

**THE PROCESS OF THE PROCESS OF INTERNATIONALISATION:
COGNITIVE AND BEHAVIOURAL PERSPECTIVES IN SMALL VENTURES**

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ABSTRACT

This paper investigates the internationalisation decision-making process from the perspective of the decision maker's cognition. The aim is to advance the theoretical arguments that help explain the heterogeneous patterns of internationalisation for smaller ventures. Our framework includes the four-stage psychological process of decision-making—perception, options, evaluation, and choice—under the interactive effect of two-cognitive systems, namely experiential (Sys-1) and analytical (Sys-2). Based on interviews with six owners operating small ventures in high-tech industries, we found that accelerated patterns of internationalisation can be associated with increased levels of decision-makers experiential reasoning combined with lower levels of analytical reasoning interventions through the entire decision-making process of internationalising. Conversely, incremental and slower patterns of internationalisation can be associated with increased levels of analytical reasoning and lower levels of experiential interventions. Overall, we supplement the extant approaches to internationalisation with the dual-process theory of how individuals process information to make decisions.

Keywords: internationalisation process, Dual-Process Theory, decision-making, managerial cognition, analytical reasoning, experiential reasoning, INV, Uppsala model, earliness, speed of internationalisation

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1 INTRODUCTION

Small and medium enterprises (SMEs) are increasingly feeling additional pressures to precipitate their internationalising process under the influence of competitive stressors, such as environmental uncertainty and bounded rationality (Knight and Liesch, 2016; Magnani, and Zucchella, 2019; Paul et al., 2017). This need is particularly overwhelming for small ventures (SVs), since resource availability additionally constrains them, and they are more sensitive to external challenges, as their strategic behaviour is inextricably linked to the owner's/founder's personal objectives (Johanson and Vahlne, 1977; Laufs et al., 2014; Schwens et al., 2011). According to the European Commission (2003) nomenclature, SVs are firms with fewer than 50 employees, with a total annual turnover or a total balance sheet of less than or equal to 10 million euros. In these ventures, the decision-making is typically centralised around a single decision-maker, who has sole responsibility in the process of making decisions on internationalisation (Jones and Casulli, 2014), which is consistent with the framework of the Upper Echelon Theory (Hambrick and Mason, 1984). Furthermore, Acedo and Jones (2007), Sommer (2010) and, most recently, Maitland and Sammartino (2015) noted that the ultimate cause of the heterogeneous patterns of ventures' internationalisation is rooted in the personal characteristics and environmental interpretations made by these key decision-makers. Hitherto, scholars of internationalisation decision-making of SVs particularly focus on studying the firm as the unit of analysis—see the literature review of Laufs et al. (2016). Additionally, international entrepreneurship has put the lens on the logic the entrepreneurs and, by extension, the new venture both follow. We suggest that the explanation of the logic is a subsequent stage to the investigation of entrepreneurial cognition and that we should be more receptive to the contemporary theories explaining the process of decision-making. From the literature on thinking styles and decision-making, we know that individuals may choose a non-optimal option even when they are aware that the decision is based on flawed logic (Phillips et al., 2016). Thus, we suggest that the observed heterogeneity in internationalisation decisions could arise in a process that is previous to the use of any logic,

namely the managerial cognition or how the manager knows what s/he knows. We suggest this can be addressed from the perspective of cognitive systems and the psychological Dual Process Theory (DPT) (Epstein, 1994; Evans and Stanovich, 2013).

To address this, our investigation focuses in the process of how decision-makers use their cognitive systems when making internationalisation decisions. Decision-makers may rely on two distinct types of systems for information processing, according to the predominant psychological theory that explains how individuals make decisions, i.e., the DPT. This theory arose from developments in cognitive psychology and explains how experiential reasoning—rooted in domain-specific learning, experience, and emotions (Salas et al., 2010)—and analytical reasoning (i.e., logical, deductive, and conscious) operate jointly in decision-making processes (Kahneman, 2003) to shape an individual’s cognition. Evidence points to differences each individual may have from others concerning the reliance on one system over another. Even within the same industry, and under similar contexts, one may find a wide diversity of internationalisation choices (Rialp et al., 2005). Yet, in the domain of decision-making, the application of either cognitive system may successfully develop some specific tasks (Phillips et al., 2016). Consequently, we suggest that the DPT is an excellent point of departure for explaining the heterogeneity of choices that ranges from following a gradual process of increasing the SVs commitment to international operations (Johanson and Vahlne, 1977, 2009) to early and rapid internationalisation (Oviatt and McDougall, 1994, 1999).

Combining DPT with the decision-making stages, perception, options, evaluation, and final choice (Kahneman, 2003; Fellows, 2004; Narayanan et al., 2011), will shed light on the questions that guide our research: Do the cognitive processes of a manager-entrepreneur affect the decision-making process and outcomes in SV’s internationalisation? If so, how does each cognitive system affect the individual stages of decision-making in SV’s internationalisation? Our overall working hypothesis is that the decision-makers cognitive reasoning process, including his/her reliance on experiential and/or analytical reasoning when processing information to make decisions, can explain the SVs internationalisation pattern. Thus, the relative involvement of the two distinct types of reasoning helps explain why we observe many diverse

internationalisation patterns among SVs. The extrapolation to larger firms will involve the investigation of top management team's diversity, in terms of how each individual uses his/her cognitive systems. Meanwhile, our research is limited to the simplest case: SVs with concentrated decision-making by a single individual. Thus, our research situates in the intersection between international entrepreneurship and process internationalisation approaches.

As our original contribution, we introduce, for the first time, the DPT with a particular focus on SVs. Next, we introduce the methodology for the case study, which is anchored in a combination of Gioia's and Langley's traditions for conducting qualitative studies (Gioia et al., 1994; Langley 1999; see Gehman et al., 2018 for a joint reflection on this combination). After providing the results of the qualitative study, we discuss a set of testable propositions, develop the general framework, and follow with implications for theory and practice. The final section is twofold. First, it contains the conclusions of how the manager's cognitive reasoning affects each stage of the decision-making process within the SVs internationalisation. Second, we propose a research agenda for enlarging the results for other contexts with consideration of extant theories on the venture's internationalisation.

2 LITERATURE BACKGROUND

2.1 The cognitive process of decision-making

The DPT posits that individuals rely on two distinct types of cognitive reasoning when processing information and experience to make decisions, preceded by the perception of external stimuli (Epstein, 1994; Evans and Stanovich, 2013; Kahneman, 2003). According to this theory, there are two types of reasoning, which individuals may rely upon when making inferences, (1) experiential reasoning and (2) analytical reasoning (Epstein et al., 1996). We can also refer to these two types of reasoning as processes (Process-X for intuitive reasoning, Process-C for analytic one) and systems (System-1 for intuition, System-2 for analysis). What they have in common is how individuals use their cognitive resources to make decisions. The cognitive system-1, which is determined by experiential knowledge, is the default, automatic response to individuals'

perception of external stimuli (Kahneman, 2003). It does not require a conscious effort and is holistic in terms of effortlessly evaluating options (Hodgkinson and Clarke, 2007; Evans, 2008; Evans and Stanovich, 2013; Healey and Hodgkinson, 2014). We will refer to this as experiential reasoning. On the other hand, the cognitive system-2 requires a conscious deliberation, analysis, and it pays particular attention to details of the options when evaluating them (Hodgkinson and Clarke, 2007; Evans, 2008; Evans and Stanovich, 2013; Healey and Hodgkinson, 2014). Henceforth, we will label this analytical reasoning.

From cognitive psychology, we know that individual cognition is a predictor of success when making decisions (Kozhevnikov, 2007). In a meta-analysis of cognitive reasoning and decision-making, Phillips et al. (2016) found that associations between cognitive reasoning and decision performance are context dependent, partially because time pressure weakens the effect of reflection on decision performance but not on experiential reasoning. Yet, reasoning, when making decisions, is incomplete without the intervention of both cognitive systems. In fact, some scholars argue in favour of the advantages of experiential over analytical reasoning, particularly when the decision contains multiple factors for consideration and a holistic perspective is required to consider pros and cons (Dijksterhuis et al., 2006). However, on non-decomposable tasks, the effectiveness of this experiential relative to analytical reasoning depends on the individual's level of expertise in that specific domain, i.e., their experiential knowledge (Dane et al., 2012). Conversely, others claim that only analytic reasoning can be free of potential biases since it involves conscious thought and careful reflection (Kahneman and Frederick, 2002). Managers with a natural tendency to use and trust their experiential reasoning tend to be strongly dominated by their skilled expertise, categorized as expertise-based intuition in business (Akinci and Sadler-Smith, 2012). Hitherto, the necessary condition for the development of this expertise-based intuition is the high validity of the environment, which should include adequate opportunities and clear clues for learning and prolonged practice and unambiguous feedback that is both rapid and unequivocal (Kahneman and Frederick, 2002; Kahneman and Klein, 2009).

