Review Article

An Empirical Study on Identifying Various Impact Factors of Consumer Buying Intentions for Construction Chemical Startup while Launching New Product System in Indian Market

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Abstract - *Construction chemicals are crucial for sustainable infrastructure and energy conservation in the construction industry. Increased construction activities in the Asian region, innovative construction procedures, and introduction of new technologies are some of the drivers leading the growth of this market studied. The global construction chemicals market is growing at a significant CAGR of 5.9%. Many businesses with a practical understanding of this market are aware of this scenario. With the objective of taking advantage of this opportunity, they are developing innovative products to establish a brand. Considering this context, the proposition arises that the development and launch of the best quality new product can help start-up organizations in boosting their brand name. Thus, this study aims to understand how the launch of the new product system influences the branding activities of start-up businesses. The research tries to establish insights on the various dimensions of brand establishment for the start-up venture in the chosen domain of construction chemicals by launching quality new product systems, using the qualitative as well as the quantitative approach of research with a focus on B2B type customer segment.*

Keywords *- Construction Chemical, New product launching, Start-up Organization, Branding, Brand Performance, Brand Loyalty, B2B*

I. INTRODUCTION

Good product strategy and careful planning are essential for every business to help them succeed in the market. Companies across the globe are competing more than ever to establish their name by developing unique new products (Cooper, 2001). Apart from developing these products, their launch in the market also plays an important role when it comes to branding.

Companies need to master the product launch process by introducing innovative products into the market. This is going to help them in expanding their client base. By launching new products, a business can target new clientele. This will further influence the process of company expansion and encourage innovation. If any company is planning to establish its brand name through a new innovative product launch, it must focus on continuous research and planning. This process can involve all its employees, from the R&D to the Sales and Marketing team (Gluck, 2012).

Especially in the evolving field of construction chemicals, companies had to invest heavily in the development of new innovative products to create a brand. This can prove to be the most effective marketing strategy to invade the market and fix their foothold. A strong brand always results from high-quality standard products. Brand name must be built and nurtured to capture the marketplace (Doyle, C., 2011).

II. LITERATURE REVIEW

In India, the demand for construction chemicals was 1,012 thousand tons in 2018 and is expected to grow at a CAGR of 8.65% till 2030. It may reach up to 2,815 thousand tons by 2030 (SINU.M, 2017).

Increasing awareness about construction chemicals in the field of real estate and the rising construction of residential projects, houses, and commercial complexes are the major factors, which increase the demand for construction chemicals. Also, the government, as well as private companies, are hugely investing in infrastructure projects across the country. In the year 2017-2018, the total FDI inflow of India was INR 175,710 million in the construction field, introducing a substantial increase in construction projects, thereby increasing the demand for construction chemicals in the same period. In order to capture this growing market and outperform the existing renowned brands, the new players must try to establish a name in the market (SINU.M, 2017).

As studied by Manjarekar, brand-building will prove to be the most fruitful exercise for start-up organizations. Currently, the demand for user-friendly products is growing faster than the old product range, while innovative new products will be a proven area for sustained growth. Best quality new products with user-centered features will enhance its product range and also expand its market reach (Manjrekar, 2008).

A. Factors influencing customer's buying intention

Branding is nothing but shaping customer experience with a name. Every company has a brand, and their customers have a certain brand experience that they have formed while doing business with the company. This stands true for both B2C and B2B businesses. A successful brand positioning makes it possible for companies to keep their product price at a premium level, as their clients have a good connection with their products, and they will buy the products regardless of the price (Juha-Pekka Ropo, 2009).

The buying intention of the customers in the construction chemical industry is majorly affected by the following factors,

