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Thai Architecture and Landscape Design Services: Causal and Effectual Decision in The International Opportunity Process

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ABSTRACT

Services are a major part of the global economy, generating more than two-thirds of global gross domestic product (GDP). Free trade agreements and advancement in technology have brought new services on to the global economy stage. Technology plays a pivotal role in the dissemination of architecture and landscape design services. Operating in an international context involves uncertainty and risk such as e.g., political, economic, sociocultural to navigate through with limited resources. This research aims to propose a foundation for research in international entrepreneurship. Two literature streams; 1) the causal and effectual logic in individual decision-making, action, and interaction as well as 2) the international opportunity process inform the theoretical framework development in this article. How the effectual and causal logics are used in providing international services are still underdeveloped. This research provides a research framework to conduct qualitative research to guide creative practitioners looking for adequate and effective decision-making solutions to tackle uncertainty and risk of providing service activities across international borders. In conclusion the causal and effectual logic in the international architecture and landscape design opportunity process is not fully understood in its detail and there is especially a need for qualitative research in Thailand.

Keywords:

architecture services, causal logic, effectual logic, international entrepreneurship, international opportunity

1. INTRODUCTION

The 21st century presents a challenging venture for Thai creative practitioners of international architecture and landscape design services to identify, evaluate, and exploit international opportunities. International creative decision-makers who operate in an international service environment are faced to tremendous uncertainty caused by regional crisis for example the “Tom Yum Kung” crisis back in 1997 and the current global crisis in 2020/2021 caused by an invisible virus (SARS-CoV2) where the future is unpredictable.

In an uncertain and unpredictable service environment international creative decision-makers need practical decision-making guidance to respond quickly to the rapidly shifting environment and sustain their firms through the trials ahead. Traditional business managers deal with challenges by relying on established structures and processes. These processes are designed to reduce uncertainty and support calculated stakes to manage the residual risks (Sarasvathy 2001, 2008). In a crisis, however, uncertainty can reach extreme levels, and the traditional way of working becomes overstrained.

For a century, the connection between uncertainty and decision-making, actions and interactions has concerned research across a wide variety of research fields in social and human sciences (Knight 1921; Sarasvathy 2001, 2008). Uncertainty is substantial of entrepreneurial opportunities that are necessary for the rejuvenation of organisations and economies (Venkataraman 1997; Townsend et al. 2018). Individual decision-making, action, and interaction under conditions of uncertainty and an unpredictable future cannot only rely on traditional marketing practices and business planning procedures learned in business schools and entrepreneurial education to succeed in international markets (causal logic). There is a more dynamic

approach in practice - effectual logic - which is intuitively practiced by individual creative decision-makers but not consciously known (Sarasvathy 2001, 2008) or not taught through the architecture and landscape design university syllabus.

This article has the purpose to develop the foundation for a qualitative research approach. The aim of this research is to present the significance and relevance of a qualitative research in international entrepreneurship at the example of Thai architecture and landscape design services in general, and on effectual and causal logics in decision-making, action, and interaction in specific. With the proposed qualitative research, it is intent to answer the question of “*How are causal and effectual logics used by creative practitioners in decision-making, action, and interaction throughout the international opportunity process of Thai architecture and landscape design services?*” We address this research question with the objective to fill in the research gap in international entrepreneurship and architecture and landscape design services in general and effectuation research in specific.

2. REVIEW OF LITERATURE

Two scientific literature streams inform the theoretical framework development to provide a foundation for an empirical qualitative research approach. The first explores the causal and effectual logics in decision-making, action, and interaction (Sarasvathy 2001, 2008). The second deals with the international opportunity concept (Mainela et al. 2014, 2018; Tabares et al. 2020).

Framework one: The causal and effectual logics

In any firm anywhere in the world daily decisions are made by individual decision-makers equally from a born global to an MNC in any industry sector. Most likely, chances are the discussion revolves around a decision or a set of decisions to be made and actions to be taken (Sarasvathy 2001). The entrepreneurial process to internationalise service activities outside the firm’s home country, starts with making important decisions of the individual decision-maker. Every entrepreneurial journey is unique as every individual decision-maker does have individual opportunities to create or to discover. In the attempt to evaluate and exploit opportunities, individual decision-makers follow certain cognitive logics, for instance decision-making heuristics in decision-making assessment and judgment.

To understand entrepreneurial decisions, one needs to look at previous theories that attempted to explain the relationship between the entrepreneur and how they think, make decisions, act, and interact accordingly. Three different fields, namely economics, personality psychology and strategic management, were used to explain entrepreneurship theory (Mitchell et al. 2002). Each of these research fields made its own contribution, but at the same time had some major shortcomings. In more recent studies the focus has thus moved to a cognitive psychology approach of understanding how entrepreneurs think and make decisions (Alvarez & Busenitz 2001; Busenitz & Barney 1997; Manimala 1992; Tversky & Kahneman 1974).

To examine the entrepreneurial cognition, it means to have a closer look at the people side of entrepreneurship and individual entrepreneurs are seen as key persons in the entrepreneurial process (Mitchell et al. 2002). Entrepreneurial cognition areas of cognitive psychology using mainly the lens of Mitchell et al. (2002, p. 97) as entrepreneurial cognition refers to “*the knowledge structures that people use to make assessments, judgments, or decisions involving opportunity evaluation, venture creation, and growth*”. The key elements in this definition are knowledge structure (heuristical) and decision-making (assessment and judgement) within opportunity evaluation (Mitchell et al. 2007). In other words, research in entrepreneurial cognition is about understanding how entrepreneurs use simplifying mental models to link together previously unconnected information that helps them to identify and invent services, and to assemble the necessary resources to start and grow services internationally.

