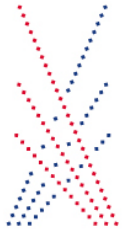

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Heuristics for internationalisation of artistic professional services

ABSTRACT

Drawing on insights about heuristic problem solving approaches we aim to understand how APSFs adopt simple rules of engagement when internationalising. Our study explores this problem across four architecture practices. Our findings identify three heuristic problem solving rules of engagement that support the internationalisation of APSFs. Firstly, '*making the intangible tangible'* is an important trial and error process because it provides a non-verbal way of communication. Secondly, the '*getting good clients and working backwards'* rule. 'Good' in this context refers to clients that allow and value artistic freedom from the firm. Finally, our third heuristic approach identified was to '*rely on professional etiquette'* suggesting that acting within what are perceived as global professional norms and having professional expertise eases the need for deep knowledge and understanding of the local environment. Our findings contribute to the international entrepreneurship literature by shedding light on how less rational heuristic problem solving techniques are integrated into the internationalization process. We also contribute to the professional service firm literature enriching our knowledge on internationalization for small practices. Our three heuristic approaches identified also contribute novel insights into the adaptive toolbox perspective within heuristics theory.

Heuristics for internationalisation of artistic professional services

INTRODUCTION

Understanding the firm decision making process is critically important to identifying how capabilities can be recognized and developed to contribute to successful outcomes. This is particularly important within the internationalization process as different institutional and cultural contexts, and the higher levels of uncertainty arising, requires that managers must constantly make decisions about adapting or replicating activities to fit with differing environments. While large multinational enterprises (MNEs) may have extensive systems and capabilities to utilize information sources both within and outside of the firm that influence international decisions, the entrepreneurial firm does not have the same advantages of scale and resources. The literature on internationalizing entrepreneurs suggests that they rely more on mental models (Jones and Casulli, 2014 , Acedo and Jones, 2007 , Butler, Doktor and Lins, 2010) in the decision making process which may be conceptualized with limited information, time and processing capacity (Newell and Simon, 1972), or indeed may substantially involve personal preferences of entrepreneurs that may be bias towards selection of one pattern of actions over another (Zhang and Cueto, 2015).

The entrepreneurship literature offers several cognitive approaches to explain the logic of decision making behaviour such as Saravathy's (2001) effectuation theory or entrepreneurial bricolage (Baker and Nelson, 2005). These are popular approaches to explain international decision making (Harms and Schiele, 2012 , Prashantham and Floyd, 2012 , Janssens and Steyaert, 2014 , Cunha, 2005). Business modelling (Baden Fuller and Mangematin, 2013 , Mcquillan and Sharkey Scott, 2015) also offers a perspective on how entrepreneurs cognitize

international business. While distinct, all these approaches offer explanations for how entrepreneurial opportunities are enacted that may be either means driven or goal driven. Yet although they offer templates for the cognitive processes of internationalisation, they assume common logic across different segments and industries without catering to the variability that might exist across segments in terms of the rules of engagement. In particular we argue that when internationalizing entrepreneurs frequently revert to simple rules that are understood within their own business domains and these rules act as a kind of lever to reduce uncertainty and risk and build trust in international relationships. This is particularly the case for service sectors that do not have a tangible product on show. For service sectors we suggest that these heuristic approaches are critical to progressing opportunities in highly uncertain environments. It is important therefore to identify these rules to address longstanding questions about how distinctive segments address the challenges of internationalisation (Pla-Barber and Ghauri, 2012).

Our interest in this study is on artistic service firms and we adopt a heuristic approach to explore the simple rules that architects draw on to build trust and relationships in internationalisation. By focussing on architecture practices as 'artistic professional service firms' (APSFs) we focus on the need for a more nuanced approach to understanding the micro level processes of service internationalisation (Apfelthaler and Vaiman, 2012 , Pla-Barber and Ghauri, 2012) and we address heightened calls from scholars in professional services to understand the internationalisation process for small PSFs (Apfelthaler and Vaiman, 2012 , Von Nordenflycht, 2010). With a few exceptions (eg. (Krull, Smith and Ge, 2012 , Winch, 2008), studies on PSF internationalisation are overwhelmingly dominated within large firms such as the major global accounting, legal and consultancy professions leaving critical knowledge gaps in how we understand small PSF internationalisation.

