structured planning
CW02	Career adaptability Resource-based	Goal-oriented Data-driven
NS	Improvisation Career adaptability	Forecasting
AC	Resource-based	Goal-oriented
LS	Gut feeling	Forecasting Structured planning
RS02	Career adaptability Resource-based	Goal-oriented
EV	Resource-based Career adaptability	Goal-oriented
CR	Gut feeling	Structured planning

However, it is worth noting that some categories are usually part of effectual decision-making logic or causal decision-making logic, were found to use a mixture of both logics in specific situations, such as resource-based decisions, career adaptability, and goal-oriented processes. For example, resource-based decisions usually utilize what is immediately available, reflecting an effectual approach. However, they also involve strategic planning to achieve broader goals, demonstrating elements of causal logic (Berglund et al., 2020). In terms of career adaptability, entrepreneurs adjust their career paths flexibly to fit with changing environments- an effectual trait- but they also engage in thoughtful planning, which indicates causal logic (De Winnaar & Scholtz, 2019). Moreover, goal-oriented processes can adapt and evolve as new information is learned, despite having a structured framework initially planned out, showing the fluid interplay between these logics in real-world scenarios (Galkina et al., 2022).

This suggests that effectual and causal decision-making logic are not completely separate in entrepreneurial practice, and that they interpenetrate and complement each other in the actual decision-making process. It is worth thinking about what circumstances make these two logics combine and explore what factors drive this intersection on the entrepreneurial path.

6.3 Factors influencing Chinese entrepreneurs’ decision-making

This section explores the factors analyzed from the interviews that influence the entrepreneurial decision-making process. Table 6.3 summarizes the key factors identified in the study and their impact on the decision-making logic preference during the entrepreneurial process.

Table. 6.3 Summary of factors influencing decision-making logic

Category	Code	Decision-making logic
Education and learning intention	Formal education	Causation
	Learning initiative and continuous development	
Experience	Relevance of previous work experience	Causation
	Learning from past entrepreneurial ventures	Effectuation /Causation
Networking	Networking for opportunity recognition	Effectuation
	Networking for resource acquisition	Effectuation/Causation
	Networking for problem-solving	Effectuation
Cross-cultural interaction	Cultural shock	Effectuation
	Communication with local colleagues	
Persistent and aspiration	Resilience and persistence	Causation
	Aspirational mindset	

6.3.1 Human capital

Bae et al. (2014) described human capital as the skills and knowledge acquired through formal education, practical training on the job, and various types of experiential learning (Becker, 1994; Unger et al., 2011). The analysis of these interview transcripts shows the importance of entrepreneurs’ educational and professional backgrounds through four subcategories: formal

education, relevance of previous work experience, and learning from past entrepreneurial ventures.

Education and learning intention

Formal education provides a solid foundation of essential knowledge and critical thinking skills for those about to enter the complex world of entrepreneurship. Through systematic study, individuals can master the basics of business principles, financial management and strategic planning, and advanced topics such as market analysis, customer relationship management, and innovation and leadership (Vakili et al., 2017). This educational background helps potential entrepreneurs identify and seize market opportunities and enables them to apply critical thinking to analyze problems and find solutions when faced with challenges in business operations.

During my undergraduate studies, I majored in Business Management, followed by a focus on Small and Medium-sized Enterprise (SME) Management for my graduate studies. Currently, I am pursuing an MBA. So I think I have a lot of ideas and do some simple evaluations before I make a decision. (LS)

The interviewee's formal education journey demonstrates a structured and focused approach to acquiring the knowledge and skills necessary for entrepreneurship. This foundation in business and management education is likely to provide them with the theoretical understanding and strategic thinking capabilities essential for his entrepreneurship. It is worth mentioning that in the early stages of starting a business, this interviewee conducted preliminary market research, focusing on factors such as pricing structure, competitive landscape, and site-specific conditions. Furthermore, as discussed earlier, his accurate analysis of the trend of the pandemic allowed him to quickly pivot to online teaching,

effectively safeguarding the educational institution he founded from significant impact. A solid foundation in management can greatly improve entrepreneurs' ability to perceive and manage risks. As a result, people with this background take a more planned and long-term perspective in approaching business, suggesting that targeted education plays an invaluable role in cultivating successful entrepreneurial practices.

My undergraduate education was completed in China, where I had the opportunity to participate in a university entrepreneurship competition as part of my formal programme. This experience was inextricably linked to my schooling and played an active role in shaping my entrepreneurial mindset. (BT)

The interviewee's descriptions highlight the impact of formal education on their entrepreneurial journeys, particularly through participation in university entrepreneurship competitions. This experience shows a combination of theoretical knowledge with practical application, which allows the interviewee to apply business concepts learned in the classroom to real-world scenarios. Additionally, as a doctoral student in social sciences, this interviewee brings theoretical frameworks to life, providing a rich context for his understanding the complexities of human behavior, organizational dynamics, and market dynamics within the entrepreneurial environment. This background is likely to support the interviewee's unique perspective on entrepreneurship, enabling him a deep understanding of the structural and human factors that influence business success.

From analyzing this interviewee (BT), it is clear that at the start of his business, particularly in the opportunity identification phase, his idea was characterized by improvisation. However, as the business grew, he began to plan more carefully. This is evident in tasks like selecting a store location, registering the business, procuring inventory, organizing international transportation, and creating a time schedule. This change in decision-making processes suggests that the entrepreneur's educational background played a

significant role in moving from acting spontaneously to a planned way.

Experience

Previous work and entrepreneurial experiences are often closely related to an individual's choice of entrepreneurial path. Work experience provides realistic insights into industry practices, market dynamics, and organizational management, providing a solid foundation for entrepreneurial skill development (Massey, 2023). Work experience promotes an understanding of business operations, customer relations, and strategic planning, providing aspiring entrepreneurs the necessary tools to manage the complexities of entrepreneurial and business activities.

Some interviewees have both work and entrepreneurial experience. The analysis of their interviews shows that people with this dual background are more thoughtful and rational in their approach to entrepreneurship. Their rich experience contributes to more benefits in starting and running a business. Nevertheless, for the sake of this discussion, work experience and entrepreneurial experience are analyzed separately to clarify the different advantages that each brings to the entrepreneurial process. This distinction allows for an understanding of how each experience separately shapes the entrepreneur's mindset, strategy, and the tendencies of their decision-making logic.

- Relevance of previous work experience

The industry I previously worked in, although distinct from my current entrepreneurial venture, involved aspects of production and import/export, which has somewhat familiarized me with the entire process. This background has been somewhat beneficial to my current startup. (IT)

Interviewee's past work experience, particularly in industries involving production, import, and export segments, has profoundly impacted their current entrepreneurship. Though the specific areas in which he worked in the past may differ from where he is now starting his business, the basic knowledge and practical skills gained by dealing with the production and trade processes have greatly benefited him. Familiarity with the operational aspects of production and international trade gave the interviewees a solid understanding of the entire workflow from material procurement to final product distribution. Such experience shortens the learning cycle of entrepreneurship and assists in managing the supply chain, negotiating with suppliers and customers, and navigating the regulatory environment. Therefore, the relevance of previous work experience is that it directly contributes to the interviewees' ability to cope with similar challenges in their entrepreneurial process, providing tangible advantages in terms of operational efficiency and strategic planning.