There have been many studies on the importance of entrepreneurs’ cognition in the entrepreneurial process (Allinson et al. 2000; Baron 1998; 2009; Baron & Ward 2004; Kickul et al. 2009). For example, Baron and Ward (2004) argued that cognitive mechanisms can have a critical role in all aspects by which people think, say, and act. Entrepreneurs’ knowledge, susceptibility to cognitive bias, and the use of cognitive strategies have a significant influence on pursued opportunities (Baron 2002). Since the cognitive mechanism includes ways that people collect, organise, scrutinise, interpret, and integrate information (Allinson & Hayes 1996), cognitive styles of an entrepreneur are a critical determinant in understanding entrepreneurs’ decision-making and behaviours (action and interaction).

According to Allinson et al. (2000, pp. 31-32), cognitive style is defined as a “*preferred approach to information processing*” or “*the way of thinking about and processing vital information upon which decisions are made*”. Allinson and Hayes (1996) suggested two types of cognitive styles, intuition, and analysis. Intuitive cognitive style is the approach of processing information quickly and effortlessly based on the global perspective of an individual. Thus, people who prefer intuitive cognitive style are more likely to be nonconformist, use open-ended ways of problem-solving, and depend on holistic, synthetic, lateral, and relational manners of thinking. On the contrary, analytic cognitive style is the approach to information processing in a systematic and sequential manner. People who prefer analytic cognitive style tend to be conformist, use a structured approach to problem-solving, and employ careful, deductive, rigorous, convergent, and critical reasoning.

The theory of heuristics has been part of the entrepreneurial cognition literature since the early nineties (Manimala 1992; Shaver & Scott 1991). The potential of heuristics to explain internationalisation processes has also been recognised by internationalisation scholars (Bingham et al. 2007; Grégoire et al. 2008). It has been advanced that heuristics based cognitive mechanisms may be involved in entrepreneurs’ early internationalisation decisions (Grégoire et al. 2008). Heuristics are rules of thumb, used in reasoning under conditions of uncertainty (Tversky & Kahneman 1974). They are shortcuts that allow for making quick and reasonably reliable judgements that substitute for the lengthy gathering and processing of all relevant information, which humans tend not to do (Braisby & Gellatly 2005) and would not be able to do due to boundaries in their rationality (Kahneman 2003; Simon 1992).

Sarasvathy (2001) in her seminal work provides and contrasts two decision-making, action, and interaction logics in uncertain and unpredictable business environments. She criticised the dominance of traditional causal methods in the management and entrepreneurship literature and introduced entrepreneurial effectual logic as a complementary logic to the causal logic in decision-making (Read et al. 2015). Sarasvathy (2001, p. 245) defined effectuation and causation as “*effectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means*” and “*causation processes take a particular effect as given and focus on selecting between means to create that effect*”. Sarasvathy (2001) illustrates the two decision-making, action, and interaction logics with the example of preparing a meal. A causal chef chooses what meal to make, shops for the necessary ingredients and prepares it; effectual chefs see what ingredients are readily available, imagine possible meals to make, and choose one to prepare.

Effectuation consists of five heuristics, each of which emphasises ways of making decisions without relying on predictive information. The five heuristics that comprise effectuation were induced from a protocol analysis study of expert entrepreneurs (Sarasvathy 2001, 2008). The expert entrepreneurs in the study had experience from starting, running, failing, and succeeding at multiple ventures, including at least one company that went public. The original study has since been replicated with novice entrepreneurs (Dew et al. 2009) and expert corporate managers (Brettel et al. 2012). Additional studies have examined the use of causal and effectual logic heuristics in internationalisation and incorporated a variety of methods including experiments, simulations, case studies, interviews, and conjoint analysis (e.g., Ahi et al. 2017; Galkina & Chetty 2015; Kalinic et al. 2014).

The set of logically consistent non-predictive heuristics are particularly useful in reference to Knightian uncertainty, a situation characterised by risks that are literally immeasurable, where probabilities are not only unknown, but also unknowable (Knight 1921). Effectuation heuristics are the tools that help navigate the entrepreneur in the presence of multidimensional uncertainty (Dew et al. 2008; Dew & Sarasvathy 2016). The five effectual logic heuristics worded below, offer mechanism that leverage things within the entrepreneurs’ control to shape and influence an uncertain and unpredictable future (Sarasvathy 2001, 2008):

- 1) **Bird-in-hand heuristic – start with your means.** Expert entrepreneurs approach an opportunity, based on who they are (identity), what they know (knowledge and skills), and whom they know (social and professional networks). They work from competence, expertise, and their network to envision possibilities, rather than target opportunities according to the market size or expected returns.
- 2) **Affordable-loss-heuristic – focus on the downside risk.** Invest no more than you can afford to lose. Even slack and waste can be transformed into resources.

- 3) **Crazy-quilt heuristic – form partnerships.** Work with self-selected stakeholders who make actual commitments to your enterprise. Who comes on board may not only help to shape what you end up doing, but also reduce costs and increase innovative outcomes.
- 4) **Lemonade heuristic – leverage contingencies.** Embrace and leverage unexpected contingencies, whether positive or negative. Opportunities often come disguised as misfortune.
- 5) **Pilot-in-the-plane heuristic – control the future.** Co-Create the future without worrying about so called inevitable trends. The future comes from what people do; history does not run-on autopilot.

