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IMPACT OF ENTREPRENEURIAL ORIENTATION ON THE PERFORMANCE OF SME's

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ABSTRACT

As per the theory, it is being suggested that management in order to have competitive advantage prefer manipulating resources. Resource-based research focuses on the resources characteristics paying less attention to the relationship between those resources and the organization of the firm. Entrepreneurship scholars while explaining performance have focused on a firm's strategic orientation (EO), eliminating interrelationship with internal characteristics. The present study argues that EO captures an important aspect of the way a firm is organized. Findings in the paper suggest that knowledge-based resources are positively related to performance of the firm and this relationship is enhanced by EO.

Introduction

As per the Resource-based theories of strategy (RBV), it has been observed that great performance can be achieved by the firms that have unique, rare and competent resources (Barney, 1991, 1995).

A firm's production process is characterised by inputs that is its resources. Moreover, resources are differentiated into knowledge-based and property-based (Miller and Shamsie, 1996). Tangible input resources are represented as property-based resources while on the other hand, the process or the ways by which these tangible inputs combine and transform by the firms are termed as knowledge-based resources (Galunic and Rodan, 1998). Competitive advantage can be gained by knowledge based resources because they cannot be replicated or copied.

Besides this, it also aids sustainable differentiation that further enhances firm's performance and its entrepreneurial ability (McGrath *et al*., 1996).

Barney (1991) while developing the VRIO framework indicated that superior performance by the firm can not only be gained by resources that are inimitable, rare or competent but also by the fact that the organisation within the firm should be appropriate enough to make optimum use of these resources. In the views of Eisenhardt and Martin (2000) the organizational and strategic processes of firms are also important along with the resources. This is because; manipulation of resources into value-creating strategies can be facilitated.

Direct relationship between configuration of resources, individual strands and performance has been focused by empirical studies whereas less focus has been paid on the fact how these resources can be effectively utilised by the management (Helfat, 2000). It can thus, be observed that in order to explain performance the concept such as interrelationship between a firm's resources ('VRI') and its organisation ('O') has been given less attention. However, there has been little evidence to show that this interrelationship is quite important and essential. This is because; actions affecting the firm's resources can be taken by the management in order to respond towards the environmental changes and new opportunities (Cockburn, Hederson, and Stern, 2000).

Performance has been explained by entrepreneurship scholars by investigating entrepreneurial orientation (EO) of a firm. EO indicates strategic orientation of a firm by which entrepreneurial features of decision-making styles, methods and practices can be gained (Lumpkin and Dess, 1996). EO can be considered as an important way by which a firm is organised. Other than this, managerial processes can also be explained by EO as it allows firms to have a competitive edge over others (Lumpkin and Dess, 1996).

The independent effect of EO on performance and its relationship with the external environment have been explored by the scholars but on the same side they have also ignored Lumkin and Dess's (1996) concept that reflects the EO-performance relationship. Thus, it can be said that EO scholars have ignored the 'VRI' that is resources internal to the firm and have focused on 'O' that is how the firm is organised.

With respect to the above discussion following research questions can be established.

- Does knowledge based resources apply to the exploitation of opportunities and improve firm performance?
- Does the performance benefits of knowledge-based resources enhanced by a firm's EO?

Theory and hypothesis

Knowledge based resources and performance

A sustainable competitive advantage can be gained by organisational knowledge which in turn is a source of intangible resources (Hitt, Ireland and Hoskisson, 1999). Knowledge is considered as the greatest ability to serve as a source of sustainable differentiation. Knowledge allows the firm to predict the changes in the environment more accurately (Cohen and Levinthal, 1990). Knowledge is essential as without it an organisation cannot discover or exploit new opportunities. Here, procedural knowledge is being focused in comparison to declarative knowledge following Gupta and Govindarajan (2000). Procedural knowledge reflects the procedures by which things can be done and it further arises from experience gained by similar situations (Lesgold, 1988). Two strands of procedural knowledge that is knowledge about markets and technology have strong performance effects. This is because; it

increases the ability to exploit opportunities.

There are various factors that suggest that firm's ability to exploit opportunities can be increased through market knowledge. These are as follows:

- Real market opportunities can be constituted by generating awareness of customer problems.
- Market value of new scientific discoveries, technological change etc., can be determined easily.
- The same tacit knowledge can be shared by the organisation as its users. This is because locus of innovation is related with users of new technologies who cannot express their requirements for specific problems (Cohen and Levinthal, 1990; Shane, 2000; von Hippel, 1994).

