Entrepreneurial Orientation and Organizational Performance : The Mediating Role of Knowledge Capabilities

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Abstract

In this study, we identified the various mechanisms through which entrepreneurial orientation impacts firm performance. We proposed that entrepreneurial orientation assists organizations in building cultural, structural, human and technical knowledge capabilities, which in turn lead to sustainable competitive advantage. We tested our proposed hypothesis using data collected from 76 managers of small entrepreneurial firms. We found that cultural knowledge capabilities are the strongest mediators of entrepreneurial orientation and firm performance relationship. By bringing in knowledge capabilities in the literature of entrepreneurial orientation, we open new directions for research. Our findings have implications for theory as well as practice.

Keywords: Entrepreneurial Orientation, Performance, Knowledge Capabilities

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I. Introduction

Firm performance is a recurring research theme studied by academicians, researchers, and practitioners equally. The highly uncertain and changing environment, the ever growing competition among firms, the highly demanding customers, the pressurizing suppliers, the call for continuous improvements and the need for integrating information technologies in every business, force companies into a daily struggle for survival. These difficulties are all the more rigorous for new and entrepreneurial ventures because their resources are less than those of large firms. In spite of these difficulties, some firms do emerge as winners and create a sustainable competitive advantage for themselves.

If the dynamics are similar and equally challenging for all entrepreneurial ventures, what factors account for the success of some firms? This study tries to identify efficient management practices and strategies for entrepreneurial firms which allow them to achieve a better performance. There are a large number of studies focusing on the competitive factors of large firms. However, there is still a paucity of research on new and entrepreneurial firm strategies and competitiveness. The entrepreneurial orientation of the firm is a key element in the performance of SMEs (Dess, Lumpkin and Covin 1997). Firms could be innovative, risk taking, proactive or aggressive depending on the intensity of entrepreneurial orientation. These orientations of management can largely determine the firm performance and business efficiency. This research intends to contribute new ideas and validate the existing body of knowledge about entrepreneurial strategies and performance in the Indian context.

1. Entrepreneurship

Several definitions of entrepreneurship are available within the management paradigm. According to Schumpeter (1951), entrepreneurship consists in doing things that are not generally done in the ordinary course of business routine; it is essentially a phenomenon that comes under the wider aspect of leadership. Thus entrepreneurship is the dynamic process of creating incremental wealth (Ronstadt, 1984). This wealth is created by individuals who assume the major risks in terms of equity, time, and/or career commitment of providing value for some product or service. The product or service itself may or may not be new or unique but value must somehow be infused by the entrepreneur by securing and allocating the necessary skills and resources. Entrepreneurship, at least in all non-authoritarian societies, constitutes a bridge between society as a whole, especially the noneconomic aspects of that society, and the profit-oriented institutions established to take advantage of its economic endowments and to satisfy, as best they can, its economic desires (Cole, 1988).

Researchers have identified various aspects of entrepreneurship. Low and MacMillan (1988) argue that entrepreneurship is the creation of new enterprise. Covin and Slevin (1991) emphasize risk taking and proactiveness as the foundation of entrepreneurship. According to Lumpkin and Dess (1996), entrepreneurship entails business expansion, technological progress, and wealth creation. Gibbons and O'Connor's (2005) define entrepreneurial firm as one which exhibits risk-taking by top managers, innovativeness and aggression. Finally, according to Kuratko (2009), entrepreneurship is a dynamic process of vision, change, and creation. It requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions. Essential ingredients include the willingness to take calculated risks, formulate an effective venture team, marshal the needed resources, build a solid business plan, and, finally, the vision to recognize opportunity where others see chaos, contradiction, and confusion.