Sarasvathy (2001, p. 245) indicates that “*both causation and effectuation are integral parts of human reasoning that can occur simultaneously, overlapping and intertwining over different contexts of decisions and actions*”. Effectuation studies have not specifically focused on examining their simultaneity (Read et al. 2016). In the literature, effectuation is mainly seen as a decision-making logic prevailing during the initial stages of business formation when the level of uncertainty about the venture, the service and the potential market is rather high (Sarasvathy 2001, 2008). Further, along the next stages of business development, when the firm becomes more established and there is more certainty e.g., about its internal processes, management team, suppliers, customers, market infrastructures and the goals of entrepreneurial activities become more articulated and certain, traditional goal-oriented reasoning becomes more relevant and the logic of decision making becomes less effectual (Sarasvathy 2008; Sarasvathy & Dew 2005). However, does it become causal? This transition and the dynamics of the interplay between causation and effectuation is questionable, particularly considering the study by Perry et al. (2012) who argue that causation and effectuation are not the opposite ends of a continuum but have an orthogonal, or independent, uncorrelated relationship. This means that one can be present without the other or both can be present at the same time with varied intensity.

Framework two: The international opportunity concept

Individual decision-makers in any firm are faced with significant questions when internationalising their service activities. They need to make decisions on what? Who? Why? Where? And how? (Baker et al. 2005; Sarasvathy et al. 2013; Shane & Venkataraman 2000; van Gelderen et al. 2021) throughout the international opportunity process (Mainela et al. 2014, 2018; Tabares et al. 2020).

The international opportunity as a concept and object of entrepreneurship study has gained increasing interest from international entrepreneurship (IE) scholars in recent years. Mainela et al. (2014) argue that international opportunity has the potential to be a unifying concept of international business and entrepreneurship in IE as a field of scholarly research. The ‘opportunity’ concept has been a key focus of entrepreneurship research for a long time. Venkataraman (1997) proposed that entrepreneurship as a scholarly field should focus on opportunities as its distinctive domain and seek to understand how opportunities to bring into existence and with what consequences. Shane and Venkataraman (2000, p. 218) defined the field of entrepreneurship as “*the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited*”.

Mainela et al. (2014) reviewed the state of knowledge concerning opportunities in the IE field by content-analysing research published between 1989 and 2012 employing the concept of opportunities. They found the articulation of the conceptual features of international opportunities and opportunity-focused behaviours to be limited, and the full potential of the opportunity focus to be underexploited. They argued that IE research should pay more attention to international opportunities and the cognitive and behavioural processes leading to the discovery and creation of these.

The international opportunity process can be studied along three phases: 1) international opportunity identification, 2) international opportunity evaluation; and 3) international opportunity exploitation. Phase one - International opportunity identification: is defined as how the international opportunity comes into existence. Either by international opportunity creation (effectual logic) via co-creation or international opportunity discovery (causal logic) via serendipity or active search (Alvarez & Barney 2010; Sarasvathy 2001, 2008; Tabares et al. 2020). Phase two - International opportunity evaluation: is defined as the reason why do people view identified opportunities favourably and reject others. Moreover, how do individuals decide to pursue the international opportunity they identified (Alvarez & Barney 2007; Baker et al. 2005; Shane & Venkataraman 2000) to act accordingly. Phase three - International opportunity exploitation: is defined as the reason of what happens after an individual decision-maker has identified an opportunity and decided whether it is worth pursuing it. Moreover, how, and where are resources acquired and mobilised in pursuit

of that opportunity (Alvarez & Barney 2007; Baker et al. 2005; Shane & Venkataraman 2000) to act accordingly. The international opportunity view on service internationalisation provides an understanding of international business in full, by examining the three opportunity stages and should not be limited to the international opportunity aspect but to what, who, why, where, and how (Baker et al. 2005; Sarasvathy et al. 2013; Shane & Venkataraman 2000; van Gelderen et al. 2021) international opportunities are identified, the decision is made, the actions are taken and interactions are made to pursue international opportunities.

Causal and effectual logics in Thai architecture and landscape design cross-border services

Analysing previous research on internationalisation of architecture services it is proved that these studies were mainly conducted from a traditional management and marketing point of view (Coviello & Martin 1999; Erramilli 1990; Rimmer 1988; Winch 2008, Canavan et al. 2012) and not from causal and effectual logic perspective. Erramilli (1990) investigated how service firms enter a foreign market by direct and indirect export, by contractual method e.g., licencing, and foreign direct investment (joint ventures and wholly own subsidiaries). Coviello and Martin (1999) took a management perspective and focused on: 1) the FDI theory, 2) the stage models of internationalisation, and 3) the network perspective. Nevertheless, some results of those studies are indicating evidence that the effectual logic in decision-making, action and interaction is an important part in providing architectural services which are traded across national borders. Published research provided by Winch (2008) and Canavan et al. (2012) provide evidence in their results of effectual logic principles such as: 1) international experience and common international identity, as well as, 2) knowledge and technical competencies, which can be referenced to the effectual logic principle of 'Available Means', 3) networks of corresponding firms that are committed to referring international clients can be referenced to the effectual logic principle of 'Forming Partnership' and/or 'Leveraging Contingencies', and 4) relational capital and reputation, can be referenced to the effectual logic principle of 'Affordable Loss'.

An emerging research stream in IE has applied the causal and effectual logic to firm internationalisation (Ahi et al. 2017; Galkina & Chetty 2015; Kalinic et al. 2014). This stream is built upon the argument that due to the unpredictability of the internationalisation environment (Vahlne & Johanson 2017); small and mid-sized enterprises cannot rely only on market research, competitive analysis, and market planning (referred to the causal logic) in their internationalisation efforts. Small and mid-sized firms need to find entrepreneurial pathways to pass national borders (Schweizer et al. 2010). Scholars in this stream argue that shifting from causal to effectual logic supports small and mid-sized firms to focus on construction versus positioning strategies (Wiltbank et al. 2006) and control the internationalisation process by applying the logic of affordable loss and networking to overcome their liability of outsidership by forming new networks, entering into related network(s), improving their position inside those network(s), and increasing the level of trust and commitment in relationships (Kalinic et al. 2014). This logic supports small and mid-sized firms to shape the market as a network of relationships (Read et al. 2009), within which partners share tacit knowledge of internationalisation opportunities (Vahlne & Johanson 2017). Applying the effectual logic in internationalisation studies does not imply ignoring the importance of predictive goal-oriented approaches (referred to causal logic). Instead, effectuation considers the applicability of both causal and effectual logics in different situations (Read et al. 2015; Sarasvathy et al. 2014). As Sarasvathy et al. (2014, p. 63) observed: *"while effectual approaches open up and create new markets at low costs of failure, causal approaches can help stabilize and establish leadership in those new markets"*.

