

An Innovative Approach to New Product Development in Textile and Diamond SMEs of Surat

Rashvin Tailor and Dr. (Prof.) Manisha Panwala

Abstract

The emergence of innovative SMEs has been a distinct feature of Industry in the developing countries. Many of the emerging firms are small and medium enterprises (SME). The Indian Textile SMEs, in particular, have been at the significant of making investment. This research empirically studied the impact of marketing factors of the NPD of SMEs. The paper also explores the effect of size of the firm and importance of marketing factors. Based on 532 Textile SMEs of Surat, the paper conclude that all the factors are not equally important in all three stage of new product development by using Small and Medium Size Enterprise (Investment in Plant and Machinery), except the product has competitive advantage, and there is potential marketing channel plans shows importance in all three stages.

Key Words: NPD, Key Success Factors, Marketing Factors, SMEs..

I. INTRODUCTION

Small and Medium Enterprises (SMEs) are increasingly operating. Liberalization, Privatization and Globalization and the related competition forces on firms. SMEs need to maintain a viable competitive advantage due to the complications of market developments. Innovative ways are essential to compete, as the earlier competitive advantage of differentiation centered on price, product or technology, is reducing value. Small and medium enterprises face the competitive force of both local and global competitors. SMEs are key for a country's economic and social development. The excess of government procedures for the stimulus of SMEs emphasize their importance for economic development of country. SMEs play an important role in backup country's businesses in the aspect of force from the global players entering the domestic market. In the Indian context, small and medium enterprise (SMES) sector has made an extraordinary assistance to the Indian frugality. It covers around 13million units, employing about 41million people, having an approximate share of 45% of manufacturing output and 40% of exports and contributing almost 8-9% of GDP (MSME Overview, 2007). The study of SMEs in general has received the attention of academicians but their role in emerging economies has yet to be actively explored.

II. Literature Review

Cooper (2006), had suggested key success factors relating to marketing in his book called *Winning at New Product: Accelerating The Process from Idea to Launch* are emphasizing upfront predevelopment homework, building in the voice of the customer throughout, demanding sharp early definition new product, having tough first mover advantage decision points where new products really do get advantage and highlighting quality of execution throughout.

March-Chorda (2001), identified the major determinants that confront the product development. The cost of product development projects that discourages commitment to new product development and the uncertainty of the market acceptance were found to be the major factors. Contrary to what the theoretical studies recommend, the most frequent sequence for the process of development and promotion of new products is rather simple and short, with an average time for new product development of around 6 months, although largely depending on the sector and found that the fulfillment of the key success factors as suggested by the literature is, in general, low.

B.C. Ghosh*, Tan Wee Liang, Tan Teck Meng (2001), the research tries to determine the strategy dynamics and key success factors (KSFs) for excellence in performance of the so-called "tiger" SMEs in Singapore. In 1995 and 1996, 50 top privately owned and successful enterprises in Singapore were identified. Study results SMEs can best even in the current highly competitive and operating cost environment. The performance can be attributed to their dynamism and a few KSFs that are apparently universal to these successful firms. Variables under this study are committed, supportive, and strong management team; a strong, visionary, and capable leadership; adopting the correct strategic approach; ability to identify and focus on market; ability to develop and sustain capability; and a good customer and client relationship and found that approximately 60% of the companies surveyed were found to be of Defender type organizations. As the firms are from manufacturing and servicing sectors and from OEMs supporting the MNCs, it is not surprising that the Defender type strategy is main. The importance placed by organizations adopting different strategy types on their strategic position are different although KSFs and capabilities are generally universal. As it becomes more established, the ranking of KSFs changes as the organization faces different challenges when competition becomes harder.

Xueli Huang, Geoffrey N. Soutar, and Alan Brown (2002), studied the new product development process (NPDP) in Australian small and medium-sized enterprises (SMEs). They use technology related, finance related, and marketing related and managerial related activities in Australian SMEs. From the sample 276 innovative Australian SMEs found that marketing-related activities were undertaken less

frequently and were less well executed than technical activities in developing new products. However, marketing-related activities were important in differentiating between successful and unsuccessful new products. In addition, resource and skill availability and new product planning were positively associated with the quality of NPD activities were executed. Further, the presence of a new product approach looked to have a significant positive impact on the quality of NPD activities.