In the views of Shane (2000), the discovery of solutions to customer problems is possible only if knowledge of customer problems is being gained before. Apart from this, it is difficult to find out customer needs and establish an effective marketing strategy if there is lack of customer familiarity. Exploitation of opportunities can be enhanced with the help of technological knowledge. For example, product's optimal design can be determined in order to improve various aspects such as reliability, cost, the economic impact of exploiting the opportunity and functionality (McEvily and Chakravarthy, 2002). Thus, it can be said that with the help of technological knowledge a firm can respond to the competitors as well as exploit opportunities (Cohen and Levinthal,

1990). It can be inferred from the above discussion that knowledge based resources are governed by market and technological knowledge. With respect to this, following hypothesis has been formulated:

Hypothesis 1: Performance of a firm is positively related to knowledge-based resources that are applicable to the exploitation of opportunities.

Entrepreneurial orientation (EO) and performance

In the views of researchers there are three dimensions of EO namely, proactiveness, innovativeness, and risk-taking (e.g., Wiklund, 1999). All these three dimensions have different meanings. Innovativeness is a tendency where new ideas, experimentation, novelty, and creative processes can be supported and other factors such as technologies and established practices can be ignored (Lumpkin and Dess, 1996). Proactiveness is another dimension where competitive advantage can be created by considering future needs and demands in the marketplace (Lumpkin and Dess, 1996). Risk-taking refers to the ability by which large amounts of resources can be committed and there is high cost of failure (Miller and Friesen, 1978). Risk-taking dimension also considers facilitating those resources to the projects where outcomes are unidentified. It can be thus said that organisations having an EO are more inclined towards opportunities and focus attention.

Positive performance effects for the firm are governed by EO. Future profits from existing operations are uncertain as there is shortening of product and business model

lifecycles (Hamel, 2000). Such companies that need new opportunities can be assisted by an EO. Economic performance can be generated by innovative companies that create and introduce new products and technologies (Brown and Eisenhardt, 1995). Factors such as skimming the market ahead of the competitors, target premium market segments and first-mover advantages can be created by proactive companies (Zahra and Covin, 1995). Market can be controlled by dominating distribution channels and brand recognition can be established by these companies. In the views of Wiklund (1999), positive relationship has been found by previous empirical results between performance and EO (Wiklund, 1999).

Hypothesis 2: Firm performance is positively related to EO.

Knowledge-based resources, EO, and performance

EO refers to capturing specific entrepreneurial aspects of decision-making styles, methods, and practices and firm's strategic orientation. It doesn't reflect what a firm does rather focus on how a firm operates (Lumpkin and Dess, 1996). With respect to VRIO framework, how a firm is organised is represented by EO. Resource-based theory reflects that positive relationship between resources and firm performance can be enhanced by the way a firm is organised and combined with firm resources (Barney, 1995).

A positive relationship between knowledge-based resources that are being used to exploit opportunities has been

proposed previously. It has been proposed if a firm has an EO than a firm can perform better. It has been noted that firms utilising knowledge-based resources can assess and extract value from potential opportunities (Cohen and Levinthal, 1990). Knowledge-based resources are underutilised unless the firm wants to pursue these opportunities.

Hypothesis 3: Relationship between firm performance and knowledge-based resources is governed by EO. Positive relationship between knowledge-based resources and firm performance is enhanced by EO.

Research Method

Sample

An accepted approach is that with respect to its CEO a firm's EO is typically operationalized (cf. Covin and Slevin, 1989). In large firms CEO's are separated by layers of middle managers which in turn considered as a problem for small and medium-sized firms. In order to test the hypotheses, a sample of Swedish small and medium-sized businesses has been used here. Though these firms are considered as a major source of modern economies but the sample might limit the generalizability of our findings (Storey, 1994). Following parameters were used to stratify the sample:

a) industrial sector based on ISIC codes (manufacturing, wholesale/retail, and services);
b) employment size class (10–49, 50–249, following the European Union's

cut-off for small and medium-sized enterprises, respectively)

c) Corporate governance (independent firms, members of company groups with fewer than 250 employees, and members of company groups with 250 employees or more).

Statistics Sweden (the Bureau of Census) was used to obtain name and address of sampling population consisting of 2455 firms. The CEO was the target respondent.