Sarasvathy et al. (2013) reviewed the effectual logic principles and the implication for international entrepreneurship and questioned that prior knowledge, experience, and network characteristics (Available means) are seen as antecedents to the internationalisation process. Not only whether different types of identity, knowledge and networks result in internationalisation, but which types of these variables lead to how and how fast firms may internationalise. When smaller firms are facing limited resources, affordable loss may be used both causally and effectually for how to internationalise rather than whether to internationalise. Therefore, firms may make whether to internationalise decision in a deliberate, planned, goal-driven, causal way and my still use an effectual affordable loss approach on designing the how. And social capital, social networks, social ties are related to 'whom I know' (Available means), it is not networks themselves that matter, rather it is what entrepreneurs do with those networks. Architecture and landscape design services are provided in form of projects. Brettel et al. (2010) applied in their study causation and effectuation to the R&D projects context. Therefore, we argue that we can apply the five causal and effectual logic heuristics to the architecture and landscape design projects as depict in Table 1.

Table 1:

Key characteristics of causal and effectual logics in project related internationalisation

Principle	Causal characteristics	Effectual characteristics
1) Means vs. Goals	International Projects are driven by given project targets	International Projects are driven by means
2) Affordable loss vs. expected return	International Projects driven by expected project returns	International Projects are driven by in-advance commitments to what one is willing to lose
3) Reduce vs. identify uncertainty	Existing uncertainty identified and avoided through market and competitor analysis	Existing uncertainty reduced through partnerships and precommitments of stakeholders
4) Acknowledge vs. overcome the unexpected	Contingencies / Surprises avoided or quickly overcome to reach given project targets	Contingencies / Surprises seen as source of opportunities
5) Create vs. exploit opportunities	Development/trends seen as exogenously given than can be exploited by us of forecasts.	Human agency seen as prime driver of future developments

Source: Own creation adapted from Brettel et al. (2012).

Previous research on internationalisation of architectural services were exclusively conducted from a traditional management and marketing point view (Rimmer 1988; Erramilli 1990; Coviello & Martin, 1999; Winch 2008) which is referenced to the causal logic (Sarasvathy 2001, 2008). To the best knowledge of the researchers, causal and effectual logic heuristics in the international architecture and landscape design service industry in general and in the Thai context in specific was not proceed before. Based on these patterns, international entrepreneurship research on Thai architecture and landscape design services applying causal and effectual logics appear to be new. Therefore, the researchers argue to conduct empirical research on the Thai architecture and landscape design service industry is of high interest.

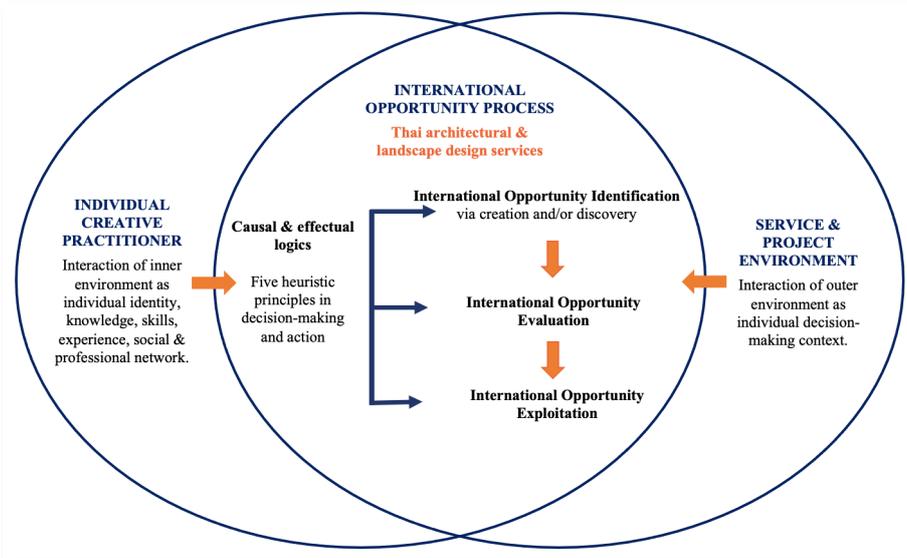
Combining causal and effectual logics (Sarasvathy 2001, 2008) together with the concept of international opportunity (Mainela et al. 2014, 2018; Tabares et al. 2020) it defines the theoretical framework to study individual decision-making, action, and interaction in the international opportunity process of Thai architecture and landscape design services. It builds on previous research that has initiated the process of integrating the causal and effectual logics in small and mid-sized firm internationalisation (Schweizer et al. 2010; Sarasvathy et. al. 2013; Kalinic et al. 2014; Chetty et al., 2015). The main research question defined on the presented literature review for a qualitative research approach is:

RQ1 – “How are causal and effectual logics used by creative practitioners in decision-making, action, and interaction throughout the international opportunity process of Thai architecture and landscape design services?”

We develop the theoretical framework in this research based on the arguments presented in previous chapters and depict in figure 1.

Figure 1:

The theoretical framework



Source: Own creation adapted from Tabares et al. (2020).

