Brand Equity Analysis: A Case Of Selected Firms In Indian Fibre Cement Sheets Industry

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Abstract: The changing technology, enormous opportunity for substitutes, and ever-changing consumption pattern has affected margins of Indian Fibre Cement Sheets industry. The high brand equity results higher customer satisfaction which drives high prices and elevates organizational performance. Organizations that invest in brands, can track their brand story by employing brand equity surveys, enabling corrective action for development of high brand equity. Brand Equity Survey employed on the basis of key variables identified through literature review. Kolmogorov-Smirnov, Shapiro-Wilks and Mann Whitney U Test were used for data analysis in this study. The survey was employed through a pre-validated questionnaire. The study follows a descriptive research design. The various components of the Brand Equity and their association among two prominent fibre cement companies was studied. Strategies to improve the weak components of Brand Equity has been suggested. The management of the firm under study shall be benefited in fine tuning the overall strategy of the organization. The brand equity is one of the construct of long term performance of the firm. This study will help firms in developing and planning strategic alternatives to counter all the challenges. This paper on study of brand equity is first of its kind in this sector.

Index Terms: Aaker Brand equity model, Brand Association, Brand Awareness, Brand Equity, Fibre Cement Company, Loyalty, Mann Whitney U Test, Perceived Quality, Strategy.

1. INTRODUCTION

Brand equity is based on the idea that the firm of a well-known brand name will produce more sales/ revenue on account of better brand recognition vis-vis the competitor [1, 2, 3, 4]. It is the worth of the brand. Consumer's perception of the various features of the brand lies in the cognitive psychology perspective. While as the informative prospective signify quality for a consumer who is less informed leading to generation of the premium in form of higher price. The brands are one of the most valuable intangible assets a Firm [5]. Valuation of brand equity includes factors such as changing market share, profit margins, consumer recognition of logos and language, association with the quality of the product etc. Buyer's knowledge about the brand reflects market strategy of the firms [6, 7, 8]. Aaker (1996) developed the ten yardsticks for measurement of the brand equity included "price surcharge, satisfaction/ loyalty, perceived quality, leadership, perceived value, brand personality, organizational associations, brand awareness, market share, and price and distribution indices". They were further factorized into five categories. Aaker (1996) posited that "the customary financial measures such as sales, cost, margins, profit, and return on assets pertain to brand objectives and performance measures". But these are for brief period of time and thus give no motivation for building the brand. Adequate research has happened in the field of brand equity measurement but no consensus is there on the superior measure which can include this varied and composite indicator variable [9].

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Fibre cement industry is a highly competitive market which sells a cement sheets as a commodity product. These sheets are subject to seasonal demand with major demand coming up during the second quarter of the year. Majorly the companies are trying to work on their brands so that they can sell in the lean months as well. As the market are being subject to conversion by substitutes establishing of brand is all the more important. Firms majorly compete on the basis of product quality, customer services etc. However, the firms charge premiums that cannot be solely explained in terms of technological superiority and performance-related advantages. This price premiums indicates the brand equity of manufacturers of repute [10]. Brand equity is important but not quantifiable. The quantitative and qualitative brand equity values are difficult to measure. The indicators in quantitative brand equity are associated with market share and margins. However the qualitative indicators are reflected in prestige and associations of interest. Majorly the researchers use qualitative approach to the brand equity. The Brand Equity Concept Evolution Process: Extensive literature on brand equity has been written by [11, 1, 6, 7, 12, 13, 14]. The brand equity has made a strategic change as a tactical marketing instrument for any commercial activity to enable continuous competitive advantage [15]. Companies that are successful have contemplated the brand strategic management as a source of competitive advantage over competitors [16]. Favorable public perception clubbed with affirmed brand equity establishes a tactical spot which helps to achieve sustainable competitive advantage [17]. The Concept of Brand Equity- Two major views on constructs pertaining to brand equity are the financial and the consumer-based perspective [18]. The financial point of view allows the organization subtract the brand fiscal financial value against the absolute value of the organization. Simon (1993) measured the frim brand equity based on the financial market value. On the other hand the consumer-based perspective determines consumer's response to a brand [19, 20]. Accordingly, brand equity is defined by [19] as the differential effect of brand knowledge on consumer response to the marketing of the brand. Measuring the Brand Equity-The brand equity measures value of the brand which covers logo, name, image and perception in consumer's mind which relates to the product, service or the company. It is used in the process of communication to the consumer in shape of advertising or packaging. It signifies the quality, service performance and other features which differentiate it from competition. Brand equity [21] hold a significant power in the existing markets wherein it helps in charging extra premium and the new proposed market extensions where it helps in deep penetration

