Leveraging Resources by Using Networks and Relationships – Entrepreneurial Marketing in Small Software Technology Firms

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Abstract – The literature suggests that entrepreneurial networks are fundamental to SME marketing and entrepreneurial marketing activity. This paper reports on recent research findings and also the continuing research of Entrepreneurial Marketing (EM) in small software technology firms. In the paper we discuss especially *how small software technology firms use networks and relationships in their marketing*, and present some preliminary results from Welsh and American empirical data. The findings of this research confirmed the importance of networks to small technology firms, and revealed some interesting differences and similarities in firm resource leveraging behaviors in two different country contexts. Later on we hope to contribute on describing and measuring of how and why such EM oriented behaviors may lead to sustainable firm growth.

Keywords – marketing, entrepreneurship, SMEs, networks, relationships, strategic orientations.

Introduction

Firms today operate in a business environment characterized by increased risk and, decreased ability to forecast, with fluid firm and industry boundaries and high levels of information asymmetry. Markets are uncertain and are becoming fragmented and frictionless, with firms interacting as competitors, customers, and collaborators in a global, knowledge economy. Such changes have had an effect on marketing (Schindehutte et al., 2008) and reflect the type of marketing practiced in small firms, being informal, unplanned and non linear (Bjerke and Hultman, 2002; Fillis 2002). Also networks in the SME context are said to be often informal, loose, unstructured, spontaneous and structured around and conform to industry norms (Gilmore et al., 2001). Use of networks that provide access to external resources and gain competitive advantage are described as 'the essence of entrepreneurship' and a distinguishing factor between fast and slow growth firms (Jarillo, 1989). In the EM literature ability to leverage resources is a basic premise that differentiates entrepreneurial firm behaviours from those that are more traditional (Morris et al., 2002).

This research addresses these issues by using the 'EMICO' framework (Jones and Rowley, 2009) which contains fifteen identified dimensions of entrepreneurial marketing orientation and will enable exploration as to how EM is practiced in small software firms, in different contexts. One of the EMICO framework dimensions is 'Networks and Relationships'. The researchers were in particular, interested to investigate in which ways entrepreneurs use networks and relationships

to overcome typical limitations small firms often face, such as liabilities of newness and smallness, and whether those ways and behaviours differ in two different country ecosystems.

Theoretical background

Fast growth high-technology companies use new approaches to promoting and selling innovations and new integrative business models which allow flexibility to meet demands of competitive, dynamic marketplaces using interactive processes, alliances and networks. There is a wealth of interest from governments, policy makers and researchers about how to facilitate further growth of new businesses and, innovation and entrepreneurship in knowledge-intensive industries. The research reported here is focused on two studies; one in Silicon Valley, US and one in North West Wales, UK. In the Welsh study area there is the Single Investment Fund (SIF) and, European Social Funding (Convergence funding) as is designated as an area of social and economic deprivation. This region is host to small technology parks and clusters of technologybased firms. Conversely, Silicon Valley is one of the world's largest and most advanced technology centers. It continues to be the leading hub for high-tech innovation and development, accounting for one-third of all of the venture capital investment in the US. The success of the Silicon Valley region as high-tech cluster is based on a number of factors: entrepreneurs access capital more easily in a cluster, bankers and venture capitalists find it easier to locate new investment opportunities and, world class universities such as Stanford and UC Berkeley with strong technical capabilities and close links to commercial activities are located there. Information about new technical and market opportunities flow through a cluster's institutions and organizations and through its informal networks very rapidly (Bresnahan & Gambardella, 2004), seemingly proving effective in this region.

There is growing interest in research at the interface between marketing and entrepreneurship (Bjerke and Hultman 2002; Hills et al., 2008) together with the importance of SME marketing. The EM literature offers an opportunity to explore marketing behaviors in entrepreneurial technology firms. Morris et al., (2002, p.5) define EM as, 'the proactive identification and exploitation of opportunities for acquiring and retaining profitable customers through innovative approaches to risk management, resource leveraging and value creation'. EM researchers acknowledge the interface between entrepreneurship, marketing and innovation and, the continued pursuance of customer value. Successful business growth through having an entrepreneurial orientation (EO) together with a market oriented (MO) approach are well documented by researchers (e.g. Morris, et al. 2002; Hills et al. 2008). Also, firms who adopt other strategic orientations combined with MO are likely to perform better than firms adopting only a market orientation. Presently, there is a lack of research relating to the orientation of growing technology firms and even fewer comparative qualitative studies which consider firm orientation, that is; the sorts of activities, attitudes and behaviors which are exhibited in such firms. This paper addresses these issues by using the 'EMICO' framework developed an earlier published UK study which contains fifteen dimensions with descriptors, which reflect EMO practices and facilitate exploration of how small technology firms operate in competitive technology environments. This will enable assessment of how and why such EM oriented behaviors may lead to sustainable growth in challenging markets and allows comparison between two different country contexts. The EMICO definition is based on the prominent prior work on strategic orientations; entrepreneurial orientation, market orientation, innovation orientation and customer orientation (EO, MO, IO, CO). The 15 dimensions of EMICO framework can be found in the Appendix 1.

