Dynamic Capabilities and Firm Performance: A Case of Two SMEs in Pakistan

QAZI MUHAMMAD MOINUDDIN ABRO*, NAFEES AHMED MEMON**, AND PIR IRFANULLAH SHAH ARSHDI*

RECEIVED ON 30.05.2011 ACCEPTED ON 07.06.2011

ABSTRACT

This paper investigates the inter-relationship among entrepreneurship, dynamic capabilities and innovation. Entrepreneur's foresights and insights of ICT (Information and Communication Technologies) tend to affect their choices of resources and development of dynamic capabilities, leading to different results of innovation. Based on the literature of business innovation and dynamic capabilities, this paper provides a model addressing the links between leadership, with insights and foresights for technology exploration and exploitation, and organizational capabilities of resource integration, learning and transformation to accelerate innovation. A comparative analysis of the two textile manufacturers in Pakistan revealed a cyclical process between the leadership decisions and dynamic capabilities of leveraging ICT for sustained competitiveness in these two SMEs (Small and Medium Sized Enterprises). The result suggests that to build strong capabilities for continuous innovation in today's dynamic business environment, firms need to have leadership with both the attitude and behavior of entrepreneurship, combining the foresight to capture opportunities through ICT and the insight to guide and manage internal resources to achieve ICT-enabled innovation.

Key Words: **Continuous Innovation, ICT Adoption, SMEs, Entrepreneurship, Dynamic Capabilities.**

1. INTRODUCTION

The ability to learn and to recognize new opportunities is vital for innovation and entrepreneurship. SMEs, with their organizational agility and adaptability, have often played a significant role in adopting ICT for building innovations in the dynamically changing business environments [1-2]. On the other hand, the SMEs are usually equipped with only limited and emancipated resources, therefore they need to pay more effort in maintaining a complementary status to support and respond to innovation opportunities. How SMEs overcome the inadequacy of resources by managing internal ICT infrastructure and leveraging emerging ICT systems seems to be the most critical issue for SMEs in sustaining its competitive advantages. This paper analyses the importance of adopting ICT as an innovation tool in SMEs in Pakistan. More specifically, the focus is on the respects of entrepreneurship that enable the process of innovation

* Assistant Professor, Mehran University Institute of Science, Technology & Development, Mehran University of Engineering & Technology, Jamshoro.

** Associate Professor, Department of Civil Engineering, Mehran University of Engineering & Technology, Jamshoro.

in SMEs. Using the longitudinal case study approach on a comparative analysis of two textile manufacturers, it aims to understand how entrepreneurship affects organizational innovation through ICT management process and to track changes in management capabilities at both strategic and operational levels?

The paper is structured as follows. It starts by offering a short definition for the key terms like entrepreneurship, innovation, and management capabilities. Thereafter data and methodology used are described. In the finding section, results of the comparative analysis are presented. It also discusses the challenges of innovativeness faced across innovation process. Finally based on results and discussion, some conclusions are presented which highlight the importance of ICT as a successful innovation tool for SMEs in Pakistan.

2. THEORETICAL BACKGROUND

2.1 Entrepreneurship

With growing research interests in entrepreneurship, the meaning of entrepreneurship is broadened. For example, Zahra, S.A., et. al. [3] define entrepreneurship as innovation, new business venturing, and strategy renewal. Rashdi, P.I.S., et. al. [4] enlarge the entrepreneurship into five dimensions, namely autonomy, innovativeness, risk taking, proactiveness and competitive aggressiveness. Others argue entrepreneurship to involve establishment, judgmental decision making. For instance, Casson, M., [5] defines entrepreneurs as those who exploit emerging opportunities to create new market. For the purpose of this paper, entrepreneurship is classified into two categories: foresights and insights. Kunstler, B., et. al. [6] note that foresight practices can be referred to linking multiple sources of input and feedback, where integration of new knowledge with organizational and strategic resources is required to push thinking further into future so as to maximize the effectiveness and creativity of knowledge network.