According to the DPT, and in addition to the psychological three-stage model of decision-making –that, includes the options identification, evaluation, and choice (Fellows, 2004)–, we follow Kahneman's (2003)

notion that perception is the first step in the process of decision-making, which leads to a shortlist battery of options that undergo evaluation before the choice is made. The reason for following this theory lies in the promising nature of managerial reasoning to advance the internationalisation research and explain decision-making on internationalisation (Jones and Casulli, 2014). We will frame this decision making process *after* the entrepreneur detects an international opportunity, since it triggers and is an antecedent to that subsequent process. Thus, once an entrepreneur decides to seize on an international opportunity, the entry mode to that market is one of the fundamental decisions s/he should make, which includes organizational timing and speed of internationalization –earliness and rapidness– (Laufs and Schwens, 2014; Nielsen and Nielsen, 2011). Accordingly, following the DPT, the entrepreneur will devote time and use his/her cognitive systems to (a) create a shortlist of potential options (e.g., exporting, international joint venture, contractual arrangements, etc.), (b) evaluate these options, and (c) reach a final decision; s/he will make all of these decisions by using his/her cognitive systems at each stage. This logic will be our framework for the qualitative study, as shown in figure 1.

2.2 How scholars have applied decision-making to smaller venture's internationalisation

The first issue to address is the clear distinction between international opportunity recognition and the cognitive reasoning process. Opportunity recognition happens after the perception and intervention of both cognitive systems. Experiential reasoning will yield the default, automatic response, while analytic reasoning will follow by reflecting on pros and cons. After this reflection, the manager-entrepreneur still does not know how to proceed, so s/he will start devising potential options to seize the opportunity. Once again, both cognitive systems will intervene by providing a quick shortlist of potential options based on experience, while the analytic reasoning will delve into details. Thus, our investigation begins after the international opportunity recognition has happened. Our research does not aim to focus on how cognitive systems affect opportunity recognition but, rather, how they shape the subsequent decision-making process after the opportunity recognition that gives form to the SV internationalising.

The relationships between the entrepreneur, the firm, and the environment affect the SVs' internationalisation behaviour, which is a consequence of the managerial perceptions of the environmental challenges (Jones and Coviello, 2005; Paul et al., 2017). Consequently, it encouraged scholars to focus increasingly on the decision-making process, including how the individual characteristics of decision-makers influence the strategic decisions on internationalisation (Aharoni et al., 2011; Child and Hsieh, 2014). In a more general study of strategic decision-making on SVs, Liberman-Yaconi et al. (2010) found that the process these firms follow is remarkably intuitive and heuristic, as opposed to what the normative theory predicts—searching for further information, option generating, and deliberation. Thus, SVs are a special type of ventures that differ from larger companies in terms of decision-making.

Following Child and Hsieh (2014), we draw on the managerial cognition and the nature of the decision-making style to explain the heterogeneous and, sometimes, fortuitous internationalisation in SVs. Furthermore, Hough and Ogilvie (2005), and later Nielsen and Nielsen (2011), noted that a decision-maker's cognitive characteristics strongly determine the decisions on internationalisation. In the particular case of SVs, the key issue that determines the firm's internationalisation decisions is the manager's global orientation (Freixanet et al., 2018), which is dependent on the manager's interpretation of reality. Decision-makers tend to *construct reality* and act on the basis of their personalized interpretations (Gavetti, 2012), influencing a firm behaviour by (1) directing the attention of the decision-maker, filtering the decision-maker's perceptions to only selected stimuli, and (2) serving as a lens through which these stimuli are interpreted (Finkelstein et al., 2009, Vlacic et al., 2019). Thus, managerial cognition can be considered an important micro-foundation of firm internationalisation (Maitland and Sammartino, 2015).

Moreover, the experiential knowledge is critical in the theories that explain the internationalisation of firms. The internationalisation process model (IPM) school, which includes the Uppsala Model, states that internationalisation is a process of gradual acquisition of experiential knowledge from international activities (Johanson and Vahlne, 1977; 2009). The lack of experiential knowledge will increase uncertainty and cause ventures to commit fewer resources to international operations at the beginning, and gradually reduce

uncertainties by gaining international experience allowing the firm to commit more resources to internationalisation. Conversely, Oviatt and McDougall (1994, 1999) claimed that some ventures do not necessarily evolve gradually from low to high resource commitments but, instead, may strongly commit to international operations early in the firms lifecycle because of the decision-makers entrepreneurial orientation and prior international experience. To date, experiential learning in foreign markets is one of the most dominant mechanism for explaining the internationalisation process from among a variety of other mechanisms, which has made the Uppsala model the *more rational approach* (Johanson and Vahlne, 1977; 2009). However, the Uppsala model focus is on explaining internationalisation as a gradual process. Other models highlight how technological advances in transportation, communication, and computers permit the formation of new ventures that internationalise rapidly and do not follow a gradual process of increasing resource commitments (Knight, 1996; Oviatt and McDougall, 1994, 1999).

There are several reasons why SVs may want to internationalise. Usually, SV's pursue niche strategies to avoid head-on competition with large multinational firms (Magnani and Zucchella, 2019). This constrains the size of the domestic market, why remaining purely domestic for long periods can be detrimental to the firm's survival and profitability (Puig et al., 2014). Thus, in order to grow, SVs are often forced to look beyond national borders for growth opportunities. In addition, internationalisation can provide SVs with the knowledge skills, and capabilities needed to survive and prosper and reduce their dependencies on any single market. Internationalisation seems to be necessary for SVs to prosper in an increasingly competitive and globalised world.

We can distinguish between different internationalisation patterns in terms of timing, scale, and scope of internationalisation (Kuivalainen et al., 2012). Timing of internationalisation relates to the temporal characteristics of the internationalisation process, including when and how fast a firm commits to internationalisation and is an important factor in distinguishing INVs or BGs from gradually internationalising SVs. The timing of internationalisation therefore refers to both the time-lag between the founding of a firm and the commencement of internationalisation, the speed of committing resources to internationalisation, and

the speed of entering increasingly psychically distant countries following the first entry (Chetty et al., 2014). In contrast, internationalisation scale relate to the extent of a firm's international operations, often measured as the foreign sales to total sales, while scope relates to the number of countries or regions in which a firm has international operations (i.e. international diversification) (Kuivalainen et al., 2013). Identifying antecedents of internationalisation patterns involves considering determinants at various levels, including the environmental, firm, and managerial level. However, as Maitland and Sammartino (2015) noted, managerial cognition, including how decision-makers search and process information, are critical factors in explaining firm-level internationalisation patterns.

What we questioned was how the manager-entrepreneur's cognitive systems explain the overall process of decision-making, from perception to choice. We propose that managerial cognitive reasoning governs SV's international behaviour. It does so by determining how decision-makers make inferences based on available data and experience, so managers identify, evaluate, and choose between different options for internationalisation. Yet, cognitive reasoning receives little systematic research attention in the current stream of international business literature.

To address this lack of research, we will combine the process of decision-making stages with the approach from the DPT and will apply this to decision-making related to firm internationalisation, as shown in figure 1.

