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USE OF PRODUCT TECHNOLOGY AS BRAND / IMAGE BUILDING TOOL IN B2B METAL PROCESSING INDUSTRY

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ABSTRACT

In B2B metal processing industry, product and technology enhancement is of utmost importance to improve productivity, reduce cycle time and eliminate environmental pollution. However, it is interested to know how such technological advancements can make a significant difference in building Brand and Image of the organization and also its implications. New environment friendly product technologies not only help to enhance the image and Brand of the organization but also resulting in increase in Net Sales and revenues. Therefore, the purpose of this research paper is to investigate the use of such product technology as Image or Brand Building tool in B2B Metal treatment Industries. The Researcher is of the opinion that this study will provide valuable information about the impact of technology advancements on image of the organization in the Metal Processing Industry. This research paper is based on the secondary data that was collected from various publications available, work experience, and web pages.

Keywords: B2B, Brand, Image, Product Technology, innovations, Metal Processing Industries, Buying Centre.

INTRODUCTION

India is on a path of rapid Industrial growth since the enactment of the economic liberalization policies since 1991. Economic Liberalization has accounted for a substantial impact on the manufacturing industry through an increase in the presence of manufacturing units with a massive 43% growth. India has experience this growth in

both Increase in the Industrial units and product capacity enhancement.

This rapid industrial growth demands for more and more technological advancements be it products, processes, services and environment. Industrial managers are becoming increasingly concerned about such technologies to improve the products and services. These customer needs becomes an

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area of opportunity for suppliers to build company's Image through Introduction of new technology. Although, this area is very vast, this research paper is restricted to one technology in Metal Surface Treatment as a Image builder and its effect is studied.

The author in this article presents a pilot study of an empirical method to examine the impact of new product technologies, its effectiveness in marketing strategies especially in Brand Building activities in metal processing industries. The research methodology used in this paper enable exploration of a possible relationship between the degree of impact in changes of technology and its effect on Brand Building activities. The researcher also tried a step ahead to understand and evaluate the firm's economic success. The degree of strategic focus the organization exhibits in New Product Technologies, does this help is Building and improving the Brand and Image of the organization and in turn affect corporate growth in a systematic manner?

PRODUCT TECHNOLOGY AND BRANDING GRID

Product Technology, New Innovations and Branding importance is given utmost importance by management researchers and business corporations. This has been one of the most critical factors for the success, growth and sustainance of the business. As stated by (Daim, 2013), successful innovations stemming from new technologies rely on viable technology evaluation strategies. The capability of an organization to truthfully capture strategic values of new technologies and appropriately deploy it for successful promotion of Brand and build a long lasting Image with the customer is of critical importance for both product technology and Brand. In today's Industrial environment, the technological advancements are happening at a much rapid pace than the past. Due to the fast emerging technological changes, the organizational capability is imperative from Brand point of view yet difficult to develop and sustain. So it is important to evaluate organizational capability which integrates product technology development coupled with Brand building capabilities.

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LITERATURE REVIEW

Extensive Review of the literature resulted into the fact that there are several methods proposed to evaluate product technologies. There are also several studies that explored marketing strategies like Branding, Brand Equity and Brand promotion, etc. But, it has been noticed and identified during the literature survey that there was not or a very little emphasis placed on the integration of product technology and brand building. The researcher is of the opinion that this study which is based on the new technologies in B2B metal processing industries, it is important to evaluate integration new product technology as a Brand building tool in this industry.

New product development has been studied using several methodologies. Case studies of the development of specific new products constitute the earliest research (Morison 1966, Sorenson 1971, Baruch and Kiser 1973, Baruch and Barbour 1971, 1972, Rosenbloom 1976). This early research provided detailed descriptions of each phase of the development process, but lacked the

statistical validity of a large, systematic sample study. Thus, researchers began to study larger samples, usually focusing on groups of either successful or alternatively unsuccessful products. One of the earliest studies of new product successes was Myers' and Marquis's (1969) (Marquis 1969) landmark study of 567 product and process innovations. These innovations had been developed by 121 firms representing five manufacturing industries. Their most important finding, the importance of identifying and understanding the user's needs, has been confirmed by numerous researchers in the subsequent studies. New products were more successful if they were designed to satisfy a perceived need than if they were developed to simply take advantage of a new technology.

Another key finding of the Myers and Marquis study was the importance of organizational marketing communication, both internal and external. According to their study, information generated, a major portion of the information required to develop the innovations. This finding suggests the need for strong interfaces

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between the functional groups particularly between R&D and marketing. This clearly indicates that there needs to be a strong integration of the newly developed product technologies and also Branding of these products differently into the market. Some of other researchers have focused on product failure as the unit of analysis. Explaining the failure of new products has been the focus of several studies including the Conference Board study of new U.S. products (Hopkins 1980) and Cooper's (1975) examination of Canadian industrial product failures from 66 industrial firms. These two studies identified the principal causes for failure as ineffective product marketing and poor market research. They also identified other marketing problems such as inadequate assessment of market potential, poor understanding of competitor's strengths and weaknesses, and positioning the brand even at some premium product pricing. Apart from these studies' focus on failure, a common denominator for success also emerged from this stream of research. Successful innovation was found to be strongly influenced by the firm's

understanding of its "customers' needs" and its effectiveness in marketing.