3. METHODOLOGY

To understand the nature of entrepreneurial decision-making and activity, a rationalistic dualist ontology will hinder the researcher's comprehension of the interrelation between individual creative decision-makers, their actions, and interactions (Szkudlarek & Wu 2018). Therefore, this research employs an interpretative approach that assumes that the world and the individual are not two separate entities, but that the world is perceived and enacted through a person's experience (Berger & Luckmann 1966; Husserl 1970). As such, the perception of international entrepreneurship is dependent on individual's lived experiences in the business world. Within the broad range of interpretative research methods, this study employs the approach of phenomenography (not to be confused with phenomenology). Phenomenography is a qualitative empirical approach used to identify the conceptions people have about the phenomena in their world (Marton 1981, 1994, 2000). It assumes a non-dualistic reality where the objective and subjective worlds are not differentiated. Instead, they are linked (Svensson 1997; Szkudlarek & Wu 2018).

The phenomenon to be studied in the proposed research is the objective of seeing the world from the international creative decision-maker's perspective in the international opportunity process. Meaning to get an understanding of the different ways in which this phenomenon is experienced, conceptualised, understood, perceived, and apprehended (Marton 1986). A phenomenographic study allows studying how individuals experience a phenomenon, such as the creative practitioners experience in the how-to internationalisation process of services. Phenomenography started with the seminal study by Svensson and Marton (1970), at Gothenburg University in Sweden. A phenomenographic study facilitates a way to look for relations and variations, in ways of e.g., Thai architects and landscape architects are internationalising their service and project activities. By exploring these relations and variations it is possible to see similarities and difference between decision-making in general and action as well as interaction in specific, which will help to develop a deeper understanding of the Thai architecture and landscape design service internationalisation process. Phenomenographic studies typically involve small group of participants and use open, explorative data collection to investigate the qualitatively different ways in which a phenomenon can be experienced.

Phenomenographic studies within applied business research are not widely known. There is one research conducted by Lamb et al. (2011) who used the proposed phenomenography as a qualitative methodology for investigating how owner-manager practice internationalisation in small firms in small Australian wineries. They also suggested extending the phenomenography beyond the firm internationalisation practice, to investigate other areas within the international business research (Lamb et al. 2011). Moreover, Szkudlarek and Wu (2018) conducted a qualitative study employed phenomenography to investigate the role of embeddedness in business venturing of migrant and ethnic entrepreneurs. Therefore, using a

phenomenographic research approach offers an innovative exploration of Thai architecture and landscape design service and project internationalisation.

4. DISCUSSION AND CONCLUSION

The purpose of this article is to address research gaps regarding the internationalisation of Thai architecture and landscape design firms. The aim of this research is to present the significance and relevance of a qualitative research at the intersection of international architecture and landscape design services and effectuation. The researchers briefly provided the two main research dimensions: 1) the causal and effectual logics in individual decision-making, action, and interaction (Sarasvathy 2001, 2008), and 2) the international opportunity concept (Mainela et al. 2014, 2018; Tabares et al. 2020). Next, the theoretical framework as a foundation for empirical qualitative research in Thai architecture and landscape design service industry was developed.

Thai architecture and landscape design firms provide cross-border services in an uncertain and unpredictable business environment. Considering these characteristics, it gives rise of decision-making paradigms besides the traditional causal logic approach as taught in business schools and entrepreneurial education. There is a more dynamic approach in practice - effectual logic - which is intuitively used by individual creative decision-makers but not consciously known (Sarasvathy 2001, 2008) or not taught through the architecture and landscape design university syllabus. The causal and effectual logic heuristics together provide an adequate and effective solution to tackle an uncertain and unpredictable future of service activities across international boundaries. Previous research on internationalisation of architecture and landscape design services were exclusively conducted from a traditional management and marketing point view (Rimmer 1988; Erramilli 1990; Coviello & Martin 1999; Winch 2008, Canavan et al. 2012) which is referenced to the causal logic (Sarasvathy 2001, 2008). Nevertheless, some results of those studies are indicating that the effectual logic (Sarasvathy 2001, 2008) in individual decision-making, action, and interaction is essential in providing architecture and landscape design services across national borders.

In conclusion, since this research provides only a theoretical framework for a qualitative study being conducted via a phenomenographic research approach in Thailand it is difficult to take definite conclusions. Nevertheless, the theoretical framework ensures a qualitative, explorative, and inductive research approach. The causal and effectual logic in the international opportunity concept is not fully understood in its detail and there is a need for qualitative research on Thai architecture and landscape design service industry. Conducting qualitative research to gain a better understanding of decision-making, action, and interaction throughout the international opportunity process is of high significance. The study will make important contributions to international entrepreneurship research in general and effectuation research in specific. It provides new insights in the international architecture and landscape design service industry.

5. LIMITATIONS

The proposed research contains certain limiting conditions, which are related to the common critiques of qualitative research methodology in general. Further limitations of the proposed study are mainly associated with its exploratory nature by using heuristic reasoning in internationalisation decisions which are more descriptive than prescriptive. Indeed, the purpose of an exploratory study is mainly to describe a phenomenon.

The Thai architecture and landscape design firms which will be selected for the proposed study may be prone to biases since only firms who are willing to participate and share information will be included in the research. However, the purpose of the research is not to achieve statistical generalisation, but rather analytical generalisation. As the proposed study focuses on the 'international opportunity-firm' nexus, an extensive amount of data relevant to key opportunities in each firm will be collected and analysed. The in-depth analysis of each firm compensates a limited sample size.

The research may be subject to cultural/geographical bias because it focuses exclusively on creative practitioners and firm founders of Thai architecture and landscape design service firms. The findings may therefore only apply in this specific context and have geographical bias. In addition, there may be a possible bias from the retrospective nature of some of the qualitative data, like views expressed and actions remembered by interviewees that happen a long time ago. The use of various sources of data and especially the firm founders' interviews will try to minimise this risk but cannot be guaranteed the total absence of retrospective bias.