- **Quality**: Researcher Asshidin concluded in his paper that perceived quality is an influential factor affecting purchase intention. Consumers often emphasize quality in their purchasing process despite the product type. In another study conducted in the market of Saudi, the researcher observed that product quality is a prime factor influencing the buying decision of the clients of a fashion brand. All other factors come after quality (Asshidin et al., 2016).
- **Cost**: After studying the Indian construction chemicals market, it is observed that the consumers here are highly cost-conscious. They demand the best quality products at very low costs. Moreover, the clientele is still not informed about the benefits of construction chemicals, and this leads them towards low-cost substitutes. Most of the time, they tend to focus on the immediate cost instead of calculating the life-cycle cost (Tata Strategic Management Group, 2013).
- **Ease of use**: Buying intention is often identified as a part of consumer behaviors. Every organization must understand what leads their client ahead in his buying process. Especially in the field of construction chemicals, the manufacturers should educate the stakeholders about the benefits of using the best quality construction chemicals with regards to faster project completion and ease of use. Effective marketing of products is important to educate users about their applications and benefits (Tata Strategic Management Group, 2013).
- **After-sales service**: Customer satisfaction is very important in today's market — the reason why firms must provide quality services even after the sale of the product. Satisfying the client is one of the basic aims of the company. After-sales service is the key concept emerging in the business community, and it helps them to satisfy and retain their customer (Ali Iftikhar Choudhary, 2011).
- **Brand reliability**: Brand reliability is defined as the ability of brand-name to lessen the risk associated with the purchase of that brand product. Affiliating the new product with a brand will increase consumers' faith in the brand and consequently increase the brand's reliability. As most of the consumers rely on brand names to reduce the uncertainty when making purchase decisions, enhancing brand reliability of the new product for the start-ups remains a critical issue (DelVecchio, D., 2000).

B. Brand Name

Brands always have a symbolic value that guides their clients towards the product as per their need and satisfaction. Usually, it is observed that people do not just choose brands for quality or design; somewhere, they also want to establish and enhance their self-esteem in society (Leslie, D. C., Malcom, M., 1992). Brand names portray brand image and tell many things to their existing as well as potential clients. Going ahead, it connects with the clients' knowledge, feelings, and experiences with the brand. When a customer starts their buying process, they assess the product from their memory and identify it by the name of the brand (Hansen, 2003).

C. Brand Performance

The company status is not a substitute for a brand, but it is an outcome of fulfilling or non-fulfilling of a brand-promise that results in a good or bad brand experience to the customer. The customer further shares this experience with other customers, allowing the increase or decrease in the brands' value. Brand reputation thus is the performance of a company, whether it is positive or negative (Juha-Pekka Ropo, 2009). Thus, an appropriate branding method help to increase their reputation by using brand performance as a tool. Strategic performance management has become a new model for brand-savvy professionals nowadays. It has similarities and relations with effective brand reliability or cost or service that connects the personal level of customer. However, brand performance is something more than these factors. Thus the study finds a relation of performance with the buying intentions of the customer to evaluate and monitor perceived brand performance and experiences by customers (Sharad Sarin, 2014).

H1: There is an impact of brand performance on buying intentions.

D. Brand Loyalty

As stated in one of the research studies, brand loyalty is the most important aspect of the branding theory that builds a relationship between a brand and a customer (Mohammad, 2017). Many previous studies revealed that brand loyalty is the main theory in marketing new products (Iqbal et al., 2013) and can attract a large base of loyal customers. This enhances the value of the new product in the market, creating numerous competitive benefits (Reichheld & Schefter, 2000). It is also significant to note that the brand loyalty of any product determines the development of the company (Huang, Fang, Huang, & Chang, 2014). Therefore, the association between a customer and a brand is indeed desirable from a theoretical as well as practical point of view (Mohammad, 2017).

Li and Green, in their study detailed that, loyalty to a brand is significant in case of strong market competition, and this determines the success of the company. In precise,

loyalty to a brand brings some practical advantages by saving in marketing cost through mouth publicity (Keller, 1993). Hence, this study aims to find the relationship between brand loyalty and buying intentions of the customers here.

H2: There is an impact of brand loyalty on buying decisions.