Drawing on insights about heuristic problem solving approaches (Mousavi and Gigerenzer, 2014 , Gigerenzer, Todd and Group, 1999) we aim to understand how APSFs adopt simple rules of engagement when internationalising. Our study explores this problem across four architecture practices. Each of these firms is recognised in the sector as 'design' firms which aligns to the strong ambition and ideas strategies characterised in the literature (Coxe *et al.*, 1988 , Winch and Schneider, 1993 , Larson, 1993). This ensures that our exploration is on the artistic end of the architecture practice continuum characterized as studio practices that embody the challenges of small PSF internationalization.

Our findings identify three heuristic problem solving rules of engagement that supports the internationalisation of APSFs. Firstly, '*making the intangible tangible'* is an important trial and error process because it provides a non-verbal way of communication that can bypass institutional and cultural uncertainties in the visual arts. We also identified that for APSFs it is important to target clients that will tolerate the firm's lack of understanding or experience in the institutional environment. We found that APSFs often jump into foreign projects naively and reduce environmental uncertainty during the project implementation phase. This led to the second heuristic approach adopted which we call the '*getting good clients and working backwards'* rule. 'Good' in this context refers to clients that allow and value artistic freedom in the projects. Finally, our third heuristic approach identified was to '*rely on professional etiquette'* suggesting that acting within what are perceived as global professional norms and having professional expertise eases the need for deep knowledge and understanding of the local environment. We identify further that these are not necessarily always optimal approaches, but they are the simple rules adopted to reduce risk of international uncertainty within this APSF segment.

Our findings contribute to the international entrepreneurship literature by shedding light on how less rational heuristic problem solving techniques are integrated into the internationalization process. We also contribute to the professional service firm literature enriching our knowledge on internationalization for small practices. Our three heuristic approaches identified also contribute novel insights into the adaptive toolbox perspective within heuristics theory.

Our managerial contributions from this study help APSFs to recognize these simple rules that may assist to circumvent risk, but similarly may not be a rational or optimal process for international business engagement.

The next section details our review of the literature on decision making and heuristic approaches that influenced our theoretical approach. This is followed by an outline of our methodology. We then present our findings followed by a discussion on the theoretical contributions and managerial implications.

LITERATURE REVIEW

Organizational Decision Making/Microfoundations of Decision making

The decision making paradigm for business activity is commonly understood as a 'marriage' between cognitive psychology and economics (Hodgkinson and Healey, 2011). The economic contribution to the cognitive process suggests that decision making is based on a rational assessment of optimal. Indeed much of the strategy literature to date (and management teaching) focusses on the notion of economic and behavioural bounded

rationality in decision making (Schwenk, 1984 , Bateman and Zeithaml, 1989) from analysing outside and inside the firm according to economic framework and models proposed by seminal scholars eg. (Porter, 1985 , Barney, 1991) in the field. Recent developments however point to emotional roots as well as rational cognitive influences in decision making. We are now beginning to understand from a growing body of work in social cognitive neuroscience how decision making involves the interplay of a reflexive system which underpins more automatic systems of cognition such as stereotyping and automatic categorization (Hodgkinson and Healey, 2011 , Slovic *et al.*, 2004), while a reflective system underpins more controlled and logical reasoning (Lieberman, 2007). The evolution of these insights provides mounting evidence that although effortful reasoning plays an important role in decision making, the reflexive emotional influence, also impacts on effective business decisions.

Cognitive adaptation or updating decision makers mental models in response to changes in the environment is long understood as a critical sense making capability (Hodgkinson *et al.*, 1999 , Reger and Palmer, 1996). However, scholars are now beginning to understand how the ability to recognize signals and utilize conflicting information influenced by emotions and moods is also essential to organizational sensing capabilities (Finucane *et al.*, 2000 , Slovic *et al.*, 2004), but is a neglected theme of scholarly research. In essence, decision making is influenced by analytical and experiential processes parallel to emotion and affect. One sector where emotions may be an obvious influencer on organizational decision making would be within the arts whereby, for example, decisions on architectural design may be influenced by belief systems and memory processes of the architect that may contribute to a particular style and not only factors within the environment. Similarly in more conventional industries, an overoptimistic mood (Hoskisson *et al.*, 2011) may contribute to more risky decisions.

Although analysis is certainly important in some decision-making circumstances, reliance on affect and emotion is a quicker, easier, and more efficient way to navigate in a complex, uncertain, and sometimes dangerous world. Many theorists have given affect a direct and primary role in motivating behaviour (Clark and Fiske, 1982 , Slovic *et al.*, 2004 , Barrett and Salovey, 2002). Heuristic thinking is concerned with these simple rules that are relied on when time is limited and information is scarce.

