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How Professional Service Firms Internationalise: Resource Commitments and Competencies for Internationalisation

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How Professional Service Firms Internationalise: resource commitments and competencies for internationalisation

(Competitive Paper)

Abstract

Departing from traditional economic and behavioural approaches, this study adopts a resource based lens to examine an area exhibiting exceptional growth, the internationalisation of professional service firms (PSFs). An in-depth qualitative study of the internationalisation process of five architectural firms expanding to multiple international markets was conducted. The paper's main contribution is the identification of the interplay between PSF competencies and the firm's approach to internationalisation. We reveal how these PSFs can be classified along a continuum ranging from artistic to engineering orientation depending on the firm's relative emphasis on technical or management competencies when internationalising. Implications for PSFs when developing an approach to internationalisation are discussed.

How Professional Service Firms Internationalise: resource commitments and competencies for internationalisation

INTRODUCTION

Why and how firms internationalise are the fundamental questions in the field of international business (IB). IB research approaches these questions based on either economic theory or behavioural theory (Johanson, 1990; Westhead, 2001). While economic theory offers good insight into why multi-national firms exist (Dunning, 1988; Kogut, 1992), behavioural theories examine the process by which these firms undertake their international activities (Andersen, 1993; Johanson & Vahlne, 1990).

Recent studies suggest that much of the debate in IB theory critiquing the dominant Uppsala or incremental Stages model (Johanson & Vahlne, 1977) no longer applies due to the changing landscape for internationalising firms (Malholtra & Hinings, 2010) with a wider array of organisations entering foreign markets encompassing different production technologies and asset portfolios. Several scholars point to the unique characteristics of firms that affect internationalisation strategies and present different strategic challenges (Erramilli & Rao, 1993; Barkema & Drogendijk, 2007; Goerzen & Makino, 2007). Malholtra and Hinings (Malholtra & Hinings, 2010, p331) suggest steering the question through a Resource Based View (RBV) of the firm (Barney, 1991; Wernerfelt, 1984) asking "why do we observe different processes of internationalisation and, consequently, different approaches to resource commitment in a foreign market over time?".

This paper responds by exploring how the resources and competencies of the firm influence its approach to internationalisation, focusing in particular, on the internationalisation of professional service firms (PSFs). PSFs are the fastest growing segment of mature market economies, driven by changes in technology, mutual trade agreements, and trends towards

offshoring and outsourcing. Practitioner journals offer limited insight into the internationalisation of PSFs and offer little evidence as to whether these firms adopt the theoretical incremental approach to internationalisation.

PSFs have unique characteristics from other firms. Firstly, different management approaches are required because they are service firms exhibiting the inherent features of service sector industries involving intangibility of product, heterogeneity, simultaneous production and consumption, and perishability (Buckley, 1992) that require close interaction between the producer and the user. Existing research suggests that PSFs can be identified by three overriding characteristics a) knowledge intensity, b) low capital intensity, c) a professionalised workforce (vonNordenflycht, 2010). These characteristics link to unique ownership structures which creates control and authority dynamics (Hinings et al, 1991). It is evident therefore that the key resource and capability building in PSFs is linked to the human capital of the firm (Lowendahl, 1992; Mintzberg, 1983).

Within the broadly overarching human capital framework, literature already suggests that for PSFs it is knowledge, human capital, relationship capital (Hitt et al., 2006a) and reputation (Cooper et al, 2000; Grosse, 2000) that are the key resources of the firm and its competency to build these resources drives successful outcomes.

The unique characteristics of PSFs and their key resources and capabilities suggests they may also adopt novel approaches for internationalisation (Faulconbridge, 2008; Morgan & Quack, 2005; Segal-Horn & Dean 2007) to deal with challenges such as limited scale and modes of internationalisation; local embeddedness with strongly rooted institutional traditions; specialized knowledge of the connections in the local environment; and a high degree of interaction between the producer and consumer to ensure trust and guarantee of standards of service delivery. The internationalisation of PSFs are particularly difficult as "they embody additional knowledge capital requirements, problems in transferring know-how

across organizational and national boundaries, and operations across distinctive institutional and legal systems for which local knowledge is needed." (Brock & Alon, 2009, p53).

Despite many common features however, PSFs include a large number of business segments (vonNordenflycht, 2010) and firm characteristics may affect internationalisation processes and strategies (Malhotra and Hinings, 2010). International research to date on PSFs has centred mainly around the accounting and legal professions (Aharoni, 1999; Cooper et al., 2000; Morgan & Quack, 2005; Segal-Horn & Dean, 2007; Brock 2009) and generally focussed on larger multi national firms. It is even suggested that smaller sized PSFs were not internationalisers because "historically, professional services were delivered locally and thus most professional service firms were small, local organisations" (Brock & Alon, 2009, p53). This research project therefore examines a little researched phenomenon, the internationalisation of smaller sized PSFs, using an inductive research framework (Eisenhardt, 1989) derived from a multiple case study methodology. The research setting is located within the architecture sector (a prominent PSF industry) and more specifically architecture firms that are currently or have internationalised in the past.

KEY CONTRIBUTIONS

The study adds to and extends existing research related to the argument that firm characteristics affect the internationalisation strategy, processes and resource commitments to foreign markets over time (Erramilli & Rao, 1993; Barkema & Drogendijk, 2007; Goerzen & Makino, 2007; Malholtra & Hinings, 2010).

The findings from the research provide critical insight on the internationalisation of PSFs and suggest that PSF internationalisation processes are not industry specific as existing research would suggest, but driven by the *type of firm* based on its characteristics. This paper contributes to the field of IB theory by offering new insights on the process of firm

internationalisation for PSFs. It contributes to RBV theory by providing insights on the role that technical competence can play on the key resources of the firm above purely technical outputs. The key finding from this research reveals how PSF internationalisation can be classified along a continuum ranging from having an artistic to an engineering orientation depending on the firm's relative emphasis on technical or management competencies when internationalising.

This broadly supports the Malholtra & Hinings (2010) concept of Organisation Types, but importantly the unique characteristics of PSFs means that resource commitments are different by not only the type of resource, but by the type of competency that creates and develops that resource for firm internationalisation. Importantly, this study identifies the role that technical competence (or specialist professional expertise) plays in firm internationalisation. Prior research on PSF internationalisation highlights the importance of management competency supporting PSF internationalisation (Brock & Alon, 2009; Sapienza et al., 2006; Hitt, 2006a) but technical competencies have to date been overlooked.