III. RESEARCH DESIGN

A. Research Framework

Buying intention is nothing but a consumer's plan to buy a good or service. It is the desire of a buyer to buy a product of a certain brand. This study tries to make some improvements for better branding scales for start-ups, based on previous researches (Sharad Sarin, 2014) that have conceptualized branding as having five dimensions, namely perceived quality, perception of the value, image, reputation, and commitment.
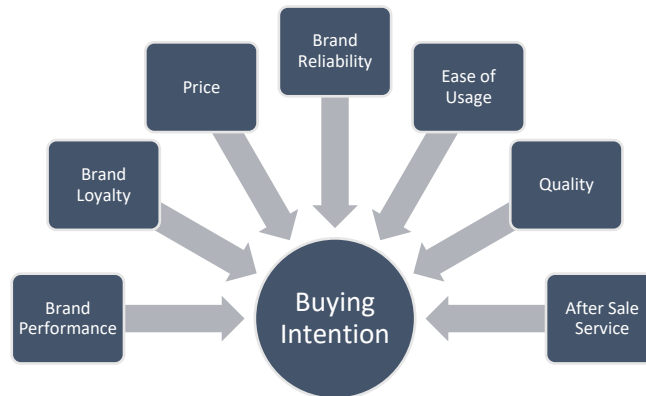

Fig. 1.1 Research Framework

Buying intentions were considered as an association with consumers through proposing frame components. These associations have been designed and measured in a more abstract way that captures the brand level in the new product market for the chemical construction industry. Figure 1.1 shows the association of buying intention with various components of branding.

Consumer's buying intention is majorly influenced by different external as well as internal factors.

Identified influencers on the Consumer's buying intention are:

Brand Performance: Buyer's expected performance from a particular product or service from a certain brand primarily affects his purchase intention (Goud, 2017).

Brand Loyalty: The customers having a high level of brand loyalty generally tend to purchase the same brand and bring more new customers by recommending (Lee, Back, & Kim, 2009).

Price: Pricing is the marketing pedal with an immediate and influential effect on businesses. Branding strategy translates the price moderation strategies into revenue building and ultimately to profits. Pricing is an important element in building brand strategies (Wyner, 2015)

Brand Reliability: Brand reliability, also known as brand loyalty, gives a competitive edge on the competitors, and this can be considered as an added advantage for brand

success, ultimately affecting buyer's buying intention (Roselius, 1971).

Ease of Usage: As studied by Ge-fen et al., ease of use has a direct effect on buying intention and product usefulness (Gefen & Straub, 2000).

Quality: As observed in previous studies, there exists an indirect relation between perceived product quality and buying intentions through the mediating variable of client satisfaction (Cronin & Taylor, 1992).

After-sales service: Aftersales service is an important revenue generator in some categories (Cohen, Agrawal, & Agrawal, 2006). Hence, offering effective aftersales service to the clients gives higher profitability by affecting the buying intention of the clients.

A consumer's buying intention depends on their level of satisfaction. If the brand satisfies the consumer, he will become a regular buyer of that particular brand.

To validate the research model, data was collected from industrial customers of conglomerate specialty chemical companies, having a number of product brands. A brand in the category 'high-performance construction chemicals' used in the construction industry was investigated. To increase the validity of this study, an in-depth online survey was conducted with 57 respondents from chemical construction sectors in Mumbai, Maharashtra. This survey confirmed that factors like brand name, product, price, promotion, brand performance, trust, loyalty, approach, customization, etc., greatly contribute to

the successful new product launch in the construction chemical segment.

B. Questionnaire development

Based on the earlier researches, a questionnaire was developed. Items were measured as self-reported assessments of statements, evaluated on a 5-point Likert scale. The questionnaire was made available online.

C. Sampling

With the support of various company executives, an invitation was sent to participants to participate in the survey across Mumbai based industrial segment of construction. There were in all 57 valid responses. For making the study more relevant, these valid samples were analyzed and discussed in further study.

Around 11 of the respondents were 'small manufactures,' nearly start-ups having less than 5 years of

establishment in the chemical construction sector, while 14 were the contractors of the construction companies. The builders/developers and consultants were 3 and 17, respectively. And 5 were the large infra companies of the construction chemical industry in Mumbai.

D. Reliability of the data collected

The tool Statistical Package for the Social Sciences was used for performing the statistical analysis of the data collected. A Cronbach's (alpha) coefficient was applied before the statistical tests to measure the consistency of the survey instrument. The alpha coefficient is considered suitable from 0.70, though a value higher than 0.60 is considered suitable. Based on these, in the sample of 57 records, we obtained the values of Cronbach's alpha greater than 0.6. Therefore the data is internally consistent, as given in Table 1.