Heuristics and Simple Rules

Firms learn specific types of unique characteristics for capturing opportunities which are termed as 'simple rule' heuristics (Bingham and Eisenhardt, 2011) to address important strategic questions. These simple, "fast and frugal" rules (Gigerenzer, 2008) can have positive performance consequences and may be the basis for value creating strategies (Bingham and Eisenhardt, 2011).

The heuristic was first introduced as a loosely defined notion in the 1970's (Tversky and Kahneman, 1974 , Newell and Simon, 1972) and clarity on what a heuristic is and the role of heuristics has evolved over past decades. Originally heuristics were understood as cognitive shortcuts that emerge when information, time, and processing capacity are limited (Newell and Simon, 1972). How individuals use heuristics was originally explained by suggesting that individuals use Gestalt principles as an interaction between inner mental processes and an external problem structure (Wertheimer, 1923 , Loock and Hacklin, 2015). This developed into a heuristics for search methods using more precise computational models (Newell and Simon, 1972). With the advent of information processing theory in cognitive psychology a heuristic came to mean a useful shortcut or rule of thumb for guiding search. In the late

1990's heuristics study moved from well-defined artificial settings into real world environments and the notion of the adaptive toolbox was introduced (Gigerenzer, Todd and Group) The adaptive toolbox comprises higher order and lower order processes. It is notable that lower order processes involving memory and perceptions are complex and difficult to unravel, but we do not need to know precisely how recognition memory works to describe the heuristic that relies on it. Indeed although the inclusion of mood and emotions in decision making is only recently recognized (Hodgkinson and Healey, 2011), it has long been suggested that emotions, social norms and imitation can function as heuristics principals (Gigerenzer, Todd and Group, 1999 , Slovic *et al.*, 2004).

The emerging interest in heuristics and their influence on decisions has led to a range of recent studies in the management literature (Artinger *et al.*, 2014 , Maitland and Sammartino, 2015a , Maitland and Sammartino, 2015b , Bingham and Eisenhardt, 2011) and calls for more insights into how heuristics inform decision making, in particular in the entrepreneurship literature (Shepherd and Williams, 2015).

A lack of cohesive thinking about what heuristics are and how they can be categorized has however led to academic debate and criticism (Bingham and Eisenhardt, 2014 , Vuori and Vuori, 2014). Table 1 shows some of the wide ranging conceptualizations of how heuristics are categorized and explained in the literature.

Insert Table 1 about here

Overall, there are a number of overlapping schools of thought about heuristics from those that conform to the notion that they are strictly mechanisms adopted for time limited, limited information contexts (Kahnamen context) , to multiple individual bounded rational contexts (Gigerenzer, Todd and Group, 1999), to limited individual contexts involving choice between options (Tversky and Kahneman, 1974) to collective processes (Bingham and Eisenhardt, 2011 , Bingham, Eisenhardt and Furr, 2007). Heuristics-and-biases focuses on universal heuristics that are automatically invoked and can lead to biased processes. Similarly, fast-and-frugal centres on universal heuristics that are automatic, but that also exploit the environment to achieve accurate predictions.

Simple rules are idiosyncratic heuristics that are often consciously understood, combined with improvisation, and can constitute strategy especially in high-velocity environments where opportunities are superabundant, heterogeneous, and fast moving – they apply better to specific contexts and have been adopted to explain acquisition and internationalisation problems (Bingham and Eisenhardt, 2014).

Heuristics and Bias

The earliest literature on heuristics associated heuristics with biases (Tversky and Kahneman, 1974), viewing them as a deviation from rationality that can lead to systematic errors. Bias can arise when individuals are not aware of the rules that govern their impressions; cannot control their impressions; however they can learn to recognize situations where impressions are likely to be bias and therefore adjust them.

Conversely, the ‘fast and frugal’ research program (Gigerenzer, 2008) revived an alternate perspective suggesting that heuristics can be highly effective when they fit with the environment – and are thus ecologically rational to the degree that they match the structure of the environment. The term ecological rationality refers to functional matches between cognition and environment (Mousavi and Gigerenzer, 2014) generates insight for engineering environments that are most conducive to achieving certain tasks. According to the ecological rationality framework, the knowledge of how people should make decisions cannot be studied without considering how people are able to make decisions. This view of knowledge, in turn, rejects the segregation of psychology from disciplines such as logic, statistics, and philosophy. In sum, the study of simple heuristics has generated precisely the type of knowledge that allows for normative statements to be made based on descriptive assessments of the human adaptive toolbox, that is, the heuristics people have in their repertoire.