2.2 Dynamic capabilities

In order to accept that the role of entrepreneurship has increasingly important role in corporate innovation, it becomes critical to identify the abilities which enable entrepreneurs to facilitate innovation. This is well in line with Penrose, E. T., [7] concept, 'the dynamic capability'. Dynamic capabilities create strategic advantages by integrating and recombining the external and internal resources, David, J. T., et. al. [8]. The capabilities of managing resources affect the performance of SME, Chandler, G. N., et. al. [9], they can reduce costs and improve product/service quality to fit the firms' strategy and technology, Amit, R., et. al. [10] to accomplish the task of continuous innovation, Grant, R. M. [11].

According to Teece, D.J., et. al. [12], dynamic capabilities are developed through three processes. The first process of dynamic capabilities is integrating and coordinating resources. Although the intangible capabilities have substantial effect, tangible capabilities like organization's structure, technology, processes, and intergroup relationship can also affect the organization [13]. In addition, organization has external parties like suppliers or distributors that should change information with them to capture the market trend and adjust their operation [14]. Therefore, organization must integrate and coordinate its internal and external resources.

The second process of dynamic capabilities is learning and experimenting. Scholars have stated that the dynamic capabilities are based on the collective learning of the organization [15]. The experience, knowledge and employee know-how can be deployed to reduce the cost and increase the flexibility [16]. Learning activity is one of the most important roots in dynamic capability which makes the SMEs innovative [17-18].

The third process is reconfiguration and transformation. Environment changes so rapidly that it would not be enough to merely integrate the resources and coordinate the information. According to Covin, J.G., et. al. [19], the environmental context and competitive orientation affect the performance of SMEs. The structure may have different size and architecture; organizations should adjust their architectural scope and dimension for best use of their dynamic capability [20].

2.3 Innovation

Continuous innovation is the synthesis of knowledge accumulation, leading to a corporation's growth and financial performance [21]. Firms must improve their services and products dynamically to maintain their competitive advantage [22]. Organizations plan to sustain business innovation with the emerging ICT need to have well-organized processes to build infrastructure for exploitation and capabilities for business exploration. This procedure requires strong leadership consisting of the necessary activities to identify opportunities, develop business processes, and manage resources [23]. In relation to the leader's drive for effective innovation execution, there is a need for firms' dynamic capabilities in coordinating and integrating ICT with physical capital and organizational capital to build adaptive infrastructure [16].

Continuous innovation activities make SMEs more competitive and yield higher levels of performance [24]. Researchers argue the process of these activities consists of identifying an opportunity, developing a business concept, assessing the resources, implementing the concept, and then maintaining the outcome, which is the spirit of entrepreneurship [23]. Therefore, business foresight and insight are required in order for leaders of SME to be able to maintain proper cycle of continuous innovation.

Scott, S., et. al. [25] argue that, there may be profitable opportunities for organization, but what more important is how we identify such opportunities and further develop them into practice. Foresight is such a capability to identify the future issues, integrate all the views and then try to make strategies before the issues affect the results [26]. Other similar concepts indicate that the foresight is the talent for entrepreneur to expand existing market and explore new market, then act under the coming opportunity [27]. In addition to foresights, entrepreneurs need to be able to determine what resources are required to realize the business opportunity identified. This is referred to as the leader's insight.

3. RESEARCH METHODS

This paper is focused on gaining knowledge of reality through the study of social construction [27], which gives us an interpretive and explorative view of the interaction and relationship among dynamic capability, continuous innovation, and entrepreneurship. For a complete view of the interrelationship of the components in the organization, the cases are chosen carefully with similar environmental background (from the same industry and of the same size) to reflect the differences in organizational capabilities and the linked innovative results. Based on theories of entrepreneurship and dynamic capability for continuous innovations, the construction of research model is shown in Fig. 1.

