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

Dr. Rashvin Tailor

Associate Professor

C K Shah Vijapurwala Institute of Management

Vadodara

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

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. The paper empirically studies the impact of managerial factors of the NPD of SMEs. The paper also explores the effect of positions of respondents and managerial factors and orientation on firm performance. Based on 532 Textile SMEs of Surat, the paper finds except 3 managerial factors 5 managerial factors are not important by managerial level people in Textile SMEs.

Key Words: NPD, Managerial 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 owing to the complexities of market trends. Innovative ways are required to compete, as the earlier competitive advantage of differentiation based on price, product or technology, is dropping value. Small and medium enterprises face the competitive pressure of both local and foreign competitors. SMEs respond by entering foreign markets. Small and medium enterprises are key for a country's economic welfare and social development. The excess of government procedures and packages for the inspiration of SMEs emphasize their importance for national development. SMEs also play an important role in supporting country's businesses in the face of pressure from the foreign firms entering the home market. In the Indian context, small and medium enterprise sector has made an extraordinary assistance to the Indian economy. It contains 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

Gilmore et al., (2001) SMEs marketing has been characterized as random, casual, loose, unstructured, spontaneous, reactive, built on as well as conforming to industry norms.

Stokes (2000) adds that in SMEs, marketing is used for the needs of the moment and only little attention is paid to plans, strategies and analysis. This is in contrast of marketing in large firms, which is seen as formal, planned and well structured. Several aspects of the market into which new products are launched have been considered as successful factors.

Jifeng Mu et.al. (2007) Studies shows that market potential, market size and market growth, customer need for a product and the importance of product to the customers are impact on NPD. There are clearly defined market areas of strategic focus such as Product, Market or Technologies to give direction to businesses total new product effort.

Cooper (1991) 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.

Bowersox et.al (1999) the operational channel partner or time to reach the market is one of the vital variables. Tight cooperation among channel members permit more efficient sharing of information cooperation result in a state of "mindfulness" meaning there is a shared understanding of goals and constraints among all participants.

Jassawalla and Sashittal, (1998) close cooperation increases synergy; the result of NPD is more satisfactory than what would have been accomplished by any one of the participants individually. These factors taken together to allow for better and more responsive product development. The anther important key success factor is market potential and the size of the market is big enough. If the firm potentially accesses market potential carries out good test marketing and perform other marketing activities well it will have better idea of the intensity of promotion and distribution. Excellence at executing marketing activities increases the level of cooperation of channel members.

Hogarth-Scott et al., (1996) the complex theories and refined processes seem to be unsuitable in small enterprises. Furthermore, it is argued that owner-managers of small firms tend to view marketing narrowly.

Garengo et al. (2005) from the viewpoint of environmental impact on the success of SMEs, for instance, with reference to the external environment, SMEs operate in highly competitive, turbulent and uncertain markets. Usually they do not have control or influence over the market and thus they need to adopt a reactive approach and adapt to market changes Hudson, (2001).

Hogarth-Scott et al. (1996) although marketing strategies may have to be implemented despite there being limited resources, and although many owner-managers of SMEs regard marketing as an 'unnecessary luxury', the need for systematic planning and information increases as the enterprise grows. Once SMEs conducted a sufficient market research, they will be able to identify more opportunities and establish a market driven business. This leads SMEs to have strong focus on their customers. However, marketing practices and problems differ from one SME to another,

as a result, for example, of inappropriate management techniques, decision making vested mostly in one person, or the fact that the owner-manager must attend to both strategic and operational management and is usually short of time.

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 the first stage idea generation and concept development stage from three-stage model for study of managerial 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 managerial capability, the problem dependence within the managerial background, the formal processes that can be utilized to realize positive approach and have appropriate technical, marketing and production staff and to make better product development choice are fundamental to problem solving in NPD. In this research researcher used 8 criteria for evaluating the managerial factors of NPD success factors in the survey. For these criteria please refer Table I.

A large amount of success factors have been identified till date, and these include efficient incentive strategy, how the product development is organized, influence of the core competency, and top management support. Efforts have been made to summarize these factors for assisting managerial support in new product development. This research used the managerial factors tested in stage 1 Idea Generation and Concept Development of NPD process in Textile SMEs of Surat. The business environment of the Indian firms has seen great changes over the past years, 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 fragmented, and competition has reached a new level never seen before for the managers owners of the firms. Firms in this environment cannot afford to develop new products on a sequential basis. Because of the time pressure and the uncertainty and complexity of the business environment, firms have to parallel their NPD activities.