Evolving from the positive perspective, the simple rule notion of heuristics suggests that heuristics also exist at the “edge of chaos” (Bingham and Eisenhardt, 2011) in unpredictable markets where opportunities are often numerous, fast moving and uncertain. It is from these insights that researchers have become interested in heuristics and internationalization (Maitland and Sammartino, 2015a), notably for large multinational companies in politically hazardous environments.

Dealing with uncertainty requires knowledge but not necessarily an exhaustive use of information. In many business situations, effective heuristic decision-making deliberately ignores information and hence uses fewer resources (Mousavi and Gigerenzer, 2014).

Heuristics at the organisational level

Recent research is emerging that suggests simple rule heuristics are critical for capability development (Bingham and Eisenhardt, 2011) because process learning needs to be converted into simple rules to develop firm capabilities. Simple rules are also shown to be robust across diverse environments (Bingham, Eisenhardt and Furr, 2007) —i.e., they are viable in predictable environments and essential in unpredictable ones. There is a broader discussion within the strategy field over whether heuristics' effects on strategy formation are negative (Hodgkinson et al., 2002; Schwenk, 1984; Teece, 2007) or positive.. Heuristics work because they (1) proxy for more complex, correlated information (Gigerenzer, Todd and Group, 1999 , Bingham and Eisenhardt, 2011), (2) allow for faster capturing of opportunities, (3) provide some direction and freedom to improvise (Brown and Eisenhardt, 1997), and (4) help in coordination (Bingham and Eisenhardt, 2011 , Davis, Eisenhardt and Bingham, 2009)..

However, heuristics only work if they fit their context (Gigerenzer, Todd and Group, 1999 , Mousavi and Gigerenzer, 2014 , Bingham and Eisenhardt, 2011) and four dimensions along which the contexts differ (Vuori and Vuori, 2014): redundancy , stability, timeframe for decision-making, and the user of the heuristics (Vuori and Vuori, 2014).

Overall, firms explicitly learn heuristics as they begin their process experience (Bingham and Eisenhardt, 2011) even though they could be either dysfunctional or surprisingly accurate. Bingham and Eisenhardt's emergent theoretical framework argues that firms learn portfolios of heuristics. These heuristics have a common structure but idiosyncratic content and are learned in a phased cognitive development from novice to expert. This suggestion however ignores lower order influences (Gigerenzer, Todd and Group, 1999) and the personal

preferences and bias (Hoskisson *et al.*, 2011 , Zhang and Cueto, 2015) that may be prevalent in entrepreneurial decision making, in particular if a firm's business model (Hennart, 2014) is a reference point for internationalization.

In sum, heuristic thinking plays into the notion that decision making is not always a well thought through and rational process. It is particularly interesting to consider heuristic approaches in contexts of uncertainty where they are most likely to be used. It is also notable however that because heuristics involve simple and fast rules they may not be useful for explaining problems in wide contexts.

METHODOLOGY

The objective of this research is to unravel how heuristics influence the internationalization process of APSF. As heuristics have received limited attention to date in the internationalization literature, we adopted a multiple case study research design that involved detailed qualitative investigations, closely examining this underexplored concept by focusing on contemporary internationalization events (Eisenhardt, 1989 , Welch *et al.*, 2011 , Yin, 1994 , Yin, 2009). The research setting is the highly competitive and internationalized Irish architecture industry. As the industry is dominated by small firms we could expect organizations in this sector to encounter major contemporary globalization challenges facing small firms more generally.

Research Setting

The setting is the Irish architecture industry. Architecture is both a classic professional service (Von Nordenflycht, 2010) and a creative industry (Unctad, 2010): other such creative

professional service sectors include advertising, fashion design, media production, graphic design and software development (Unctad, 2010 , Von Nordenflycht, 2010). The role of the architect is commonly agreed to involve design and advice on building construction (Makstutis, 2010) and, as with other professions, the range of their obligations may vary across different institutional, legal and cultural contexts (Bridgstock, 2011 , Burrage and Torstendahl, 1990 , Faulconbridge, 2009 , Faulconbridge and Muzio, 2012). Globally, the internationalization of the architecture industry has been driven by technological advancements; mutual practice agreements facilitating the portability of qualifications and standards; and global outsourcing and offshoring. In Ireland, the relatively small size of the domestic market motivated Irish architecture firms to internationalize as far back as the 1990s (Enterpriseireland, 1999). As an empirical context, Ireland is a particularly appropriate setting for the study of APSF internationalization, as government policy and institutional structures have assisted the process for over two decades.

