The impact of market orientation on the performance of the Vietnamese software firms

Utz Dornberger
(Contact Author)
International Small Enterprise Promotion and Training (SEPT) Program
University of Leipzig
Beethovenstrasse 15, D-04107 Leipzig
Email: dornberg@uni-leipzig.de
Phone: +49-341-9737039
Fax: +49-341-9737048

Md. Noor Un Nabi
International SEPT Program
University of Leipzig
Beethovenstrasse 15, D-04107 Leipzig
Email: noor@uni-leipzig.de

Ly Diep Linh
International SEPT Program
University of Leipzig
Beethovenstrasse 15, D-04107 Leipzig
Email: lydieplinh@yahoo.com

Abstract

This paper focuses on the exploration of the relationship between the market orientation of the managers/entrepreneurs of the Vietnamese software firms and their business performances. However, research on market orientation is a mature area of research in the Western nations' perspectives, there are little knowledge about how the entrepreneurs and managers in the transition perspectives get along with the market and how this process effect on the performances of their ventures. Results of this research show that there is a positive relationship between the market orientation of the Vietnamese software firms and their business performances. This research also reveals that firm size has an influencing role on the performance setting effect of the market orientation in the firms. Furthermore this research shows that in the case of the Vietnamese software firms, 'organization wide dissemination of market intelligence' and 'organizational responsiveness to the disseminated intelligence' has more influence on business performance. Results of this research contributes to the knowledge for understanding about how the managers and entrepreneurs in new markets are adjusting their focuses to the market and how such adjustments are contributing o the performances of their ventures.

1. Introduction

Entrepreneur is the entity who actively seeks the opportunities, identifies a suitable opportunity from the set of the alternatives and exploits such opportunity by developing the suitable combinations of the resources available at a certain point of time. The opportunities exist in the markets (Zahra and Dess, 2001). Narver and Slater (1990) perceived market orientation as “the organizational culture that most effectively and efficiently creates the necessary behaviors for the development of superior value for buyers and, thus, superior performance for the business”. The essence of market orientation is centered round the inclination and practice of continuously collecting the information about the customer needs and competitor’s capabilities and using this knowledge for creating superior customer value continuously (Slater and Nerver, 1995). Day (1990) opined that market orientation represents the firms’ (*vis a vis* entrepreneur’s/manager’s) superior skills of understanding and satisfying the customers and using the acquired understanding for producing the superior values for the customers. Kohli and Jaworski (1990) forwarded a process-driven model of market orientation by delineating the distinct phases regarding how to bring the ‘market orientation’ from the meta level to the operational level in the firm. Kohli and Jaworski (ibid.) explained market orientation by the act of collecting the market intelligence by all the relevant departments of the firm in a targeted and systematic way (information generation), disseminating the market intelligence within the firm in a way that all the organs of the firms as a whole become aware and understand the importance of the intelligence (dissemination) and finally adjusting the firms actions in response to the issues and opportunities revealed in the market intelligence and its common understanding in the firm (responsiveness). Although Narver and Slater (1990) and Kohli and Jaworski (1990) explained the concept of market orientation from their own point of perspectives, they share the common views that market orientation contributes to the creation of greater value and satisfaction of the customers (Kohli and Jaworski, 1993). Kohli and Jaworski (1990) and Narver and Slater (1990) have been taken as the complementary views to the theoretical and conceptual explanation of the concept of market orientation and have been applied in the researches there after (*see for example* Greenley, 1995; Pelham, 1997; Chan and Ellis, 1998; Baker and Sinkula, 1999; Farrell, 2000; Shoham and Rose, 2001; Hult et al., 2005; Ellis, 2005).

Researches on the relationship between market orientation and business performance have produced mixed results. They have revealed that market orientation has positive effect on business performance in the way of contributing to new product success (Slater and Narver, 1994; Frishammar and Horte, 2007), sales growth (Pelham and Wilson, 1996), profitability (Kohli and Jaworski, 1990; Raju et al., 1995; Slater and Narver, 2000) and return on investments (ROI) (Appiah-Adu, 1998). These researches exploited and strengthen the analogy that market orientation provides the firm with better understanding of its environment and customers which lead to more satisfaction of the customers. In contrast to this group of works, other researches did not support a direct positive relationship between market orientation and business performance (*see for example* Kohli and Jaworski, 1993; Greenley, 1995; Perry and Shao, 2002). Han et al. (1998) did not find any relationship between market orientation and any of the performance measures. Langerak (2001), using the self-reports, customer reports and supplier reports for testing the relationship between the firm's market orientation and its business performance, found that being in the similar level of market orientation firms may produce different business performances which could be both positively and negatively related to the level of market orientation. Langerak (2003) commented that positive effect of market orientation sets gradually over time in the firms and the exploitation of such effect needs investments in management and other resources by the firm. In context of these contrasting results about the relationship between market orientation and business performances, Pelham (1997) comments that the possible reason behind this lack of the availability of the clear relationship may be that the relationship should be envisioned in more complex way than in a 'yes or no' way as done in the previous works. Pelham (ibid.)'s comments provokes more empirical research in this issue in different contexts and methodologies.