METHODOLOGY

Given that few systematic studies relating to the internationalisation of PSFs exist, this research is designed to be explorative, descriptive and theory generating, and is ideally suited to a multiple case study approach (Yin, 1994; Eisenhardt, 1989; Welch et al., 2010).

Scholars of international business have often avoided qualitative case study approaches to research because of the perceived hindering of the potential for case studies to contextualize theory and generate casual explanations (Welch et al., 2010). Notably, practices of smaller firm internationalisation have largely been neglected possibly because of undue emphasis on rationalistic methodologies underlying existing investigatory approaches (Lamb et al., 2011). These de-contextualize small firm internationalisation to fit preconceived hypothetical

understandings of the data (Punnett and Shenkar, 1996, Westwood, 2004) rather than capturing the actual complexity of internationalisation practices.

The emphasis of the project therefore is to adopt a suitable methodology to investigate an under researched business segment (PSFs) with unique characteristics that gives consideration where necessary to firm size which is recognised to impact on the internationalisation process (Peng, 2001; Coviello and Munro, 1993, Erramilli and d'Souza, 1993, Baird et al., 1994). Unbundling of the actual activities and practices within the internationalisation process facilitates the fitting of theory to reality to answer the "how to" question in international business, the core issue that also occupied early Uppsala researchers (Johanson and Vahlne, 1977, Johanson and Wiedersheim-Paul, 1975, Carlson, 1975).

Selection of Cases

An inductive multiple case research design (Eisenhardt, 1989) is used for this project. Multiple cases permit replication logic (Yin, 1994) and typically yield more robust, generalisable theory than single cases (Eisenhardt and Graebner, 2007). Case studies are useful to study contemporary descriptions of recent events (Yin, 1981) where theory is emergent from recognising patterns of relationships among constructs within and across cases and their underlying logical arguments (Eisenhardt and Graebner, 2007).

The two units of analysis for this project are the firm and its internationalisation process.

The research setting is the architecture industry. As critical resources tend to vary by industry (Dess et al., 1990) a single-industry sample in which to conduct the research was desirable for conducting cross case comparison. The architecture sector is an interesting base from which to study PSF internationalisation as the sector is globally represented and is a prominent participant within the PSF sector. The internationalisation of the architecture industry is driven since the 1980s by technological advancements, spurred on in the 1990s through mutual practice recognition agreements, and over the last decade through increased

trends towards global outsourcing and offshoring (OECD / World Bank Report 2007). Furthermore, it is comparatively one of the higher cited PSF sectors within academic literature (Von Nordenflycht, 2010) albeit not within international business theory. Firms were selected on the basis that they had existing or past internationalisation experience.

Having defined the study's population, a diverse sample was created (Santos & Eisenhardt, 2009). Diversity was achieved both through the size of the firm and the range of international markets. Allowing for this diversity ensured that a multitude of internationalisation experiences across culturally diverse markets were examined within a single firm and on a cross case comparison. Including firms of varying size enhanced our understanding of resource commitments (Baird et al., 1994, Freeman et al., 2006, Shuman and Seeger, 1986). Table 1 summarises the diverse characteristics of the case firms which offers firmer grounding of theory than a more homogenous sample (Harris and Sutton, 1986).

Table 1 - Description of Sample Firms and Case Data

	Alpha	Beta	Gamma	Delta	Epsilon
Years since Establishment	30+	30+	20+	10+	30+
Employee Nos	>75	>25	>125	<25	<25
Years since first international project	5+	10+	10+	3	20+
No of international locations	3	2	8+	1	10+
Sector Expertise	Multi Specialist – Commercial Segments	Single Specialist – Public	Multi Specialist – Commercial	Dual Specialist – Commercial	Multi Specialist – Public
Internal Informants	Managing Director, Founder Senior Architect	Founding Partner	Director	Managing Director, Founder; Director; Architect	Founding Director; Director Senior Architect
External Informants (case related)	Partner	Competitor	Competitor, Partner	Partner	Ex-Employee, Competitor, Partner
External Informants (generic)		Government	Agency, Academic, I	ndustry Body	

Sources of Data

Archival Records

Once agreement to participate was received, two primary data sources were relied on, archives and interviews. Prior to the first interview with each firm an extensive search of archival sources, both internal and external was undertaken. These are outlined in Table 2 below.

Table 2 Archival Sources of Data

Informants	Data Source	
Archival Data Source	es	
	Pre Interview Collection	Post Interview Collection
Firm Level	 Company Websites Media Information Key Management CVs Search of awards and project tendering 	 Marketing Reports New Market Entry Plans Samples of project models and drawings Meeting minutes and notes
Industry Level	 Brochures issued by RIAC Meeting with RIAC Competitor and peer group comments Industry Agency websites Competitor websites and media articles OECD/World Bank and other industry reports 	- Competitor and peer group comments from other Case Firms.
Economy Level	Key economic data on select marketsEU tenders	
Other		- Field Notes

This pre-interview archival data assisted in identification of the case history of the firm and its internationalisation. The researcher was also provided with additional archival material during the interview process (Table 2), which comprised internal documents not publically available and this included market research reports, new market entry plans, tendering documents and meeting minutes.

Interviews

The next phase of data collection comprised semi structured interviews both within the firm and with external informants. The first interviewee was the CEO / Founding Director / or

Director with responsibility for international business development. The selection of additional internal informants was guided by the first interviewee and based on the extent of their involvement in the internationalisation process either on a single basis or over multiple new market entry initiatives. Internal informants were complimented with external informants: ex-employees, competitors, and partners. For the purpose of this study, exemployees were selected based on their involvement in past internationalisation of the firm to triangulate data. The use of multiple informants helps mitigate bias by ensuring replication of data and triangulation of findings (Creswell, 1994). It also allows for richer analysis because participants may focus on complementary aspects of the internationalisation process (Dougherty, 1990).

Procedures

Prior to approaching any architecture firms, a study of the architecture industry was undertaken to assess the viability of the sector as a research setting as well as the potential to access case firms within the sector. This report was prepared using multiple public information sources and with guidance and data from the Royal Irish Architecture Institute (RIAI). Reports on the global architecture industry were also reviewed including those of the OECD and World Bank (Keune, 2007).