*****INSERT-FIGURE-1-ABOUT-HERE*****

3 METHODOLOGY

In this study, we explore how the internationalisation process in SVs emerges, changes and unfolds over time and the role of managerial cognition in this process. To do this, we adopted a qualitative research approach, which is useful when seeking to explain the "*hows*", "*whos*", and "*whys*" of organizational processes (Doz, 2011). There are different ways in which one can perform process research (Langley, 1999). For the purpose of our study, we draw upon the works of Langley (1999) and Gioia et al. (2012) by focusing

on the individual's interpretations or cognitions, how they evolve (i.e. their lived experiences) and the temporal dynamics in the process. In this study, we sought to replicate codes across cases and over time within the organization. Additionally, we used temporal bracketing, i.e., dividing the lapse of time into phases and digging deeper into simplifications of flows over time in each phase (Langley, 1999). We performed this technique by using the decision-making process framework as shown in figure 1 to divide decision-making into successive phases. The phases should be understood as a sequential, although, sometimes, intertwined phases. In this way, we attempted to replicate the codes over time and within the organization. According to Langley (1999), temporal bracketing is particularly useful when there is a feedback mechanism, which, in our case, is the central construct in internationalisation theory of experiential knowledge. This mechanism entails a kind of mutual shaping between the norms—the normative theory of internationalisation—and the individual's actions. We also recurred to the technique of *tracing back*, which is the Langley's perspective on process thinking, which she regards as especially suitable for investigating *processual* organizational features that involve performance. The process of internationalisation decisions also involves outcomes, so we will review how certain features—cognitive systems, context, experiential knowledge—led the SV to the current position, which is an outcome of the manager-entrepreneur's choice in the past.

3.1 Case Selection

In selecting our cases, we used purposeful sampling focused on SVs with concentrated decision-making in one individual, which is suitable for studying an underexplored phenomenon such as ours (Yin, 2003). Since we are combining Gioia's and Langley's approaches, we adopted a multiple case study approach to develop and reconnect the theoretical links, as well as to investigate whether the codes could be replicated across cases and over time within the organization. Accordingly, case selection should serve both types, replication of codes and replication across cases.

In order to meet these requirements, the cases had to meet several criteria (Fletcher et al., 2018). First, each case had to have individualised leadership in terms of only one decision-maker as responsible of decisions related to internationalisation. To avoid recall bias, the internationalisation should be an ongoing process and

firms had to have commenced their internationalisation no later than 3 years since the date of interview. Thus, managers could recall memories on their decision-making and the factors that affected their internationalisation decision-making process. Second, the literature revealed that SVs internationalisation decisions depend strongly on the firm's industry (Laufs and Schwens, 2014). Furthermore, the industry has an impact on the level of uncertainty and pressure that managers feel to reach a desired result within a set timeframe, which are relevant issues to consider. In fact, Rialp et al. (2005) found that most of the earliest and quickest patterns of internationalisation were in global industries. In these industries, the challenging competitive environment (high uncertainty, high velocity) pushed small ventures to compete internationally soon after inception (Magnani, and Zucchella, 2019). Otherwise, the venture would be at risk and eventually fails. In mature industries, there also exists a brief window of time for initial entry since remaining purely domestic may lead to failure (e.g., Puig et al., 2014). Thus, industry does play a determinant role in the explanation of the firm's pace of internationalisation. In order to define the industry velocity, we adopted the approach of Nadkarni and Barr (2008), in which the industry velocity is characterised by knowledge intensity, manufacturing intensity, the complexity of the supply chain, and technology intensity (high-tech versus low-tech). This perspective allowed us to investigate the managerial cognition effects in complex and bounded rationality conditions among online retailers, computer software, toys, and games.

We only included SVs that had international activity through exporting or other modes as candidates and contacted them based on the interviewee's availability. Finally, six international SV's met the selection criteria mentioned above and agreed to participate in our study. Of the six selected companies, five (i.e., A, B, C, D, and E) are based in Spain, while and the sixth, company F, is based in in Hungary. The motivation for selecting the Hungarian based company was to test whether any new findings arose under different cultural and environmental circumstances, while all the other variables remained the same. We continued collecting data until we reached data saturation, that is, until we did no longer identify new information or themes from additional cases. Table 1 provides details of the selected companies and owners' characteristics.

***** INSERT TABLE 1 AROUND HERE *****

3.2 Data Collection

We collected data through in-depth, personal semi-structured interviews conducted between May and November 2017. Use of in-depth, personal semi-structured interviews was previously successful in other strategic decision-making studies (Elbanna, 2006), and it allowed us to collect rich accounts of the interviewee's experiences, knowledge, and mind-set (Welch et al., 2002). A sample of the main questions asked during the interviews is in Appendix I. The purpose of semi-structured questions was to give enough latitude to interviews to follow the elaboration of her/his own discourse, while having a list of topics to ask if they did not arise spontaneously. This approach of one's *wording*, is considered an indicator of cognitive reasoning (Fiol and Huff, 1992).

The duration of the interview varied between 40 and 90 minutes. Before each interview, we confirmed that the interviewees were the decision-maker responsible for the SVs international expansion. Upon completing the semi-structured interviews, the interviewees were asked to complete the Situation Specific Thinking Style Scale (STSS), which represents the situation-specific thinking style, or need for cognition, and is a previously validated questionnaire created by Novak and Hoffman (2009). The scale includes ten assessments for measuring the use of experiential cognitive reasoning and another ten for evaluating analytical cognitive reasoning. The STSS is task-specific and allowed us to measure the cognitive reasoning style specifically for the task of making internationalisation decisions (Phillips et al., 2016).

We recorded all interviews and then transcribed each interview verbatim within 24 hours through a word processor. Before conducting the main interviews, we carried out interviews with managers of two other companies as a pre-test. However, we did not identify any issues during this pre-test, why we did not make any changes to the final interview guide. After doing our data analysis and coding, we distinguished the codes that were already present in the previous literature review from the new codes that emerged in the process of systematic analysis of the transcripts. Table 2 provides details of the guidance for defining the cognitive reasoning codes.

***** INSERT TABLE 2 AROUND HERE *****

To supplement and triangulate the data obtained from the interviews, we also consulted the websites of the companies to obtain information about their internationalisation histories, products, and other related secondary materials. In addition, we collected financial information¹ about the case firms from the SABI database, which is compiled by Bureau van Dijk, and by asking the firm owners in case the data was unavailable in the database. All owners/companies agreed to share their financial data except company B, which we noted in Table 1. Moreover, to ensure the quality of our data we asked our key informants to evaluate the comprehensiveness of our data.

3.3 Data Analysis

The present research employed both inductive and deductive approaches (in this sense our research shares certain features of *abduction*), in which authors move back and forth, combining deduction and induction (Dubois and Gadde, 2002). Following Suddaby (2006), this is because data, in the form of qualitative interviews, were collected to explore a phenomenon, recognise themes, and explain heterogeneous internationalisation patterns to supplement the extant theory on the venture's internationalisation. Additionally, the grounded theory approach, based on inductive methods and often used in case study research, must be free of existing theoretical inferences and influence (Gioia et al., 2013), which explains why researchers selected the abductive approach. We combined a deductive framework emanating from existing literature (see figure 1) with the inductive analysis of interviews. Then, we organized the results according to the theoretical framework shown in figure 1. However, during the process, we remained open to the possibility of modifying the a-priori theoretical frameworks and constructs to accommodate the empirical findings (Fletcher et al., 2018). Therefore, our analytical method complies with the progressive focusing approach, which literature suggests as well suited to research on international business (Sinkovics and Afoldi, 2012). To address issues related to internal validity, we followed the methodological heuristics of iterative coding and extensive memo writing, as described below. We summarize our quality criteria in table 3.

¹ At the time of the study, the last year available in the SABI database was 2016.

***** INSERT TABLE 3 AROUND HERE *****

We analysed and coded the interview transcripts in a three-stage procedure (see Table 4). In the first stage of *unitizing*, we became familiar with the data by reading and re-reading the transcripts to identify individual *thought units* (Gioia and Sims, 1986). Thought units were a phrase, a complete sentence, to several sentences and were deployed to capture a complete thought or idea relevant to the research aims. Once thought units were identified, we systematically analysed them to uncover sub-processes from the interview data in accordance with qualitative procedures (Corbin and Strauss, 2014). In the second stage of *categorizing*, statements relating to similar categories were grouped into preliminary concepts assigned descriptive labels (i.e., sub-processes: perception, options, evaluation, final choice, learning, experiential reasoning, analytical reasoning, uncertainty awareness, risk perception, perceived features of the environment, firm-specific advantages (FSA), as well as time perception). This process continued until we reached a point of saturation and assigned each relevant thought unit to an aggregate dimension (i.e., decision-making process, feedback, cognitive reasoning and the stressors of internationalisation). In the results section, we identified relevant illustrative quotes from the interviews relating to our research question.