On the other hand, this interviewee also has entrepreneurial experience. He ran a manufacturing business before starting his current international trading company. The current business was an opportunity he recognized from his experience and lessons learned from manufacturing companies. This transformation illustrates the entrepreneurs' resilience and adaptability and highlights the invaluable role of past failures in paving the way for new opportunities. This journey exemplifies the complex interplay between past entrepreneurial experiences and new opportunities, demonstrating how past challenges can inform future business strategies.

After observing the lockdown situation in China due to the pandemic, I quickly analyzed the potential impact of this event on global trends, especially in Europe. I realized that the offline teaching model would face significant challenges in the near future. Therefore, I decided to shift to online teaching... indeed, my prediction turned out to be correct...until now, we have maintained online classes as one of our teaching methods. (LS)

This interviewee's (LS) decision-making process shifted from "gut feeling" to "forecasting," that is, from intuition to a more structured and analytical approach. This entrepreneur previously worked within the same language school and understood its operations and market environment, his work experience plays an important role in making accurate forecasting. Being familiar with the internal workings and external conditions of the institution, he could leverage this in-depth knowledge to make more informed and precise predictions. Work experience also helps him develop analytical skills, exposes the entrepreneur to complex problems that require more than intuition, and highlights the importance of risk management.

- Learning from past entrepreneurial ventures

The experience gained from previous entrepreneurial ventures provides valuable lessons in resilience, risk management and innovation. It teaches the key problem-solving skills, the importance of adaptability, and the skill of seizing opportunities. These experiences contribute to developing a holistic entrepreneurial mindset that enhances an individual's ability to identify market needs, develop viable business models, and execute strategies effectively (Camelo-Ordaz et al, 2024; Kor et al., 2001). Therefore, work and entrepreneurial experiences greatly influence an individual's entrepreneurial logic, inform the decision-making process, and ultimately influence the direction of the future venture.

Some interviewees had entrepreneurial experience that spanned different geographies. Prior to establishing businesses in Poland, some of them had started businesses in China, various European countries, and other nations across the globe. These diverse entrepreneurial experiences have proven beneficial in honing fundamental skills necessary for entrepreneurship. The exposure to different business cultures, regulatory environments, and market dynamics has enabled them with a versatile skill set and a broad perspective on navigating the complexities of starting and managing a business in varied contexts.

During my years in Moscow, I was also involved in this industry. But when it comes to the fashion sector, the style in Russia differs significantly from what we see here. So, I could only start with the Russian style as a foundation and then make adjustments after arriving here. Of course, my management experience, sales experience, and customer communication skills have been beneficial. These soft skills definitely offer an advantage. (CW02)

Starting with the Russian style as a foundation and then adjusting to the local market upon arriving elsewhere indicates a willingness to leverage available resources and adapt based on current circumstances. Furthermore, the mention of utilizing soft skills such as management experience, sales experience, and customer communication skills points towards an effectual approach, where entrepreneurs focus on controlling what they can with the resources at hand and co-create opportunities with their customers and partners.

Our company is a family-owned business located in China. Although I began participating in the family business's operations starting from 2006, two years later, I formally entered our specific industry. In 2019, I decided to explore entrepreneurial opportunities in Poland. (EV)

The well-organized series of steps from involvement in the family business, to formally joining the industry, the decision to explore a new market demonstrates the importance of planning and systematic analysis, which is consistent with causal logic. At the same time, the choice to look for new opportunities in Poland also demonstrates an openness to new experiences and markets, which is at the heart of effectual logic, i.e., a willingness to embrace unexpected opportunities. It shows that careful planning under causal decision-making logic

and flexible adaptation under effectual logic is needed at every stage of a company's development.

6.3.2 Social capital

Social capital refers to the actual and potential resources accessed through an individual's social network (Nahapiet & Ghoshal, 1998). Investing in interpersonal relationships generates goodwill and reputation, which can be utilized to assist individuals or groups in achieving specific goals (Adler & Kwon, 2002). Therefore, the core value of social capital is that it allows individuals to more easily access critical knowledge, financial support, and cultural resources (Bourdieu, 1986). In this study, networking includes three main facets: networking for opportunity recognition, networking for resource acquisition, and networking for problem-solving. While all three dimensions are interrelated, each plays a unique role: building supportive networks of relationships, identifying potential business opportunities through those networks, and acquiring the resources necessary to realize those opportunities.

Networking

- Networking for opportunity recognition

Networking for opportunity recognition involves leveraging these networks to identify potential business opportunities. By engaging with a diverse range of individuals, entrepreneurs expose themselves to new ideas, trends, and unmet market needs that could inspire innovative business ventures (Ozgen & Baron, 2007). This process underscores the importance of maintaining active and wide-reaching networks to stay abreast of opportunities that might otherwise go unnoticed (Kontinen & Ojala, 2011). Through the interviews, it was found that identifying opportunities often depended heavily on family relationships. This trend suggests that the trust, information sharing, and support inherent in family networks can lead to unique insights and access to undiscovered opportunities. Family relationships provide a foundation of support and act as a conduit for opportunity identification, capitalizing on the

collective knowledge and networks cultivated by family members.

My husband had worked in Poland for a long time and accumulated many logistics resources, then I utilized them to start my own business. (IL)

Before I started my entrepreneurial journey, my father had already established a base of loyal customers in Poland. This certainly provided some assistance in my own business. (CW02)

My husband works in the hairdressing industry in Poland, so I chose to get involved in the nail salon industry because there may be some overlap in terms of client base. (NS)

The interview content reveals a strategic use of available resources and personal connections, which aligns closely with the principles of effectuation logic in decision-making. The decision to undertake an entrepreneurial venture in the logistics industry was significantly influenced by the interviewee's pre-existing resources and networks within Poland. Their established relationships with local resources provided a foundational asset that the interviewee leveraged to enter the industry. This approach reflects a key aspect of effectuation logic, where entrepreneurs start with the resources and networks available to them and select goals based on these means.

- Networking for resource acquisition

Networking for resource acquisition focuses on how entrepreneurs can use their networks to access the resources they need to grow their businesses. This may include financial investment, talent recruitment, and entering new markets. Effective networking helps entrepreneurs know where to find these resources. It also allows them to access them through their connections.

The partner we chose met all the regulations and had all the necessary production licenses. They also agreed to help us get the legal documents we needed for production. So, in the end, we decided to build a factory in Poland. (IT)

Finding key suppliers and starting collaboration talks in Poland shows a planned way of networking to get needed resources. This involved finding suppliers with the necessary production capabilities and those compliant with regulatory standards and willing to help with the legal processes required for manufacturing. This strategic use of networking to secure important operational resources shows the importance of building and using professional relationships to achieve specific business objectives.