2 BACK GROUND OF STUDY

Past Empirical Research on Brand Equity- The past studies reflect the most frequent factors of brand equity applied as regressand factor [14, 22, 23, 24, 24]. Valette (2011) interpreted the influence of brand personality and sales promotions on brand equity. The researchers concluded the affirmed effect of the brand personality on brand equity. He further stated that the sales promotion ferocity could sabotage the brand equity and will be adversely effecting its establishment. Correspondingly, the study on effect of elements of marketing mix on brand equity was performed [24]. The study concluded that elements of the marketing mix have positive effects on brand equity. Smaller sample was used by [25] in contrast to study of [26, 23, 22] which used a large sample of respondents for studying brand equity. Brand equity was used as a mediating variable by [27, 28, 29, 30]. Chattopadhyay (2009) carried out investigation study on the relation among elements of marketing mix and brand equity with reference to several Indian auto brands. He concluded that all marketing mix factors have a straight effect on the perceived quality and then on brand equity. The study finding on brand equity, marketing mix strategy, and service quality had significant and positive relationship to customer loyalty, [31] was established in retail store survey. Brand equity was studied in the manufacturing sector [32, 33, 34, 26, 25, 23, 35, 36]. Testing brand equity variable for FMCG was carried out in their studies by [37, 38]; in mobile phones [33, 39]; and the automobile sector [40, 28]. Delgado-Ballester (2005) research for the evaluation for the significance of brand trust for Shampoo and beer. The outcome inferred that customer satisfaction had enhanced effect on brand trust which was positively related to brand equity. In the service sectors studies on brand equity were carried out in hotel and tourism industry [41, 42, 43] banking sector [44, 22, 45] education sector [46], telecommunication sector [47, 48, 49, 50] and airline sector [51]. Above studies used the similar predecessors of brand equity such as service quality, satisfaction, and trust. Patterns with Past Research- Brand equity research in 80s, and 90s primarily focused on measuring brand equity [52, 53, 6, 8, 7]. Researchers worked with both quantitative and qualitative research designs to find superior method to measure brand equity. Brand Equity in the 2000's was on gestate and measure the brand equity specific [54, 55, 56, 57, 9, 58] in company with the predecessors of brand equity for all components of the marketing mix [14, 25, 59, 32, 60, 26]. Some studies focused on brand trust the other ancestors of brand equity such as (Delgado-Ballester, 2005), country of origin [60, 30] customer satisfaction [61] and service quality [41, 22, 62]. Recent Development on Brand Equity Research- Major area of the research is on conceptualization and measurement of brand equity [63, 64] finding its antecedents [65, 66, 67, 68, 37] and finding the interrelationships among brand equity constructs [69, 70, 71, 37]. Significant research on interrelationships among brand equity constructs [69, 70, 71, 37]. Research determines the interdependence among the components of brand equity and its influence on altogether brand equity of Iran. It can be inferred that the brand awareness, perceived quality and brand loyalty was instrumental for brand equity, whereas the, brand association had no impact. Similarly the brand image, perceived quality, brand awareness, and brand association, were positive in correlation with the brand loyalty. The main research question of this study is to explore an association among Brand Equity components viz Brand loyalty, Brand Awareness, Perceived Quality, Brand Association of two prominent AC sheets companies and to study the various components of Brand equity and suggest brand strategies to enhance the weak components. Definition Brand Equity definition as per Aaker was that the pair of assets and liabilities of the brand associated to it by name and symbols which add value to, or subtract value from, a product or service [72]. These assets encompass Association, brand loyalty, name awareness, perceived quality. Here the focus is on Brand added value without any distinction that it is added to the consumer or to the supplier. Brand Equity is defined as its fiscal value generating capital or value to the product/Service. Theories behind Brand Equity: A strong brand is supported by a strong and sustainable basket of the loyal clientele. Whatever be the brand equity paradigm base, the drivers to customer brand perception are perceived quality, name awareness, brand association and the brand loyalty [73, 74]. Accordingly intangible assets that deliver the fiscal value to the consumers as well as the value addition to the firm is brand equity. Aaker specified ten brand equity measurement variables listed below reflecting the brand equity and forces that drive the market. Brand Equity is devised by Brand Knowledge of the costumer. This knowledge helps the costumer in differentiating the brands and helps the mind to respond to the marketing activities of the firm [74]. Keller defines Customer Based Brand Equity (CBBE) happens where the costumer has high level of awareness and familiarity of the Brand. Costumer carries a strong disposition that holds a strong, favourably and unique brand association in his memory. CBBE pyramid model also brand resonance pyramid was developed by Keller. CBBE revolves around the concept of generating positive experiences, thought, feelings, beliefs and opinion about the brand. Strong brand equity increases more buy/sales and increases word of mouth by loyal consumers which in turn increase further sales revenue. The concept behind the Brand Equity Model is simple: in order to build a strong brand, you must shape how customers think and feel about your product. Measuring Brand Equity: Brand equity measurements can be exercised in three ways i.e. at company level or the product level or the customer level. Company level measurement signify in terms of valuation of brand worth as an intangible asset. Brand equity [75] can thus be defined as per numerical calculation i.e. market capitalization minus tangible asset value. Product level measurement denotes the premium to the brand against an unlabeled similar category product on account of the brand name [76] and at Customer Level speaks about the association of the customer with the brand signified in terms of the recall and recognition value i.e. awareness and the overall association in terms of brand image respectively.