***** INSERT TABLE 4 AROUND HERE *****

4 RESULTS

We started by examining the initial managerial stages of the decision-making process, the perception and options stages. Next, we reflected on the stage of evaluation that leads to the final choice. During the process itself, we checked for language markers (thought units) in order to assess whether the outcome of each stage of the decision-making (temporal brackets) was the result of a particular cognitive reasoning. Descriptive quotations from the interviewed managers provide the framework for the main findings (see Figure 1) and are presented in *italic*. The interviewed managers are represented with uppercase letters (e.g., A, B, etc.) to ensure the anonymity of the participants. According to each stage of the decision-making process, the quotes are coded with the manager identification, the stage, and the cognitive reasoning identified (i.e., Manager ID, decision-making phase, cognitive reasoning).

Furthermore, we addressed the issue of previous managerial experience (i.e., the feedback loop), which related to experience in the firm, industry, internationalisation process, foreign market, or a combination of them. From conversations, we realized that a number of features were emerging that could provide a more fine-tuned explanation for how the cognitive systems affect the internationalisation decision-making process. We labelled these features as *stressors* of internationalisation (i.e., uncertainty awareness, risk perception, perceived features of the environment, firm-specific advantages, and time pressure). Accordingly, and based on the evidence, Figure 2 presents a refined model of Figure 1.

Additionally, we included the results of the STSS test within the text. The STSS score enabled us to reflect on how the managerial cognitive reasoning approach to the internationalisation decision-making process may have influenced that process. To facilitate the reader in following the comparisons between the managers' cognitive reasoning, the representative data is divided into three aggregate themes, namely internationalisation decision-making, feedback loop, and the stressors of internationalisation.

4.1 Managerial cognitive reasoning roles in internationalisation decision-making

Based on the data analysis and the international activities the companies performed, we found that companies A, B, C, and F followed an accelerated internationalisation pattern featured with an initial focus on the international market, i.e., Born Global (BG), International New Venture (INV) approaches. Companies D and E followed a slower and more gradual approach to internationalisation by exploiting, initially, the domestic market (i.e., Uppsala model pattern) (see Table 1). According to their initial objective of internationalisation and expectations on performance, we identified a diversity of patterns. Yet the unifying factor for born global-BGs and INVs is the overall predominance of the managers' experiential cognitive reasoning during their process of decision-making. For these managers, the initial perception of environmental stimuli and the creation of options occur with high influence of experiential reasoning, leading toward a rapid and fast screening phase.

For example, managerial cognitive reasoning led Company B to start internationalisation only a few months after inception. Emotions guided the manager's decision to internationalise, and only one option was

taken into consideration without detailed evaluation. “[Manager B, Perception stage, Experiential] *I just felt like I should go to live in Thailand: there is a lot of demand and not a lot of supply.* [Manager B, Options stage, Experiential] *Since I already had the company, I went to live in Thailand. I did not consider options other than Thailand.* [Manager B, Evaluation stage, Experiential] *It was not anything planned, it was not a planned goal; it was an adventure,* [Evaluation, Analytical] *since the overall evaluation lasted for days.* [Manager B, Final choice, Experiential and Analytical] *The decision is already inside me, I don’t have to analyse it for a long period of time.”*

In the case of Manager C, the company needed two years to begin its internationalisation process from the time of inception due to administrative issues with online retailing in the Spanish domestic market when the company was established in 2001. However, manager C justified, with hindsight, that the selected choice was a satisficing decision.

In these two cases, the perception of the manager that arises immediately and the process of selecting the option was very straightforward (managers A, B, and C scored higher in the experiential reasoning on STSS scale).[Manager A, Perception and Options stages, Experiential] *I knew how to market my product and where. I chose XYZ platform to promote my products since I knew that the main customers in this industry are from the United States.* [Manager A, Final choice stage, Experiential and Analytical] *My process was straightforward. I went to the market I want since I knew the mode to launch my product and what the foreign market should be.* [Manager A, Evaluation stage, Experiential] *I didn’t take into consideration any other mode of entry. I knew the domestic and foreign market.*

[Manager C, Options stage, Experiential] *I didn’t take into consideration other modes or partners abroad. I knew that there was demand for the products I can provide, and I knew that I could offer competitive prices for the global market since the beginning.*

Managers of companies D and E reasoned their internationalisation patterns in a different manner. They governed their decision-making process through careful analysis from the beginning to a final choice. They were conscious of every stage and followed the normative model of decision-making. Managers of gradual

internationalised companies said that the final decision appeared in their mind after a time of reflection and evaluation, thus a certain level of experiential reasoning acted while *incubating* what could be the optimal choice. This observation matches the outcome of a gradual approach to the international market by first exploiting the domestic market and avoiding, while addressing simultaneously, the liabilities of newness and of foreignness/outsiderness, which can be understood as their *optimal solution*. The influence of analytical reasoning and the outcome, in terms of a slow process of decision-making, fit with the Uppsala model. This model is an optimal solution when the manager and the firm both lack international experience (Johanson and Vahlne, 1977, 2009). This reasoning is also influenced by small interventions of experiential reasoning, stemming from the manager's experience in the industry. However, the need to decrease the level of uncertainty to an acceptable threshold required the gathering and analysing of information. In line with this need, interviewee E said:

[Manager E, Perception stage, Experiential] *I am a perfect person to foresee big things in the future, and I have this because of my experience. I already knew that there was a gap in a potentially very interesting market.* [Manager E, Options stage, Experiential and Analytical] *Small companies have the same need as big ones but we do not have economic capacity. Therefore, I decided to attract and work well with multinationals in the domestic market that can help me enter international markets.* [Manager E, Evaluation stage, Analytical] *A careful evaluation of the information is something I always do after the instinct is provoked. Little by little, I support the idea by data, data and more data. This sometimes can take a year or a bit more.* [Manager E, Final choice, Experiential and Analytical] *The final choice I made was a candidate company that was able to offer us services, and it was only 120 kilometres away from our headquarters."*

The main difference in the decision-making process among the managers occurred in the evaluation phase, wherein, regardless their predominance of any cognitive reasoning, most managers predominant influence was the analytical rather than experiential reasoning. All the managers evaluated the firm-specific advantages, environmental features, and competition. However, we observed that experiential managers glanced through available options in the evaluation phase, which allowed them to feel satisfied even with the limited

information available.

[Manager A, Evaluation stage, Experiential] *In the company I work for, I already knew retailers, the domestic market, and the target foreign market. Having available data from my company logically gave me a clear idea that I had to go directly to the US market.*

On the contrary, coupled with their perception of risk and uncertainty, we found the greatest difference in the evaluation phase when comparing the latter with the analytical managers, who explained that further exploration and information availability is the key factor when making the decision. This longer exploration explains the fact that, since inception, Company D spent 5 years and Company E spent 16 years serving only the domestic market and exploiting resources domestically available. Manager E described that, sometimes, it took him up to one year to evaluate and implement the initial idea, which means that analytical managers tend to distrust outcomes from experiential reasoning and leads them to devote extra time to the consideration of all the potential implications, a kind of “analysis paralysis” bias.

[Manager E, Evaluation stage, Analytical] *For example, I observe facts, and I have as much information as my competitors have. Then, I start thinking whether this is possible, and that is not. I already have a huge experience in the industry, so I can process this information quick, although I must consider all the implications. This leads me to further evaluation of all issues that I am not fully comfortable with or that I accepted with some precaution.*

4.2 Experiential learning feedback loop

In our sample, interviewees addressed the impact of experiential learning and previous experience as a focal part of their future internationalisation decision-making process. Since all the managers had experience in the industry before starting their own SVs, they addressed the upcoming internationalisation decision-making in accordance with the learned and acknowledged behaviour in the industry. This enabled them to perform well from the first entry and, in the case of accelerated internationalisation patterns, to avoid liabilities of outsidership and newness. Manager A said: *“In my industry, if I remain in the domestic market, I could not survive. This is an international industry, and you have to compete globally if you want to survive.”* Similarly,

Manager C thought, *“We want to be present and sell our products to all countries because it makes no sense to remain as purely domestic since the beginning.”*

Managers from SVs following accelerated internationalisation patterns gave similar importance to experiential learning and feedback, in accordance with their experiential reasoning. Manager A, B, C, and F learned from their previous experience but were not always willing to follow the guidelines of the normative decision-making process. In fact, they seemed to learn by trial and error. Manager C stated, *“I am doing it the other way around, I first look for an initial solution [approach to predefined foreign market], then I start marketing and selling my product there. And then, as problems arise, I do an additional evaluation and try to solve the problems as they arise. My philosophy is to check the information in front of me and, because I know the market, and I reflect on what happens, then the ideas come. I later re-evaluate the initial idea with more data.”* This quote suggests that their strong reliance on their experiential cognitive system changed the logic of the staging process of decision-making, so the evaluation phase comes after they implemented the initial choice, which is an immediate response of experiential cognition.