Once suitable participant firms were identified, these were selected based on evidence of size and scope of international market activities from public sources. Contacts and pre-existing relationships were relied on where possible to gain access. Other firms were written to seeking agreement to participate. In total five case firms form the basis of this study.

Existing research already alludes to the critical resources for PSFs (Hitt et al., 2006a; Cooper et al, 2000; Grosse, 2000) knowledge, human capital, relationship capital, and reputation. Methods for identifying such resources are prevalent in the literature and an identification process was decided in advance of the commencement of the research. Knowledge was

identified by the creation, sharing, and use (Brivot, 2011) in the internationalisation process of the resource. Human capital was identified by selection, development, and use (Hitt, 2001) of individuals in the internationalisation process. Relational Capital was identified where an international relationship becomes embedded and exhibits the dimensions of trust, information transfer and joint problem solving (Uzzi, 1997). Finally, international reputation is identified through identifying what reputation is and how it is formed for the firm based on the model of identifying resource signals and certifications (Rindova et al, 2005).

Prior to the first interview with each firm an extensive search of archival sources, both internal and external was undertaken from sources outlined in Table 2. A case story was written up on each firm detailing evidence of key resource management and commitment, the extent of its internationalisation efforts, its offices, projects, year of internationalisation, awards won and projects tendered, CV's of key employees, the core competencies that the firm identified itself by and external support for this, and a comparison between the local and international activities. Tables and graphs were developed for each case (Miles & Huberman, 1994) to facilitate the analysis including future cross case comparison.

The next phase of the process comprised semi structured interviews. These were conducted between June 2010 and July 2011. The interview questionnaire contained open-ended questions on the internationalisation process involving the role of the individual within the organisation; firm experience and triggers for internationalising; where and how firms internationalised; who the key competitors were; target clients, successes and challenges faced. It also included open-ended questions focussed on the key resources and resource commitments for internationalisation including establishment of international relationships; structural changes within the firm; transfer of creativity and knowledge; building of reputation; and trust, and the structure and role of individuals in the internationalisation process. Interviews lasted 45 minutes to 1 hour 50 minutes and identified what and how key

resources are committed to the internationalisation process which were then matched to those in the archival material (Santos & Eisenhardt, 2009), and thus triangulated the data (Eisenhardt, 1989). This also identified important resource management and commitment for internationalisation that were not evident in the archival data which could be replicated later in the process through additional interviews or additional archival searching.

Field notes were written up within 24 hours following the face to face interviews to incorporate impression management and retrospective sense making into the data collection to help reduce bias (Eisenhardt & Graebner, 2007).

All interviews were recorded and transcribed into nVivo. These were then copied to the interviewee to confirm accuracy. After these initial interviews, which included the collection of additional internal archival data not in the public domain (Table 2) the researcher tabulated findings along the lines of the critical resources and their identification definitions.

A continuous process within the research design and data collection ensured that the findings could be replicated and triangulated either through multiple informant responses or through the archival material reviewed before and after the interviews. This ensured a robust and complete understanding of the phenomena.

Data was analysed using procedures recommended by Strauss and Corbin (1998) Miles and Huberman (1994). The analysis started with a review of each separate case through the lens of the research question (Eisenhardt, 1989): what resource commitments and competencies are involved in PSF internationalisation? nVivo was used to assist with coding of the phenomenon for each case separately. Firstly, general codes were created under the key resources of knowledge, human capital, relational capital and reputation. Trees were created under these in nVivo to break the data down further within each resource to 1) knowledge creation, transfer, use; 2) human resource selection, development, and use; 3) relational capital evidence involving trust building, information transfer and joint problem solving; and

4) resource signals and certifications for reputation building. Each tree was thereafter separated further into the specific processes for each firm independently. A tidy up process then started to eliminate data that could not be triangulated through the multiple case firm sources, or to group closely related processes together under broader coding names.

Once this process was complete, tables and graphs were created by nVivo to facilitate analysis (Miles & Huberman, 1994) and summarised in Table 3 below.

Table 3 Data Structure

							Aggregate
		Evidence				Theoretical	Theoretical
Alpha	Beta	Gamma	Delta	Epsilon	First Order Codes	Categories	Dimension
₩	₩	₩	₩	₩	Statements that convey how knowledge is created in the firm		
٧	٧	₩	₩	٧	Statements that indicate how knowledge is transferred within the firm	Knowledge	
₩	₩	₩	₩	₩	Evidence of use of knowledge in terms of international service output		
₩	₩	₩	₩	₩	Statements that convey how staffare selected to work in the organisation		
√√	V	₩	₩	₩	Statements that convey information about development, training, and promotion of staff in the firm.	Human Capital	
₩	₩	₩	₩	₩	Evidence of use of human capital in terms of international service output		Internation alisaton
٧	٧	٧	٧	٧	Statements that convey how the building of trust with third parties is understood and managed by the firm		Process
√√	₩	₩	₩	₩	Statements that convey when and how information is transferred with third parties by the firm for the purpose of relationship building	Relational Capital	
₩	٧	₩	₩	₩	Identification of joint problem solving initiatives with third parties to the firm.		
₩	₩	W	₩	₩	Identification and Statements of resource signals to international third parties concerning ability to deliver business	Reputation	
٧	₩	₩	₩	₩	identification of evidence that certify to international third parties a strong reputation		

From this analysis an understanding of individual case firm internationalisation and the resource commitment process was developed which could be reconciled through the data. Where necessary, the interviewees were contacted again to clarify their responses and ensure accurate interpretation. The extent of interconnectedness of resources was also evident from this process and data was grouped into multiple fields where this applied.

Once single cases were reviewed, coded, analysed and confirmed with respondents, a cross case analysis process commenced where data from single cases was compared to other cases

to identify consistent patterns and themes (Eisenhardt & Graebner, 2007). The first step was to identify tensions and similarities in the data between the case firms for each of the key resources, firstly by comparing two cases and then adding cases as patterns emerged (Santos & Eisenhardt, 2009). This required constantly reviewing the coding of processes to make sense of the data and refine cross case tensions and similarities for discrepancies and agreements.