Jifeng Mu, Gang Peng, and Yi Ten, (2007) examined the key success factors of NPD in Chinese SMEs. Different from the traditional approach regarding the success factors in each stage of NPD as homogeneous, the key success factors in each stage of the NPD process are examined from a managerial perspective and found that Chinese SMEs do not regard financial return as the primary criterion in the idea-generation stage. Although the key success factors are relatively quite different in various stages, technological, marketing, commercial, and managerial factors are important across all stages.

Marjan Mohammadjafari and Shamsuddin Ahmed et.al. (2010) studied a conceptual model for development of New Product in SMEs by E-collaboration and Project Management, excessive time for new product development is one of the problems in most of the industries. Usually the time for production is longer than the first estimation. Therefore, they can't be competitive in the global market; also the cost for production will be increased. Specially small and medium size enterprises (SMEs) can't successfully enter the market, unless they do the customer needs. Study was found electronic collaboration between different sections in the company via project management is necessary for improving time and cost of new product. Other researchers already identified several factors are important for lead times in new product development projects like design, planning, product and procurement. They develop the model incorporation all these four factors, to estimate the time and cost.

Dr. Fu, Yan-Kai (2010), had studied New Product Success among Taiwan's Small and Medium Enterprises (SMEs) and investigates critical factors affecting the likelihood of new product success and effective new product development (NPD) performance for Taiwanese small and medium enterprises (SMEs). The sample included 357 SMEs from consumer manufacturing. The results suggest that new product success dimension in measure customer acceptance measures, market acceptance measures, financial performance measure, and technical level measure. He found managerial implications.

III. Research Methodology

For this study adopted three-stage model for study of marketing factors of NPD process: idea generation and concept development (stage 1), design and development (stage 2), and commercialization (stage 3). The search for new ideas

and concept development is the first stage of the NPD process. Understanding marketing capability, the problem dependence within the market background, the proper channel that can be utilized to realize positive approach and have appropriate marketing and to make better product development choice are important to problem unravelling in NPD. In this research researcher used 8 criteria for evaluating the marketing factors of NPD success factors in the survey. (For these criteria refer Table I).

Avastkey success factors have been identified till date in literature. The efforts have been made to summarize these factors for assisting marketing support in new product development. This research used the marketing factors tested in stage 1 Idea Generation and Concept Development, stage 2 Design and Development and stage 3 Commercialization stage of NPD process in Textile SMEs of Surat. The business environment of the Indian firms has seen great changes over the past years and the reason why Gujarat and Surat, especially since India adopted Liberalization, Globalization and Privatization system in 1990: new technologies are diffused at a rapid pace, product life cycles are shortened, product and service markets are further spread, and market competition has reached a new level for the markets and competitive advantage of to the firms. Because of the uncertainty involved in new product success, firms cannot afford to develop new products.

The Objectives of the Research

To study the importance of Marketing factors with respect to Investment in in Plant and Machinery in NPDP (New Product Development Process) in Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization Stage in Textile SMEs of surat.

Hypothesis

Ho: There is no Significant important of Marketing Factors in New Product Development in Textile SMEs.

H1: There is Significant important of Marketing Factors in New Product Development in Textile SMEs.

Sample

Survey was randomly selected 650 SMEs from list provided by Federation of Textile Trader Association and South Gujarat Processor Association Surat, which started their businesses by developing one or more new products. Researcher visited the managers, owners or any managerial level person of the selected SMEs and further briefed them about the aim and objective of the study and collected data using structured questionnaires to ensure quick replies.

The survey asked managers and owners to score, on a Likert scale from 1 to 5, the importance of the marketing factors in each stage of the NPD process, with one representing the most important. A total of 532 questionnaires were returned. The sample used in this study is from Surat and these firms might not represent all SMEs in general.