Until the arrival of the economic liberalization and reforms in Vietnam (known as Doi Moi) in 1986, the concept of and consideration for market was an unknown issue in the business organizations, since everything was centrally planned. Vietnamese firms had to seriously think about their market in terms of how to get into, stay in and grow in their target markets, once they were exposed to competition in the post 1986 time. For the Vietnamese entrepreneurs and managers, development of market orientation was an issue of learning through trials and errors. This learning process has been quite matured in the two decades since Doi Moi. New generations of entrepreneurs have joined the Vietnamese market and new industries are emerging there. A mostly locally owned and managed software industry is in the development in Vietnam in the recent past, which grew 40% in term of its market size in the 2002-2007 period (Vietnamese Software Association - VINASA, 2009). It is estimated that currently 800 software development firms are in operation in Vietnam with 45000 employments (ibid.). Supportive business climate and availability of the necessary resources for the development and growth of the software industry have contributed to the position of Vietnam within the top 30 growing destination of global off-shoring of the software business (ibid.).

In this context, this paper is focused on the exploration of the relationship between the market orientation of the entrepreneurs/managers and the business performances of Vietnamese software firms. This paper is expected to generate the understanding about whether there is any differential effect of market orientation on the firms' performance in the newly developed market context (*as per example* Vietnam) and the matured market context (*as per example* the Western countries).

2. Methodology

2.1 Constructs and measures

Narver and Slater (1990) measured market orientation with an ordinal measurement of 21 items, known as MKTOR. Narver and Slater (ibid.) operationalized market orientation including three behavioral dimensions (customer orientation, competitor orientation and interfunctional coordination). Kohli and Jaworski (1993) argued Narver and Slater (1990)'s conceptualization of market orientation was too broad and the measures that do not tap the specific behaviors that represent a market orientation. Furthermore, Kohli et al. (1993) pointed that Narver and Slater (1990) measurement gives great emphasis on the role of the customers and the competitors, while skimps the additional factors that drive customer needs and expectations, doesn't tap the speed with which market intelligence is generated and disseminated within an organization, and includes a number of items that do not tap specific activities and behaviors that represents market orientation.

Kohli et al. (1993), based on Kohli and Jaworski (1990) and Jaworski and Kohli (1993), suggested a ordinal measurement of 20 items to analyze market orientation, known as MARKOR scale (market orientation scale). MARKOR assesses the degree to which a firm (1) engages in multi-department market intelligence generation activities (2) disseminates this intelligence vertically and horizontally through both formal and informal channels and (3) develops and implements marketing programs on the basis of the intelligence generated. Key attributes of this measure include (1) focus on the customers of the firm and the forces that drive their needs and preferences (2) activities on the ground, not the business philosophy overwhelmingly and (3) consideration for market orientation factors and associated component factors.

This paper has measured the degree of market-orientation of the Vietnamese software firms adapting the MARKOR scale (Kohli et al., 1993) which focuses on assessment of the firm level practices with the ordinal measures relating to market intelligence generation (6 indicators), intelligence dissemination in the organization (6 indicators) and the responsiveness of the organization to the intelligence (7 indicators).The items were measured on a 5-point Likert scale.

Business performances have been viewed in the researches from different perspectives and have been measured through different measures e.g. long term vs. short term and accounting vs. strategic perspectives and subjective vs. objective measures. The subjective measures are primarily concerned with the performance of firms relative to their own expectations or assessments (Pelham and Wilson, 1996) or relative to the competitors (Verhage and Waarts, 1988; Golden, 1992). Objective measures are based on the absolute measures of the performance (Chakravarthy, 1986; Cronin and Page, 1988), which include mainly the measurement of the financial performance indicators generated through accounting process of the firm e.g. return on assets (ROA), return on equity (ROE), return on investments (ROI), growth in sales, and growth in profit. This research uses the subjective measures of the accounting and financial indicators of business performance, considering the unavailability of objective data from the publicly available documented sources and the reservations of the managers to reveal the real financial and accounting information outside their firms. Dess and Robinson (1984), Venkataraman and Ramanujam (1986) and Jaworski and Kohli (1993) has tested such mixed approach of measuring the business performance. In this paper, business performance has been measured as the ordinal assessment of the firm's sales target accomplishment, profit target accomplishment and achievement of the target relating to return on investment (ROI).

2.2 Sample

This research has considered only the software firms located in the city of Hanoi in Vietnam. There are about 350 software developer firm in Hanoi. This research has only taken into consideration the firms which are the member of VINASA - the most prestigious national association of software firms in Vietnam. In 2009, the number of VINASA's member in Hanoi was 100. These 100 firms were approached to take part in this research by sending them a web-based questionnaire in the period of June – August 2009. 66 firms filled in the questionnaire completely. Among the respondents, 33.3% were operating in the industry ≤ 3 years, while 38.3% were operating >10 years. Among the respondents, 31.6% had the employment size <50, 15% had >50 ≤ 100 and 43.3% had > 100.