The literature suggests that entrepreneurial networks are fundamental to SME marketing and EM activity (Carson et al., 1995; Collinson and Shaw, 2001; Gilmore et al., 2001). The findings of this research confirmed the importance of networks to small technology firms. More recent research has identified a need for a more processed view of networks. For example, Slotte-Kock and Coviello (2010) assert that though extensive work has been carried out in relation to entrepreneurship research on network relationships, governance and structure, a more process-oriented research is yet to emerge. More recently, Vasilchenko and Morrish (2011) answered such calls in their research study on the role of entrepreneurial social and business networks by focusing on the facilitation of networks and the internationalization of SME high-technology firms. According to Hoang and Antoncic (2003), networks consist of a set of actors linked by set of relationships. Typically network studies distinguish between social networks and more formal business networks; the former being developed from personal relationships and the latter from repeated and goal-oriented economic exchange. Vasilchenko and Morrish (2011) observe that networking could substantially improve the ability of small companies to quickly explore and exploit opportunities, thus improving their competitiveness and their likelihood of survival.

Hence, our study defines 'Networks and Relationships' according to EMICO framework and descriptors developed in Jones and Rowley (2009) study. As the researchers analysed the empirical data we viewed 'Networks and Relationships' as 'the ability of resource leveraging; capacity for building network and business competence; use of social networks or personal contact networks; creation of value through relationships and alliances; the intra-firm networks; and market decision making based on daily contact and networks.

Research methodology

Currently, there have been few comparative qualitative studies which consider EM practices inherent in different business ecosystems. Using the prescribed foundations, the researchers used the 'EMICO' framework in the research of an equal sample of Welsh and American SMEs together with reliable performance measures, so as to establish those marketing activities, attitudes and behaviours which contribute to firm growth. Application of the framework was replicated from the Jones and Rowley study (2009). This involved the following procedures: a sample was chosen using purposive sampling procedures (Shaw, 1999) and four criterion: firm age; size (micro and small firms with under 50 employees); offering both a software product and service support; and, in the same geographic area (samples in Wales and Silicon Valley).

An informal interview approach using a semi-structured interview protocol was applied, being considered more likely to gain valuable insights into the attitudes and behaviours of individuals in the firm. A semi-structured interview protocol and card methodology (Müthel and Högl, 2007) was included in the interview context. Welsh data consisted of 21 interviews with informants from 6 firms. The informants were both entrepreneurs and employees. American data included 12 interviews with informants who were entrepreneurs from 6 firms located in the Silicon Valley area, in California. Thus, altogether there were 33 interviews from 12 different software firms. Other data captured included respondent data and firm data, including firm % increase in

turnover over the last five years and annual turnover for the last financial year. For the purposes of this paper we analyzed just the parts of the transcripts which dealt with networks and relationships.

As this research was inductive in nature, the firms chosen were categorized following data collection. Firms were classified either being high growth, medium growth and incremental (slower) growth. Classification was by firm age, employee size, annual turnover, and percentage increase in profit (further details can be supplied on request). UK and US firm growth is illustrated in Table 1.

Table 1. Firm growth

	High	Medium	Incremental
UK Firms	1	1	4
US Firms	3	3	0

Firms with incremental growth in the UK sample had no designated specialist marketing or sales resource. Table 2 shows the amount of sales and marketing employees per firm classification. The two UK firms with medium and high growth categories had specialist sales and marketing resources at a senior level. In the US sample there was a marked difference in that firms had much higher growth and there were much larger teams of sales and marketing employees.

Table 2. Specialist sales/marketing resource

	High	Medium	Incremental
UK Firms	2	1	0
US Firms	28	23	-

Preliminary findings

Key findings arising from this study with regards to use of networks and relationships included the way in which opportunities were exploited, how resources were leveraged and, how value was created for customers. In this respect, this research also furthers the findings of the SME literature on networks which are identified as being a fundamental activity for SME marketing (Carson et al., 1995; Gilmore et al., 2001).

This research has confirmed a range of networks that are prevalent in the software technology sector. Identified networks in this sector included owner-manager personal contact networks (PCNs), business networks, business advice networks (banks, accountants, solicitors, business support agencies), university networks and customer networks. Firms in the UK and the US consider networks and relationships as vital for start-up firms, both at and before inception of the firm and for future firm growth, for example, using partnerships and projects with larger, global firms. Networks in this sector were vital for leveraging resources. Innovation networks and partnerships created opportunities through shared projects, in several cases university collaborations were used to further develop research and development (R&D) in the firm.