Research Design

Our research design involved two data collection stages – a preliminary and a main stage. The preliminary stage involved creating a report to assess the viability of the Irish architecture industry as a research setting. We conducted seven identical open-ended semi-structured interviews between June and November 2010 with a broadly sampled set of industry informants that mainly focused on firm internationalization processes. We began broad level coding during this preliminary stage to understand the architecture sector's dominant logic (Prahalad and Bettis, 1986), and to provide an overview of the firm internationalization processes. This guided us in our case selection, and identified any needs to refine our research design and in developing our interview prompt sheet. The interviews lasted between 25 and 100 minutes, and followed a common protocol. They were all

recorded, transcribed and subsequently verified with informants before being copied into the nVivo software system. Field notes were written up within 24 hours to reduce retrospective sense making that might lead to bias (Turner and Rindova, 2012 , Eisenhardt and Graebner, 2007).

Having identified that this setting was indeed viable to study heuristics in APSF internationalization, we then selected four companies that exists more at the artistic end of the continuum. Our reason for emphasizing homogeny in our sample was because of the literature which suggests that heuristics only work in a context (Gigerenzer, Todd and Group, 1999 , Mousavi and Gigerenzer, 2014 , Bingham and Eisenhardt, 2011). Our firms were studio style practices engaging internationally on a project rather than market basis. Their structure and characteristics aligned to the 'ambition' and 'ideas' strategies identified in the literature (Winch and Schneider, 1993). These firms were defined as 'design' practices in the industry. Initially, we relied on informants categorizing themselves as 'Design' or 'Commercial' firms during the case selection process, and this self-identification was triangulated against archival data and other informants' comments. We are also aware that small firms had unique challenges and behaved differently to larger firms (Shuman and Seeger, 1986).

Table 2 summarizes our chosen sample showing the age of the firm, selected projects that firms promoted on their website and years since first international experience. It is also worth noting that these firms also engaged in exclusive projects where clients did not wish to have their work make public. One Lambda informant suggests that "about 50% of our work is not on our website".

Insert Table 2 about here

Data Collection

Having determined our research design, we embarked on our main data collection phase between 2010 and 2014, using multiple techniques including face to face semi structured interviews, archival data and external informant interviews. We interviewed external informants to "provide outsider perspective for a reality check" (Santos and Eisenhardt, 2009), secondary replication and triangulation of findings (Van De Ven, 2007). We collected data from multiple informants at several hierarchical levels in each firm. Interviews followed a common protocol, and consistent with other studies exploring cognitive processes (Autio, George and Alexy, 2011) we adopted an open ended format to facilitate free expression of the informants ideas. Informants discussed both their current and past internationalization experiences within the firm and were given an open forum to share their conceptualizations of the process in general. We used techniques to alleviate potential recall bias, in particular relating to historical descriptions (Huber, 1985), including triangulating information from multiple data sources (Huber and Power, 1985).

While we were informed from the literature about the higher order activites and lower order perceptions that inform simple rules, interviewees were asked more generally about the internationalization process from both perspectives. They were prompted around key aspects of the process including building trust, relationships, getting known, complexities and challenges in the process. This approach allowed space for perceptions to emerge that linked to activities in the process in the informant description of how the process unravels.

By cross checking multiple data sources and applying rigorous data collection procedures we were able to gather rich multi-voice data satisfying the triangulation principle and ensuring the validity of our research conclusions (Creswell, 2009 , Yin, 2009). As in the preliminary research phase, all interviews were recorded, transcribed, and verified with informants before being transferred into the nVivo software program.

The simple rules of engagement emerged over time and informants were prompted on these specifically as evidence suggested they were common across multiple firms. Overall, theoretical saturation (Eisenhardt, 1989) was reached after we had collected nineteen interviews from four case firms. In addition to seven preliminary interviews, seven external informants, including academics in the architecture field, a government agency representative and architects in larger foreign firms, were also interviewed (taking between 40 and 120 minutes) to support our triangulation efforts. To safeguard respondents' anonymity and ensure the confidentiality of our data, we assigned code names based on the Greek alphabet Beta, Theta, Iota and Lambda.