Table 1. Reliability Test using Cronbach's alpha

Questionnaire Sections	Number of items	Cronbach's alpha test results
Important factors	7	0.856
Brand performance questions	8	0.862
Brand loyalty	5	0.828

IV. ANALYSIS AND RESULTS

The study analysis is structured according to the aspects that can be taken into account the buying intentions of the chemical construction product in the construction chemicals market but is restricted to 57 records of the sample.

A. Level of importance of factors when buying a construction chemical product

A 5-pointer Likert-type scale was used: Not at all=1, slightly=2, moderately=3, somewhat=4, Very much=5. This scale was required for participants to take a definite position on the selection options. Table 2 shows the result values of the identified six factors of this study. For

construction chemical start-up companies selling new products is predominantly related to the important factors which are pursued by customers. It is clear from the result data that significantly more than half of the buyers look for the reliability factor in new products to make their positive buying intentions (Mean, S.D.: 4 ± 1.217). Among all the factors, most of the respondents also prefer quality products when buying (Mean, S.D.: 3.86 ± 1.325). As can be seen from the data, the third priority by the respondents is given to after-sales service given by the company (Mean, S.D.: 3.68 ± 1.307). The factors ease of usage, brand name, or cost are the least preferred while making buying decisions of new product system in construction chemical segment.

Table 2. Importance of factors while buying the product

Factor	Not at all	Slightly	Moderately	Somewhat	Very much	Mean ± S.D.
Quality	1	6	2	6	13	3.86 ± 1.325
Cost	1	4	16	6	1	3.07 ± 0.813
Ease of Usage	1	5	7	7	8	3.57 ± 1.2
After sale service	1	6	5	5	11	3.68 ± 1.307
Reliability	1	3	5	5	14	4 ± 1.217
Brand Name	4	6	3	8	7	3.29 ± 1.436

B. Finding relationship between brand performance and brand loyalty with buying intensions

The data was screened, and based on the factor analysis, the response variable in the study is ordinal, and thus ordinal logistic regression model is used. An ordinal logistic regression model is also called an ordinal classification model used for predicting the ordinal

variable. The validity of the regression model is tested by using the goodness of fit test. SPSS tool was used to assess the results for the set of related hypothesis. First, we investigated the goodness of fit of the model, then a p-value of the independent variables was determined. If P values are less than 0.05, we conclude that a particular variable significantly affects the buying intention.

H1: There is an impact of brand performance on buying intentions.

Regression analysis performed on the data for the brand performance uses the equation as given below,
Log(Brand intention) = β_0 + β_1Comparing_technical_specifications_quality + β_2 Compare_product_price + β_3 Lifecycle_cost_Importance + β_4 Brand_lead_times_importance + β_5 Ease_of_usage +
β_6 Reliability + β_7 Service_efficiency + β_8 Customised_approach+ error

Based on the brand performance variables identified from the previous researches, questions were framed for each variable in the survey. The validity of the result was checked using the goodness of fit test. Since P-value obtained is greater than 0.05, as given in Table 3, it can be concluded that our model is correctly quantified.

Table 3. Goodness of fit test of performance measures

	Chi-Square	df	P-value
Pearson	70.6	73	0.558
Deviance	54.68	73	0.946

Table 4 indicates that the P-value corresponding to Lifecycle_cost_Importance is nearer to 0.05, which signifies that life cycle cost is the most influenced measure in buying intentions of the buyer. The model R-Square is 0.43, which is slightly low, which indicates that Lifecycle_cost_Importance explains the small fraction of the variation of buying intention. This means all other factors have no relation to buying intention. Hence, for this hypothesis, there is a significant relationship found between intention to buy a new product and its lifecycle cost.

Table 4. Performance Measures Regression Values

Performance Measures	Estimate	Std. Error	Wald	df	P-value
Comparing_technical_specifications_quality	-0.374	0.531	0.496	1	0.481
Compare_product_price	0.369	0.547	0.456	1	0.499
Lifecycle_cost_Importance	1.042	0.504	4.278	1	0.039
Brand_lead_times_importance	-0.002	0.572	0	1	0.997
Ease_of_usage	0.478	0.672	0.507	1	0.477
Reliability	-0.622	0.405	2.36	1	0.125
Service_efficiency	0.697	0.61	1.306	1	0.253
Customised_approach	-0.256	0.563	0.207	1	0.649

H2: There is an impact of brand loyalty on buying decisions.