This entrepreneur's strategy of accessing resources through networks and establishing a production base in Poland reflects a blend of causation and effectuation. The foundational strategy was clearly defined and systematic, aligning with causation logic. However, the adaptive elements of leveraging networks for regulatory compliance and legal assistance introduce an effectual dimension to their decision-making process. It reveals the dynamic nature of entrepreneurial decision-making, where both planning and adaptability are key to navigating the complexities of international business expansion.

- Networking for problem-solving

Networking for problem-solving emphasizes the role of networks in providing guidance, alternate perspectives, and practical solutions during challenging times, illustrating how relationships can serve as a crucial buffer against the uncertainties of entrepreneurship.

I have many friends in Poland who were incredibly supportive during the early stages of my entrepreneurship. They helped me a lot. They introduced me to lawyers when I was starting my company, helped me get work permits, and connected me

with other professionals who guided me through things I didn't know about. (CW01)

When faced with legal issues when starting a business, such as applying work permits, or dealing with unfamiliar regulatory requirements, the interviewee did not rely on their own knowledge or resources. Instead, they turned to their networks for help by referring them to lawyers and other professionals. This strategy shows how networks can solve specific problems and reflects an effectual approach to decision-making. Rather than trying to predict and prepare for every possible challenge, the interviewee was flexible, using their social connections to find solutions as problems arose. This approach is in line with the principles of effectuation logic, where entrepreneurs act on the resources and networks they have and adapt their strategies to changing circumstances.

6.3.3 Cultural factors

This section mainly discusses the cultural impact on Chinese entrepreneurs starting businesses in Poland. By analyzing the interview content, two main topics have been found for discussion: cultural shock and cross-cultural interactions. Chinese entrepreneurs who set up business in Poland often face cultural shock as they encounter the differences in cultural norms, values, and business manners between China and Poland. This phase involves adjusting to new social practices, understanding the local business environment, and dealing with any gaps in communication styles and expectations. Overcoming cultural shock is key for successful integration and operation in the Polish market. The cross-cultural interaction that comes naturally when engaging with Polish customers, partners, and the wider community requires a deep understanding of and respect for Polish culture. Of course, it also entails sharing aspects of Chinese culture, fostering mutual respect, and finding common ground. These interactions are about overcoming differences and utilizing cultural diversity to build stronger, more dynamic business relationships. Through effective cross-cultural interactions, Chinese entrepreneurs in Poland can enhance their businesses' adaptability, innovation, and

competitive advantage in a multicultural context.

Cross-cultural interaction

- Culture shock

Culture shock describes a range of stresses and confusions that people feel when confronted with people from cultures different from their own (Winkelman, 1994). This is not only common in immigrant groups such as foreign students, refugees, and business people who have moved to another country, but as societies become increasingly diverse, even within their cultural environments, people may experience culture shock as a result of being exposed to different subcultures (Merta et al., 1988). Therefore, culture shock is a common phenomenon in intercultural communication, affecting everyone's adaptation and understanding of the new environment. During the interviews, interviewees' views on culture shock varied. Some felt greater discomfort with cultural differences, while some viewed culture shock as a normal part of integrating into a new environment and considered it perfectly acceptable.

*I accept and fully understand the differences. I believe that due to our diverse cultural backgrounds, I approach situations with an attitude of mutual compromise.
(BT)*

After all, the two countries are far apart, so differences are inevitable. However, I think it's manageable. The differences still fall within an acceptable range for me. (CW01)

Both attitudes highlight a realistic approach to navigating cultural shocks- recognizing and respecting differences, while finding ways to adapt and compromise. New cultural environments might present unfamiliar risks, leading to more cautious decision-making. Such

approaches are not about careful planning to avoid cultural shocks (as might be more aligned with causation) but rather about adjusting one's expectations and strategies in response to them. This adaptability and willingness to negotiate and compromise, essential components of effectuation (Sarasvathy, 2001), underscore the importance of an entrepreneur's ability to meet cross-cultural challenges through practical understanding and adaptability, rather than rigid adherence to a predetermined plan. The ability to understand and adapt to different cultural contexts, informed by the insights from cross-cultural studies (Hofstede, 1980), is crucial for entrepreneurs operating in the global marketplace.

Indeed, while some entrepreneurs display acceptance of cultural shock, another group finds themselves surprised by the cultural differences exhibited by their Polish colleagues, employees, and business partners. Despite facing moments of doubt and discontent, they strive to demonstrate empathy and understanding. The interviewees' negative perceptions towards Polish culture primarily manifest in aspects related to employee work attitudes, productivity problems, the balance between work and leisure time, and flexibility. They observe differences in how Polish employees prioritize their work commitments versus personal time, often leading to variances in work ethic and operational flexibility compared to what they might have expected or experienced in their own cultures.

Regarding working hours, our business requires flexibility, but the Poles are very adherent to their work schedules. Once off work or on vacation, they are virtually unreachable. There is also the issue of work ethic. Despite the possibility of a higher position, some prefer to maintain the status quo rather than strive for more. (IL)

I believe that Chinese people are definitely more diligent. Poles, on the other hand, place a greater emphasis on taking breaks and leave precisely at the end of their workday. (CW02)

There seems to be a slight clash in work culture because their workday ends,

for example, at 4 PM, and by 3:50 PM, they're already wrapping up, putting away their cups. (LS)

It feels like there's a general attitude here that they do not fully align with the company's standpoint or consider the company's interests alongside their own. It seems they lack a sense of collectivism in their work ethic. (IT)

These interviewees highlight the clash of cultures with regard to working hours and their flexibility. They note that Polish professionals adhere strictly to their working hours, and once the workday or vacation starts, they are largely unreachable. This rigid interpretation of work schedules presents challenges for businesses that require more flexibility in timing, as is often the case with international operations that span multiple time zones or have unpredictable demands. The entrepreneurs also point out a difference in work attitudes, specifically, a reluctance among some Polish employees to seek advancement or embrace opportunities for growth, preferring instead to maintain the position. Furthermore, one interviewee perceives a lack of a collective mindset, indicating that Polish workers may only sometimes prioritize the company's interests alongside their considerations. This reflects a broader cultural difference in individual versus collective achievement and responsibility, indicating that the entrepreneurs expected a more ambitious and company-centric approach from their employees.

Culture shock leads entrepreneurs to adopt effectual logic because adaptation to the local culture is necessary for sustained operations, regardless of the entrepreneur's initial attitude towards cultural shock. To live and work in a new environment, it is necessary to understand and integrate local cultural norms. In dealing with these cultural challenges, entrepreneurs continue to grow and learn to conform their business behavior and interpersonal interactions to local customs. This continuous adaptation not only contributes to personal growth, but also ensures that their business strategies are relevant and effective in the local environment.

- Communication with local colleagues

Cross-cultural communication in the workplace involves understanding and bridging the gaps between different cultural backgrounds, values, beliefs, and behaviors (Sahadevan & Sumangala, 2021). This includes strategies for effective communication and collaboration and the deeper appreciation and integration of diverse cultural perspectives into business practices. These interactions often lead to innovative approaches to business challenges, enriched by various cultural insights and collaborations.