Additionally, the findings will be primarily based on qualitative data, they can be generalised analytically, but not statistically. In addition, the theoretical framework in this article treats small and mid-sized enterprises equally. However, all two enterprise types have differences in their legal structure and international markets. However, we aim to enhance the body of international entrepreneurship knowledge, through exploring and examining causal and effectual logic heuristics in individual decision-making, action, and interactions in international Thai architecture and landscape design services and projects. The outlined limitations are acknowledged in this research, but do not pose a threat to the objectivity of the proposed empirical study.

REFERENCES

- Ahi, A, Baronchelli, G, Kuivalainen, O, & Piantoni, M 2017, 'International market entry: how do small and medium-sized enterprises make decisions', *Journal of International Marketing*, 25(1), pp. 1–21. <https://doi.org/10.1509/jim.15.0130>.
- Allinson, C W & Hayes, J 1996, 'The cognitive style index: A measure of intuition-analysis for organizational research', *Journal of Management Studies*, 33(1), pp. 119–135. <https://doi.org/10.1111/j.1467-6486.1996.tb00801.x>.
- Allinson C W, Chell, E & Hayes, J 2000, 'Intuition and entrepreneurial behavior', *European Journal of Work and Organizational Psychology*, 9(1), pp. 31–43. <https://doi.org/10.1080/135943200398049>.
- Alvarez, S A & Busenitz, L W 2001, 'The Entrepreneurship of Resource-Based Theory', *Journal of Management*, 27, pp. 755–775. [https://doi.org/10.1016/S0149-2063\(01\)00122-2](https://doi.org/10.1016/S0149-2063(01)00122-2).
- Alvarez, S A & Barney, J. B 2007, 'Discovery and Creation: Alternative Theories of Entrepreneurial Action', *Strategic Entrepreneurship Journal*, 1(1-2), pp. 11–26. <https://doi.org/10.1002/sej.4>.
- Alvarez, S A & Barney, J B 2010, 'Entrepreneurship and epistemology: the philosophical underpinnings of the study of entrepreneurial opportunities', *Academy of Management Annals*, 4(1), pp. 557–583. <https://doi.org/10.5465/19416520.2010.495521>.
- Baker, T, Gedajlovic, E & Lubatkin, M 2005, 'A framework for comparing entrepreneurship processes across nations' *Journal of International Business Studies*, 36(5), pp. 492–504. <https://doi.org/10.1057/PALGRAVE.JIBS.8400153>.
- Baron, R A 1998, 'Cognitive Mechanisms in Entrepreneurship: Why and When Entrepreneurs Think Differently than Other People,' *Journal of Business Venturing*, 13, pp. 275-294. [https://doi.org/10.1016/S0883-9026\(97\)00031-1](https://doi.org/10.1016/S0883-9026(97)00031-1).
- Baron, R A & Ward, T B 2004, 'Expanding Entrepreneurial Cognition's Toolbox: Potential Contributions from the Field of Cognitive Science', *Entrepreneurship Theory and Practice*, 28(6), pp. 553–573. <https://doi.org/10.1111/j.1540-6520.2004.00064.x>.
- Baron, R A 2009, 'Effectual versus predictive logics in entrepreneurial decision making: differences between experts and novices: does experience in starting new ventures change the way entrepreneurs think? Perhaps, but for now, caution is essential', *Journal of Business Venturing*, 24(4), pp. 310–315. <https://doi.org/10.1016/j.jbusvent.2008.04.001>.
- Berger, Peter L & Luckmann, T 1966, *The Social Construction of Reality*, New York: Random House.
- Bingham, C B, Eisenhardt, K M & Furr, N R 2007, 'What Makes a Process a Capability? Heuristics, Strategy and Effective Capture of Opportunities', *Strategic Entrepreneurship Journal*, 1(1-2), pp. 27–47. <https://doi.org/10.1002/sej.1>.
- Busenitz, L W & Barney, J B 1997, 'Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making' *Journal of Business Venturing*, 12(1), pp. 9–30. [https://doi.org/10.1016/S0883-9026\(96\)00003-1](https://doi.org/10.1016/S0883-9026(96)00003-1).
- Braisby, N & Gellatly, A 2005, *Cognitive Psychology*, Oxford University Press: Oxford, UK.
- Brettel, M, Mauer, R, Engelen, A & Küpper, D 2012, 'Corporate effectuation: entrepreneurial action and its impact on R&D project performance', *Journal of Business Venturing*, 27(2), pp. 167-184. <https://doi.org/10.1016/j.jbusvent.2011.01.001>