Therefore, studies of either successes or failures may not provide a full understanding of the differences in the product development processes, internal organizational structure, firm strategies, external environments, or other factors that may influence a product's outcome. For example, if a factor is present in a success group and not in a failure group while all other study variables are constant, we can then suggest that this factor differentiates successful product development from an unsuccessful effort. Such concern about methodology led researchers to use an approach that directly compared product successes and product failures.

The SAPPHO findings confirmed three of prior researchers' findings, and introduced two new success factors both of which were related to characteristics of the organization and the team that developed the successful products. It is important that first product development or R&D teams must be efficient and effective in their development efforts while launching new technology.

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R&D efficiency and effectiveness was defined as the ability to

- (1) Identify product defects prior to the product launch,
- (2) Assess the feasibility of projects and select the most promising ones,
- (3) Appropriately allocate both capital and labor resources, and
- (4) Efficiently utilize the available resources.

Researchers have suggested that product champions facilitate the allocation of resources to the development effort, and stimulate cooperation and communication between the functional groups, other important factors in product success. This study of confirmed the findings and emphasized communication, technical competence and proficiency market understanding and synergy, product planning and Brand management support.

Porter (1980) conceives the process of defining business activities in terms of differentiation, where the firm identifies specific market opportunities that are defined by customer requirements and competitive analysis. Lorange and Vancil

(1977) focus on the process of strategic planning itself and present formal mechanisms for integrating planning that occurs at different levels of the organization be it product Launch, Marketing campaigns and Brand promotion. Techniques for corporate planning and business portfolio management are a logical outgrowth of this research. However, new product strategy is treated as a tangential issue to this research and is commonly viewed as the outcome of market segmentation and other forms of market planning. Petrov (1982) describes how a firm may profile its technologies in a fashion similar to standard portfolio management techniques, using two parameters of technological "attractiveness" and "relative technological position" of technology units identified in the firm. Gluck and Foster (1975) indicate conceptually how this profiling approach can be applied to competitive analysis at the product level. Innovation research provides a broader foundation for the study of new product strategy. Research in this area has been both diverse and substantial. The subset most applicable to the authors'

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research interests are the empirical studies of the sources of innovation. While research in this area has examined a broad range of innovation facilitating factors, the outcomes are often presented in the context of the roles of "market pull" versus "technology push" in effective innovation (Myers and Marquis 1969; Langrish et al. 1972; Rothwell et al. 1974). Those factors deemed important for new product success by these researchers have included a clear understanding of user needs, strong marketing investments in Brand promotion, active new product champions and sponsors, and the flow of relevant technical information. Roberts (1968) has identified a range of factors associated with success and failure of technology-based startups, including the presence of a diversified management team, the implementation of proactive rather than opportunistic marketing programs, and a high degree of technology transfer from former places of employment.

METHODOLOGY

The general purpose of the research is to examine the possible relationship between effects of new product technology as a brand building tool in the metal processing firms. The authors hypothesize that technology-based firms which exhibit a high degree of strategic focus in their new product development activities are more inclined towards the trials than those which have less focus. The extreme of a focused strategy would be represented by a firm that without fail takes small steps of incremental improvement in a single key technology for one basic customer set. The opposite extreme strategy is a firm that, with each new product introduced, consistently attempts to implement radically new technologies for substantially different applications than those with which it has previous experience.

The authors of this article tried to present the findings of a survey designed to obtain insights regarding the extent to which product technologies and its impact on the Brand and image of the organization. In specific, the objective of the study is (1) determine the impact of product technology

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on brand of the organization (2) identifying the primary appeals employed in the product technology success and (3) determination of the roles of marketing in the branding of the organization with the help of the new product technologies.

There is extensive research available on new product technologies and Brand Building separately as explained in the Literature review, a very limited focus has been given in the past on the impact of one on to the other. Therefore, the authors felt it necessary to obtain data from both user of product technologies and also the marketing personnel. In particular, the stake holders who were likely to be involved in the technology implementation process, they might offer a greater degree of objectivity and the most important is their perception on the impact of the technology.

A highly structured closed end questionnaire which includes the use of statements and Likert like scaling techniques was employed in surveying the two groups of respondents.

One group which was comprising of the actual product and technology users and the other one is Marketing personnel who is instrumental is Brand promotion activities. The instrument has been circulated to fifty (50) personnel's in ten (10) B2B Industries especially in Maharashtra state of India. Responses received from 38 respondents in hard copies and additional 4 were interviewed and their response is noted.