Manager F mentioned that, after they went to the international market and, despite the firm performing well, they realized that *“we needed to modify our portfolio to serve that international market better.”* This quote suggests that learning and feedback from the environment play a crucial role in subsequent internationalisation decisions, and experiential reasoning is crucial for quick responses when learning while doing. Even more relevant, if the venture chose an accelerated pattern of internationalisation, any mistake may put the firm’s survival at risk (Puig et al., 2014), despite these firms seemingly ready for quick growth (Kuivalainen et al., 2012; Puig et al., 2018).

4.3 Stressors of internationalisation decision-making

Heterogeneous behaviour among managers potentially indicates the existence of some stressors developing from within the environment or perhaps an exacerbated cognitive predominance. They include factors, such as uncertainty, awareness, and risk perception, that relate to the perceived features of the competitive and host-market environment, as well as the issue of organizational timing. This latter feature

relates to the idea that *the time has come* to go international; otherwise, the firm will disregard relevant opportunities.

We found that managers with predominant experiential reasoning, in general, disregarded uncertainty. Very often, they anticipated risks as acceptable, although the normative reasoning in these circumstances is extremely risky. As Manager F said: “*Risk is an event that could possibly come true and have a negative impact on your business*”. Manager B noted that although risk is an important issue when making decisions, “*taking risks is part of the day to day for people like me.*”

The acknowledgement of stressors for analytical predominant managers had a different impact on their decision-making process. Their tendency is to spend more time thinking about uncertainty and trying to translate it into risk, which can be estimated and lowered to a subjectively acceptable threshold. Thus, cognitively analytic managers cannot make quick decisions under what they perceive as uncertain conditions. In such cases, they need further time to compute and analyse the level of risk, possibly rejecting the option if the threshold is too high for them. Manager D noted: “*Risk makes you a little more vigilant to certain things. Let’s say your mind is a little more alert. I always take a calculated risk.*”

To react in a timely manner to opportunities arising from the markets, managers deploy different cognitive strategies to deal with organizational time, and according to their use of cognitive reasoning. In the case of Managers A, B, C, and F, the decision-making process itself is quicker, which makes them accept the higher level of risk and disregard the uncertainty issues (i.e., they do not reflect on whether they do not know anything that may be important). Experiential managers tended to accelerate the internationalisation decision-making process in order to be able to react to market opportunities. Manager F explained that “*Because the market is quiet, and it’s not fast growing, anytime there is a big gap or someone produces demand for their product, it’s a good point to just jump there.*” Meanwhile, analytical reasoning managers had a different perception of time pressure, which caused them to spend more time estimating potential implications (risks). In the words of Manager D, “*sometimes internationalisation decision-making process lasts one month, two or more.*” Manager E stated, “*until the internationalisation idea matures, the entire process can sometimes take a year and a bit*

more.” This feeling leads these managers to adopt a more gradual approach to internationalisation, since it seems less risky for them.

5 DISCUSSION

Our findings add support to previous studies on how SVs’ internationalisation behaviour is greatly influenced by the cognitive characteristics of the decision-maker (Acedo and Florin, 2006; Maitland and Sammartino, 2015; Vlacic et al., 2019) by adding the manager’s cognitive reasoning to the equation.

Throughout the entire process of internationalisation decision-making, experiential predominant managers declared that the final decision just appeared in their mind and that they were pursuing their inner feeling and “expertise intuition” when making their final choice. They seemed to have a clear idea of the final solution from the beginning, so they actually tried to justify their feeling by using minimal analysis. However, experiential reasoning tends to dismiss a wide array of options, so the choice seems to be reached immediately without further consideration of more than just one option in what Dijksterhuis et al. (2006) considered to be deliberation without attention. From entrepreneurship studies, we know that managers with predominant experiential reasoning perceive more opportunities than managers that rely heavily on analytic reasoning and logic (Kickul et al., 2009). These managers tend to apply their domestic experience to the new foreign markets because their experiential reasoning interprets the environment as quite similar, which is consistent with the findings of Reuber and Fischer (1997). They interpret some clues similarly to their previous action(s) in the (high valid) domestic market. Thus, as with the *analogical reasoning* of Zheng et al. (2012), as well as Jones and Casulli (2014), decision-makers rely on previous experiences that can be seen as analogous to the new situation (i.e., they use knowledge from experience to make inferences about a new and unfamiliar situation). Therefore, the choice of going international, at or close to inception, without exploiting the domestic market, corresponds to the pattern of a rapid and accelerated internationalisation process (Rialp et al., 2005), due to the founders-managers’ increased levels of experiential reasoning. This leads us to the first proposition:

Proposition 1: Managers with increased levels of experiential reasoning lead SVs to rapid and accelerated internationalisation patterns.

Furthermore, we observed that managers, who followed a slower and gradual approach to internationalisation, tended to rely more on the analytical and rule-governed reasoning. This approach leads to further reflection at each stage of the decision-making, as if these stages were separate processes. These managers tend to doubt the outcomes of the previous stage and avoid internationalisation choices that may entail a high risk, which is consistent with the findings of Eduardsen and Marinova (2016). Behind this approach lays the normative theory of the Uppsala model: there is a learning curve over the period of decision-making (iterative process) and a constant reflection on how to acquire the required knowledge (Figueira de Lemos et al., 2011). In these cases, it took up to one year from the idea inception to when the final choice was made. Since these managers require further time to gather more information, they prefer an approach that emphasizes lowering the risks inherent to internationalisation, even by trial and error, and attempts that require low levels of resource commitment. These trial and errors entail a lesser amount of resources. If, first, they try to export before advancing to more committed foreign market entry modes, they need to maintain the process and keep behaviour under control. Eventually, they could remain in the initial stages of internationalisation permanently if the risk threshold of advancing to more committed modes is perceived as high and unacceptable for them. Accordingly, this leads us to the next proposition.

Proposition 2: Managers with increased levels of analytical reasoning lead SVs to slower and more gradual internationalisation patterns.

The managers' cognitive systems, particularly in SVs operating in high-velocity industries, play a role in quickly responding to changes. Although our cases yielded different paths of internationalisation ranging from BG/ INV to the Uppsala model, the coalescing factor of all the pieces was the top managers' subjective representations of the environment while defining the SV's internationalisation agenda, which is consistent with the findings of Hsieh et al. (2019). The primary difference in the environment across all the cases was the

managers' interactions within foreign business relationships, such as relationships with certain foreign customers, suppliers, and competitors, which is in line with Blomstermo et al. (2004) and Nadkarni et al. (2016). In fact, following one of the Uppsala model's tenets, firms going international gradually need to overcome the liabilities of outsidership. Firm E did so by using multinationals operating in the domestic market as a springboard to new foreign markets. In contrast, companies A, B, C, and F, which followed an accelerated and rapid internationalisation process, seemed to be less affected by that liability. Instead, the manager's experience was crucial, so they have actually overcome liabilities of outsidership thanks to the manager's experiential knowledge; they already knew which international networks should be used, as INV theory predicts (Oviatt and McDougall, 2005). This ability to overcome liabilities of outsidership can be linked to the predominance of the experiential reasoning in these cases, since these managers-entrepreneurs are quickly able to devise how to seize opportunities in the international market.

Our refined model synthesizes these results in Figure 2.

***** INSERT FIGURE 2 AROUND HERE *****

5.1 Implications for theory

This study contributes to the literature on the theories of internationalisation and international entrepreneurship by providing detailed insights into the internationalisation decision-making process, which is a topic that deserves attention (Jantunen et al., 2008; Aharoni et al., 2011; Child and Hsieh, 2014; Buckley et al., 2019). We have explored how the two types of cognitive reasoning play a central role in shaping the SVs' internationalisation decision-making. Cognitive reasoning partially explains the variety of internationalisation patterns that the SVs followed, although they may face quite similar conditions. Thus, the ultimate cause of such heterogeneity involves the only factor that differs between them: how the manager uses his/her cognitive systems to make a choice.