...it's all about mutual understanding. Sometimes, we can't apply Chinese management styles to Polish people; it just doesn't work. (CR)

When it comes to get on with Polish employees, whether they're my subordinates or not, it's essential to be polite. And, you can't just lose your temper at them impulsively. This aspect of interaction is quite different from what I've experienced with Chinese employees. (IL)

The interviewee (CR) emphasizes the necessity of mutual understanding and cautions against applying a Chinese mindset directly to managing Polish individuals, suggesting a recognition of cultural differences and the need for adaptability in management approaches. The interviewee's (IL) emphasis on treating subordinates politely and avoiding impulsive anger underscores the cultural sensitivity required in cross-cultural interactions. Recognizing the differences between Polish and Chinese communication styles and adapting accordingly is crucial for maintaining harmonious working relationships, reflecting an approach in managing cross-cultural teams by leveraging empathetic and respectful communication.

Effective cross-cultural communication is important for entrepreneurs to integrate and adapt to unfamiliar environments. By increasing contact with local colleagues, entrepreneurs can be more flexible in adapting to new environments and improving living and working situations. This practice favors a shift in decision-making logic towards effectuation.

I have many Polish suppliers, and I make an effort to consider their needs and make concessions to gain their trust. I've found that once they commit to working with you, they tend to be reliable and less prone to unexpected changes.
(IT)

The interviewee's effort to understand and meet the needs of Polish suppliers, and making concessions to gain their trust, which is in line with the core principles of effectual logic. This logic emphasizes strategic partnerships and the co-creation of markets through personal networks and relationships. The entrepreneur's adaptation to the communication styles and business conduct expected in Poland also reflects an effectual approach. His decisions and actions are determined by the means and relationships available. This adaptive strategy enhances the entrepreneur's ability to work effectively in the local culture and improves his overall flexibility and responsiveness.

6.3.4 Individual characteristics

Among the 12 entrepreneurs interviewed, only two have been in business for less than three years. This indicates that the majority of these entrepreneurs have navigated through significant global crises, including the COVID-19 pandemic in 2020 and the Russo-Ukrainian War in 2022. These events have posed substantial challenges to Chinese entrepreneurs already facing the complexities of operating in Poland.

Perseverance and aspiration

Persistence, on the other hand, involves the sustained effort entrepreneurs put into overcoming obstacles and not giving up on their business goals, demonstrating a commitment to long-term success (Markman et al., 2005). Resilience refers to the capacity of entrepreneurs to

recover from difficulties, adapt to change, and continue pursuing their goals despite challenges (Bullough et al., 2014). These traits are often intertwined, as resilient entrepreneurs are typically persistent, continually finding ways to push forward and adapt strategies in response to changing market conditions and internal business challenges (Ayala & Manzano, 2014).

The ability to continue operations despite the logistical nightmares caused by the pandemic and increased operational costs due to the war demonstrates a high level of resilience. These entrepreneurs showed persistence by navigating through the challenges without giving up, which is a key trait for overcoming adversity. For example:

I barely made a profit in the first six months of the pandemic, but the experience tested my resilience and perseverance, and I stayed the course and continued to push my business forward. (RS02)

The response from the interviewee (RS02) said “stay the course and continue to push the business forward” despite not making much profit shows a high level of persistence. This decision likely avoided the need to make a decision to cease business operations early, or to make a sharp turn that might not be in line with the long-term vision of the business. Perseverance in the entrepreneurial process often implies a focus on long-term goals rather than short-term setbacks. This enables them to rise above immediate financial difficulties and supports a strategy of sustained growth and recovery.

In 2019 I registered my company in Poland and the pandemic that immediately followed prevented me from traveling to Poland. Despite the challenges of managing remotely, resulting in ongoing expenses, I did not give up. When I finally arrived in Poland and faced with many omissions and risks, I worked hard to rectify the mistakes and ensure the business

could continue to grow. (EV)

Due to the pandemic, it was initially impossible to travel to Poland, a situation that could have caused many entrepreneurs to stop their development. However, the interviewee's perseverance enabled him to manage his business remotely. This adaptability to persevere under pressure reflects a decision-making approach that emphasizes the priority of maintaining business continuity rather than giving up easily. As soon as he arrived in Poland, he immediately set about solving the problems he encountered, a positive attitude that emphasizes his resilience and focus on long-term success. At the same time, his decisions are driven by a vision of the future success and stability of the business, not just short-term behavior.

Resilience and persistence help entrepreneurs stick to their strategic plans, focusing on systematic processes and long-term goals. According to Wiltbank et al. (2006), this strict planning based on forecasts is central to causal logic, showing how entrepreneurs balance intuition and systematic planning in dynamic business environments.

Aspirational mindset

Aspiration is not only about achieving specific business goals, but also reflects the entrepreneur's passion and hope for the business. This broad interpretation of aspiration is consistent with the view that entrepreneurial motivation includes both the drive to achieve wealth and independence and the pursuit of personal fulfillment and influence (Cardon et al., 2009; Hmieleski & Baron, 2009). Furthermore, research suggests that the level of aspiration can significantly influence the scale and scope of entrepreneurial activities. Entrepreneurs with high aspirations are likely to set more ambitious goals, demonstrate resilience in the face of adversity, and actively seek opportunities that are consistent with their optimistic outlook (Locke & Latham, 2002).

If it weren't for the pandemic, I'd probably have several restaurant chains open by now, but I still believe in being able to open multiple chains in the future.
(CR)

In the first six months of the outbreak, although there were financial challenges and little income, this challenge gradually decreased and even performance increased after the policy improved, and I thought I would get through it if I just kept going. (RS02)

When facing difficulties, I firmly refused to admit failure and did everything possible to solve the problems, even sometimes heading in the wrong direction. But I never gave up the courage and seek the right direction from different perspective.
(IT)

The interviewee's (CR) optimistic outlook and ambitions were demonstrated by her belief that they could have expanded their business and opened several restaurant chains if there had not been a pandemic. Despite the setbacks, she still holds onto the vision of what could have been, indicating forward-thinking and goal-oriented traits. The character of aspirational mindset influences entrepreneurs to be more inclined to turn to causal logic, where entrepreneurs set ambitious goals and are optimistic about their ability to predict and shape the future of their ventures through careful planning and execution.

The pandemic and the war have created various challenges for Chinese entrepreneurs in Poland across different sectors, with impacts ranging from supply chain disruptions to changes in consumer behavior (e.g. RS02 and IT). As a result of border closures, logistical bottlenecks, and supply chain problems for materials and goods (especially from Asia), all enterprises were affected to varying degrees by the economy and needed to adjust their product lines, services, and marketing strategies to meet changing market demands and economic conditions. Nonetheless, the entrepreneurs' responses reflected their resilience,

adaptability, strategic thinking, optimism, ambition, and problem-solving abilities in these adversities, emphasizing their critical role in ensuring business continuity and growth in times of global crisis.