Data for the study's independent and control variables were collected in 1997 whereas data for dependent variables were collected in 2000 in order to reduce the problem of reverse causality. Performance effects of knowledge based resources and EO might take time to materialise and thus time lag between independent and dependent variable was considered important. In order to collect data in 1997, the firms were contacted via telephone (2034 responses) and afterwards a mail survey was sent to the interviewed firms (1278 responses). Firms that responded were contacted in 1997 were further contacted in 2000 via telephonic interview as well as a mail questionnaire. 240 businesses had been ceased. Almost 1794 have been in business, the responses that came through telephonic interview were 1647 whereas mail questionnaire was completed by 827 responses. It is important to make sure that both the dependent and independent variables refer to the same firm. In consideration to this, there were several questions that occurred such as whether the firm is considered same as in 1997. 218 firms have been disqualified due to mergers and acquisitions and other ownership changes.

The responses were incomplete as in 2000 there were 225 individuals who did not responded to the mail questionnaire in 1997. Thus, the responses were incomplete and sample size was reduced to 384.

Variables and measures

Dependent variables used in the study

The present research focuses that performance is multidimensional (Cameron, 1978) and that performance comparisons with competitors reveal provide important essential information (Birley and Westhead, 1990). Therefore, respondents used 10 different dimensions of performance and were asked to compare the development of their own firm over the past 3 years relative to their two most important competitors on these parameters. These parameters were namely, sales growth, revenue growth, growth in the number of employees, net profit margin, product/service innovation, process innovation, adoption of new technology, product/service quality, product/service variety, and customer satisfaction (a = 0.82). 5-point scales have been used in this study ranging from 'much lower' to 'much higher.' The potential of common method variance has been introduced on self-report data from single informants. With respect to this, performance index from the mail survey was correlated with performance measure collected during the telephonic interview (Robinson, Shaver, and Wrightsman, 1991). It was found out that the items used in the telephone interview were same as that measured for past performance. The Cronbach's alpha value was 0.82. The correlation between the two indices—performance measured by the

mail survey and a different measure of performance from the telephone interview—was 0.53 (p < 0.01), suggesting that the correlation between the two underlying theoretical constructs, corrected for measurement error, is 0.65 (Cohen and Cohen, 1983). This indicated that common method bias is not a major problem.

Independent variables used in the study

Gupta and Govindarajan (2000) studies were followed and according to them, CEOs evaluated the firm's knowledge position on 7- point scales in order to measure procedural knowledge. The scales measure the firm's knowledge position vis-à-vis competitors were measured on this scale. The study utilises 11 items related to market and technological knowledge. These included—'Whether your company have a weak or strong position as compared to other companies in your industry, as in terms of': staff with a positive commitment to the company's development, technical expertise, expertise regarding products or service development, highly productive staff, expertise in marketing, special expertise regarding customer service, expertise regarding management, innovative markets, staff educated in giving superior customer service, staff interested to contribute with ideas for new products/services, and staff capable of marketing your products/services well (a = 0.84). EO: Covin and Slevin's (1989) version of the instrument, consisting of nine items (a = 0.75) is used in the study.

Control variables used in the study

As suggested by Lumpkin and Dess (1996) the environment may affect a firm's performance is affected by its environment regardless of its strategic orientation (Lumpkin and Dess, 1996) or its knowledge-based resources. Thus, control for environmental munificence and heterogeneity is being considered in this study. The scale fFor measuring munificence was the scale was adapted from Dess and Beard (1984) and which consisted of four items (a = 0.85). Apart from this, the scale for measuring heterogeneity was taken from Miller and Friesen (1982) and consisted of three items (one of their original items was dropped due to space limitations; a = 0.85). Past performance was measured by an index consisting of four items, comparing the respondent's company to its competitors was measured using 'Past performance'. The items included were net profit, sales growth, cash flow, and growth of net worth. The items had 5-point scales ranging from 'much worse than competitors' to 'much better than competitors' (a = 0.76). We also controlled for firm age and firm size (previous year's sales).

Results obtained from the study

For all continuous variables table 1 provides means, standard deviations and correlations. Within the boundaries for normality Skewness and kurtosis statistics of the dependent variable are considered (Shapiro and Wilk, 1965) thus, allowing parametric tests of significance. Hierarchical regression analysis was used to test hypotheses because an interaction effect only exists if the interaction term gives a significant contribution above the

direct effects of the independent variables. Table 2 represents the results of the study. With reference to the firm performance the base model (control variables only) explains a statistically significant share of the variance ($R^2 = 0.09$, $p < 0.001$).