IV. The Objectives of the Research

To study the importance of managerial factors affecting NPDP (New Product Development Process) in Idea Generation and Concept Development Stage from managerial perspective.

V. Hypothesis

Ho: There is no Significant Importance of Managerial Factors in New Product Development in SMEs.

H1: There is Significant Importance of Managerial Factors in New Product Development in SMEs.

VI. Sample

Survey was randomly selected 600 SMEs from list provided by South Gujarat Processor's Association, which started their businesses by developing one or more new products. Researcher

visited the managers of the selected firms and further briefed them about the purpose and method of the study and collected data using structured questionnaires to ensure prompt responses.
The survey asked managers and owners to score, on a Likert scale from 1 to 5, the importance of the commercial factors in each stage of the NPD process, with one representing the most important. Most of the owner, manager or product managers. Therefore, they were in a good position to provide relevant and accurate information. 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.

VII. Data Analysis and Result:

The data has been collected on variables of, The company has sufficient resources for NPD, The inventor has relevant manufacturing experience in the industry and support NPD team, The inventor owns the patent and has good reputation, There is managerial expertise in the company, The company has effective incentive system, The company has qualified marketing staff, The company has qualified production staff. After collection of data were run the Kolmogorov-Smirnov and Shapiro-Wilk test to check the normality for all the managerial 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 nonparametric test Kruskal-Wallis Test used to reach a decision.
Designation of the respondents is the grouping variable for Kruskal-Wallis test, done for data comprises of 8 managerial factors. For the analysis refer Table II Rank Table for Managerial Factors.

Table II Rank Table for Managerial Factors display the detail about the mean ranks for each category of 8 managerial factors the mean rank of the company has sufficient resources for NPD is CEO is the highest 273.86 followed by Owner 267.81, Dyeing Master 265.37 and lowest is Manager 265.08. For the investor has relevant manufacturing experience in the industry and support NPD team is Dyeing Master is highest mean rank of 294.56 followed by Owner 270.68, Manager 260. 56 and CEO 242.50 is lowest. For The Inventor owns the patent and has good reputation mean rank of Manager 282.56 is highest, followed by Owner 260.11, CEO 237.43, and Dyeing Master 223.6 is lowest. For There is managerial expertise in the company Manager with 272.87 with highest mean followed by 268.77 Owner, Dyeing Master 242.00 and CEO 239.71 wit lowest rank. For the company has effective incentive system Manager 281.58 with highest mean rank followed by Owner 275.23, Manager 264.06 and CEO with lowest mean 207.07. The company has qualified marketing staff the highest mean rank Owner with 299.37, followed by Manager 261.67, CEO 232.95 and Dyeing Master 201.52 with the lowest mean rank. The company has qualified production staff the highest mean rank is 287.00 followed by Manager 265.95, Dyeing Master with 256.04 and CEO with lowest mean 249.47 and The Company has qualified technical staff, Owner is the highest mean rank of 279.69 followed by Manager 272.37, Dyeing Master 227.40 and CEO with 205.09 lowest mean rank.

The table III Test Statistics for Managerial Factors give information about whether the difference is statistically significant or by chance. The Chi-Square statistic is 0.119, 3.345, 9.726, 3.085, 6.445, 21.341, 5.446, 10.917 and the associated significance is 0.990, 0.341, 0.379, 0.092, 0.142 which is greater than 0.05 thus fail to reject null hypothesis of Managerial Factors The company has sufficient resources for NPD, the inventor has relevant manufacturing experience in the industry and support NPD team, there is managerial expertise in the company, the company has effective incentive system and the company has qualified production staff respectively. On the other side Chi-Square statistics 0.021, 0.000, and 0.012 which is less than 0.05 thus reject the null

hypothesis of Managerial Factors the inventor owns the patent and has good reputation, the company has qualified marketing staff and the company has qualified technical staff respectively.