6.4 Discussion

The shift from effectual to causal logic presents a strategic adaptation in line with emerging business needs and situations throughout the entrepreneurial journey. This is evident when one needs to grow, enter new markets, or acquire investments, which thus requires greater structuring and long-term planning by entrepreneurs (Read et al., 2009; Sarasvathy, 2001). This structured approach is based on forecasting, planning, and systematic decision-making processes that are signs of causal logic, driven by formal education, optimism, and ambition (Fisher, 2012; Frese et al., 2019). In addition, the requirement for adaptability in cross-cultural management and systematic planning and strategizing further characterize causal decision-making logic. The ability to predict and adapt to cross-cultural interactions is critical and a sign of an approach to coping with diverse entrepreneurial environments (Reymen et al., 2017). As companies expand their operations and networks, the drift toward causal logic intensifies, suggesting that this shift is inevitable as businesses' strategic needs develop (Read & Sarasvathy, 2005).

However, in conditions of market uncertainty, limited resources, or rapid changes, even formally educated entrepreneurs may shift to effectual logic. Whereas causal logic, focusing on prediction-based strategies such as market research and business planning, has long been endorsed in a formal educational context, the transition to effectual logic points out that entrepreneurs must engage certain crucial adaptive responses in the face of uncertainty (Sarasvathy, 2001; Read et al., 2009). This shift shows the ability of entrepreneurs to become more flexible and experimental, starting with the means available to them while goals develop over time, which is consistent with the core concepts of effectuation theory (Fisher, 2012).

Furthermore, the importance of network relationships in effectual logic is used not only

for identifying opportunities, but also for mobilizing social resources to solve problems and address new challenges. This confirms Sarasvathy et al.'s (2014) findings on the social and collaborative nature of entrepreneurial ventures under uncertainty. It is an important validation of the theory, underlining the flexibility and adaptiveness of strategies needed for entrepreneurial success.

In this view, experiencing culture shock forces entrepreneurs to turn to effectual logic and apply more adaptive strategies in different cultural environments. Such adjustment is required of the entrepreneur if they are to effectively manage and sustain their operations in these new cultural environments, as the local people's norms and customs integration is critical for personal and business success (Gupta et al., 2015; Hayton et al., 2002). The culture shock phenomenon is what results in continuous adaptation and follows the principles of effectual logic, where entrepreneurs act within existing means and co-create with local stakeholders to cope with uncertainty effectively (Sarasvathy, 2001; Wiltbank et al., 2006). It is from continuous learning and adaptation for personal growth that such business strategies remain relevant and effective in the local setting. In addition, the relationship between national culture and entrepreneurial behavior highlights the adaptability of entrepreneurs in the face of cultural challenges. This further proves that understanding and integrating into a new cultural environment is crucial for effective entrepreneurial activities. This is the reason for the many studies that have emphasized the importance of cultural understanding (Hofstede, 2001; Hayton et al., 2002).

Entrepreneurs' past experiences strongly affect how they make decisions. These experiences help them switch between planned actions and adapting to new situations. Prior work experience and lessons learned from past entrepreneurial ventures provide the basis for structured planning and strategic forecasting (causation). They also make entrepreneurs more flexible when facing unexpected challenges (effectuation). This dual benefit confirms the theories proposed by scholars such as Bozward and Rogers-Draycott (2024) and Dew et al. (2009), who said that past entrepreneurial experiences shape entrepreneurs' knowledge and adaptability.

The resilience and perseverance characteristics developed from these experiences play a role in both decision-making logics. They not only help entrepreneurs keep going when facing difficulties and challenges (causation), but also enable them to find and use opportunities in uncertain situations (effectuation). The dual role of resilience and perseverance in entrepreneurial success is crucial. Cope (2011) and Santos and Eisenhardt (2009) showed how these characteristics help entrepreneurs stay persistent and adaptable.

The shift between decision-making logics is in fact a response to changes in the internal and external environment, which not only confirms the dynamic of entrepreneurial strategies proposed by Baron et al. (2010) and Vuong and Napier (2014), but also emphasizes the importance of adaptability in the entrepreneurial process. The following Table. 6.4 summarizes the factors that influence shifts in the entrepreneur's decision-making logic during the entrepreneurial process.

Table. 6.4 Summary of influencing factors

Code	Initial Decision	Mature Stage	Main factors
IL	Resource-based	Structured planning Goal-oriented	Networking Cross-cultural interaction
BT	Improvisation	Structured planning	Education Cross-cultural interaction Persistent and aspiration
CW01	Resource-based	Forecasting Structured planning	Networking Cross-cultural interaction
IT	Resource-based Improvisation	Data-driven	Networking Experience Cross-cultural interaction
RS01	Resource-based	Structured planning	Experience Cross-cultural interaction
CW02	Career adaptability Resource-based	Goal-oriented Data-driven	Networking Experience Cross-cultural interaction
NS	Improvisation Career adaptability	Forecasting	Experience Networking
AC	Resource-based	Goal-oriented	Networking Experience
LS	Gut feeling	Forecasting Structured planning	Experience Education
RS02	Career adaptability Resource-based	Goal-oriented	Cross-cultural interaction Persistent and aspiration
EV	Resource-based Career adaptability	Goal-oriented	Experience Cross-cultural interaction
CR	Gut feeling	Structured planning	Persistent and aspiration Cross-cultural interaction

6.5 Conclusion

This chapter provides an examination of decision-making logic used across different entrepreneurial stages. Also, it assesses factors influencing decision-making, such as human and social capital, cultural influences, and individual characteristics, analyzing how each affects the entrepreneurial process. This study highlights the dynamic nature of entrepreneurial decision-making logic and points out the complexity of decision-making logic shifts.

Chapter 7 Conclusion

7.1 Introduction

This concluding chapter synthesizes the key insights and contributions of the study, reflecting on how it extends both theoretical contributions and practical applications in entrepreneurship. It also evaluates the limitations of the research and suggests directions for future studies.

7.2 Contributions

This study makes several contributions to the theoretical understanding and practical application of entrepreneurial decision-making logic, especially in cross-cultural entrepreneurship. By analyzing the decision-making logic used by Chinese entrepreneurs in Poland in depth, this study enriches the existing literature on entrepreneurial decision-making. It reveals the complex interactions between the factors that influence decision-making logic.

7.2.1 Theoretical Contributions

1. Mechanisms of decision-making logic formation under multiple conditions

The findings of this study challenge and extend existing theoretical frameworks by providing new insights into how entrepreneurs make decisions. Although many scholars have already presented discussions addressing the influences on decision-making logic, including the individual level (e.g., Read et al., 2009; Stroe et al., 2018), the cultural level (e.g., Laskovaia et al., 2017; Magalhães & Abouzeid, 2018; Estrada-Cruz et al., 2019), and the business requirements level (e.g., Cui et al., 2019). In contrast, our findings, which combine factors at different levels, provide a more dynamic and context-sensitive explanation. In addition, we found that the factors influencing decision-making logic are not a single factor but a combination of factors, which goes beyond the traditional binary classification of decision-making logic. In some studies, effectual decision-making logic is preferred by experienced

entrepreneurs who make decisions based on the resources at hand and are able to respond flexibly to situations. In other studies, however, experienced entrepreneurs adopt causal decision-making logic, guiding their decisions by analyzing data and systematic planning. This difference suggests that the influence of entrepreneurial experience on decision-making logic may be influenced by a combination of other factors that lead to different outcomes. The key findings explained this situation.