Several studies show that brand loyalty plays an important role when introducing a new product in the construction chemical market. Hence, the study identified five main variables of brand loyalty and asked the question based on them in the survey. To find the relationship of these variables with buying intension, a regression test on the data was performed and, the equation for it is,

Log (Brand intention) = β_0 + β_1 Brand_trust + β_2 Security + β_3 Company_efforts + β_4 Brand_value + β_5 Brand_loyalty + error

The validity of the results was tested using the goodness of fit test. Table 5 shows a p-value of more than 0.05, thus proving the fitted model is correctly specified.

Table 5. Goodness of fit test of brand loyalty

	Chi-Square	df	P-value
Pearson	71.504	70	0.428
Deviance	56.311	70	0.882

According to Table 6, p-values corresponding to Company_efforts and Brand_value are less than 0.05. It can be thus said that there is a relationship between Company_efforts and also the Brand_value and buying intentions of the buyers. The R-square of the model is slightly low, which indicates Company_efforts and

Brand_value explains the small proportion of the variation of buying intention. This means all other factors like Brand_trust, Security, and Brand_loyalty have no relation with buying intention. Hence, this hypothesis is proved

with a significant relationship found between intention to buy a new product and the company's efforts to keep their promises.

Table 6. Brand Loyalty Regression Values

Brand Loyalty	Estimate	Std. Error	Wald	df	P-value
Brand_trust	0.837	0.567	2.18	1	0.14
Security	0.672	0.622	1.165	1	0.28
Company_efforts	0.824	0.481	2.93	1	0.087
Brand_value	-0.994	0.528	3.548	1	0.06
Brand_loyalty	-0.56	0.431	1.687	1	0.194

V. CONCLUSION

Brand performance and brand loyalty play a significant role in industrial branding. It is conceptualized as the result of past investments in the 5 P's, that is, product, people, place, promotion, or price (Dettmer W, 1997). In a B2B context, the buyer's intentions have a significant influence on the way the buyer perceives and evaluate the brand. This, in turn, has an overall effect on their buying decision. By investing correctly in the products with the consideration of the factors, companies can create a positive brand image and awareness in the market. In this way, brand performance and loyalty are created. The two inter-related components of the new product can create a greater effect on the customer's buying intentions.

The results show that under product performance measures, attributes like product life cycle and ease of use mostly influence the buyer's decision. Product price or lead time plays a lesser role in buying intentions. Brand loyalty is mostly determined by company efforts to keep their promises for buying the product, while other attributes like security or value did not play a direct role in buying intentions.

A. Limitations and suggestions for future study

Though it is evident from the study that construction chemical companies can benefit from investing in new product system, taking into consideration the influencing factors, the following recommendations can be made,

1) The focus should be made on efforts on buyer's views for the product like, high quality, product promise, or giving innovative services.
2) Give value for the money.
3) Investing in reliability
4) Reduce the life cycle cost of the new product.

Among the number of limitations pertaining to this study, the first is it focused on the specialty chemicals segment of the market and especially start-ups. In order to obtain more precise insights, it is recommended to increase the sample size.

In future research, the role of B2B brands in minimizing the cost, managing purchase channels, and supply chain cooperation needs further exploration. Identifying customization factors of the new products innovatively remains the future scope of the study in the construction chemical market.

REFERENCES

[1] Ali Iftikhar Choudhary., Impact Of After-Sale Service Characteristics on Customer Satisfaction. Information Management and Business Review, 3(6)(2011) 360-365.

[2] Asshidin, N. H. N., Abidin, N., & Borhan, H. B., Perceived Quality and Emotional Value that Influence Consumer's Purchase Intention towards American and Local Products. Procedia Economics and Finance, 35(2016) 639–643. doi:10.1016/s2212-5671(16)00078-2

[3] Cooper, R. G., Wining at new products. Persus Publishing. Cambridge, Massachusetts, (2001) 1-10.

[4] DelVecchio, D., Moving beyond fit: the role of brand portfolio characteristics in consumer evaluations of brand reliability. Journal of Product & Brand Management, 9(7) (2000) 457–471. doi:10.1108/10610420010351411

[5] Dettmer W., Goldratt's Theory of constraints. 10 th Ed, ASQ, Quality Press, Milwaukee, Wisconsin., (1997).