The theoretical argument is that, in creating options, cognitive reasoning yields an immediate response that experiential managers tend to accept, while analytical ones tend to reflect on the decision to generate more options for consideration. We claim that these differences in decision-making is owed to the influences that

cognitive reasoning has on task-specific judgments, such as the perceived features of the environment surrounding the firm's internationalisation process. The decision-makers perceive stressors, such as industry velocity and time to reach a decision, as influencers on their mix of cognitive reasoning –analytical and experiential–that, in the end, explains the choice of a certain pattern of internationalisation. These individual differences elucidate the observed heterogeneity in internationalisation patterns of ventures in similar contexts. The impact of each type of cognitive reasoning is task and context-dependent. Therefore, the perception of managers and their specific use of certain levels of experiential and analytical reasoning will yield different choices, which are *idiosyncratic* to the individual and, by extension, to the venture. There is a kind of equifinality in internationalisation as firms can follow several internationalisation pathways, even when departing from different contextual conditions, and still achieve the same outcomes from internationalisation. Arguably, a certain combination of each type of cognitive reasoning is an adaptive mechanism to the SVs final adoption, depending upon the external stressors. Hence, our findings support previous studies (e.g., Acedo and Florin, 2006; Maitland and Sammartino, 2015) that criticized the lack of attention paid to the cognitive characteristics of decision-makers in internationalisation literature. More specifically, our findings highlight that internationalisation theories and models should include decision-maker's cognitive reasoning as an important factor for explaining internationalisation. Its inclusion may explain why some firms do not advance to more committed modes of internationalisation or why some others choose to go international under highly committed modes from the beginning, with consideration of the usual factors (e.g., industry membership, motives, strategy deployed).

As shown, DPT brings additional mechanisms for explaining the venture's behaviour regarding internationalisation in the case of SVs.

From the perspective of new international ventures, entrepreneurial orientation to international activities is a key mechanism for explaining accelerated internationalisation (Oviatt and McDougall, 1999). However, it remained unclear why entrepreneurs holding a similar international orientation, and competing even in the same industry, followed different approaches to internationalisation of a firm. We argue that, at least partially,

it is credited to the entrepreneur's idiosyncratic use of his/her two cognitive systems. From the process internationalisation model, the main explanation for gradual internationalisation is the knowledge and experience of the firm and the manager in international operations. This gradual internationalisation can be attributed to three mechanisms, namely the liability of foreignness or lack of experiential knowledge in a certain foreign market, the liability of outsidership or lack of knowledge of extant networks of international operations, and the overall experiential knowledge in the use of certain entry modes (Johanson and Vahlne, 1977, 2009; Figueira-de-Lemos et al., 2011). Since this experiential knowledge cannot be acquired instantly (Figueira-de-Lemos et al., 2011), firms seem doomed to gradually increase international involvement to gain experiential knowledge about foreign markets and thereby reduce uncertainty and risk and enable further internationalisation. While the Uppsala School does not suggest that a firm should evolve through individual stages, there is not a clear indication as to why some ventures decide to go international by occasionally exporting, then evolve into a regular exporter, and never evolve to a more committed mode, while others may decide to omit some of the stages. We argue that the DPT can help merge both schools of thought. The idiosyncratic combination of experiential and analytical reasoning is a plausible explanation of the heterogeneity of decisions, *ceteris paribus*, as our propositions have argued.

5.2 Implications for practitioners

Many decisions do not have the right answer, nor can they be solved by analysis alone. Managers are subject to a myriad of cognitive biases through the decision-making process. Identifying the potential biases in advance will be beneficial for more accurate business predictions. A critical issue here is whether the manager's cognitive reasoning may have disregarded some options because of his/her biased experiential reasoning lead them to a unique solution that the analytic reasoning accepted. Experiential-based managers will tend to apply the same mental structure in foreign markets as used in the domestic market, so it may be biased by their overconfidence, emotions, and increased levels of perceived self-efficacy, although the environmental validity is different. Conversely, managers with a strong reliance on analytical reasoning may

be paralyzed by their need for further information and analysis at every step, which delays decisions even when environmental stressors call for an immediate internationalisation. The manager should be able to acknowledge when to shift from one cognitive reasoning to the other, a kind of balanced level of experience-based intuition and analytical reasoning, in every stage of internationalisation decision-making (perception, options, evaluation, and choice).

6 CONCLUSIONS

This paper contributes to international business and international entrepreneurship literature by incorporating the managerial cognitive reasoning role underlying the heterogeneous internationalisation patterns observed among SVs. We included the psychological Dual Process Theory of how individuals make decisions, which can fruitfully be used in future research on this subject matter. We sought to respond to the research questions on how the managerial cognitive reasoning affects and guides the process of internationalisation decision-making in the case of SVs, as well as whether this impact is different depending upon the stages of the decision-making process.

Based on our evidence, we conclude that the process of internationalisation decision-making parallels the psychological process: managers are to recognize what the strategic problem is so as to generate a battery of options and choose the one that yields higher *satisfactory* levels of expected results (e.g., increase in sales, market diversity). We added emphasis to the issue of satisfactory following Simon's (1955) arguments of bounded rationality choice, which are suboptimal, although perceived as the best solution by the decision-maker at the precise moment when the decision is made. We found that internationalisation decision-making needs the combination of both types of cognitive reasoning through the entire process (see the integrated framework in Figure 2). Experiential reasoning provides the default response in the stages of perception and shortlisting of options, while analytic reasoning controls that result (list of options) and is extensively used in the evaluation stage. Both cognitive systems are applied in the final choice stage: experiential reasoning will tell whether the decision-maker is happy with the choice, whereas analytical reasoning will control whether the choice is

consistent with theoretical normative predictions. However, managers with a predominance of experiential reasoning increase the pace of internationalisation because they already had their option previously selected by their automatic and immediate cognitive system-1: experiential reasoning. Conversely, the managers with increased levels of well-trained analytical reasoning needed additional assessment of the initial perception by evaluating everything. Hence, there is equifinality in the influence of each cognitive system over each of the decision-making stages for the case of SVs internationalisation. Some managers rely more on experiential reasoning while others rely more on analytical reasoning, yet this reliance seems to be quite stable over the entire process of decision-making.

We acknowledge the existence of some limitations that make our findings only valid in similar contexts. The number of cases is limited in number, although we tried to find cases for every combination of increased levels of any cognitive reasoning with gradual and accelerated patterns of internationalisation in the form of INVs or BGs. Despite our extensive efforts, we could not find additional cases of increased levels of analytical and gradual internationalisation in high-velocity industries. Instead, we found additional cases of increased levels of experiential reasoning coupled with internationalisation following an INV process. However, no new topics arose from those additional cases; thus, for the sake of simplicity and wordiness, we decided to exclude them from our analysis. Yet these limitations should make us reflect on the possibility that a certain type of fit between cognitive reasoning and the pattern of internationalisation may exist, an issue that future research should address. We should warn that our findings are limited to ventures with concentrated decision-making in a single individual.

We showed that a plausible explanation for the observed heterogeneity of patterns of internationalisation is the result of how the manager's cognitive systems filtrate environmental cues. In the process of making theoretical models of internationalisation more accurate, scholars should include managerial cognitive reasoning, since they capture the heterogeneous behaviour of firms. Furthermore, we should investigate decisions made by teams within larger organizations. Escalation to a team and organizational cognition, along with the usual levels of analysis (environment, industry, organization), will yield additional opportunities to

reach more accurate decisions in terms of the strategic fit between environment and the firm's international behaviour.