Data Analysis

Step 1- Broad level coding – identify robust simple rules informing international business activities. Taking the unit of analysis as the individual architect we commenced our exploration by identifying the simple rules engaged in the toolbox of heuristics (Gigerenzer, Todd and Group, 1999) that our informants rely on to internationalize. These rules are the 'one good reason' that is applied to exploit different environmental structures to yield adaptive decisions. We analysed according to rules because of direct link of rules to action

(Davis, Eisenhardt and Bingham, 2009). Overall we identified 420 'simple rules' gathered across nineteen individuals.

Step 2 –categorize heuristics into higher order activities and lower order perceptions or memory processes. Consistent with the understanding that heuristics are informed by both higher order informing processes of limited information search, stopping and decision making activities and lower order perpetual and memory processes (Gigerenzer, Todd and Group, 1999 , Bingham and Eisenhardt, 2011), our next step was to sub-categorize each rule into higher level activities linked to internationalization or lower level cognitive rules informed by perceptions and memory processes. Across our nineteen informants we separated our 420 'simple rules' into 176 higher order activities and 240 lower order processes.

Step 3 – *Refining our codes.* We then progressed to sub coding our higher order and lower order themes. We used tables and graphs to make sense out of our data. We identified common themes at the higher and the lower order levels concerning visualising, targeting clients and shared trust/diplomacy/etiquette.

Step 5 – *theoretical underpinning.* We then travelled back and forth between the literature and the data to theoretically underpin our findings to prevailing literature. The structure of our data is set out in Table 3.

Insert Table 3 about here

FINDINGS

Below we present the findings as they unfolded in our analysis. Three common rules were identified for engaging customers, building trust and relationships that assisted international business. Firstly 'making the intangible tangible' which draws on the visibility of art and its ability to communicate to clients without language. The second 'getting a good client and working backwards' highlighting how artistic freedom typifies a 'good' client and when a client wants a project they will support on environmental unknowns. The third is 'relying on professional etiquette' which would appear to be a basis for trust between international consultants on projects.

Making the Intangible Tangible

Lower order perceptions about tangibilising. There is a perception among the architects is that despite being a service, architecture travels easily. Iota-1 describes how "the basic nuts and bolts of what you are doing, you can bring it to any country and it will work" highlighting a perception about visualising the service that does not require verbal communication. Communicating in different languages therefore is not perceived as significant. Similarly Lambda-3 suggests that "you show them and you demonstrate that you are achieving the same end result" highlighting the importance of thinking visually.

Higher order tangibalising activities. In order to create the visualisations necessary to overcome a language barrier and other institutional a obstacles the firms focus on building models. Beta-4 informs us that "we do a lot of models on different aspects" which may be "miniature tests" to see what will work and what won't work. Similarly communication with

partner consultants abroad is often by way of drawings with Iota-2 suggesting "actually it's easy to communicate things because you are doing it through the medium of drawings or visual information".

Getting a 'good' client and working backwards

Lower order perceptions about clients and international barriers. In targeting clients Lambda, a firm with a longstanding reputation, informs us that "we don't target customer they come to us" implying that for this firm customers seek them out for their talent. Similarly Beta-1 describes being an architect as like being a surgeon – "you have to trust in their ability to deliver". Architects within these design practices are concerned about having a social impact "having a cultural kind of difference on a social level" (Beta-3). Ultimately, "if you get the right clients you can work that way" (Lambda-4) is the rule for maintaining artistic integrity and control.

Higher order client seeking and project implementing activities. As small firms often seeking projects rather than entering new markets, our case firms do allude to their lack of familiarity often with local norms and procedures. Beta-3 suggests having entered into the French market "slightly naïvely but sometimes that's not a bad thing because you don't get hung up on things". Where necessary, firms will ally with consultants on the ground that can assist them through a process. Clients will at times find the consultants to assist on localisation issues.