- Canavan, D, Sharkey Scott, P & Mangematin, V 2012, 'How Professional Service Firms Internationalise: Resource Commitments and Competencies for Internationalisation', *Academy of International Business*, UK and Ireland Chapter, Liverpool.
- Chetty, S, Ojala, A & Leppäaho, T 2015, 'Effectuation and foreign market entry of entrepreneurial firms', *European Journal of Marketing*, 49(9–10), pp. 1436–1459. <https://doi.org/10.1108/EJM-11-2013-0630>.
- Coviello, N E & Martin, K A-M 1999, 'Internationalization of Service SMEs: An Integrated Perspective from the Engineering Consulting Sector?', *Journal of International Marketing*, 7(4), pp. 42–66. <https://doi.org/10.1177/1069031X9900700404>.
- Dew, N, Read, S, Sarasvathy, S D & Wiltbank, R 2008, 'Outlines of a behavioral theory of the entrepreneurial firm', *Journal of Economic Behavior and Organization*, 66(1), pp. 37–59. <https://doi.org/10.1016/J.JEBO.2006.10.008>.
- Dew, N, Read, S, Sarasvathy, S D & Wiltbank, R 2009, 'Effectual versus predictive logics in entrepreneurial decision-making: Differences between experts and novices. *Journal of Business Venturing*, 24(4), pp. 287–309. <https://doi.org/10.1016/j.jbusvent.2008.02.002>.
- Dew, N & Sarasvathy, S D 2016, 'Exaptation and niche construction: Behavioral insights for an evolutionary theory', *Industrial and Corporate Change*, 25(1), pp. 167–179. <https://doi.org/10.1093/icc/dtv051>.
- Eramilli, M K 1990, 'Entry Mode Choice in Service Industries', *International Marketing Review*, 7(5). <https://doi.org/10.1108/EUM000000001535>.
- Galkina, T & Chetty, S 2015, 'Effectuation and networking of internationalizing SMEs', *Management International Review*, 55(5), pp. 647–674. <https://doi.org/10.1007/S11575-015-0251-X>.
- Grégoire, D A, Williams, D W & Oviatt, B M 2008, 'Early Internationalization Decisions for New Ventures: What Matters? In Zacharakis, A. et al. (eds.), *Frontiers of Entrepreneurship Research 2008*, Babson College, Babson Park, MA.
- Husserl, E 1970, *Logical Investigations*, Translated by J. Findlay. Vol. 2. London: Routledge & Kegan Paul.
- Kalinic, I, Sarasvathy, S D & Forza, C 2014, 'Expect the unexpected: implications of effectual logic on the internationalization process', *International Business Review*, 23(3), pp. 635–647. <https://doi.org/10.1016/j.ibusrev.2013.11.004>.
- Kahneman, D 2003, 'Maps of Bounded Rationality: Psychology for Behavioural Economics', *The American Economic Review*, 93(5), pp. 1449–1475. <https://doi.org/10.1257/000282803322655392>.
- Kickul, J, Gundry, L, Barbosa, S & Whitcanack, L 2009, 'Intuition versus analysis? Testing differential models of cognitive style on entrepreneurial self-efficacy and the new venture creation process', *Entrepreneurship Theory and Practice*, 33(29), pp. 439–453. <https://doi.org/10.1111/j.1540-6520.2009.00298.x>.
- Knight, F 1921, *Risk, uncertainty, and profit*, Boston, MA: Hart, Schaffner & Marx; Houghton Mifflin Company.
- Lamb, P, Sandberg, J & Liesch, P 2011, 'Small firm internationalisation unveiled through phenomenography', *Journal of International Business Studies*, 42, pp. 672–693. <https://doi.org/10.1057/jibs.2011.8>.
- Mainela, T, Puhakka, V & Servais, P 2014, 'The concept of international opportunity in international entrepreneurship: A review and a research agenda.' *International Journal of Management Reviews*, 16(1), pp. 105–129. <https://doi.org/10.1111/ijmr.12011>.
- Mainela, T, Puhakka, V & Sipola, S 2018, 'International entrepreneurship beyond individuals and firms: On the systemic nature of international opportunities', *Journal of Business Venturing*, 33(4), pp. 534–550. <https://doi.org/10.1016/j.jbusvent.2018.04.002>.
- Manimala, M J 1992, 'Entrepreneurial Heuristics: A Comparison Between High PI (Pioneering-Innovative) and Low PI Ventures', *Journal of Business Venturing*, 7(6), pp. 477–504. [https://doi.org/10.1016/0883-9026\(92\)90021-I](https://doi.org/10.1016/0883-9026(92)90021-I).