2. Dynamic shifts in decision-making logic in the entrepreneurial process

The dynamic shifts between effectual and causal decision-making logic are confirmed at different stages of the entrepreneurial process. It emphasized the adaptability of entrepreneurial decision-making and the importance of entrepreneurial contexts and stages in selecting and applying decision-making logic. The finding challenges existing research perspectives that view decision-making logic as singularly determined by conditions such as experience, uncertainty, and cultural factors and see it as a stable trend (e.g., Dew et al., 2009; Laskovaia et al., 2017; Welter & Kim, 2018). This study supports the theoretical argument of Alvarez and Barney (2005) that changes in risk levels and uncertainty require entrepreneurs to adjust their decision-making logic. Reymen et al.'s (2017) investigation validated those conditions influencing decision-making logic shifts, including entrepreneurial resource status and entrepreneurs' uncertainty perceptions. This study complements the conditions affecting decision-making logic.

3. Method application in decision-making logic

This paper contributes to the decision-making literature by demonstrating the utility of fsQCA in decision-making logic research, thus providing new insights into the field. In contrast to earlier qualitative and experimental approaches (Sarasvathy, 1998), as well as later traditional quantitative methods (Brettel et al., 2012; Chandler et al., 2011; Harms & Schiele, 2012), fsQCA not only considers independent effects between variables but also analyzes their

combined effects. It allows researchers to identify key combinations of conditions that drive changes in decision-making logic in different situations. In particular, fsQCA demonstrates its unique strengths when dealing with social science problems with unclear boundaries and multifactor interactions. Because people consider many different assessments simultaneously when engaging in decision-making (Stroe et al., 2018), fsQCA can capture complex causal relationships that may be overlooked in traditional statistical models. This study derives high consistency and coverage in the combination of conditions that lead to the emergence of two desired outcomes, suggesting strong representativeness under the given conditions.

7.2.2 Practical Contributions

At the practical level, for entrepreneurs in cross-cultural environments, this study provides a worthwhile framework. It helps to understand the tendency to judge their decision-making logic throughout the entrepreneurial process, and to proactively adjust their decision-making logic as various developments in the entrepreneurial process change. Understanding when and how to make such shifts is critical to optimizing resource utilization, improving competitiveness in the marketplace, and enhancing the sustainability of the business. It is also necessary to understand how one's cultural background and the cultural factors of the target market will influence their decision-making strategies. By flexibly adapting their decision-making logic to explore and capitalize on new opportunities while maintaining a long-term commitment to their entrepreneurial goals, entrepreneurs can be better prepared for the uncertainties of international markets.

This dissertation could offer valuable insights for educators and policymakers. For educators, the research suggests that there might be a benefit in developing curricula that encompass the complexities of cross-cultural entrepreneurship and provide training to assist potential entrepreneurs in understanding and integrating diverse conditions within their decision-making processes. Policymakers might consider these findings to possibly refine support programs that aid foreign entrepreneurs in adapting to local business environments,

potentially enhancing the success of cross-country entrepreneurship efforts.

7.3 Limitations and recommendation

Although the dissertation provides valuable insights into the decision-making logic of Chinese entrepreneurs in Poland, there are still some limitations.

1. The scope of cultural background

This study is limited to a survey of Chinese immigrant entrepreneurs in Poland. Although this study provides insights into the decision-making logic of Chinese entrepreneurs in Poland, the findings are specific to this cross-cultural context. For example, the results produced by the interactions between individualism, long-term orientation, uncertainty avoidance, and other conditions may differ when set in other national cultures or when the study subjects are entrepreneurs from different backgrounds. That is, seeking to identify decision-making logic in the cross-cultural context of immigrant entrepreneurs should consider immigrant entrepreneurs from other countries and other host countries. Therefore, the broader generalizability of the findings is limited.

2. Methodology

Many scholars have used fsQCA for small- and medium-sized sample studies, arguing that it combines the most desirable elements of variable-oriented and case-study-oriented research (Krogslund et al., 2015; Cooper & Glaesser, 2012). However, fsQCA may be considered a susceptible method whose results are easily influenced by small parameter and model specification changes, and the causal conditions that lead to the results depend heavily on the values of several vital parameters chosen by the researcher (Krogslund et al., 2015). For example, the researcher's subjectivity can impact the final calculations in the calibration of the conditions and the construction of the truth table.

Qualitative research, mainly interviews, also has limitations. Alshenqeeti (2014) and

Mwita (2022) both emphasize that interviews can provide in-depth and detailed information. However, they are easily influenced by subjectivity and bias by both the researcher and the respondents. On the one hand, qualitative interviews are complex, including the challenges of design, analysis, and reporting (Potter & Hepburn, 2005). On the other hand, the findings were primarily based on respondents' self-assessments of their decision-making processes related to their business (Xu, 2017). In future research, consider examining data information from the growth of the business or from the entrepreneur's coworkers and partners to validate the reliability of the entrepreneur's self-assessment.

3. Temporal and evolutionary factors

Another area for improvement is related to the temporal nature of the study. This study captures the decision-making logic of entrepreneurs at specific stages of the entrepreneurial process. However, entrepreneurial decision-making is a dynamic process that evolves and is influenced by changing internal and external environments. A longitudinal research approach, which fully captures the fluidity and evolution of decision-making logic over the life cycle of an entrepreneurial venture, could be considered in future studies.

7.4 Conclusion

This chapter summarizes the key findings and contributions of this study, highlighting its theoretical and practical contribution of decision-making logic for immigrant entrepreneurs in their entrepreneurial journey. Recognizing the limitations of this study. The chapter identifies the limitations of this study and outlines potential pathways for further research.