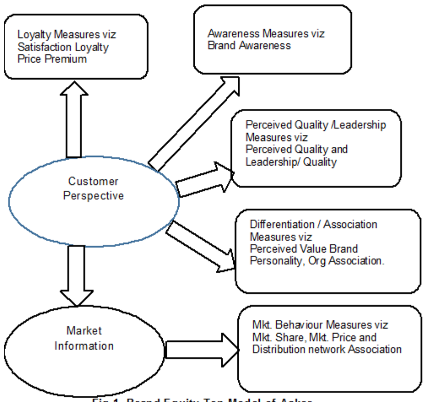

Fig 1. Brand Equity Ten Model of Aaker

3 MODEL, METHODOLOGY AND RESEARCH DESIGN

Aaker Model states that the following ten features are measure of the strength of the brand. These features are Differentiation, Satisfaction or Loyalty, Perceived Quality, Leadership or Popularity, Perceived Value, Brand Personality, Organizational Associations, Brand Awareness, Market Share, and Market Price and Distribution Coverage. Aaker model argues that each feature is shadowed separately [77]. Aaker Brand Equity Model-applied for the survey consists of the constructs such as listed Brand Loyalty, Brand Awareness, Perceived Quality, and Brand Association.

3.1 Hypothesis Development

H0 There is no association between the brand loyalties of company H and Company E
H1 There is an association between the brand loyalties of company H and Company E
H20 There is no association between the brand awareness of company H and Company E
H21 There is an association between the brand awareness of company H and Company E
H30 There is no association between the Perceived Quality of company H and Company E
H31 There is an association between the Perceived Quality of company H and Company E
H40 There is no association between the brand associations of company H and Company E
H41 There is an association between the brand associations of company H and Company E.
Research design is a descriptive research in nature. Methodology was carried out in four phases.
Phase 1. Model Building by literature review.
Phase 2. Use of standard developed questionnaire with tested validity and reliability.
Phase 3. Execution of survey through convenience sampling in two companies E and H
Phase 4. Data analysis with Non Parametric test viz Mann Whitney U test and kolmogorov-Sminov test
Scale- The 7-point scale was administered to collect the responses.
Following option of responses signified the scale used:
1 -strongly disagree with the statement
4-Neutral
7-strongly agree
, 2, 3, 5 and 6 for intermediate values. Eighteen (18) questions were administered to about 55 respondents by means of Google forms and manually through convenience sampling.

4 DATA ANALYSIS AND INTERPRETATION

The results where operationalized as highly satisfied employees, medium satisfied and least satisfied. Overall level of satisfaction was calculated by means of classification of the range of scores as under:
If sum of 18 responses was above 90 i.e. 5x18 questions then brand equity was high.

If sum of 18 responses was below 54 i.e. 3x18 questions then brand equity was low.

If sum of 18 responses was between 54 and 90 then brand equity was medium.

On the basis of sum of responses from the questionnaire it was found that the brand equity range was high for both the companies.

4.1 Reliability

The reliability of all the questionnaire for all measurement items of the four construct of the brand equity were found to have significant high Cronbach's alpha ranging between .947 to .895 and we could draw the conclusion that the questionnaire were reliable giving the same repeated result under the same conditions.