FINDINGS

The purpose of the project is to identify the interplay between PSF competencies and the firm's approach to internationalisation. A novel and interesting insight into the internationalisation process emerged from the research identifying competencies that assist the internationalisation process can be either technical or managerial. Whether a firm creates and develops technical or managerial competency for internationalisation is common across all resources and affects both the internationalisation process and the internationalisation outcome.

The classification of technical competence refers simply to professional expertise within the PSF's sector. In this case technical competence relates to the reliance on architectural skills and competency to influence the service outcome. Alternatively managerial competency is widely discussed in literature although not well defined. Notwithstanding the complexity of this research variable and the multiple research frameworks, within the context of this project managerial competency can be identified in the data by demonstration of managerial innovation as opposed to technical innovation (Hinings, 1991). The importance of managerial competencies for PSFs is highlighted in the literature not always as separate roles from the partners, but from a behavioural perspective where partners could demonstrate managerial competencies in areas such as recruiting, leading project teams, and retention of personnel as well as strategic management skills are required for partners (Lowendahl, 2000).

Using the critical resources framework, these processes can be separated into two case groups which are consistent across all resources. Parallel resource commitment and management can be explained through competency usage both in the internationalisation process and the internationalisation outcome. It is important to note however that there is a continuum with certain case firms residing close to polar ends of the continuum and others closer to the centre. For illustrative purposes, findings are separated between cases using technical competency in their internationalisation and cases relying on managerial competency in their internationalisation process. These groups are presented along each key resource outlining how those resources are used in the internationalisation process and the internationalisation outcome.

Technical Competency Building

The findings suggest that both Beta and Epsilon display technical competency in the commitment and management of resources for internationalisation. This is evident in how they manage knowledge, human capital, relational capital and reputation to achieve successful international outcomes. The service outcome for Beta and Epsilon is mainly focussed on achieving *symbolism* and *uniqueness* in their product and the process towards achieving this is described as having an Artistic Orientation (ArtO).

Table 4 Illustrative Evidence: Artistic Orientation

Resource	Dimension	Illustrative Quotation Examples
Knowledge	- Creation	"using the design and creative competence that we have to move into this area a bit
		more" (Epsilon)
	- Transfer	"we have a studio structure here Like a beehive" (Beta)
	- Use	"Every project is unique" (Beta)
Human Capital	- Selection	"only all architects. We don't have technicians and other administration" (Beta)
	 Development 	"to be in an environment like this, it opens up opportunities. It pushes your
		boundaries a bit more" (Epsilon)
	- Use	"they wanted people who were thinkers and makers and architects not somebody
		who would hand it down to team X" (Beta)
Relational Capital	- Trust	"trust is about professionalism" (Beta)
	 Information 	"it takes a huge amount of energy to wine and dine and we are not good at that kind
	Transfer	of thing" (Beta)
	 Joint Problem 	"Bratislava would have been opportunistic in the sense that it was following a client"
	Solving	(Epsilon)
Reputation	- Signal	"since the beginning of our practice we've been dealing in schools" (Beta)
	 Certification 	29 internationally recognized architecture prizes (Beta); 30 internationally
		recognized architecture prizes (Epsilon)

The findings suggest that Beta displays technological competence above managerial competence when managing its resources in the internationalisation process. The focus of the firm is deriving technical excellence through treating each project as unique and achieving symbolism to the wider community. There is no separation of administration or business development and principals are directly involved in developing each project. Epsilon also displays a leadership of technological competence over managerial competence, albeit closer to the centre of the continuum than Beta. The focus of the firm is deriving technological excellence in selective segments and aiming for industry awards and peer recognition. While projects appear to be a mixture of efficiency focussed and symbolic, there does not appear to be a separation of business development activities and principals are directly involved in developing each project.

Knowledge

PSFs which technical competencies above managerial competencies use internationalisation create technical knowledge through learning by doing, "we are always researching, every project is new" (Beta). Knowledge is also gained through cross sectoral activity "using the design and creative competence that we have to move into this area a bit more" (Epsilon). This knowledge is transferred within the firm through centralised structures where "we need to weave the experience with the people, like we have coffee and sit around a table" (Beta) and high acceptance of technology as a facilitator of knowledge transfer whether as an "intranet office system" (Epsilon) or from external team members through "Skyping" (Beta). The emphasis on creating and transferring technical knowledge within the firm is used to create outputs that are "symbolic" and "unique" (Beta).

Human Capital

PSFs seeking to achieve an Artistic Orientation are more concerned with building continuity rather than flexibility into their recruitment policies. They tend to employ "only ... all architects. We don't have technicians and other administration" (Beta), nor is the use of short term contract staff common. They are mainly interested in building architectural (technical) expertise. Recruitment may be aligned to the location of an international project post commencement, for example, Beta hired an Italian architect living in Ireland when a project commenced in Italy. Staff development is facilitated in ArtO firms by the centralised structure "through weaving experience with the people" (Beta) but also it appears that an entrepreneurial approach is encouraged and fostered across the team not only in project ideas emanating from the studio structure, but also new avenues of business such as Epsilon describing their engagement in a Chinese project because of an architect at the firm who is "very entrepreneurial China is because of [her]". The data suggests that for smaller PSFs seeking an Artistic output, principals are involved directly in the projects which may allude to tighter control of the outputs, but also a wider base of ideas built into the output. Technical input from the principals is highly valued in these firms as is the professional input of the wide human resource of the firm.

Relational Capital

While initially it appeared that relational capital was not of critical importance to ArtO firms even suggesting "we are not good at that sort of thing" (Beta) and also it would appear that project teams are constructed by the client. However, it is an external informant that gives good insight on where relational capital is built by suggesting in the case of Beta, "They are in a circuit, its almost like an academic circuit" as assisting them in winning international tenders. Epsilon also wins business in this manner, such as initiating Chinese introductions that eventually led to very important projects for them through a close connection at the Royal Institute of British Architects. The element of trust within this resource is of

importance but is described as built on "professionalism" (Beta) and the track record of projects, thus suggesting it is about the quality of the architecture/professional expertise with joint problem solving through project specific teams appointed by the client.

Reputation

Reputation plays a highly significant role for ArtO firm internationalisation and is signalled mainly through the depth of niche specialism of the firm with Beta stating that "since the beginning of our practice we've been dealing with schools" and also its years of experience. Essentially it is the specialised portfolio of the firm that creates the resource signals. Reputation is certified through a firm's general media and industry journal profile and not unrelated to this, the type and number of awards won by the firm which are highlighted in Table 5 below.