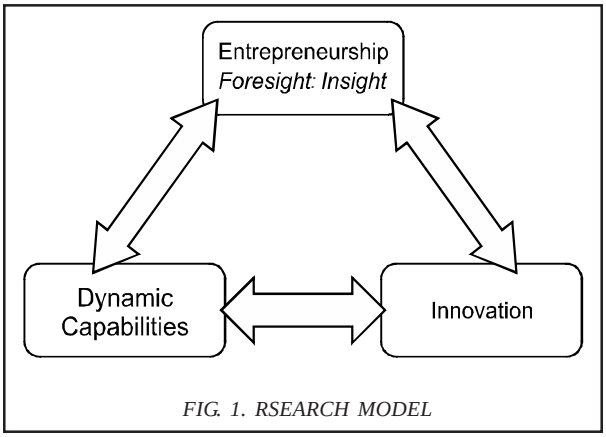

FIG. 1. RSEARCH MODEL

In the model, business innovation is mostly facilitated by the leader's foresights and insights of the business opportunities as well as the internal and external resources. The dynamic capabilities in the model are to enable entrepreneurship and to fostering the process of innovation. The spotlight here is that the whole model is circular among different elements, which means that any of the three components in the model can be the start of business innovation. Through the cyclical processes of entrepreneurship, dynamic capabilities and innovation, entrepreneurs can accumulate their capabilities to further capture opportunities and generate innovation continuously.

In order to examine the criticality of the capabilities proposed in the model, a case study analysis was conducted on two textile SMEs in Pakistan. We use the definition of Yin, "as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used". The case study best suits to the objectives of the paper. The strength of the case study is that it gives the vivid picture of the whole firm, however some biased may be presented in the study which counted as weakness of the case study in general.

While making a significant contribution to Pakistan's economy, the textile industry is constantly struggling under intensified global market competition as well as pressures from its increasingly demanding customers. These two studied enterprises operate in traditional and labor intensive industry. In order to observe how the model affects the organizations, SME1 and SME 2, the two case companies competing under the same environment are selected.

Apart from the data gathered from the annual reports and published articles of the two companies, interviews were also conducted with business managers of these two companies. The interview data were transcribed and consolidated with secondary data into analysis tables. Iterative verifications and finding analysis were performed until several key points were developed.

4. FINDINGS OF CASE STUDIES

4.1 Case-1 (Code: SME1)

SME1 is a textile manufacturing company focuses on high-technology products. It produces products with general material, high-function materials, special material, and knitting goods. By vertically integrating all upstream and downstream production processes, like throwster, weaving, dying, printing, and other special post-processing procedures, SME1 combined high-tech and fashion information to form a interweaving textile company in 1988. In 1996, SME1 saw the importance of building management capability of resource planning. It introduced an ERP system to integrate internal information for its resources allocation and operation management efficiency. With its effort in the product transformation, the company became a major supplier of Puma, Nike, and Adidas in 1997. When the global competition intensified, the company sensed a trend of innovation in textile industry. In 2002, SME1 expanded its productive capability through the establishment of IT infrastructure such as, dynamic color simulation communication system, fabric design simulation communication system, product data management system, co-design system, and e-learning system. In 2003, the company established an advanced research center to strength innovation range in order to speed up its production and market transformation. In 2007, the company began to address the green issues and focus more on monitoring environment, health and safety. However, operating in a developing country, not many restrictions are there on them from environmental side.

4.2 Case-2 (Code: SME2)

SME2 is a textile manufacturing company focuses on producing cotton underware. It was established in 1949 with two machines and 30 employees. In 1969, the company sensed an opportunity in the global garment market and began to expand its production by acquiring two textile manufacturing firms. After the acquisition, the company was able to establish synthesized fiber and dyeing facilities for the preparation of exporting products to the global market.

During the year of 1970-1985, SME2 sensed the increased demand in the domestic market, and opened a department store. At the same time, the company built up management capabilities of profit control. Till 1992-1993, the company began to focus on product innovation, and launched full colored fabric. However, the economic situation was in the downstream, the demand decreased dramatically. The company had to stop expansion and reduce costs. To achieve this goal, SME2 integrated its dyeing unit and textile unit into one new business unit. At the same time, the company began to focus on learning through quality improvement.