IV. Data Analysis and Result:

The data has been collected on variables of, the product has the first-mover advantage and strong functional characteristics, the time to reach market is short, The product and target market is clearly defined, the market is growing and big enough, there exists identifiable market and few or no competitor, there are few or no substitutable products, the product has competitive advantage, and There is potential marketing channel plans. After collection of data were run the Kolmogorov-Smirnov and Shapiro-Wilk test to check the normality for all the variables shows significant at 0.05 significance means it violate the normality of the data and the data are not normally distributed. As data are not normally distributed to test the hypothesis non-parametric test Mann-Whitney Test used to reach a decision.

Investment in Plant and Machinery is the grouping variable for Mann-Whitney Test, done for data comprises of 8 marketing factors and the analysis in three stages of New Product Development Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization (Please Refer Table II).

The table of the Mann-Whitney U Test for Marketing Factors in NPD Process Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development and Stage 3 Commercialization shows the product has the first-mover advantage and strong functional characteristics, the product and target market is clearly defined, the market is growing and big enough, and there are few or no substitutable products factors are significantly important in stage 3 means the null hypothesis is rejected and alternative hypothesis is accepted. While the time to reach market is short and there exists identifiable market and few or no competitor factors are important in stage 2. The product has competitive advantage, there is potential marketing channel plans factors are significantly important across all three stages, stage 1, stage 2 and stage 3.

V. Conclusion

The New Product Development is an important to add value in firms Product and to stay competitive in market. This study was conducted to examine the importance of marketing factors in Stage 1 Idea Generation and Concept Development, Stage 2 Design and Development Stage and Stage 3

Commercialization Stage of New Product Development in Textile SMEs of Surat. The Mann Whitney Test results have explained the importance of marketing factors. The result indicated that all the factors are not equally important in all three stage of new product development except the product has competitive advantage, and there is potential marketing channel plans shows importance in all three stages.

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Lists of Tables:

Table I Marketing Factors

M1	The product has the first-mover advantage and strong functional characteristics
M2	The time to reach market is short
M3	The product and target market is clearly defined
M4	The market is growing and big enough
M5	There exists identifiable market and few or no competitor
M6	There are few or no substitutable products
M7	The product has competitive advantage
M8	There is potential marketing channel plans.

Table II Mann-Whitney Test for Marketing Factors

Marketing Factors	Mann-Whitney Test					
	Stage 1		Stage 2		Stage 3	
	Mann-Whitney U	Asymp. Sig. (2-tailed)	Mann-Whitney U	Asymp. Sig. (2-tailed)	Mann-Whitney U	Asymp. Sig. (2-tailed)
The product has the first-mover advantage and strong functional characteristics	33921.00	0.384	35227.00	0.943	30437.00	0.003
The time to reach market is short	34163.00	0.470	29856.00	0.001	34737.50	0.712
The product and target market is clearly defined	33299.00	0.209	32248.00	0.061	31780.50	0.034
The market is growing and big enough	34158.00	0.479	34483.50	0.604	33328.00	0.220
There exists identifiable market and few or no competitor	33416.00	0.247	33211.00	0.195	34236.00	0.503
There are few or no substitutable products	34307.00	0.534	33353.50	0.224	34445.00	0.587
The product has competitive advantage	34009.50	0.414	30998.50	0.009	32436.50	0.045
There is potential marketing channel plans.	30436.00	0.004	30668.50	0.005	34306.50	0.032
Grouping Variable: Investment in Plant and Machinery						

ABOUT AUTHORS

Mr. Rashvin Tailor, MBA Assistant Professor SRIMCA MBA, Uka Tarsadia University, Bardoli. Published and Presented 1 Teaching Case and 7 Research Papers in Reputed Management Journals. Co-Authored book Strategic Management (Gujarati). He had also delivered various Management Development Programs in Industry. His area of interest is New Product Development and innovation Management



Dr. (Prof) Manisha Panwala, Professor, Ph.D., MBA, BE (Electrical), FDP (IIMBA), Department of Business and Industrial Management Veer Narmad South Gujarat University, Surat. More than 23 years of Professional Experience, Published and presented many papers in National and International Conferences and Journals. Area of Interest is Marketing Research.