2. Entrepreneurial Orientation

Entrepreneurial Orientation was first introduced by Miller (1983) who provided three dimensions - proactiveness, risk taking and innovativeness. Lumpkin and Dess (1996) defined EO as the firm-level processes, practices, and decision-making style of entrepreneurial organizations. The various EO dimensions are as follows:

- Autonomy refers to the independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion
- Innovativeness refers to a firm's tendency to engage in, and support new ideas, novelty, experimentation, and creative process which may result in new products, services, or technological processes.
- Risk Taking refers to incurring heavy debt or making large resource commitments by seizing opportunities in the market place in the interest of high returns.
- Proactiveness refers to taking initiatives by anticipating and pursuing new opportunities and by participating in emerging markets.
- Competitive Aggressiveness refers to a firm's propensity to directly and

intensely challenge its competitors to achieve entry or improve position to outperform industry rivals in the marketplace.

II. Theory and Hypotheses

Entrepreneurial Orientation plays a positive role in corporate performance (Zahra & Covin, 1995). As firms mature and progress, innovativeness, risk taking and aggressiveness relates positively to performance. Tan (1996) studied various entrepreneurial orientation dimensions on 50 Chinese entrepreneurs and established a positive relationship between EO and environment dimensions. Sapienza and Grimm (1997), however, found a different pattern. Using the data of 70 CEOs of railroad firms, the researchers established that there is no different relation between entrepreneurial orientation and performance. Salavou and Lioukas (2003) using data on 69 Greek food and beverage firms, studied the impact of technology policy and entrepreneurial orientation on innovation in SMEs and concluded that only proactiveness and risk taking dimensions of EO enable radical innovation.

Perks (2006), using a sample of six European fast growing mid-sized companies, concluded that entrepreneurs in medium sized firms adopt hybrid styles of strategic management, and that entrepreneurial orientation is a key characteristic of the entrepreneurs across all sizes of firms. Runyan, Huddleston and Swinney (2006), using a sample of 467 small business owners in downtown business areas, argued that firm performance is affected negatively by the difference between desired and actual orientation. María, Martina and Luz (2007), using data of 155 Spanish firms, established that firms with high entrepreneurial orientation tend to internationalize faster than the firms with lower EO. Lee, Lim and Pathak (2009) argued that culture plays a crucial role in developing EO, which in turn is an important characteristic of high performance. Using a multi cultural survey of university students, the researchers confirmed significant differences in the EO of different countries. Fini, Grimaldi, Marzocchi and Sobrero (2010) studied the determinants of corporate entrepreneurial intention (CEI) within small and newly established firms and concluded that entrepreneurial activities usually occur as a result of individuals' behaviours and that the CEI of their founders is the key to explaining these companies' ability to become engaged in entrepreneurial actions. Based on this discussion, we propose our base hypothesis:

Hypothesis 1: Entrepreneurial orientation is positively related to firm performance.

It is evident from the previous discussion that despite a large amount of research which has gone into the understanding of entrepreneurial orientation and performance, the results remain inconclusive. This is because entrepreneurial orientation doesn't impact

firm performance directly, but impacts various aspects of organizations which consequently lead to performance improvements. We propose that entrepreneurial orientation helps in building various knowledge capabilities, which in turn lead to superior performance. An organization's knowledge capabilities depend on how organizational members create and share knowledge (Goll, Johnson, & Rasheed, 2007). Such capabilities are created in small organizations by the intervention of the entrepreneur by establishing high entrepreneurial orientation, i.e. a culture of risk taking, innovativeness and competitive aggressiveness. Table 1 summarizes various capabilities knowledge existing in organizations.

Knowledge capabilities assist organizational members in performing knowledge processes effectively (Yang & Chen, 2007). Organizational culture plays a very crucial role in facilitating such processes. Hence, entrepreneurial orientation leads to sustainable competitive advantage by facilitating a culture of risk taking, innovativeness, knowledge sharing and learning. Thus,

Hypothesis 2: Entrepreneurial orientation - performance relationship is positively mediated by cultural knowledge capabilities.