During the year 1997-2000, the company sensed the opportunity of increased demand in young people and the demand in functional garments. SME2 built up management capability of manufacturing diversified products, and integrated inter-firm resources through moving the management. However, the following year the SME2 suffered from the economic recession. The loss of its profit was significant and the company had to close down its factory in order to improve its financial structural with 40% of capital reduced. Until 2006, the bad financial situation in SME2 was not improved. As a result, the SME2 closed down.

After the brief statement of the two selected cases, the comparison of the different events in both the companies is presented in Table1. This can help in reviewing clearly how each company reacted to the same changes in similar environment and what kind of organizational capabilities were leveraged. This table is divided into two dimensions. The X axis represents the year and the event happened. The Y axis represents the analyzed results of the model. It includes the foresight, insight, integration/coordination, learning, and transformation/reconfiguration. The results of the two cases are depicted in Table 1.

5. DISCUSSION

To comply with the model, research results are presented in three categories, namely innovation, entrepreneurship and dynamic capabilities. In order to identify these two factors, it requires entrepreneurs to hold both insights and foresights. As Table 1 clarifies, the results support this common view. The sense of market changes and the customer demand changes are clearly the most significant foresights, which acts as an initiator in the innovation process in both case study companies. SME1 seemed to utilize the market opportunities by creating its own brand and cooperating with customers to design new products in favor of customers' personal needs. Entrepreneur's insights also play an important role in initiating innovation. As presented in Table 1, the SME1 began with building up information sharing platform for its suppliers and customers, followed by increasing its IT infrastructure and improving dyeing skills through IT technology so as to enhance the customer value. On the other hand, SME2 also invested in garment technology to advance its manufacturing efficiency, followed by the establishment of a chemical fiber research center and a financial restructuring through profit management. The adoption of ERP system, the implementation of an e-learning system, the forming of a global alliance research center to advance textile technology, and the creation of its own brand are

TABLE 1. COMPARISON BETWEEN TWO CASES BASED ON THE RESEARCH MODEL

SME1						
Year	Innovation	Entrepreneurship		Dynamic Capabilities		
		Foresight	Insight	Integration/ Coordination	Learning	Reconfiguration Transformation
1996	The first company introduced ERP system	Resources allocation efficiency can be improved	To build up the capability of resources management and information sharing platform	Integration internal resources with market information through ERP system	Improve operation efficiency through resource integration	Establish a new factory in China to combine the strength of cheap labor cost and strong research development performance
2002	Drew several IT related projects and changed its strategy to innovation	Innovation is the trend	To build capabilities of manufacturing textile products with strong IT infrastructure	Integrate internal and external market resources on business to business system, customer relationship management, supply chain management and knowledge management system	Introduced collaborative and e-learning system to enhance organizational learning	Recombined its internal departments and connected tightly with its suppliers for better information flow
2003	Launched function and fashion program	Growing eco-awareness	To build capabilities of manufacturing textile and dyeing skills with strong IT infrastructure	Integrate knowledge and skill of global branches through IT programs.	Learning to control waste and focus on recyclable material	Build up global supply factory in China for supporting effective business integration
2005	Increasing brand exposure Cooperate with customers to design new products	Created customer value through increasing brands	Begin to build the brand management capabilities on its knowledge management system	Introducing JIT for mass customization	Learn to add customer value by focusing on quality, cost, and service	Parent company in Pakistan for marketing and design, subsidiary in China for decreased trading cost
2006	Build up Research Alliance group innovate textile technology	Changing management methods to focus on both quality and cost	Need to build focused business practice and to strengthen relating capabilities	Integrate internal and external resources through research group	Develop critical skills. Technology and materials	Build up innovate textile technology
2007	Sustainability Model	Understanding global trend in the textile industry is critical	Build up Premiere Vision to strengthen knowledge management	Integrate customer knowledge and coordinate resources through innovation design management	Learn through quality improvement programs	Launch garment innovation design management
SME2						
1969	Automotive manufacturing process	An increased needs of garment in the global market	Build up the technology of manufacturing garment with IT infrastructure	Buy in two textile companies to get needed sources	Learning new skills of dyeing	Buy-in fiber manufacturing and dyeing machines, and transfer the organization into automatic operation processes
1970 - 1985	Launched a department store	Aware the increased demand in the domestic market	Built capabilities in profit management	Buy in 4 companies to expand the company's production	Objective management focused learning	Established five business units to implement profit centered strategy
1992 - 1993	Developed full colored fabric	Downstream in Economic	Stop expansion and reduce the costs	integrate dyeing unit and textile unit into one business unit	Learning through quality improvement program of IS 9002	Using advanced operations
1997 - 2000	Launch JR brand to attract young people's market	See the opportunity of young people's market , and the trend of comfortable and functional garment	Build up diversified capabilities in manufacturing new products	Integrating inter-firm resources	Learning new skills through research and development	Establish chemical fiber research center
2001 - 2003	Launch Coolplus 2000 new product	Recession in arment market	Improve financial structure	Reduce 40% of capital, requiring financial support from banks		Closed down two factories
2006	Closing down the company					