As the research on technology companies suggests, business alliances and partnerships with larger firms create a wealth of opportunities for firms (Boussara and Deakins, 1999). The marketing capacity was increased in firms where they had entered channel partnerships and partnerships with larger companies. This reciprocal arrangement benefited smaller firms by increasing business opportunities in the market, innovation opportunities in partnering to develop new products and particularly important in NPDs, large firms had the marketing resources to prepare the market and create demand for a new software product. There were also obvious benefits for larger software firms in the partnership, smaller firms were often more able to develop unique and innovative products, were closer to the market and had more knowledge of that market.

Customer relationships and networks were also identified during the research. These relationships were usually with the owner-manager and sometimes with 'customer facing' employees in the firm. Generally employees in the firms tended to have fewer networks. In Wales often the owner-manager had the most network contacts and used them to increase capacity in the firm for a variety of business and marketing reasons. Customer-facing employees developed customer networks and close relationships with individual customers. This provided essential marketing for the firm as customers often became 'advocates' and generated new customers by word-of-mouth recommendation. The research uncovered implicit networks that were used by technical employees. These were informal web-based IT networks.

The research also confirms the importance of an EMO framework which includes networks. Networks and their usage are similar in both countries. These include: personal contact networks (PCNs), partnering with large firms for innovation, marketing and growth; customer relationships and networks.

In Silicon Valley, entrepreneurs felt that that the whole Silicon Valley ecosystem was just about relationships. There "it not what you know; it is *whom* you know and what value you bring to the table that makes the difference".

Discussion and implications

Initial data analysis findings in the two business ecosystems when compared seem to be surprisingly similar; though further in-depth and detailed analysis is under way. Networks in this sector were vital for leveraging resources. Both in Wales and the Silicon Valley almost every firm and informant interviewed obtained their *market information* primarily via use of network relationships. Information was gathered through personal contacts with friends and business contacts with other companies. Moreover, *relationships with public institutions* such as universities and the entry to business associations to increase the probability of generating valuable market information was prevalent. This is consistent with Schulte and Eggers' (2010) work. Additionally, most informants highlighted that networks are a *valuable tool to initialize first sales*. One Silicon Valley founder manifested that importance aptly when he wanted to add one more P in the 4P marketing framework "partner in our industry is the extra P".

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Appendix 1. 15 dimensions of the 'EMICO' framework

Entrepreneurial Orientation based dimensions

EO-Research and Development- *Level of emphasis on investment in R&D; technological leadership and innovation.*

EO-Speed to Market- *Stance of the firm; competitive; collaborative; follower; leader; defensive.*

EO-Risk Taking- Calculated risk taking; preparedness to seize opportunities; preference for both incremental and transformational acts; reliance on intuition and experience.

EO-Pro-activeness- *Commitment to exploiting opportunities; inherent focus of recognition of opportunities; passion, zeal and commitment.*

Market Orientation based dimensions

MO-Exploiting Markets- Vision and strategy are driven by tactical successes; planning, or lack of, in short incremental steps; proactively exploiting smaller market niches; flexible, customization approach to market; marketing decisions linked to personal goals and long term performance.

MO-Market Intelligence Generation- *External intelligence gathering; informal market research generation; gathering marketing intelligence through personal contact networks (PCNs) and web-based networks.*

MO-Responsiveness towards Competitors- Reactive to competitor's new products (NPDs); niche marketing strategies; differentiation strategies using product quality; software innovation; quality and responsiveness of software service support; competitive advantage based on understanding of customer needs.

MO-Integration of Business Processes- Closely integrated functions, R&D, marketing etc; sharing of resources; product/venture development is interactive; formal processes, project planning, project management; marketing that permeates all levels and functional areas of the firm.

MO-Networks and Relationships- Resource leveraging; capacity for building network and business competence; use of PCNs; creation of value through relationships/alliances; intra-firm networks; market decision making based on daily contact and networks.

Innovation Orientation based dimensions

IO-Knowledge Infrastructure- Formalized IT-based knowledge infrastructures; formal and informal policies, procedures, practices and incentives; gathering and disseminating information.

IO-Propensity to Innovate- *Processes for sustaining and shaping the organization's culture to stimulate and sustain creativity and innovation; covering all innovation types- new product, services, process and administration.*

Customer Orientation based dimensions

CO-Responsiveness towards Customers- *Responsiveness to customer feedback and behavior; speedy reaction to shifts in customer preference.*

CO-Communication with Customers- *Strives to lead customers; formal and 'informal' feedback gathering mechanisms; ongoing dialogue with customers to build long term relationships; successful delivery to customers that builds customer confidence, with marketing based on personal reputation, trust and credibility.*

CO-Understanding and delivering customer value- Organization driven by customer satisfaction; understanding of how customers value products/services; closely linked to innovation practices; often two- way marketing with customers; customer knowledge often based on market immersion/interaction.

CO/SO-Promotion and Sales- *Organizational focus on sales and promotional activities.*