High entrepreneurial orientation leads to a structure which is amenable to creativity and

Table 1.	Aspects	of	Knowledge	Capabilities	(Adapted	from	Yang	and	Chen,	2007)
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Cultural Knowledge Capabilities	Sharing culture/Cooperation and collaboration culture/ Knowledge-centered culture/Learning culture					
Structural Knowledge Capabilities	Structure Incentive and reward/Work design/Management support/Norm/Political directives					
Human Knowledge Capabilities	Arduous relationship/Shared understanding Similar knowledge frame/Social interaction					
Technical Knowledge Capabilities	Technology IT infrastructure/IT know-how/IT support					

innovativeness by awarding creative behavior, incentives and political directives (Yang & Chen, 2007). A structure characterized by less centralization and formalization can only be established in small organizations by establishing a high entrepreneurial orientation. Thus,

Hypothesis 3: Entrepreneurial orientation - performance relationship is positively mediated by structural knowledge capabilities.

The stock of knowledge held within the organization by various organizational members, and the manner in which it is transferred across the organization plays a crucial role in organizational success (Smith, Collins, & Clark, 2005). However, it's the cultural aspects and orientation of the organization which lead to successful accumulation and transfer of knowledge. When organizations are willing to take risks and innovate in order to enhance the learning and knowledge within the organization, the skills and abilities of organizational members increase (Smith, Collins. & Clark. 2005). Thus. high entrepreneurial orientation leads to enhanced human capital knowledge capabilities. Accordingly,

Hypothesis 4: Entrepreneurial orientation - performance relationship is positively mediated by human knowledge capabilities.

Finally, those firms which have advanced technological understanding and utilize technology as an enabler of business functions stand a higher chance of success. Competitive aggressiveness and risk taking abilities of organization facilitate higher technical capabilities. Thus a high entrepreneurial orientation leads to enhanced technical knowledge capabilities. Hence, we propose the following hypothesis:

Hypothesis 5: Entrepreneurial orientation - performance relationship is positively mediated by technical knowledge capabilities.

III. Methodology

1. Data Sources and Sample

Data for this study were collected from entrepreneurs located in the industrial belt of Chandigarh. A total of 150 questionnaires were distributed across various units in the belt and given a week to fill in their responses. Whenever possible, we explained the importance of the study to the founders and promised to share the collective findings, in case they were interested. After a week, all units were contacted and filled-in questionnaires were collected. A total of 59 questionnaires were found completed. During pick-up, we requested the remaining set-ups to complete the questionnaire in one more week. We received another 19 filled-in questionnaires in our final visit. 2 questionnaires were incomplete in some aspects and hence couldn't be used, thus resulting in a total of 76 questionnaires and a response rate of 50.6%.

2. Instruments

Survey method was most suited for measuring the constructs of our interest. All items were measured on Likert's 7 point scale.

	EO	Cultural KC	Structural KC	Human KC	Technical KC	Performance
EO	1	.642**	.617**	.507**	.550**	.398**
Cultural KC	.642**	1	.484**	.417**	.321**	.594**
Structural KC	.617**	.484**	1	.385**	.442**	.269*
Human KC	.507**	.417**	.385**	1	.369**	.170
Technical KC	.550**	.321**	.442**	.369**	1	.256*
Performance	.398**	.594**	.269*	.170	.256*	1

Table 2. Correlation Coefficients

** Correlation is significant at .01 level; * Correlation is significant at .05 level

Entrepreneurial Orientation was measured using seven item scale adapted from Covin and Slevin (1989). Knowledge Capabilities were measured using Yang and Chen's (2007) fifteen item scale. Both the scales are frequently used in strategy and entrepreneurship literature and have high reliability and validity (Goll, Johnson, & Rasheed, 2007; Lyon, Lumpkin, & Dess, 2000).

Table 2 provides the correlations among various constructs. As is clearly evident, entrepreneurial orientation is strongly and significantly correlated with various knowledge capabilities, but not as much with firm performance. Since none of the variables share a correlation of more than .8, there are no major concerns of multi-collinearity. Hence, we proceeded with regression analysis in order to test our proposed hypothesis.