It should also be noted that the authors are cognizant of the limitations presented by the balance 8 respondents as they were of the opinion that the organizations has given a very little or no importance in implementing new and advanced product technologies and their response to the questionnaire may not be genuine and authentic. The 42 respondents are presented below;

Table 1 -

S. No.	Item Description	Frequency	Percentage
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I	Gender		
1	Male	37	88.10%
2	Female	5	11.90%
3	Others	0	0.00%
	Total	42	100.00%
II	Age		
1	Between 25 and 30	4	9.52%
2	Between 30 and 35	3	7.15%
3	Between 35 and 40	12	28.57%
4	Between 40 and 45	16	38.10%
5	Above 45 Years	7	16.66%
		42	100.00%
III	STREAM		
1	Senior Management	5	11.90%
2	Manufacturing	15	35.72%
3	Process / Purchase	6	14.29%
4	Quality	10	23.81%
5	Marketing	6	14.29%
		42	100.00%

The respondents have been asked different questions through questionnaire but most of the questions are classified under four categories. These are;

1. Implementation of New product Technology

2. Perceived Quality of the New product Technology

3. Cost Reduction / Value addition from the new technology

4. Brand Image building

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The questionnaire has been analyzed on (7). We discuss the findings based on the Likert scales on a 7 points scale starting with above 4 points and its outcome. Strongly Disagree (1) and strongly Agree

1. New Product Technology Attributes

S. No.	Questions	Mean Value	Std. Dev. σ
1	New Product technology looks promising	6.12	0.68
2	Implementation is easy with minor process modifications	6.38	0.45
3	The process requirements is very clear	6.44	0.24
4	Technical service and support is good	6.21	0.71
5	New technology has good references overseas	6.31	0.58
6	Will help is meeting statutory and environmental norms	6.33	0.49
	Overall Mean Value	6.29	

2. Perceived Quality Attributes of New Technology

S. No.	Questions	Mean Value	Std. Dev. σ
1	Quality and Technicality of new technology looks good	6.16	0.65
2	Enhancement of our final products quality is possible	6.41	0.46
3	Process rejections reduced with new product technology	6.21	0.42
4	Product and Process requirement are clearly defined	6.71	0.41
5	New technology will reduce some operations	5.33	0.42
6	Technical service experience is good	6.21	0.56
	Overall Mean Value	6.17	

3. Cost Reduction / Value Additions Attributes

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S. No.	Questions	Mean Value	Std. Dev. σ
1	Products has a reasonable pricing	4.69	0.71
2	Successful implementation result in process cost reduction	4.88	0.93
3	Technology has environmental and intangible benefits	5.16	0.65
4	Capability to enhance the existing processes.	5.21	0.55
5	Overall cost / value benefit is significant.	5.41	0.64
	Overall Mean Value	5.07	

4. Brand Image Attribute

S. No.	Questions	Mean Value	Std. Dev. Σ
1	New technology help in meeting and exceeding requirements	5.94	0.54
2	New technology is easy implement and offered value	5.42	0.75
3	Technical service and support is effective	6.21	0.54
4	Company has proven history of implementing new technol.	6.14	0.47
5	Maintains appropriate communication at every stage	6.47	0.51
6	Brand is Familiar to me and my organization	6.81	0.40
7	Technology has helped in building / enhancing the brand	6.39	0.50
	Overall Mean Value	6.20	

Discussion and Conclusion –

Promotion of New product technologies, meeting the perceived quality, offering value benefits with these new technologies all these dimensions will have a direct impact

on customer's perception of a Brand. But, amongst all of them successful implementation of product technology (ies) appear to have better rating in building organizations Brand Image.

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From all the above responses received from experts in various fields there are few observations which are critical in building the brand image through product technology route;

1. Brand must have presence in the similar organizations or in the same organization.
2. Technical Service and support hold a major key in product technology implementation.
3. It is important to clearly define the product and process requirements prior to going for the trials.
4. At each and every stage of the product launch, the communication must be appropriate to all the stake holders.
5. Product quality enhancement is one of the biggest attribute resulting from the survey. This will help in not only implement the technology but also improve the Brand Image of the organization.

It has been observed that perceived quality and successful implementation of product technology go hand in hand and has a

stronger impact on the Brand / Image of the organization. From our respondents rating of a brand Image attributes, it can be seen to be an important factor on consumer's perception of a brand. This Research paper have resulted that new product technology and its successful implementation is an important element in brand building. Positive brand building is most likely associated with successful implementation of product technology and meeting perceived quality in totality. Meeting and exceeding the quality requirements is said to have a positive effect on customer's choice of a brand.

One important attribute discussed in this research paper is the cost reduction / Value additions resulting from the implementation of new technology. This has got the least rating from the respondents because most of them were of the opinion that the tangible benefits from such technologies are much less as compare to Intangible benefits. This is one of the research gap resulting out of this research work which needs to be addressed.

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Conclusively, successful product technology implementation coupled with meeting and exceeding the quality requirements have the tendency of having greater impact on building Brand or image of the organization. Additionally, these technologies should also result into more and more value additions & benefits to the end user which will endorse its impact on Building Brand of the organization.

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