Table 5 Number of Awards won by Case Firms and Awarding Body

Awarding Body	Alpha	Beta	Gamma	Delta	Epsilon
Architectural Association of Ireland		11			
Expo 2000, Hannover					1
Federation Europeanne du Mobilier du Bureau			1		
ICSC European Shopping Centre of the year				1	
Royal Institute of Irish Architects	1	11	1		21
Irish Planning Institute Awards					5
Mies van der Rohe		2			
Mipim AR Future Project Award			1		
Moscow International Festival					1
Opus Architecture and Construction		3	1		1
Royal Institute of British Architects	1				1
World Architecture Festival		2			
Breem Excellent Award				1	

There is evidence also of strong affiliations to industry representative bodies which certainly initiated international business for Epsilon, and merit based honorary memberships of internationally recognised arts councils, academic bodies, and industry bodies which enhances the reputation of the principals and thus supports the business of their underlying firms.

Table 6 - Leading Competency: Technical

	, ,		
Resource	Resource Development and	Leading Competency	Internationalisation Output
	Competency		/ Use of Resources

Knowledge	 Acquired through learning by doing on project, cross sectoral activity, product research Transferred by centralized project team, high acceptance of technology for communication 	Technical	Unique / Symbolic Outputs (Artistic Orientation)
Human Capital	 Select qualified professionals only with no contract staff, junior staff or technicians Developed through learning from others in centralized environment, entrepreneurial initiative encouraged, principals directly involved in projects 	Technical	
Relational Capital	 Trust about professionalism and track record. Retrospective information transfer and joint problem solving driving. 	Technical	
Reputation	 Signaled through niche portfolio, sector expertise, years of experience, connections to industry and sector representative bodies. Certified through media profile, awards, honorary memberships 	Technical	

Managerial Competency Building

The findings suggest that three of the case firms, Alpha, Gamma and Delta, display managerial competency in the commitment and management of resources for internationalisation. This is evident in how they manage knowledge, human capital, relational capital and reputation to achieve successful international outcomes. The service outcome for Alpha, Gamma and Delta is mainly focussed on achieving *efficiency* in their product so they can compete head to head with their peers. This project describes this as having an Engineering Orientation (EngO).

Table 7 Illustrative Evidence: Engineering Orientation

Resource	Dimension	Illustrative Quotation Examples
Knowledge	- Creation - Transfer - Use	"we took over local practices and grew them" (Alpha) "somebody from here was going out to head up because we needed to have the culture of the organisation here, to establish that culture over there" (Delta) "we give a more efficiency solution that's going to give you more revenue"
Human Capital	- Selection - Development - Use	(Gamma) "we've brought a lot of contract staff in here on a project by project basis" (Gamma) "you fall into things, exits happen and you end up doing this and doing that" (Alpha) "most of the international business development comes through me" (Gamma)

Relational Capital	- Trust	"the UK ones because they saw Irish people as their friends out there rather than as competitors. They would have seen big Australian and South African companies as competitors" (Delta)
	 Information Transfer Joint Problem Solving 	"you've already done all your work, you've built the relationship and they want to work with you" (Gamma) "people are not only talking with genuinely see the advantage of collaboration. Because collaboration is value" (Delta)
Reputation	SignalCertification	"huge amount of experience in master planning, in office design, in residential design, in retail design" (Alpha) "it's how far up the ladder you are going to get" (Gamma)

Based on the findings certain characteristics can be identified for firms that pursue a goal of achieving an engineering output. They internationalise through proactively searching out new locations while moving staff around to build international business and ensure that corporate culture is common across international markets. They put strong importance on building relationships and networks and compete directly in the "rat run" (Gamma) with their international and local market peers. Essentially new business is generated through fostering relationships and demonstrating commitment to international locations.

Knowledge

Alpha, Gamma, and Delta, emphasised the building of managerial knowledge above technical knowledge that assist in the internationalisation process. For these firms knowledge is created through formal training in international business (Enterprise Ireland training noted for all three firms), mergers where "we took over local practices and grew them" (Alpha), market research by "doing market research into a number of locations" (Gamma), and learning by doing through location insofar as "what you might learn from one location you may need to transfer to another one" (Gamma). Knowledge is transferred through moving people around such as "somebody from here going out to head up because we needed to have the culture of the organisation here, to establish that culture over there" (Delta) or "getting people to think the way you think" (Alpha), formal meetings and reporting "we went back and started to write a business plan ... when I came back we then met as a board" (Delta), and separation and assignment of the business development role which assigned a "coordinating role in business development" (Gamma) to a single individual for international markets which

affects the way knowledge is transferred, possibly imparted only at a very senior level or through formal channels such as "committee meetings every two months .. business plans" (Gamma). Firms demonstrating high managerial competence in knowledge creation and transfer as regards internationalisation appear to compete directly in foreign markets with peers providing outputs based on efficiency.

Human Capital

Alpha, Gamma and Delta appear to have a wider range of employees and experience. This is even criticised by an external informant of Alpha suggesting that "a lot of staff were elevated in many ways above their position". Importantly flexibility is prioritised with "a lot of contract staff in here on a project by project basis" (Gamma). Human capital development appears somewhat unstructured in that "you just fall into things, exits happen, you end up doing this and doing that" (Alpha), also "our titles have all gone by the wayside" (Gamma). This suggests again a requirement for human capital flexibility in volatile markets, but the hierarchical promotion of competent individuals was evident in this group of firms, which was not evident from the ArtO group. This was particularly the case for assigning a role in international business such as "[he] was certainly one person that was competent to drive it [he] is a great leader" (Delta) referring to spearheading international business at this firm. Interestingly succession planning was more evident in the data from EngO firms than ArtO firms, whereas possibly longevity of output was more prevalent in the 'symbolic' and 'unique' outputs from the ArtO firms. An important difference between the use of human capital at EngO firms compared to ArtO firms related to the elevation and separation of the business development role within the firm which highlights the importance of managerial competencies in the human capital resource of the firm.