Table 3. Linear Regression Outputs

IV. Results and Discussion

Table 3 provides the results of the regression. When we regressed entrepreneurial orientation on firm performance, we got significant positive relationship between the two. Thus, our hypothesis 1 was confirmed. However, since EO explained only 14% in the total variance of firm performance, it can be expected that EO is not a strong indicator of firm performance. As expected, therefore, EO is not a direct contributor of performance, but mediated by other factors.

In order to test the next four hypotheses, we tested for relationship between EO and various knowledge capabilities, namely cultural, structural, human and technical capabilities. We found significantly strong relationships between EO and all knowledge

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Relationship	Coefficient †	Adj R-square	Model F
EO - Performance	.398**	.147	13.9**
EO - Cultural Knowledge Capabilities	.642**	.404	51.79**
EO - Structural Knowledge Capabilities	.617**	.372	45.4**
EO - Human Knowledge Capabilities	.507**	.247	25.6**
EO - Technical Knowledge Capabilities	.550**	.293	32.09**
Cultural Knowledge Capabilities - Performance	.594**	.344	40.37**
Structural Knowledge Capabilities - Performance	.269*	.060	5.77*
Human Knowledge Capabilities – Performance	.17	.016	2.19
Technical Knowledge Capabilities - Performance	.256*	.053	5.2*

N = 76

** Correlation is significant at .01 level; * Correlation is significant at .05 level

* Standardized regression coefficients are reported.

capabilities. Thus, our argument that entrepreneurial orientation assists in building knowledge capabilities in organizations is validated. However, in order for our proposed hypotheses to be true, it is imperative that the knowledge capabilities also contribute significantly towards firm performance. When we regressed various capabilities on firm performance, we found that cultural capabilities were strongly impacted firm performance while structural and technical capabilities only partially contributed to firm performance. Interestingly enough, human knowledge capabilities didn't relate to firm performance. Since the variance in firm performance explained by cultural knowledge capabilities is much higher (35%) than that explained by entrepreneurial orientation directly (14%), it can be concluded that cultural knowledge capabilities mediate the relationship between entrepreneurial orientation and firm performance. Hence, hypothesis 2 is also validated. Similarly, structural and technical capabilities also partially mediate this relationship. Hence, hypothesis 3 and 5 are partially supported while we couldn't find support for hypothesis 4.

V. Concluding Remarks

This study provided several insights on the relationship between entrepreneurial orientation and firm performance. We argued that this relationship is not straightforward as conceived by extant literature, and rather is mediated by organizational knowledge capabilities. We proposed several hypothesis concerning cultural, structural, human and technical knowledge capabilities, and empirically validated the same. The ability to learn faster than your competitors is a crucial source of sustainable competitive advantage. Organizational capabilities for creating, assimilating and sharing knowledge by creating learning networks can be fruitful. Factors which impact the framework of knowledge sharing pertain to organizational culture, structure, people and technology (Yang & Chen, 2005). Consequently, a firm's ability in creating, storing, absorbing and applying shared knowledge upgrade its capabilities for competitive success.

We believe that one reason why cultural knowledge capabilities contributed most to the firm performance is that organizational culture is one of the most crucial aspects of firm performance. While structural and capabilities technical knowledge also contributed to some extend as expected, the insignificant role of human knowledge capabilities is astonishing. This could be significant research finding or an error attributable to scale or measurement. While this is the first attempt to bring in knowledge capabilities in the entrepreneurial orientation literature, further investigation is required to bring in more clarity to explore these relationships.

Our research can be extended in multiple directions. Firstly, we only captured four dimensions of organizational knowledge, but there are many more. Additionally, we couldn't capture the linkages of various sub-dimensions of entrepreneurial orientation with different knowledge capabilities. A deeper analysis might provide indications on what dimensions of entrepreneurial orientation are more relevant for building different knowledge capabilities. Our data comes from smaller entrepreneurial firms. Research on larger firms might provide different trends.

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