Relying on professional etiquette

Lower order perceptions about professional respect and etiquette. Theta-4 tells us that "architects thrive on cross fertilisation. You are constantly learning new ways of doing

things." There is an appreciation in this regard for international peers and how ideas and knowledge can be shared. Similarly, informants often talk about 'great friends' who are fellow architects and also in architecture how "in an ideal world, architectural practices have a lot of personal relationships going on. It's not like a lawyer's office or an accountant's office" (Lambda-1). Thus "when you put a bunch of architects in a room there is always sparks because there is ego involved" (Theta-1)

Higher order diplomacy activities In internationalisation for our informants "diplomacy is the key" (Iota-3). One informant describes a Belgian project where responsibilities were shared between the design phase of the Irish firm and the localisation issues by the Belgian firm telling us that "we very much appreciate the office over there just taking a step back and just letting us do the design" (Iota-4). In the end however presenting a united front to customers is the crucial thing despite egos or division of responsibilities.

DISCUSSION

Heuristic problem solving techniques are integrated into the internationalization process

This paper does not assert that APSFs adopt heuristics over other approaches to internationalisation. Indeed templates adopted into the international entrepreneurship field explaining entrepreneurial behaviour such as effectuation, bricolage or entrepreneurial orientation may be important (Sarasvathy, 2001 , Baker and Nelson, 2005 , Covin and Miller, 2014). However, our paper does show that in certain contexts simple rules are adopted and that this is particular important for small and artistic firms. The context of APSFs

demonstrates how artistic aspirations and egos drives the simple rules that firms adopt. Similarly the professional nature defines perceived etiquette which is global and lowers perceptions of uncertainty. These rules apply to the customer engagement process as ways to build trust, reduce risk and develop relationships. They are not particularly connected to the skills and capabilities that might suggest an effectuation process, nor are they so concerned with the goal as business modelling or bricolage might emphasise. Moreover, consistent with their importance within specific contexts (Bingham and Eisenhardt, 2011) as simple rules of engagement, they help firms to circumvent the needs to deal with the uncertainty and risks associated of internationalisation. They may not be optimal but they are a short cut in the process.

Internationalisation of small professional service firms

Most literature on PSF internationalisation relates to the major players within scalable PSF sectors such as accounting, law and consultancy (Von Nordenflycht, 2010). Our study of APSFs, and those firms at the 'design' end of the continuum, is characterised by small firms few of whom attempt to internationalise. But some small PSFs do internationalise very successfully such as the Oscar winning small animation Irish company Brown Bag Films and the Danish architecture firm Pink Cloud. However, they internationalise in a very different way compared to largescale firms like PWC or Accenture who rely on global networks and multinational companies to support their global operations. These firms, who are often project focussed, might be described as internationalising in an almost counterintuitive manner with very little knowledge of a foreign market and very few relationships to build on. Yet the expand into foreign locations that are often neither culturally or physically proximate to their domestic market. In essence they engage in a very high risk strategy with high levels of uncertainty involved. Simple rules that are understood within their business domain

circumvent this uncertainty that become rules of engagement in foreign markets. They may not be optimal but they act as a convener of small PSF internationalisation.

Internationalisation and the adaptive heuristic toolbox

Heuristic theories have developed along multiple lines but little is understood about them to date in the internationalisation process. Some work is happening to explain how heuristics influence large MNCs (Maitland and Sammartino, 2015a) but our study addresses how heuristics inform the rules of engagement within the APSF sector.

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Appendix A: Interview Schedule

Please begin by describing your business.

How would you describe your role within your organisation?

How do the activities of your department fit within the organisation?

What has been your organisation's experience of internationalising its activities?

What triggered the internationalisation activities?

Where did you internationalise?

How did you identify particular countries to target?

How would you explain the internationalisation process?

Were there are particular successes that you experienced?

Were there are particular difficulties that you experienced?

What would you identify as the key complexities within the process? How did you address these?

How did you establish relationships in your target country?

How did you develop the new structure?

How did you transfer creativity?

How did you manage knowledge?

How did you approach building a reputation in the host country?

How would you describe your organisation's general approach?