Relational Capital

Relational Capital is a highly important resource for EngO firms and trust is demonstrated through a demonstrable track record in projects and locations, "you guys have incredible experience" (Alpha) was reported back from a project team member to the case firm. "Finding the right partner anyone you can trust" (Gamma) is complemented by "only sending people you can trust" highlights the two way importance of trust building in relational capital and the need to have the right people involved. This may be dependent on location, possibly "someone who will sponsor you and help you to meet the right people" (Gamma), but also trust can based on nationality whether dealing with partners of home country nationality, "because they have great faith in their own" (Delta) or because they are deemed friendly, "[UK firms] saw Irish as their friends out there ... they would have seen the big Australian and South African companies as competitors" (Delta). Information transfer is achieved through promoting expertise, "they saw that we could have our expertise brought in which would be helpful to them in getting work out there" (Delta). Joint problem solving is achieved because EngO firms see "collaboration as value" (Delta) and from leveraging off existing relationships "you've already done all your work, you've built the relationship and they want to work with you" (Gamma).

Reputation

Building an international reputation for EngO firms is less clear cut than for ArtO firms who have a strong focus on international award winning which attracts media and industry journal profile. Having a portfolio of international projects, in particular based in hub locations such as the UK or the US is important, in particular in emerging markets where locations such as Ireland are "not on their radar" (Gamma). Gamma signals its resources suggesting that they have "a reasonably international portfolio and we have a good degree of international locations to work from A portfolio that has credibility internationally". Alternatively, the firm may have a landmark project which "acts as a mantelpiece" (Delta). For EngO firms

reputation signalling may not even be from the portfolio, but from "show[ing] presence and commitment Be[ing] there and be[ing] visible" (Gamma) to a market, particularly in markets where people "don't respond to writing, they respond to shaking hands, to conversation, to looking in the eye, meeting regularly" (Gamma). Certification of reputation is evidenced mainly through the strength of business alliances, possibly about "how far up the ladder you get" (Gamma) with business agents.

Table 8 - Leading Competency Managerial

Resource	Resource Development and	Leading Competency	Internationalisation Output
	Competency		/ Use of Resources
Knowledge	 Acquired through formal training, mergers, location research, learning by doing on location. Transferred by moving people around, formal meetings and reporting, separation of business development role. 	Managerial	Competing directly on efficiency (Engineering Orientation)
Human Capital	- Select contract staff for flexibility, diverse staff levels and roles - Developed through company culture alignment, adapting to market volatility, hierarchical development where competency shown, long term business view, business development driven from top and separation of this role in the firm.	Managerial	
Relational Capital	 Trust built through track record on project and location, sending the "right people", leveraging off existing relationships, finding the right partner. Information transfer through networking and alliance building, project work, and seeing advantage in collaboration. Joint problem solving viewed as providing expertise and adding value. 	Managerial	
Reputation	- Signaled through wide portfolio of projects adapted to specific market (multi sector expertise), years of	Managerial	

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DISCUSSION

The purpose of this paper was to address theoretical gaps regarding the internationalisation of PSFs which have neither kept pace with the growth and relative importance of PSFs in mature market economies nor the internationalisation of PSFs over the past couple of decades. Its aim was also to address practitioner needs for understanding of the internationalisation process and offer practical guidelines on this.

The findings make two important contributions in terms of investigating how smaller sized PSFs internationalise. Firstly they identify the interplay between PSF competencies and the firm's approach to internationalisation, in particular offering novel insights on the role of technical competencies for internationalisation. Secondly, it provides a relative measurement of PSF critical resources to the internationalisation process and suggests that this varies dependent on the characteristics of the firm.

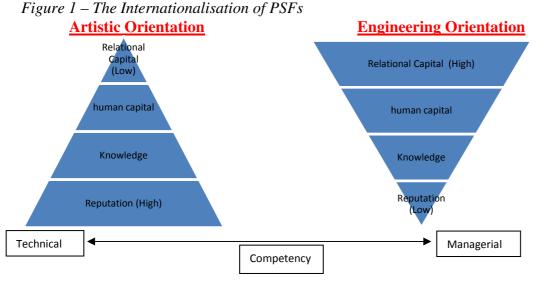


Figure 1 illustrates the relationship between the international orientation or focus of the firm and the competency involved in resource management and commitments to achieve this

service output. It finds evidence for the involvement of all critical resources in internationalisation, however, the findings suggest that the relative value of resources for firms seeking an artistic output, places international reputation at the forefront. Alternatively firms seeking an engineering output place relational capital at the forefront.

Theoretical Implications

The findings from this research supports existing theory regarding firm characteristics as the important consider for resource commitments over time (Erramilli & Rao, 1993; Barkema & Drogendijk, 2007; Goerzen & Makino, 2007). It also goes some way to supporting existing typologies on firm types (Malholtra & Hinings, 2010), notably concurring with certain characteristics of their project based organisation and disaggregated production organisation. However, the unique characteristics of professional service firms enables the research to add to and expand on existing theory by highlighting how resources are created and developed that lead to successful internationalisation outcomes specific to PSFs.

Our understanding of the role of technical competency for internationalisation is a novel finding. Prior research on PSF internationalisation highlights the importance of management competency (Brock & Alon, 2009; Sapienza et al., 2006; Hitt, 2006a) but technical competencies have to date been overlooked. Literature would even suggest that technical competency above management competency can inhibit change and progress in the PSF (Hinings et al, 1991), but contrary to expectations, findings in this study suggest that in certain circumstances technical competency can support change and progressive activity such as internationalisation.

While the research uses existing theory to determine what the critical resources are for PSFs, this project extends theoretical understanding of this through its association between critical resources and internationalisation. It offers an insight into the relative value of those

resources as dependent on the international orientation of the firm. So while we know that relational capital is a critical resource for PSFs (Hitt et al., 2006a), it is the foremost critical resource for EngO firms whereas it is relatively less important for ArtO firms. Similarly, we know from existing research that reputation is also a critical resource for PSFs (Cooper et al, 2000; Grosse, 2000), however, insights from this research project suggest that it is the foremost important resource for ArtO firms, but relatively less for EngO firms.

<u>Implications for Future Research</u>

This study provides a novel insight on firm internationalisation by showing how a firm's artistic or engineering orientation is associated with emphasising either technical or managerial competency which leads to resource commitments that influence the internationalisation process and service outputs for PSFs. While it supports existing theory regarding resource commitments for internationalisation by firm characteristics (Erramilli & Rao, 1993; Barkema & Drogendijk, 2007; Goerzen & Makino, 2007) and even goes some way to supporting typologies of firm types (Malholtra & Hinings, 2010), it adds to theory by suggesting that these typologies are not fully reflective of PSFs when characterising their internationalisation. Furthermore, it highlights the alternative emphasis on how resources are utilised during the internationalisation process by the different orientations, the relative importance of critical resources dependent upon the firm characteristics and service outcome which has not heretofore been covered in literature for PSFs.