- Marton, F 1981, 'Phenomenography - Describing Conceptions of the World Around us', *Instructional Science*, 10(2), pp. 177–200. <https://doi.org/10.1007/BF00132516>.
- Marton, F 1986, 'Phenomenography - a research approach to investigating different understandings of reality', *Journal of Thought*, 21(3), pp. 28–49. <http://www.jstor.org/stable/42589189>.
- Marton, F 1994, *Phenomenography* In *The International Encyclopedia of Education*, edited by T. Husen and T. Neville Postlethwaite, pp. 4424–4429. New York: Pergamon.
- Marton, F 2000, *The Structure of Awareness* In *Phenomenography*, edited by J. Bowden and E. Walsh, pp. 102–116. Melbourne: RMIT Publishing.
- Mitchell, R K, Smith, B, Morse, E A, Seawright, K W, Peredo, A M & McKenzie, B 2002, 'Are Entrepreneurial Cognitions Universal? Assessing Entrepreneurial Cognitions across Cultures', *Entrepreneurship Theory and Practice*, 26(4), pp. 9–32. <https://doi.org/10.1177/104225870202600402>.
- Mitchell, R K, Busenitz L, Lant T, McDougall P P, Morse E A & Smith J B 2002, 'Toward a Theory of Entrepreneurial Cognition: Rethinking the People Side of Entrepreneurship Research', *Entrepreneurship Theory and Practice*, 27(2), pp. 93–104. <https://doi.org/10.1111/1540-8520.00001>.
- Mitchell, R K, Busenitz, L, Bird, B, Gaglio, M C, McMullen, J, Morse, E, & Smith, J 2007, 'The Central Question in Entrepreneurial Cognition Research 2007', *Entrepreneurship Theory and Practice*, 31(1), pp. 1–27. <https://doi.org/10.1111/j.1540-6520.2007.00161.x>.
- Perry, J T, Chandler, G N & Markova, G 2012, 'Entrepreneurial Effectuation: A Review and Suggestions for Future Research', *Entrepreneurship Theory and Practice*, 36(4), pp. 837–861. <https://doi.org/10.1111/j.1540-6520.2010.00435.x>.
- Read, S, Dew, N, Sarasvathy, S D & Wiltbank, R 2009, 'Marketing under Uncertainty: The Logic of an Effectual Approach', *Journal of Marketing*, 73(3), pp. 1–18. <https://doi.org/10.1509/jmkg.73.3.001>.
- Read, S, Sarasvathy, S D, Dew, N & Wiltbank, R 2015, 'Unreasonable Assumptions in ASB', Detail of discussion In Read, Sarasvathy, Dew and Wiltbank (2016). Downloaded from www.effectuation.org.
- Read, S, Sarasvathy, S D, Dew, N, & Wiltbank, R 2016, 'Response to Arend, Sarooghi, and Burkemper (2015): Co-creating effectual entrepreneurship research. *Academy of Management Review*, 41(3), pp. 528–556. <https://doi.org/10.5465/amr.2015.0180>.
- Rimmer, P J 1988, 'The Internationalization of Engineering Consultancies: Problems of Breaking into the Club', *Environment and Planning A: Economy and Space*, 20(6), pp. 761–788. <https://doi.org/10.1068/a200761>.
- Sarasvathy, S D 2001, 'Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency', *Academy of Management Review*, 26(2), pp. 243–63. <https://doi.org/10.2307/259121>.
- Sarasvathy, S D & Dew, N 2005, 'New market creation through transformation', *Journal of Evolutionary Economics*, 15(5), pp. 533–565. <https://doi.org/10.1007/s00191-005-0264-x>.
- Sarasvathy, S D 2008, *Effectuation: elements of entrepreneurial expertise*, Massachusetts: Edward Elgar. US.
- Sarasvathy, S D, Dew, N, Read, S & Wiltbank, R 2008, 'Designing organizations that design environments: lessons from entrepreneurial expertise', *Organization Studies*, 29(3), pp. 331–350. <https://doi.org/10.1177/0170840607088017>.
- Sarasvathy, S D, Kumar, K, York, J & Bhagavatula, S 2013, 'An Effectual Approach to International Entrepreneurship: Overlaps, Challenges, and Provocative Possibilities', *Entrepreneurship Theory and Practice*, 38(1), pp. 71–93. <https://doi.org/10.1111/etap.12088>.
- Schweizer, R, Vahlne, J E & Johanson, J 2010, 'Internationalization as an entrepreneurial process'. *Journal of International Entrepreneurship*, 8(4), pp. 43–370. <https://doi.org/10.1007/s10843-010-0064-8>
- Shane, S & Venkataraman, S 2000, 'The promise of entrepreneurship as a field of research', *Academy of Management Review*, 25(1), pp. 217–26. <https://doi.org/10.2307/259271>.
- Shaver, K G & Scott, L R 1991, 'Person, Process, Choice: The Psychology of New Venture Creation', *Entrepreneurship Theory and Practice*, 16(2), pp. 23–46. <https://doi.org/10.1177/104225879201600204>.

- Simon, H A 1992, *Introductory Comment*, In Simon, H. A., Egidi, M., Viale, R. and Marris, R. (eds.), *Economics, Bounded Rationality and the Cognitive Revolution*, Edward Elgin: Cheltenham, UK.
- Svensson, L 1997, 'Theoretical Foundations of Phenomenography', *Higher Education Research and Development*, 16 (2), pp. 159–171. <https://doi.org/10.1080/0729436970160204>.
- Szkudlarek, B & Wu, S Y 2018, 'The culturally contingent meaning of entrepreneurship: mixed embeddedness and co-ethnic ties', *Entrepreneurship and Regional Development*, 30 (5-6), pp. 585–611. <https://doi.org/10.1080/08985626.2018.1432701>.
- Tabares, A, Chandra, Y, & Alvarez, C 2020, 'Opportunity-related behaviors in international entrepreneurship research: a multilevel analysis of antecedents, processes, and outcomes', *International Entrepreneurship Management*, 17, pp. 321–368. <https://doi.10.1007/s11365-020-00636-3>.
- Townsend, D M, Hunt, R A, McMullen, J S & Sarasvathy, S D 2018, 'Uncertainty, Knowledge Problems, And Entrepreneurial Action', *Academy of Management Annals*, 12 (2), pp. 659–687. <https://doi.org/10.5465/annals.2016.0109>.
- Tversky A & Kahneman D 1975, 'Judgment under Uncertainty: Heuristics and Biases' In: Wendt D., Vlek C. (eds) *Utility, Probability, and Human Decision Making*. Theory and Decision Library (An International Series in the Philosophy and Methodology of the Social and Behavioral Sciences), vol 11. Springer, Dordrecht. https://doi.org/10.1007/978-94-010-1834-0_8.
- Vahlne, J-E & Johanson, J 2017, 'From Internationalization to Evolution: The Uppsala Model at 40 Years', *Journal of International Business Studies*, 48(9), pp. 1087–102. <http://www.jstor.org/stable/45149364>.
- van Gelderen, M, Wiklund, J & McMullen, J S 2021, 'Entrepreneurship in the Future: A Delphi Study of ETP and JBV Editorial Board Members', *Entrepreneurship Theory and Practice*, 45(5), pp. 1239–1275. <https://doi:10.1177/10422587211010503>.
- Venkataraman S 1997, 'The distinctive domain of entrepreneurship research: an editor's perspective', In Katz J. et Brockhaus R. (Eds.), *Advances in entrepreneurship, firm emergence, and growth*, Greenwich, CT: JAI Press, 3, pp. 119–138.
- Wiltbank, R, Dew, N, Read, S & Sarasvathy, S D 2006, 'What to do next? The case for non-predictive strategy', *Strategic Management Journal*, 27(10), pp. 981–998. <https://doi.org/10.1002/smj.555>.
- Winch, G M 2008, 'Internationalisation strategies in business-to-business services: the case of architecture practice', *The Service Industries Journal*, 28(1), pp. 1-13. <https://doi.org/10.1080/02642060701725347>.