As suggested by Cohen and Cohen (1983)The main effects model makes a significant contribution over and the bundle of knowledge-based resources on performance for values of EO that are set at two parameters, the mean and at one standard deviation above and below the mean. Supporting Hypothesis 3.The plot indicated that EO enhances the positive impact that the bundle of knowledge-based resources had on firm performance.

Discussion and Conclusions

The primary contribution of that can be drawn from this article is that EO moderates controls the relationship between a bundle of knowledge based-resources (applicable to opportunity discovery and exploitation) and firm performance. That is, the willingness to be innovative, proactive, and take risks enhances the positive impact that a firm's bundle of knowledge-based resources has on performance is enhanced by factors such as willingness to be innovative, proactive, and take risks. For strategy scholars utilizing resource-based theory, our finding that EO enhances the positive relationship between knowledge-based resources and performance is consistent with EO capturing a firm's organization and enhancing the relationship between a firm's resources and performance. Thus, our empirical results are consistent with hitherto as previously largely untested

arguments that, over and above besides a firm's stock of resources, it is how management utilizes those resources that are important in explaining firm performance. The results complement Cockburn et al. (2000) studies and further suggest that managerial processes such as firms having the ability to utilise resources for finding out responses to the environmental cues can be identified with the help of EO. Empirical support for the VRIO framework is also provided through the present studies. Firm's performance can be completely explained via firm's resources (VRI) and organisation (O).

The findings also suggest that organisation should also be considered along with relationship between firm's resources and performance. It has been argued that research on a firm's strategic orientation (that is it's EO) provides a construct and operationalization way. This provides an idea that a firm is organised the exploitation of opportunities when combined with firm's resources. This also provides a considerable scope for future research.

The findings for EO scholars suggest that there is a contingent relationship between EO and characteristics that are internal to the firm specifically knowledge-based resources. This finding provides support for Lumpkin and Dess's (1996) assertion that the relationship between EO and performance is likely more complex than a simple main-effect-only. The entrepreneurship, entrepreneurial process and the firm-level entrepreneurship is a contribution to knowledge-based resources (Shane and Venkataraman, 2000). Measures of knowledge-based resources

have been used in the study to capture different aspects of knowledge which were used to enhance individual's ability to produce entrepreneurial results (Shane, 2000).

The research question focussed on interrelationship between a bundle of resources and an organization's orientation and thus a single construct of knowledge-based resources has been used. It is required to provide more scholarly attention to the development of important measures with respect to entrepreneurship. These include measures such as knowledge applicable to the discovery and to the exploitation of opportunities.

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List of Tables

Table 1. Means, standard deviations and correlations for quantitative variables

Variables	Mean	S.D.	1	2	3	4	5	6	7
1. Performance	3.43	0.44	1						
2. EO	−0.03	0.61	0.34**	1					
3. Knowledge	4.62	0.65	0.40**	0.39**	1				
4. Heterogeneity	13.17	3.89	0.08	0.17**	0.13**	1			
5. Munificence	−0.09	2.81	0.17**	0.30**	0.22**	0.20**	1		
6. Firm Age	32.32	28.00	−0.02	−0.12**	−0.06	0.06	−0.22**	1	
7. Firm Size	112.00	372.94	0.06	0.11**	0.11**	0.07	0.14**	0.09**	1
8. Past Perform.	3.58	0.63	0.28**	0.28**	0.30**	0.11**	0.15**	−0.04	0.13**

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ ($n = 384$)

Table 2. Independent and contingency models of knowledge, EO, and performance

	Base model		Independent model		Contingency model	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Control variables						
Heterogeneity	0.03	0.55				
Munificence	0.13*	2.44				
Firm Age	0.01	0.25				
Firm Size	0.04	−1.55				
Past Performance	0.22***	4.36				
Manufacturing	−0.10	−1.55				
Service	−0.11	−1.61				
Main effect variables						
EO			0.20***	3.72		
Knowledge			0.28***	5.45		
Interaction						
Knowledge × EO					0.94**	3.33
Model						
R^2	0.09		0.21		0.23	
Adj. R^2	0.07***		0.19***		0.21***	
F-statistic		5.11		11.04		11.31
Change in R^2			0.12***		0.02**	
Change in F				29.10		11.08

Standardized regression coefficients are displayed in the table.
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ ($n = 384$)