Further research therefore could be conducted into the typologies existing for PSF internationalisation and how competencies whether technical or managerial support them This project identifies two – artistic orientation and engineering orientation. However the research is focussed on smaller PSF firms and this may vary from larger firm characteristics and resource commitments for internationalisation.

A limitation of this research is firstly that while the project offers new and interesting insights, the research base is comparatively small, and this will be further expanded by case firm number and number of interview participants to building further replication and triangulation of data and to improve the robustness of the findings. This is the next phase for this project.

A second limitation relates to the use of only Irish home country firms. While using a single geographic context of firm origination is regarded as more beneficial for this qualitative project because of much higher levels of accessibility coupled with the openness of the Irish market which places little environmental barriers on internationalisation, the findings would benefit from replication through further studies using other international contexts regarding firm origination.

Finally, the single industry base of the study using the architecture industry needs to be replicated across other PSF industry sectors to assist in the generalisation of the theory. Using numerous other PSF sectors that have an inherent creative element such as fashion and graphic design, talent agencies, media, advertising, marketing, professional sports, and software development (vonNordenflycht, 2010) would be an obvious option, however this cannot regard other less obvious industries such as law, accounting, financial services, and engineering that may be in search of a highly customised and niche market international output and thus may demonstrate the characteristics of the ArtO firm.

Once the research is suitably advanced through replication across geographic and industry context and a full typology for PSFs of all size and scope is identifiable, quantitative methods can be used to generalise the findings and offer an alternate angle from which to study international business.

Implications for Managers

This study also has important managerial implications for smaller PSFs. Firstly, it identifies a link between competencies and orientation so that managers can be aware of the need to align their competency development with their orientation when internationalising. Minimise mistakes and maximising their use of resources.

Secondly, it assists managers in their strategic planning capabilities as it offers guidance on the management of resources to achieve a desired service outcome.

Third, it re-enforces existing theory regarding the critical resources for PSFs which assists managers in terms of what they need to focus on. Added to this however, it outlines that the relative value of these critical resources is linked to the orientation and output of the firm and therefore provides scope for managers to focus not only on their critical resources but also understand how much relative importance they hold.

Finally, it provides an understanding for managers of how they need to develop their competencies whether managerial or technical to achieve successful internationalisation outcomes.

CONCLUSION

The purpose of this paper was to apply a RBV lens to identify the interplay between PSF competencies and the firms approach to internationalisation. The paper addresses theoretical gaps regarding the internationalisation of PSFs which have neither kept pace with the growth and relative importance of PSFs in mature market economies nor the internationalisation of PSFs over the past couple of decades. Its aim was also to address practitioner needs for understanding of the internationalisation process and offer practical guidelines on this.

The study makes a number of important contributions. It adds to international business theory by addressing an under researched area in PSFs. It provides new insights on firm types and offers the beginnings of a typology of the PSF. It provides novel insight into

resource management competencies by highlighting how technical competency development can derive successful internationalisation outcomes.

The inductive approach meant that although existing theory was relied on to frame the research, the results offer unexpected and interesting insights, firstly on the importance of the technical competency for internationalisation, and secondly on the relative importance of those critical resources which are dependent on the international orientation of the firm. Although a continuum is recognised it was certainly unexpected that a consistent dyadic existed along the orientation path to the internationalisation outcome.

BIBLIOGRAPHY

Aharoni, Y (1999). Internationalisation of Professional Services: Implications for Accounting Firms In Brock, D, Powell, M and Hinings, C (Eds) *Restructuring the Professional Organisation: Accounting, Healthcare and Law*, Routledge, London.

Andersen, O (1993) On the Internationalisation Process of Firms: A Critical Analysis. *Journal of International Business Studies*, 24(2), 209-31.

Baird, I, Lyles, M and Orris, J (1994) Choice of International Strategies for Small Business. *Journal of Small Business Management*, 32(1), 48-59.

Barkema, H and Drogendijk, R (2007) Internationalising in Small, Incremental and Larger Steps? *Journal of International Business Studies*, 38(7), 1132-48.

Barney, J (1991) Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.

Brivot, M (2011) Controls of Knowledge Production, Sharing and Use in Bureaucratized Professional Service Firms. *Organisation Studies*, 32(4), 489-508.

Brock, D and Alon, I (2009) Internationalisation of Professional Service Firms. *International Business: Research, Teaching & Practice*, 3(1), 53-70.

Buckley, P, Pass, C and Prescott, K (1992) The Internationalisation of Service Firms: A Comparison with the Manufacturing Sector. *Scandinavian International Business Review*, 1(1), 39-55.

Carlson, S (1975) International Transmission of Information and Business Firm. *Annals of American Academy of Political and Social Science*, 412(1), 55-63.

Cooper, D, Rose, T, Greenwood, R and Hinings, B (2000). History and Contingency in International Accounting Firms In Aharoni, Y and Nachum, L (Eds) *Globalisation of Services: Some Implications for Theory and Practice* Vol. 93-124, Routledge, London.

Coviello, N and Munro, H (1993) Growing the Entrepreneurial Firm. *European Journal of Marketing*, 29(7), 49-61.

Creswell, J (1994) *Research Design: Qualitative & Quantitative Approaches*, Sage Publications Inc., Thousand Oaks, California.

Dess, G, Ireland, R and Hitt, M (1990) Industry Effects and Strategic Management Research. *Journal of Management*, 16, 7-27.

Dougherty, D (1990) Understanding New Markets for New Products. *Strategic Management Journal*, 11, 59-78.

Dunning, J (1988) The Ecclectic Paradigm of International Production: A Restatement of Some Possible Extensions. *Journal of International Business Studies*, 19(Spring), 1-31.

Eisenhardt, K (1989) Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532-50.

Eisenhardt, K and Graebner, M (2007) Theory Building from Cases: Opportunities and Challenges. *Academy of Management Journal*, 50(1), 25-32.