Table 1 – categories of heuristic from the literature

	Categories of Heuristic		Link to Entrepreneurial Orientation
(Tversky and Kahneman, 1974)	Availability – heuristic for judging frequency and probability Representativeness Anchoring and Adjustment	<u>Cognitive Strategies for Judgement</u> Elimination of aspects Constructed preferences Dominance structuring Comparative advantage	
(Gigerenzer, Todd and Group, 1999)	Higher Order Adaptive Lower Order Memory	Use learning and evolved core capabilities such as memory and recall (Mousavi and Gigerenzer, 2014) – the decision strategy can be conscious or unconscious – good for birds eye view, simple strategies match complex situations	Experience Characteristics / Experience
(Slovic *et al.*, 2007)	Affect Heuristic	Affective judgement without evaluation of options – non cognitive	
(Bingham, Eisenhardt and Furr, 2007)	Lower Order Heuristics - Selection - Procedural Higher Order Heuristics - Temporal - Priority	Narrow opportunity choices to one Relate to time and priorities – link opportunities together	
(Bingham and Eisenhardt, 2014)	Unique Heuristic Vs Universal Heuristic		
12 well studied heuristics from adaptive toolbox of humans (Mousavi and Gigerenzer, 2014)	<u>Heuristic</u> Recognition heuristic (Goldstein & Gigerenzer, 2002) Fluency heuristic (Schooler & Hertwig, 2005) Take-the-best (Gigerenzer & Goldstein, 1996) Tallying (Dawes, 1979) Satisficing (Simon, 1955) One-bounce rule (Hey, 1982)	<u>Description</u> If one of two alternatives is recognized, infer that it has the higher If both alternatives are recognized but one is recognized faster, infer To infer which of two alternatives has the higher value, (a) search through cues in order of validity; (b) stop search as soon as a cue discriminates; (c) choose the alternative this cue favours. To estimate a criterion, do not estimate weights but simply count the number of positive cues. Search through alternatives and choose the first one that exceeds your aspiration level. Continue searching (e.g., for prices) as long as options improve; at the first	<u>Counterintuitive results</u> Less-is-more effect Less-is-more effect Often predicts more accurately than multiple regression, neural networks, exemplar models, and decision-tree algorithms Often predicts as accurately as or better than multiple regression Aspiration levels can lead to substantially better choices than by chance, even if they are arbitrary. Taking search costs into consideration in this rule does not improve performance.

		downturn, stop search and take the previous best option.	
	Gaze heuristic (McBeath, Shafer, & Kaiser, 1995)	To catch a ball that is coming from down from overhead, fix your gaze on it, start running, and adjust your running speed so that the angle of gaze remain constant.	Balls will be caught while running, possibly on a curved path.
	1/N rule (DeMiguel et al., 2009)	Allocate resources equally to each of N alternatives. Can outperform optimal asset allocation portfolios.	Can outperform optimal asset allocation portfolios
	Default heuristic (Johnson & Goldstein, 2003)	If there is a default follow it.	Explains why advertising has little effect on organ donor registration; predicts behaviour when trait and preference theories fail
	Tit-for-tat (Axelrod, 1984)	Cooperate first and then imitate your partners last behaviour.	Can lead to a higher payoff than "rational" strategies (e.g., by backward induction)
	Imitate the majority (Boyd & Richardson, 2005)	Determine the behaviour followed by the majority of people in your group and imitate it.	A driving force behind bonding, group identification and moral behaviour.
	Imitate the successful (Boyd & Richardson, 2005)	Determine the most successful person and imitate his or her behaviour.	A driving force in cultural evolution

Table 2: Description of Data Collected from each Case Firm and Sampling Criteria

	Est. (years)+	Recognized Sector Expertise	Selected Projects listed on website	Years since first international experience+
Beta	*30*	*Specialist – Education*	*18*	*12*
Theta	10	Specialist – Cultural	23	10
Iota	*10*	*Specialist – Education*	*40*	*5*
Lambda	*30*	*Dual Specialist –residential and cultural*	*39*	*10*

Table 3: Data Structure – Heuristics in APSF internationalization

Empirical Evidence (First Order)	**Theoretical Categories (Second Order)**	**Aggregate Dimensions**
Architecture travels easily. Thinking visually. Sending graphics and drawings. Building models. Using graphic language.	*Lower order perceptions about tangibilizing* *Higher order tangibilizing activities*	*Making the intangible tangible*
Targeting clients who are seeking prestigious projects. Targeting clients who want the design. Entering into markets naively. Dealing with international differences as interest rather than challenges. Seeking alliances to support international uncertainty.	*Lower order perceptions about clients and international barriers* *Higher order client seeking and project implementing activities*	*Getting good client and working backwards*
Architects have lots of personal relationships going on. Architects thrive on cross fertilization. Egos are important to respect. Respecting the boundaries of responsibilities. Presenting a united front to customers. Working with firms that want to work with you (status). Fostering professional friendships internationally.	*Lower order perceptions about professional respect and etiquette* *Higher order diplomacy activities*	*Relying on professional etiquette*