2.3 Data analysis

Reliability of the collected data was assessed by the analysis of the Cronabch's Alpha both item wise and construct wise way. Cronabch's Alpha for each of the individual items and constructs was >.70, which indicates the acceptable level of internal consistency of the data that has been used for inferential analysis in the later phase.

Partial least square (PLS) regressions using the SmartPLS 2.0 M software (Ringle et al., 2005) were performed to explore the relationship between market orientation, its constructs and the business performance of the Vietnamese software firms. PLS has been chosen as the principle technique of inferential analysis as it is applicable for the small sample size, its free of the assumption of any particular distributional pattern and it can accommodate both nominal, ordinal and ratio data (Pirouz, 2006). The 'rule of thumb' for the minimum sample size requirements is 10 cases per indicator (Chin, 1998; Chin and Newstaed, 1999). With the sample size of 60 and maximum 3 predictors, PLS analysis is fitting to the context of this research. A 200 resampling based bootstrapping process was run to test the external validity (predictive validity) of the regression models and results.

The explanatory power of the PLS model has been estimated in terms of its extent of the variance explained (R^2) in the dependent construct. Chin (1998) suggests that $R^2 \leq 0.19$ to be non-relevant, though in some cases 0.12 has been accepted too as the valid R^2 in organizational performance research (*see* Birkinshaw et al., 1995). Path-coefficient in the PLS model resembles the standardized coefficient in the normal regression model (Götz and Liehr-Gobbers, 2004). Sellin and Keeves (1994) suggest that a qualified path-coefficient should be ≥ .10. This research adopts this standard.

3. Results and discussions

Model I (see table 1) shows that in this research market orientation (MO) has produced a moderate positive relation with the business performance of the Vietnamese software firms.

Table 1: PLS Regression results

	Model I		Model II		Model III	
	t	**t**	**β**	**T**	**β**	**t**
MO -> Performance	0.43	4.99**				
MO * Firm Size -> Performance			0,21	1,98**		
Intelligence generation -> Performance					0.04	0,34
Intelligence dissemination -> Performance					0.20	2,25**
Responsiveness -> Performance					0.44	5.11**
R^2	0.19		0.26		0.34	
F	13.60		6.65		9.61	
P	(.00)		(.00)		(.00)	

** significant at <0.05 level

This moderate effect as well confirms Atuahene-Gima and Ko (2001)'s comments that market-orientation is not a self-sufficient construct; other elements e.g. entrepreneurial orientation and organizational culture are dynamically related to the performance impact of market-orientation (Atuahene-Gima and Ko, 2001). Nevertheless, in context of Vietnam, which is rapidly transforming form a close economy to an open one, this result is an important revelation of the ways the entrepreneurs and managers looks at the market, as the competitive advantage of the firm largely depends on how uniquely the entrepreneur can explore the opportunity and exploit it thereafter, while the level of market orientation of the entrepreneur moderates the relationship between entrepreneurial moves and the firm performance (Bhuian et al., 2005; Menguc and Auh, 2008). Though market-orientation has impact on the performance of the both large and small firms, the smaller firms have more opportunity to instill their respective market-orientation in their market servicing operations due to their inherent flexibility and simplicity (Appiah-Adu, 1998). Results presented in Model II (see table 1) show that firm size has a statistically valid and positive effect on the relationship between market orientation and business performance of the Vietnamese software firms. This result tells that firm size matters in setting the effect of the market orientation on the firms' performances. Market-orientation could constitute a unique capability of the firm, which can offset some of the classical capability deficiencies of the smaller firms (ibid.). Smaller firms can overcome their limitation of size by developing right market orientation as part of their core capabilities.

Model III in the Table 1, shows the performance effect of the individual components of the market orientation in the Vietnamese software firm. In this case, ‘organization wide dissemination of the collected market intelligence’ and ‘responsiveness of the firm in respect of the market knowledge’ have shown positive and significant relationship with the performance of the firms, while ‘market intelligence generation’ has no relationship with the performances of the firms in this case. This finding complies with the operational and competition norm of the knowledge intensive industry i.e. ‘it does matter, what you give to your customers than what you know and how you do it’. Knowledge intensive entrepreneurial activities are heavily subjected to hyper-competition, due to rapidity of the shifting of the technological and institutional boundaries. Innovation and competitiveness are the survival kits for the firms in such dynamic environment. Innovation and competitiveness in such firms largely depend on how uniquely, effectively and timely the firms have scanned their market landscapes and have integrated the learning into its operations i.e. market-orientation.

5. Conclusion

This research has offered the primary understanding about the state of the market focused mental states and actions of the managers and entrepreneurs of the Vietnamese software firms toward their transformation to the market-driven philosophies. These revelations could be put further into research by incorporating the moderating and mediating effects of the other issues e.g. entrepreneurial orientation, learning orientation, organizational culture and the state of the institutions.

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