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Appendices

Appendix A- Study One: Questionnaire (English version)

VSM (Culture)					
Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to ... (please circle one answer in each line across):	1 = utmost importance	2 = very important	3 = moderate importance	4 = little importance	5 = no importance
Individualism Index (IDV)					
01. have sufficient time for your personal or home life	1	2	3	4	5
04. have security of employment	1	2	3	4	5
06. do work that is interesting	1	2	3	4	5
09. have a job respected by your family and friends	1	2	3	4	5
Long Term Orientation Index (LTO)					
In your private life, how important is each of the following to you: (please circle one answer in each line across):					
13. doing a service to a friend	1	2	3	4	5
14. thrift (not spending more than needed)	1	2	3	4	5
19. How proud are you to be a citizen of your country?	1	2	3	4	5
22. Persistent efforts are the surest way to results	1	2	3	4	5
Uncertainty Avoidance Index (UAI)					
15. How often do you feel nervous or tense?	1	2	3	4	5
18. All in all, how would you describe your state of health these days?	1	2	3	4	5
21. One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work.	1	2	3	4	5
24. A company's or organization's rules should not be broken - not even when the employee thinks breaking the rule would be in the organization's best interest.	1	2	3	4	5
Risk perception	1 = strongly agree	2 = agree	3 = undecided	4 = disagree	5 = strongly disagree
1.Starting a new business is very risky.	1	2	3	4	5
2.The overall riskiness of a new venture is high.	1	2	3	4	5
3.I see the possibility of starting a business as a potential opportunity to pursue.	1	2	3	4	5

4.The probability of a new venture doing poorly is very high.	1	2	3	4	5
5.If I don't start my own business, I may be missing a great opportunity.	1	2	3	4	5
6.There is great uncertainty when predicting how well a new venture will do.	1	2	3	4	5
7.Overall I would label the option of starting a business as something positive.	1	2	3	4	5
Decision-making logic	1 = strongly agree	2 = agree	3 = undecided	4 = disagree	5 = strongly disagree
Effectuation					
Experimentation (EXP)					
1. We experimented with different products and/ or business model.	1	2	3	4	5
2.The product/ service that we now provide is essentially the same as originally conceptualized.	1	2	3	4	5
3.The product/ service that we now provide is substantially different than we first imagined.	1	2	3	4	5
4.We tried a number of different approaches until we found a business model that worked.	1	2	3	4	5
Affordable Loss (AL)					
1. We were careful not to commit more resources than we could afford to lose.	1	2	3	4	5
2.We were careful not to risk more money than we were willing to lose with our initial idea.	1	2	3	4	5
3.We were careful not to risk so much money that the company would be in real trouble.	1	2	3	4	5
Flexibility (FL)					
1. We allowed the business to evolve as opportunities emerged.	1	2	3	4	5
2. We adapted what we were doing to the resources we had.	1	2	3	4	5
3. We were flexible and took advantage of opportunities as they arose.	1	2	3	4	5
4. We avoided courses of action that restricted our flexibility and adaptability.	1	2	3	4	5
Pre-commitments (PC)					
1.We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty.	1	2	3	4	5
2. We used pre-commitments from customers and suppliers as often as possible.	1	2	3	4	5

3. Network contacts provided low cost resources.	1	2	3	4	5
4. By working closely with people/organizations external to our organization we have been able to greatly expand our capabilities.	1	2	3	4	5
5. We have focused on developing alliances with other people and organizations.	1	2	3	4	5
6. Our partnerships with outside organizations and people play a key role in our ability to provide our product/service.	1	2	3	4	5
Causation (CA)					
1. We analyzed long run opportunities and selected what we thought would provide the best return.	1	2	3	4	5
2. We developed a strategy to best take advantage of resources and capabilities.	1	2	3	4	5
3. We designed and planned business strategies.	1	2	3	4	5
4. We organized and implemented control processes to make sure we met objectives.	1	2	3	4	5
5. We researched and selected target market and did meaningful competitive analysis.	1	2	3	4	5
6. We had a clear and consistent vision for where we wanted to end up.	1	2	3	4	5
7. We designed and planned production and marketing efforts.	1	2	3	4	5

Appendix B - Study One: Demographic questions

Your personal information (for statistical purposes only):
Gender:
1. Male
2. Female
Age:
1. 20 years old or younger
2. 20-24 years old
3. 25-29 years old
4. 30-34 years old
5. 35-39 years old
6. 40-49 years old
7. 50-59 years old
8. 60 years old or older
Since primary school, how long have you received formal school or equivalent education?
1. 10 years or less
2. 11 years
3. 12 years
4. 13 years
5. 14 years
6. 15 years
7. 16 years
8. 17 years
9. 18 years or more
How many years have you worked since graduation? (Working years + entrepreneurial years)
1. 2 years or less
2. 3-4 years
3. 5-6 years
4. 7-10 years
5. 10-15 years
6. 15-20 years
7. 20-30 years
8. More than 30 years
If you are currently or have been in paid work, which of the following types of work did you do?
1. Unpaid work (including full-time students)
2. Unskilled or semi-skilled manual work
3. Office clerk or secretary with basic training
4. Vocationally trained craftsman, technician, IT expert, nurse, artist, etc.
5. Academically trained professional (but not a professional manager)
6. Manager who manages one or more subordinates (non-managers)
7. Senior manager who manages one or more managers

What is your nationality?

What was your nationality at birth (if different)?
--

Appendix C - Study One: Row data from fsQCA 3.0- Effectuaion

TRUTH TABLE ANALYSIS

Model: EFFFZ = f(IDVFZ, LTOFZ, UAIFZ, RISKFZ, EXPFZ)

Algorithm: Quine-McCluskey

--- PARSIMONIOUS SOLUTION ---

frequency cutoff: 1

consistency cutoff: 0.908146

	raw coverage	unique coverage	consistency
IDVFZ*LTOFZ	0.601509	0.363294	0.84243
UAIFZ*~RISKFZ*~EXPFZ	0.348209	0.109994	0.978799
solution coverage: 0.711502			
solution consistency: 0.858877			

--- INTERMEDIATE SOLUTION ---

frequency cutoff: 1

consistency cutoff: 0.908146

Assumptions:

	raw coverage	unique coverage	consistency
IDVFZ*~LTOFZ*UAIFZ*~RISKFZ*~EXPFZ	0.245757	0.0584538	0.9775
~IDVFZ*LTOFZ*UAIFZ*~RISKFZ*~EXPFZ	0.2445	0.0515399	0.979849
IDVFZ*LTOFZ*UAIFZ*RISKFZ*~EXPFZ	0.234444	0.0182276	0.981579
IDVFZ*LTOFZ*UAIFZ*~RISKFZ*EXPFZ	0.302326	0.0823382	0.948718
IDVFZ*LTOFZ*~UAIFZ*RISKFZ*EXPFZ	0.329353	0.115651	0.908146
solution coverage: 0.614079			
solution consistency: 0.934928			

Appendix D - Study One: Row data from fsQCA 3.0- Causation

TRUTH TABLE ANALYSIS

Model: CAUFZ = f(IDVFZ, LTOFZ, UAIFZ, RISKFZ, EXPFZ)

Algorithm: Quine-McCluskey

--- PARSIMONIOUS SOLUTION ---

frequency cutoff: 1

consistency cutoff: 0.902946

	raw coverage	unique coverage	consistency
	-----	-----	-----
IDVFZ*UAIFZ	0.454338	0.0262557	0.909714
LTOFZ*UAIFZ*~RISKFZ	0.383562	0.0610731	0.947814
IDVFZ*LTOFZ	0.550799	0.0171233	0.849472
IDVFZ*RISKFZ	0.430365	0	0.852941
IDVFZ*EXPFZ	0.47774	0	0.864669

solution coverage: 0.686644

solution consistency: 0.840671

--- INTERMEDIATE SOLUTION ---

frequency cutoff: 1

consistency cutoff: 0.902946

Assumptions:

	raw coverage	unique coverage	consistency
	-----	-----	-----
IDVFZ*~LTOFZ*UAIFZ*~RISKFZ	0.295662	0.0262557	0.971857
~IDVFZ*LTOFZ*UAIFZ*~RISKFZ	0.319635	0.0302511	0.965517
IDVFZ*LTOFZ*UAIFZ*RISKFZ*~EXPFZ	0.214612	0.0176941	0.989474
IDVFZ*LTOFZ*~UAIFZ*RISKFZ*EXPFZ	0.297374	0.0998859	0.902946
IDVFZ*UAIFZ*~RISKFZ*EXPFZ	0.324772	0	0.966044
LTOFZ*UAIFZ*~RISKFZ*EXPFZ	0.324201	0.00627851	0.965986

solution coverage: 0.606164

solution consistency: 0.939823

Appendix E - Study Two: Interview questions

Part 1.