[6] Doyle, C., A dictionary of marketing. . Oxford University Press., (2011)

[7] Gluck., New Product Launch Strategy. (Chron) Retrieved from https://smallbusiness.chron.com/new-product-launch-strategy-3241.html., (2012).

[8] Hansen, F. &., Branding and Advertising. Copenhagen Business School Press., (2003).

[9] Huang, C.-C., Fang, S., Huang, S., & Chang, S. (2014). The impact of relational bonds on brand loyalty: the mediating effect of brand relationship quality. Managing Service Quality. 24(2), 184-204.

[10] Iqbal, U., Rizwan, M., Zafar, A., Khan, H., & Usma. (2013). Determinants Uncovering the Brand Loyalty: A Signaling Effect of Price on Quality Perception. Journal of Basic and Applied Scientific Research, 3(11), 212-221.

[11] Juha-Pekka Ropo. (2009). Brands and Branding Creating a Brand Strategy. Tampereen ammattikorkeakoulu, university of applied sciences, .

[12] Keller, K. L., Conceptualizing, measuring, and managing customer-based brand equity. The Journal of Marketing, 57(1)(1993) 1-22.

[13] Leslie, D. C., Malcom, M., Creating powerful Brands- The strategic root to success in consumer, industrial and service markets. Oxford, Butterworth Heinemann, (1992) 140-160.

[14] Manjrekar, P., The key issues and challenges in the construction chemical industry in india. Sevak Publications. Retrieved from https://pdfs.semanticscholar.org/c869/f65b097e62d7de38c1d217ce6 54ab7731946.pdf, (2008).

[15] Mohammad, A. A., The Impact of Brand Experiences, Brand Equity and Corporate Branding on Brand Loyalty: Evidence from Jordan. International. Journal of Academic Research in Accounting, Finance and Management Sciences, 7(3)(2017) 58-69.

[16] Reichheld, F. F., & Schefter, P., E-loyalty. Harvard business review, 78(4)(2000) 105-113.

[17] Sharad Sarin., Relevance and Creation of Strong Brands for B2B Markets., (2014)

[18] Sheena Leek ∗, George Christodoulides, 2011, A literature review and future agenda for B2B branding

[19] Timmons, J. A., New venture creation: entrepreneurship for the 21st century. Boston : McGraw -Hill /Irwin., (2009)

[20] Nida Tariq, Ayesha Imtiaz, Qalb E Abbas, Impact of Celebrity Endorsement on Brand Image and Customers' Purchase Intention A Case of Pakistani Customers, SSRG International Journal of Economics and Management Studies 5(10) (2018) 25-29.

[21] Tata Strategic Management Group., A report on Construction Chemicals., (2013).

[22] Ucbasaran, D. W., The extent and nature of opportunity identification by experienced entrepreneurs. . Journal of Business Venturing, 24(2)(2009) 99–115.

[23] Vargo, S. L., Evolving to a new dominant logic for marketing. Journal of Marketing, 68(1)(2004) 1-23. Vikalpa • 39(4)

[24] W, D., Goldratt's Theory of constraints. Milwaukee, Wisconsin: 10 th Ed, ASQ, Quality Press., (1997).

[25] Wald, M. L. (2006, May 17). What's kind to nature can be kind to profits. . New York Times, E1, E5.

[26] Westhead, P. U., Information search and opportunity identification: the importance of prior business ownership experience. International Small Business Journal, 27(6)(2009) 659–680.

[27] Wu, M., Key success path theory. Retrieved from Academic Journals: www. accedamic Journals.org/journal/AJBM/article-full-text-pdf/OD51ED438014., (2013).

[28] Yu, T. F., Towards a theory of the entrepreneurial state. International Journal of Social Economics, 28(9) (2001b) 752-766.

[29] Zahra, S. A., How much do you trust me? The dark side of relational trust in new business creation in established companies. Entrepreneurship: Theory and Practice, 30(4) (2006) 541–559.

[30] Zimmerman, A., Wal-Mart sees profit in green: Some recycling initiatives are helping retailer's bottom line. Wall Street Journal, B3., (2006, August 21).