identified as innovation behaviors in SME1. While SME2 had its attention on introducing automatic operation processes, creating its own sale channels through investing in own department stores, and establishing fiber research center to focus on young people's market. In the two studied companies, innovation ideas were driven by technology push and market demands. However, the management capabilities differentiate companies' competitiveness in long term. Although both companies had integrated external and internal resources, the focus of learning varied in the two companies. SME1 appeared to have paid more attention to organizational learning, such as establishing collaborative and e-learning system for employees and suppliers to share knowledge. SME1 also stressed on adding customer values through continuous quality improvement programs and developing new textile materials and advancing production technologies so as to cut off production waste and use recyclable materials. By contrast, SME2 also had quality improvement programs, but more attention was placed on each business unit's cost control rather than knowledge sharing within the company.

From the comparison of the two cases listed in Table 1, two points can be observed. First, the leadership's foresights to capture ICT opportunities and insights to develop dynamic capabilities with ICT infrastructure are critical in the process of innovation. In SME1's case, we can observe foresight and insight link closely. When the ICT trend emerged, SME1 captured it (foresight) then used the most applicable technology and capabilities (insight) to accomplish what it plans to do. The clearest time frame is in the 2002, an innovation trend was sensed (foresight). The firm built up its management capability of manufacturing textile products with IT infrastructure. At the same time, the company integrated internal resources with external resources through customer relationship management, supply chain management and knowledge management (insight). Also, an e-learning system was implemented to enhance the employees' skills and knowledge. Moreover, SME1 recombined its internal departments and connected tightly with its suppliers for better information flow. By contrast, in the other case, SME2 also sensed the increased market demand (foresight), but it expanded its productivity (insight) through acquisition rather than developing its innovation capabilities.

Secondly, environmental factors play an important role in the process of continuous innovation. Pressure is the accelerator for changes. From the interviews conducted at the two companies, SME2 operated very smoothly. It was because it had financial support from banks. There was no motivation for them to innovate. However, SME1 had a very tough time for the first few years after establishment. It suffered from the pressure and the intensity of competition with those companies established much earlier in the industry. The environment left SME1 with no other choices but exert all of its resources to innovate, evolve and build a strong backbone of dynamic capabilities.

6. CONCLUSIONS

(i) The central theme of this paper is that entrepreneurial leadership's foresight and insight of ICT affect organization's innovation capability. Innovation enables these organizations to perform better in the market. The results provide support for research model, indicating that the theoretical construct operated largely as proposed. From the results of the comparative analysis of two textile manufacturers, it is argued that the critical initiators of innovation are entrepreneurs' foresights and insights of ICT, and the dynamic capability can also affect entrepreneurship and innovation. The leaders' eyesight must be broad to capture the opportunities with advanced technology and

build required capabilities which can support and sustain innovative moves. The cyclical processes of resource integration, learning, and reconfiguration with the ICT underlie the building and accumulation of organizational capabilities for continuous innovations.