- Can you tell me about your entrepreneurial story? [Research purpose: Assess the early stages of the entrepreneurial process]
- What year did you start your business? In which industry? Why did you choose to start a business? How did you discover and seize opportunities; how did you act; how did you find your market and customers? How did you find partners?
- Entrepreneurs' assessment of their own businesses
- Do you feel that the development of the company is phased? What stages do you think your company has gone through? What were the goals for each stage? How were they set? Were they achieved? Which stage is the company currently in?
- Have you encountered any bottlenecks/difficulties (such as the pandemic or major changes) during the entrepreneurial process? How did you handle them?
- Did you receive support while overcoming difficulties?
- During the entrepreneurial process or after overcoming difficulties, has your way of thinking, content of thought, and perspective changed?
- How do you define success in entrepreneurship/business?

Part 2.

- Did you have related work experience or entrepreneurial experience before?
- Did your experience impact the start of your entrepreneurship?
- After starting your business, did you find any contradictions between your previous experiences and reality?
- What was your educational level before starting your business?
- Did you have extensive business knowledge or expertise before starting your business?
- Have you participated in any training after starting your business? Was it voluntary or obligatory? In what aspects?
- Have you joined a chamber of commerce? Do you think joining one has helped your entrepreneurship?
- Do you have relatives or friends who are also entrepreneurs? Do you exchange resources with them? Do they support your entrepreneurship?
- In the process of starting a business in Poland, did you experience cultural shocks in dealing with colleagues, partners, or customers? For example, in behavior habits, values, work attitudes, or cooperation models. Do you appreciate or reject them?
- Do you think the local culture in Poland plays a positive role in entrepreneurship/business?
- Do you experience cultural conflicts each time you return to China after being in Poland? How is it different from the cultural conflicts felt in Poland?
- What are the cultural similarities between Poland and China? Or do you feel in some ways you are similar to Poles (behavior habits, thinking patterns, etc.)?

Appendix F - Study Two: Information for interview participants

Interview Information Sheet
<p>Project name: The impact of national culture and individual characteristics on the decision-making logic of immigrant entrepreneurs—The case of Chinese immigrant entrepreneurs in Poland</p>
<p>Researcher: Yi Zhang Supervisor: prof. dr hab. Aldona Glińska-Neweś Institution: Nicolaus Copernicus University in Toruń</p>
Project information
<ul style="list-style-type: none"> • The purpose of this project is to investigate how the use of effectuation and causation by Chinese immigrant entrepreneurs in their entrepreneurial processes is influenced by individual characteristics and cultural factors in a transnational context. • Decision-making, as an indispensable activity in the business, has a significant impact on the survival and development of a company. Causal and effectual logic are two highly representative decision-making methods. • Through analysis of past literature and the researcher’s understanding, it has been found that causation and effectuation are not mutually exclusive decision-making logics. Therefore, the researcher proposes that both logics may appear sequentially at different stages of entrepreneurship, occur simultaneously (with one predominating), or interchangeably. The ultimate goal of this interview is to explore whether there is a transition between causation and effectuation logics at different stages of entrepreneurship, and to identify potential factors influencing such transitions (e.g., related experience, education, social relationships, cultural factors, etc.).
Interviewee rights
<ul style="list-style-type: none"> ✓ Your personal information will be kept strictly confidential. ✓ Your participation is voluntary, and you may stop or withdraw at any time. ✓ You have the right to refuse to answer any questions you do not wish to answer. ✓ During the participation process, you may ask any questions about the research at any time. ✓ Your name will not be used in any publications resulting from this research. ✓ At the end of the project, you can obtain a summary of the research findings.
<p>Contact: yizhang@doktorant.umk.pl</p>

Appendix G - Study Two: Consent form

Consent
<ul style="list-style-type: none">• I have read and understood the information about this research project provided in the interview information sheet.• I can ask questions at any time and receive answers.• I am aware that these interviews will be recorded and translated.• I can withdraw any information I have provided for this project at any time before the completion of data collection.• If I decide to withdraw from this study, all information about me will be destroyed.• I agree to participate in this study.• I would like to receive a copy of the research report (optional). <input type="checkbox"/> Yes, I would like one. <input type="checkbox"/> No, thank you.
Interviewee Signature:
Interviewee Name:
Interviewee Contact Information (if applicable):
Date of Interview:

Appendix H – Study Two: Coding book

Code	Coding Rules	Example Data
Personal feelings and experiences	Code any personal insights or emotional factors mentioned.	"I felt confident in my idea based on past successes."
Financial support provided by family	Code instances of monetary or material support from family.	"My parents loaned me money to start my business."
Supply/business opportunities provided by ...	Code mentions of support or opportunities provided by ...	"A friend offered me a supply chain/ customer."
Sudden events	Code any unexpected events that impacted decisions.	"A sudden market downturn required strategy adjustment."
Change to other industries	Code strategic shifts to completely different industries.	"We moved from production to trading due to market demand."
Change to related industries	Code shifts to industries that are similar or related.	"We expanded the same industry to different markets"
Change from employee to employer	Code transitions from being employed to owning a business.	"I quit my job and opened my own retail."
Adjusting development strategies for survival	Code strategic changes made to ensure business survival.	"We pivoted our services online during the lockdown."
Predictability challenges	Code discussions about difficulties in forecasting.	"It's hard to predict customer demand in this sector."
Cost and profit considerations	Code any financial assessments or considerations.	"We reduced costs by outsourcing production."
Shorten the capital recovery period	Code strategies aimed at faster return on investment.	"We focused on quick-win projects to boost initial cash
Improve capital utilization	Code efforts to optimize the use of available funds.	"We invested in technology to improve operational efficiency."
Pursuit of good quality of life	Code mentions of balancing business goals with personal ...	"I want to provide a better quality of life for my family."
Strengthen social networks	Code efforts to build or leverage business networks.	"I joined the local business activities to gain more contacts."

Corporate social
responsibility

Code initiatives aimed at giving
back to the community.

"Our company can promote
local employment."