A relevant future research stream is the inclusion of the DPT in Effectuation Theory within international entrepreneurship (Sarasvathy, 2001; Sarasvathy et al., 2014). While effectuation-causation is about the logic entrepreneurs use to make decisions, the cognitive systems are about how they use their cognitive resources to follow a certain logic. However, its application found controversial results regarding why and how these decision-makers shift from one logic to the other (Schweizer, 2015; Sarasvathy et al., 2014; Prashantham et al., 2019). Our evidence seems to suggest that there is a certain relationship between a reliance in the experiential cognitive system and an effectuation logic, as well as between a reliance in the analytic cognitive system and a causation logic. The latter logic predicts the entrepreneur will try to seek the resources required to develop the optimal solution, which requires an extensive use of deliberation and reflection (e.g., Which may be the best solution to go international? What resources are needed for that?). The former logic states the entrepreneur will go ahead with the resources the venture currently has, an issue the entrepreneur already knows because of his/her experiential knowledge (e.g., How can I go international with these resources?). The reliance on one cognitive system may partly be the cause for some entrepreneurs following one logic, while others under a similar situation choose the other. Even those entrepreneurs that are able to shift from one cognitive system to the other in the appropriate moment are likely to be the ones that are able to shift from one logic to the other depending upon the context. This is relevant because the logic shifting may help overcome the liabilities of outsidership (Kalinic et al., 2014). Thus, the application of the Dual Process Theory opens new research opportunities to explain the international behaviour.

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APPENDIX: LIST OF QUESTIONS ASKED DURING THE INTERVIEWS

- Which year did you start the internationalisation process (export, joint venture, subsidiary, etc.)?
- How long did it take (from the first idea to the final decision of mode of entry and foreign market)?
- How did you identify the first market to take international? Did you first identify the market you would enter, or did you decide the entry mode and then select the market that would fit the entry mode selected?
- Did you have any pre-defined goal(s) when you decided to enter the international market? What was it/were they?
- How did you enter the international market?
- Could you describe your decision-making process when deciding on the internationalisation pace strategy?
- What were the reasons to exclude certain entry modes and consider others when selecting alternatives?
- How did you evaluate previously selected internationalisation options?
- What were your final decision-making criteria?
- What have the dynamics been in regard to the percentage of foreign sales over total sales from inception until present?

TABLES AND FIGURES

Table 1: Details of the selected companies and owners' features

	Company A	Company B	Company C	Company D	Company E	Company F
Establishment year	2016	2013	2001	2000	1985	2014
Ownership	Ltd.	Ltd.	Ltd.	Ltd.	Ltd.	Ltd.
Number of employees	2	2	3	7	29	2
First international market entry	2016	2014	2003	2005	2001	2016
Number of foreign markets	5	3	16	3	8	12
Turnover	3.000	Confidential	1.933.842	286.616	1.783.272	17.000
Foreign sales/total sales	90%	20%	10 %	15%	17 %	40%
CNAE	3240	6209	4651	6209	6201	6201
Industry	Toy Production	Services related to information technology	Wholesale of computers, computer peripheral equipment, and software	Services related to information technology	Computer programming activates	Computer programming activities
Internationalisation entry mode	Export	Export	Export	Export	Export	Export
	Manager A	Manager B	Manager C	Manager D	Manager E	Manager F
Experience in the industry at the moment of the interview (years)	14	4	17	28	50	10
Managerial experience (international activities) in years at the moment of the interview	1	3	15	28	16	4
Managerial experience before starting the company	0	0	0	17	0	4
Knowledge of foreign languages (working proficiency)	2	4	2	6	4	3
Cognitive Reasoning (STSS) score, Experiential (max 70); Rational (max 70)	Experiential (54) > Analytic (44)	Experiential (69) > Analytic (22)	Experiential (68) > Analytic (42)	Experiential (44) < Analytic (51)	Experiential (28) < Analytic (40)	Experiential (46) > Analytic (33)
Gender	Male	Female	Male	Male	Male	Male

Table 2: Overview of the previously established guidance for defining the cognitive reasoning codes supplemented with new codes that emerged in the process of systematic analysis of transcripts

CONTEXTCODES	ASSOCIATIVE THINKING	REASONING	SPEED OF DECISION-MAKING	KNOWLEDGE & LEARNING	COGNITIVE LOAD EFFORT	CONSCIOUSNESS	BIASES
EXPERIENTIAL	<p>Holistic: prefers solving problems by looking at the whole, and then approaching the problem through patterns using hunches¹</p> <p>Associationistic connections^{2,3,4,7}</p> <p>Behaviour mediated by “vibes” from past experiences^{2,7}</p> <p>Prefers management situations that are unstructured, fluid and spontaneous¹</p>	<p>Pragmatic⁶</p> <p>Resistant to change⁶</p> <p>Encodes reality in specific images, metaphors, and narratives based on experience²</p>	<p>Faster operating⁴</p> <p>Automatic⁵</p> <p>Oriented to immediate action⁶</p> <p>Default process⁵</p>	<p>Slow-Learning: since it is unconscious thinking, it takes more time to realize why it reaches certain conclusion^{3,4}</p> <p>Changes slowly with intense experience⁶</p> <p>Relies more on implicit knowledge to reach a conclusion⁷</p>	<p>Low effort⁵ or even effortless⁶</p> <p>Unlimited in capacity and creativity⁵</p>	<p>Non-reflective consciousness⁴</p> <p>Unconscious⁷</p>	<p>Emotional bias: relies more on feelings to make a decision¹</p> <p>Self-evidently valid: Experiencing is believing⁶</p> <p>Slower to learn and more resistant to change: trust on initial choice despite hard evidence⁶</p> <p>More prone to biased responses⁷</p>
ANALYTICAL	<p>Detailed: prefers solving problems by breaking them into parts than approaching the problem sequentially using logic¹</p> <p>Prefers management situations that are well structured and can be carefully planned¹</p>	<p>Deductive¹</p> <p>Analytic^{2,5}</p> <p>Logical^{2,5}</p> <p>Flexible³</p> <p>Neutral³</p> <p>Normative (<i>rational</i>) responses⁷</p>	<p>Slower, controlled and path sequent processing⁶</p> <p>Oriented to delayed action^{2,4,5,6,7}</p>	<p>Relies more on explicit knowledge to reach a conclusion⁷</p> <p>Changes more rapidly with the strength of arguments⁶</p>	<p>Entails a certain amount of cognitive load⁴</p> <p>Limited and constrained in capacity since it consumes time and requires high cognitive load⁵</p>	<p>Reflective⁶</p> <p>Experienced actively and consciously: We are in control of our thoughts²</p>	<p>Rule-Governed² and rule-based⁵: do not trust intuitive, holistic findings</p> <p>Requires justification via logic and evidence “paralysis by analysis”,</p>

Source: 1. Agor (1984); 2. Epstein (1994); 3. Kahneman (2003); 4. Sadler-Smith and Shefy (2004); 5. Evans (2008); 6. Hodgkinson et al. (2009); 7. Evans and Stanovich (2013)