VIII. 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 managerial factors in Idea Generation and Concept Development Stage of New Product Development in Textile SMEs of Surat. The Kruskal-Wallis Test results have explained the importance of managerial factors in Idea Generation and Concept Development Stage of New Product Development. The result indicated that the 5 managerial factors except 3 factors that is the inventor owns the patent and has good reputation, the company has qualified marketing staff and the company has qualified technical staff were important by the designation of respondent that Small and Medium Size firm of Textile SMEs.

References:

1. Jifeg Mu (2007). New product development in Chinese SMEs Key success factors from a managerial perspective. International Journal of Emerging Markets, Vol. 2 No. 2, 2007, Emerald Group Publishing Limited pp. 123-143. http://www.emeraldinsight.com/loi/ijoem (Accessed on 24 September 2013).
2. Isidre March-Chorda (2002). Product development process in Spanish SMEs: an empirical research. Technovation 22 (2002) 301–312. www.elsevier.com/locate/technovation (Accessed on 24 September 2013).
3. Xueli Huang, Geoffrey N. Soutar, and Alan Brown (2002). New Product Development Processes in Small and Medium-Sized Enterprises: Some Australian Evidence. Journal of Small Business Management 2002 40(1), pp. 27–42.
4. Huang, X., G. N. Soutar, (2001). Resource adequacy in new product development: a discriminant analysis. European Journal of Innovation Management 4(1): 53-59.
5. Holger Ernst (2002). Success factors of new product development: a review of the empirical literature. International Journal of Management Reviews Volume 4 Issue 1 pp. 1–40.
6. B.C. Ghosh et.al. (2001). The key success factors, distinctive capabilities, and strategic thrusts of top SMEs in Singapore. Journal of Business Research 51 (2001) 209- 221.
7. V. Krishnan, Karl T. Ulrich (2001). Product Development Decisions: A Review of the Literature. Management Science, Vol. 47, No. 1, January 2001 pp. 1–21.
8. Ken Black, (2014). Business Statistics. 7th Edition, Willey Publishing pp. 361-364.
9. Naval Bajpai (2014). Business Statistics. 2nd Edition, Pearson Education, pp. 351-353.
10. Zikhmund and Babin (2013). Business Research Methods. 8th Edition, Cengage Publishing.
11. Paul Trout (2005). Innovation Management and New Product Development. 2nd Edition, Pearson Education.
12. Christopher Loch & Stylianos Kavadias (2008). Handbook of New Product Development Management. Butterworth-Heineman Publication (Elsevier).

Tables

Table I Criteria to Evaluating Managerial Factors

Criteria
Mg1: The company has sufficient resources for NPD.
Mg2: The inventor has relevant manufacturing experience in the industry and support NPD team.
Mg3: The inventor owns the patent and has good reputation.
Mg4: There is managerial expertise in the company.
Mg5: The company has effective incentive system.
Mg6: The company has qualified marketing staff.
Mg7: The company has qualified production staff.
Mg8: The company has qualified technical staff.

Table: II Rank Table for Managerial Factors

Commercial Factors	Designation of Respondents	Dyeing Master	Manager	Owner	CEO	Total
Mg1	N	55	270	178	29	532
	Mean Rank	265.37	265.08	267.81	273.86	
Mg2	N	55	270	178	29	532
	Mean Rank	294.56	260.56	270.68	242.95	
Mg3	N	55	270	178	29	532
	Mean Rank	223.66	282.56	260.11	237.43	
Mg4	N	55	270	178	29	532
	Mean Rank	242.00	272.87	268.77	239.71	
Mg5	N	55	270	178	29	532
	Mean Rank	281.58	264.06	275.23	207.07	
Mg6	N	55	270	178	29	532
	Mean Rank	201.52	261.67	299.37	232.95	
Mg7	N	55	270	178	29	532
	Mean Rank	256.04	256.95	287.00	249.47	
Mg8	N	55	270	178	29	532
	Mean Rank	227.40	272.37	279.69	205.09	

Table III Test Statistics for Managerial Factors

Managerial Factors	Chi-Square	df	Asymp. Sig.
Mg1	0.119	3	0.990
Mg2	3.345	3	0.341
Mg3	9.726	3	0.021
Mg4	3.085	3	0.379
Mg5	6.445	3	0.092
Mg6	21.341	3	0.000
Mg7	5.446	3	0.142
Mg8	10.917	3	0.012