(ii) The findings reveal that effective entrepreneurship helps a firm to properly respond to significant environmental changes. As can be seen from the studied case company SME1, entrepreneur's foresights and insights of ICT facilitate the integration of organizational resources and building up information sharing platform for both suppliers and customers. On the other hand, although SME2 recognized the need to develop new products for young people, it did not pay much attention to investment in ICT.

(iii) The research findings support Zahra's view that established companies benefit from dynamic capabilities in crafting new business strategies, learning new skills, leveraging resources and introducing innovative programs. SME1's capabilities were presented in learning waste control, developing recyclable materials and managing suppliers, and building e-learning systems for employees. While SME2's capabilities were depicted from launching quality improvement program, buying-in four companies to enhance its manufacturing skills and focusing on profit centered strategies. This indicates that dynamic capabilities affect firm's selection of resources and skills and promoting organization learning processes to capture knowledge and to introduce innovative programs. Moreover, the research findings also indicate that entrepreneurship's foresights and insights of ICT shape the combination of dynamic capabilities and increase firm's ability to implement innovative programs to challenges it faces.

(iv) SME1 also shows stronger attitude and commitment to innovation than SME2. As Ettlie and Bridge note that firms that proactively acquire new production technologies are more innovative, as they can develop new products with these new technologies. Besides, SME1 appeared to be, in some respect, closer to its customers. It developed a better understanding of customer needs by introducing collaborative program for customer involvement in cloth design than SME2. Overall, the results provide evidence in support of entrepreneurship as an important contributor to firm's innovation. Entrepreneur's foresights and insights of ICT affect the selection of resources and the development of innovation programs.

7. DIRECTIONS FOR FUTURE RESEACH

The findings of this study are based on the case study of two textile manufacturers of Pakistan. The same kind of study may be conducted at a larger scale and selecting more than one sector in Pakistan will help in the comparative analysis of different sectors.

ACKNOWLEDGEMENTS

The main author is highly grateful to Prof. Dr. Pir Roshanuddin Shah Rashdi, Co-Director, Mehran University Institute of Science, Technology & Development, Mehran University of Engineering & Technology, Jamshoro, Pakistan, for his cooperation in carrying out this research work. The author is also thankful to the Textile Manufacturing Companies, for providing necessary information in order to carry out this research work.

REFERENCES

[1] Abro, Q.M.M., Rashdi, P.I.S., and Bhutto, A., "Innovations in Nanotechnology Organisations", International Journal of Innovation and Technology Management, Volume 7, No. 4, pp. 377-388, 2010.

[2] Abro, Q.M.M., Rashdi, P.I.S., and Bhutto, A., "Model for the Successful Commercialisation of Nanotechnology: A Case from the UK", International Journal of Innovation and Technology Management, Volume 4, No. 6, pp. 614-625, 2010.

[3] Zahra, S.A., Sapienza, H.J., and Davidsson, P., "Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda", Journal of Management Studies, Volume 43, No. 4, pp. 917-955, 2006.

[4] Rashdi, P.I.S., Abro, Q.M.M., and Bhutto, A., "The Role of Academic Entrepreneur's Experience in Building Networks", International Journal of Innovation and Technology Management, Volume 5, No. 2, 2011.

[5] Casson, M., "Entrepreneurship and the Theory of the Firm", Journal of Economic Behavior & Organization, Volume 58, No. 2, pp. 327-348, 2005.

[6] Kunstler, B., and Tita, W., "State Foresight, Innovation and Entrepreneurship: The Case of Economic Development, e-Learning and Outsourcing Industry in Uganda", Journal of Futures Studies, Volume 12, No. 12, pp. 37-52, 2007.

[7] Penrose, E.T., "The Theory of the Growth of the Firm", Oxford, Blackwell, 1959.

[8] David, J.T., Gary, P., et al., "Dynamic Capabilities and Strategic Management", Strategic Management Journal, Volume 18, No. 7, pp. 509, 1997.