Table 3: quality criteria of our qualitative design

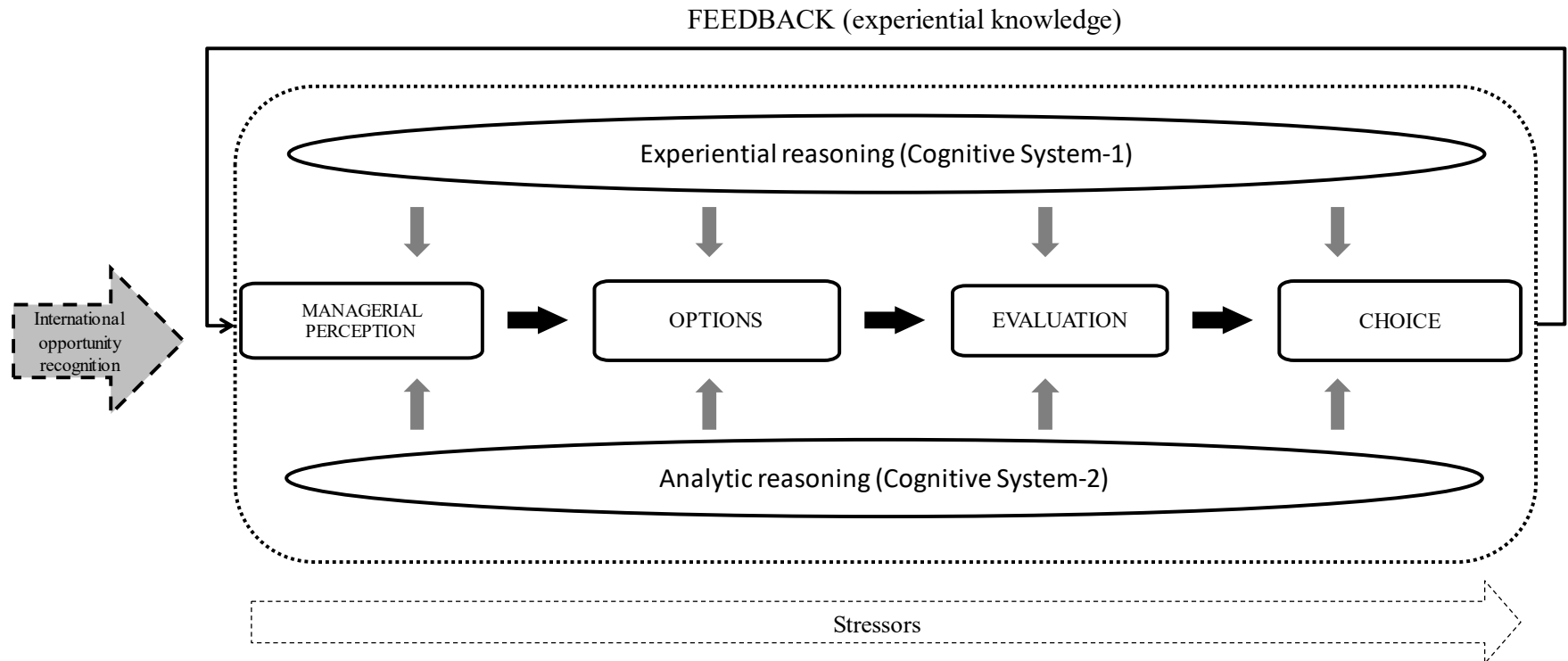
Quality criteria	Evidence of quality
Construct validity: checking that the concepts are measured with appropriate measures	<ul style="list-style-type: none"> • Multiple sources of evidence (interviews, secondary financial information from official registers, websites) • Methods and procedures to perform the study are extensively described • Out-of-scene information is considered (e.g., stressors found)
External validity: checking that there is a framework that will enable the generalisation of results	<ul style="list-style-type: none"> • Literature guided the building of the logical models (decision-making process) and internationalisation process • Replication logic of thought units across cases and over time
Internal validity: checking that there is a kind of causal relation from which certain circumstances emerge, and these circumstances lead to others, while setting apart spurious relations	<ul style="list-style-type: none"> • Methodological heuristics of iterative coding and extensive memo writing • Detailed facts and circumstances recorded in interviews that can be accessed and reviewed • Use of logical models (decision-making process) and internationalisation process based on literature • The concepts are related systematically by applying the framework • The results share internal coherence
Reliability: checking that the operationalisation of the study is repeated, one will obtain similar results	<ul style="list-style-type: none"> • Research questions are clearly stated • Cases selected are consistent with the research questions • There was a protocol to select cases, contact the firm and a semi-structured survey guided an open discussion

Source: own elaboration based on Cepeda and Martin (2005) and Fletcher et al. (2018)

Table 4: Data Structure

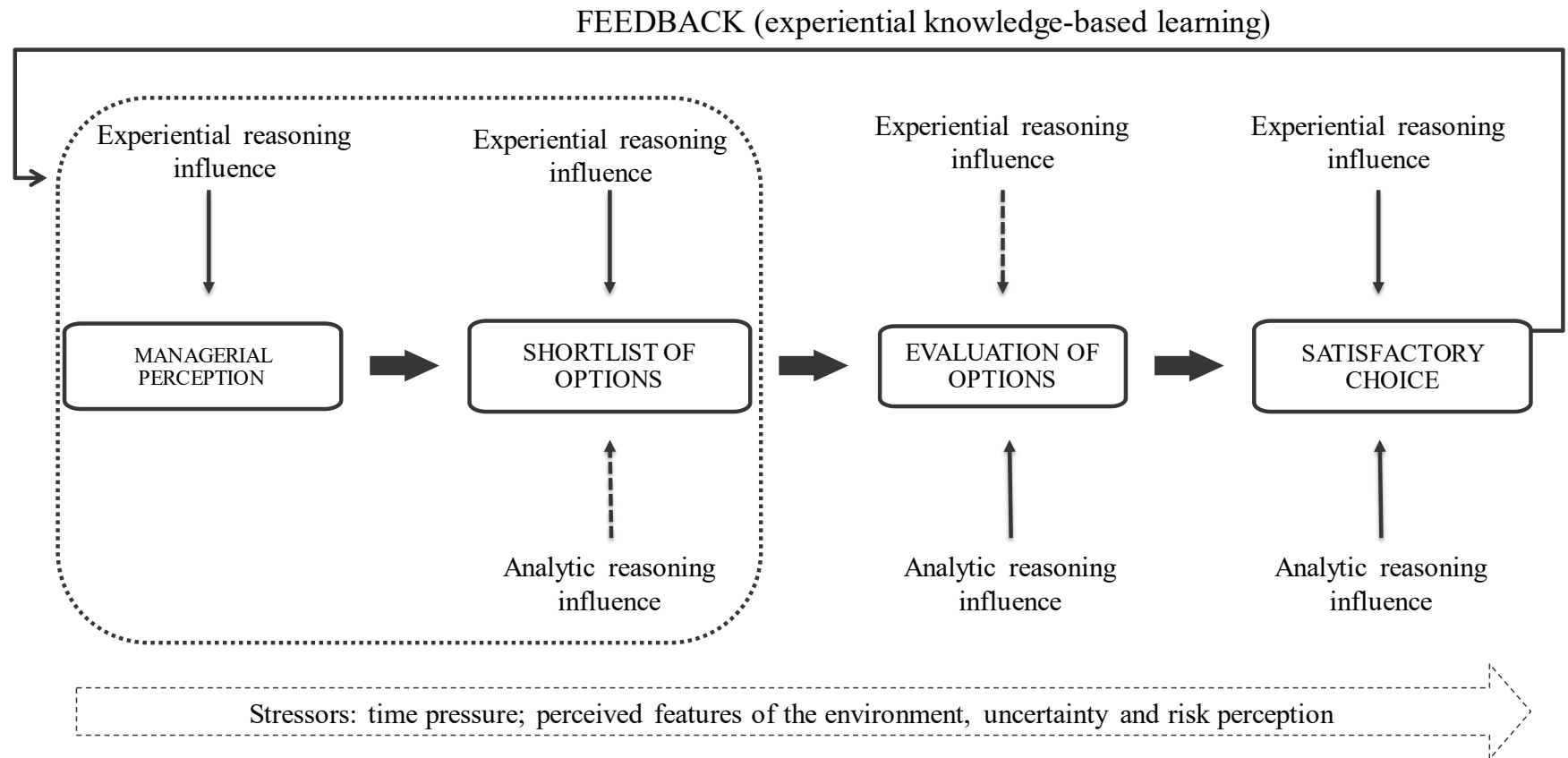
First-order theme	Second-order theme	Aggregate dimensions
Statements regarding the initial ideas steaming from experience, observation, and association with the environment	Managerial Perception	Decision-making Process
Statements indicating the creation of a battery of options	Battery of Options	
Statements showing whatever decision makers evaluated and to what extent the evaluation was carried out rapid or slow	Evaluation of selected option	
Statements regarding the final decision made concerning the internationalisation pattern features (i.e., entry mode, commitment, host country, etc.)	Satisfactory Final Choice	
Statements showing awareness of potential shortcomings in the past decision and potential improvements in previous phases	Learning phase	Feedback
Statements showing uncertainty awareness as well as the influence of the uncertainty perception on the internationalisation decision-making process	Uncertainty awareness	Stressors of the internationalisation
Statements showing risk perception influence on the internationalisation decision-making process	Risk perception	
Expressions regarding the past, current, and future state of the domestic and foreign environment in line with firm-specific advantages	Perceived features of the environment and firm-specific advantages (FSA)	
Statements regarding the perception of time during the internationalisation decision-making process, the duration of the process itself	Time perception	
Statements in line with codes defined by previous researchers in Table 2, regarding expertise, is driven by the unconscious internationalisation decision-making process	Experiential reasoning	Cognitive Reasoning
Statements in line with codes defined in Table 2, regarding the rationally driven conscious internationalisation decision-making process	Analytical reasoning	

Figure 1: The integrated framework for the analysis of SVs' decisions on internationalisation based on the psychological process of decision-making



Source: own draft based on Fellows (2004)

Figure 2: The final model: how cognitive systems affect the process of SVs internationalisation decision-making in high-velocity industries



Source: own draft