Erramilli, M and d'Souza, D (1993) Venturing into Foreign Markets: The Case of the Small Firm. *Entrepreneurship: Theory & Practice*, Summer, 29-41.

Erramilli, M and Rao, C (1993) Service Firms International Entry Mode Choice: A Modified Transaction Cost Analysis Approach. *Journal of Marketing*, 57(3), 19-38.

Faulconbridge, J (2008) Managing the Transnational Law Firm: A Relational Analysis of Professional Systems, Embedded Actors, and Time-Space-Sensitive Governance. *Economic Geography*, 84(2), 185-210.

Freeman, S, Edwards, R and Schroder, B (2006) How Smaller Born-Global Firms Use Networks and Alliances to Overcome Constraints to Rapid Internationalisation. *Journal of International Marketing*, 14(3), 33-63.

Goerzen, A and Makino, S (2007) Multinational Corporation Internationalisation in the Service Sector: A Study of Japanese Trading Companies. *Journal of International Business Studies*, 38(7), 1149-69.

Grosse, R (2000). Knowledge Creation and Transfer in Global Service Firms In Aharoni, Y and Nachum, L (Eds) *Globalisation of Services: Some Implications for Theory and Practice* Vol. 217-232, Routledge, London.

Harris, R and Sutton, R (1986) Functions of Parting Ceremonies in Dying Organisations. *Academy of Management Journal*, 29, 5-30.

Hinings, B, Brown, J and Greenwood, R (1991) Change in Autonomous Professional Organisation. *Journal of Management Studies*, 28(4), 375-93.

Hitt, M, Bierman, L, Shimizu, K and Kochhar, R (2001) Direct and Moderating Effects of Human Capital on Strategy and Firm Performance in Professional Service Firms: A Resource-Based Perspective. *Academy of Management Journal*, 44, 13-28.

Hitt, M, Bierman, L, Uhlenbruch, K and Shimizu, K (2006a) The Importance of Resources in the Internationalisation of Professional Service Firms: The Good, the Bad and the Ugly. *Academy of Management Journal*, 49(6), 1137-57.

Johanson, J and Vahlne, J (1977) The Internationalisation Process of the Firm: A Model of Knowledge Development and Increasing Foreign Market Commitments. *journal of International Business Studies*, 8(1), 23-32.

Johanson, J and Vahlne, J (1990) The Mechanism of Internationalisation. *International Marketing Review*, 7(4), 11-24.

Johanson, J and Wiedersheim-Paul, F (1975) The Internationalisation of the Firm: Four Swedish Cases. *journal of Management Studies*, 12(3), 305-22.

Keune, R (2007) *Architectural Services in Global Trade in Professional Services*, OECD / World Bank, Paris. Available.

Kogut, B and Zander, L (1992) Knowledge of the Firm: Combinative Capability and the Replication of Technology. *Organisation Science*, 3, 383-97.

Lamb, P, Sandberg, J and Liesch, P (2011) Small Firm Internationalisation Unveiled through Phenomenography. *Journal of International Business Studies*, Online Publication, 1-22.

Lowendahl, B (1992) Global Strategies for Professional Service Firms, University of Pennsylvania, Pennsylvania

Malhotra, N and Hinings, B (2010) An Organisational Model for Understanding Internationalisation Processes. *journal of International Business Studies*, 41, 330-49.

Miles, M and Huberman, A (1984) *Qualitative Data Analysis*, Sage Publications, Beverly Hills, CA.

Mintzberg, H (1983) *Structure in Fives: Designing Effective Organisations*, Prentice Hall, Englewood Cliffs.

Morgan, G and Quack, S (2005) Institutional Legacies and Firm Dynamics: The Growth and Internationalisation of Uk and German Law Firms. *Organisation Studies*, 26(12), 1765-85.

Peng, M (2001) The Resource-Based View of International Business. *Journal of Management*(27), 803-29.

Punnett, B and Shenkar, O (1996) *Handbook for International Management Research*, Blackwell, Cambridge, MA.

Rindova, V, Williamson, I, Petkova, A and Sever, J (2005) Being Good or Being Known: An Empirical Examination of the Dimensions, Antecedents and Consequences of Organisational Reputation. *Academy of Management Review*, 31(1), 51-71.

Santos, F and Eisenhardt, K (2009) Constructing Markets and Shaping Boundaries: Entrepreneurial Power in Nascent Fields. *Academy of Management Journal*, 52(4), 643-71.

Sapienza, H, Autio, E, George, G and Zahra, S (2006) A Capabilities Perspective on the Effects of Early Internationalisation on Firm Survival and Growth. *Academy of Management Review*, 31(4), 914-33.

Segal-Horn, S and Dean, A (2007) The Globalisation of Law Firms: Managerial Issues. *International Journal of Service Industry Management*, 18(2), 206-19.

Shuman, J and Seeger, J (1986) The Theory and Practice of Strategic Management in Smaller Rapid Growth Firms. *American Journal of Small Business*, 11(1), 7-18.

Strauss, A and Corbin (1990) Basics of Qualitative Research, Sage Publications, London.

Uzzi, B (1997) Social Structure and Competition in Interfirm Networks. *Administrative Science Quarterly*, 42, 35-67.

Von Nordenflycht, A (2010) What Is a Professional Service Firm? Towards a Theory and Taxonomy of Knowledge Intensive Firms. *Academy of Management Review*, 35(1), 155-74.

Welch, C, Piekkeri, R, Plakoyiannaki, E and Paavilainen-Mantymaki, E (2010) Theorising from Case Studies: Towards a Pluralist Future for International Business Research. *Journal of International Business Studies*(December), 1-23.

Wernerfelt, B (1984) A Resource Based View of the Firm. *Strategic Management Journal*, 5(2), 171-80

Westhead, P, Wright, M and Ucbasaran, D (2001) The Internationalization of New and Small Firms: A Resource Based View. *Journal of Business Venturing*, 16(4), 333-66.

Westwood, R (2004). Toward a Postcolonial Research Paradigm in International Business and Comparative Management In Marschan-Piekkari, R and C, W (Eds) *Handbook of Qualitative Research Methods for International Business*, Edward Elgar, Cheltenham.

Yin, R (1994) Case Study Research Design and Methods, Sage Publications, Beverly Hills, CA.

Yin, R (1981) The Case Study Crisis: Some Answers. *Administrative Science Quarterly*, 26, 58-65.