[9] Chandler, G.N., and Hanks, S.H., "Market Attractiveness, Resource-Based Capabilities, Venture Strategies, and Venture Performance", Journal of Business Venturing, Volume 9, No. 4, pp. 331, 1994.

[10] Amit, R., and Schoemaker, P.J.H., "Strategic Assets and Organizational Rent", Strategic Management Journal, Volume 14, No. 1, pp. 33, 2003.

[11] Grant, R.M., "The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation", California Management Review, Volume 33, No. 3, 114, 1991.

[12] Teece, D.J., Pisano, G., and Shuen, A., "Dynamic Capabilities and Strategic Management", Strategic Management Journal, Volume 18, No. 7, pp. 509-533, 1997.

[13] Lado, A.A., and Wilson, M.C., "Human Resource Systems and Sustained Competitive Advantage: A Competency-Based Perspective", Academy of Management, The Academy of Management Review, Volume 19, No. 4, pp. 699, 1994.

[14] Briance, M., Alok, B., et. al., "Dynamics of Core Competencies in Leading Multinational Companies", California Management Review, Volume 40, No. 4, pp. 117, 1998.

[15] Prahalad, C.K., and Hamel, G., "The Core Competence of Corporation", Harvard Business Review, Volume 68, No. 3, pp. 79-91, 1990.

[16] Barney, J., "Firm Resources and Sustained Competitive Advantage", Journal of Management, Volume 17, No. 1, pp. 99, 1991.

[17] Long, C., and Vickers-Koch, M., "Using Core Capabilities to Create Competitive Advantage", Organizational Dynamics, Volume 24, No. 1, pp. 6-22, 1995.

[18] David, K., Clive, L., Moore, B., and Wilkinson, F., "Collective Learning Processes, Networking and 'Institutional Thickness' in the Cambridge Region", Regional Studies, Volume 33, No. 4, pp. 319, 1999.

[19] Covin, J.G., and Covin, T.J., "Competitive Aggressiveness, Environmental Context, and Small Firm Performance", Entrepreneurship: Theory & Practice, Volume 14, No. 4, pp. 35-50, 1990.

[20] Henderson, R., and Cockburn. I., "Measuring Competence? Exploring Firm Effects in Pharmaceutical Research", Strategic Management Journal, Volume 15, No. 63, 1994.

[21] Aija, L., "Organization of Knowledge and Innovation: The Case of Finnish Business Services", Industry and Innovation, Volume 12, No. 2, pp. 185, 1994.

[22] Smeds, R., and Boer, H., "Continuous Innovation and Learning in Industrial Organizations", Knowledge and Process Management, Volume 11, No. 4, pp. 225-227, 2004.

[23] Morris, M.H., Avila, R.A., et. al., "Individualism and the Modern Corporation: Implications for Innovation and Entrepreneurship", Journal of Management, Volume 19, No. 3, pp. 595, 1993

[24] Timothy, L.P., and James, A.W., "SME Performance: A Case for Internal Consistency", Journal of Small Business Strategy, Volume 18, No. 1, pp. 1, 2007.

[25] Scott, S., and Venkataraman, S., "The Promise of Entrepreneurship as a Field of Research", Academy of Management, The Academy of Management Review, Volume 25, No. 1, pp. 217, 2000.

[26] Grant, L., "Foresight: Addressing Tomorrow's Problems Today", The Futurist, Volume 23, No. 1, pp. 14, 1989.

[27] Sambamurthy, V., Anandhi, B., et. al., "Shaping Agility Through Digital Options: Reconceptualizing the Role of Information Technology in Contemporary Firms", MIS Quarterly, Volume 27, No. 2, pp. 237-263, 2003.

[28] Yin, R., "Case Study", Sage Publications, 1984.

[29] Heinz, K.K., and Michael, D.M., "A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems", MIS Quarterly, Volume 23, No. 1, pp. 67, 1999.

[30] Ettlie, J.E., and Bridge, W.P., "Organizational Policy and Innovation Among Supplier to the Food Processing Sector", Academy of Management Journal, Volume 26, No. 1, pp. 27-44, 1983.