Reliability Statistics

	Cronbach's Alpha	N of Items
Loyalty	.912	4
Awareness	.947	4
Perceived Quality	.895	5
Brand Association	.924	5

4.2 Validity

The validity was not tested as the questionnaire was based on already validated questionnaire of Aaker.

4.3 Normality

Researcher found that all the four construct including the dependent variable had data which was most not normal. In case of Company H the normal distribution was observed in some of the construct distribution while as in the case of the firm E the results were negatively skewed. This was verified by means of three methods such as Z range check i.e. range of +1.96 to -1.96 by dividing skewness coefficient by respective stand error, Normal distribution diagram on Histogram and Normal q plots for unequal distribution and with help of P values

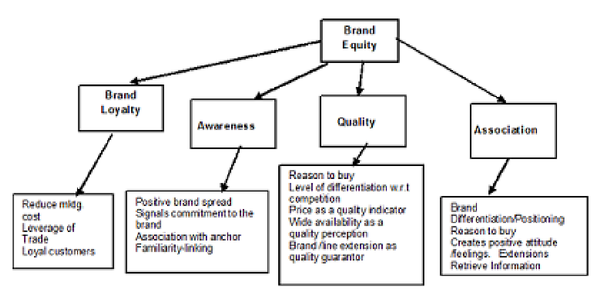

Fig 2. Brand Equity Model used in the survey [7]

Means are compared by virtue of two categories of tests: Parametric tests and non-parametric tests. Parametric tests are employed in normal distribution data array whereas in case of distribution which is not normally distributed by having positive or negative skewness and data is ordinal, nonparametric tests are used. The entire statistics is based on concept of normality and if this presumption is breached, then inference goes kaput. It is therefore necessary to verify and test the assumption of normality before analyzing data statically. Henry (2002) posited in order to test the normality, it is necessary to check whether a sample of observations belongs to distribution which is normal. Pallant (2010), argued that the presumption of normal distribution could be verified by using either Kolmogorov-Smirnov test or Shapiro-Wilks test. Kolmogorov-Smirnov test is suitable for sample size greater than fifty (50) whereas Shapiro-Wilks test is valid for normality for a sample size is lower than fifty (50). It is also essential to find if the difference between two groups occurred by chance or not. Nonparametric tests don't presume about the result are having a normal distribution. Various statistical checks used to test for a normal distribution. These signify as Kolmogorov-Smirnov test, the Anderson-Darling test, and the Shapiro-Wilk test[1]. One and all of these tests is necessarily a goodness of fit test. They differentiates data under observation with quantiles of the normal distribution.

The null hypothesis for all of the above mentioned checks are

H_0: Data pursuing normalized distribution and

H_1: Data not pursuing normalized distribution.

If the test is statistically significant (e.g., $p<0.05$), then data is not normally distributed, and a nonparametric test is warranted. In the above said test of Kolmogorov-Smirnov test and Shapiro-Wilks test for all four constructs of loyalty, awareness, perceived quality and brand association the p values were found to be less than 0.05 signifying that data was not normally distributed, and a non-parametric test is required.

Mann Whitney U TestThis tests makes a comparison of the results among the two independent groups is defined by Mann Whitney U test. This test is applicable for two samples derive from the same population. This test compares the medians among the two populations. While as the parametric test contrasts the means (H_0: $\mu_1=\mu_2$) among the independent groups. In paradox, the null and two-sided research hypotheses for the nonparametric test is stated as below:

H_0: The two populations are equal and

H_1: The two populations are not equal.

Researchers have adopted Mann-Whitney Test for both the companies.

Non parametric kolmogorov-Sminov test as conducted by [78] has been adopted here.

5 INTERPRETATION

5.1 First Objective

Hypothesis testing for finding an association among components of the Brand Equity of the two companies

Since the researchers have failed to accept the null hypothesis in all below said cases, it means the alternate hypothesis is accepted. Thus from the below detailed inferences it is concluded that there is significant association between components of brand equity of two companies such as brand awareness of the companies, between brand loyalty of the two companies, between perceived quality of the two companies and brand association of the two companies.

H0: The null hypothesis is failing here means that there is significant association between brand loyalty of company H and E.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories defined by COMPANY = COMPANY H and COMPANY E occur with probabilities 0.5 and 0.5.	One-Sample Binomial Test	.001[1]	Reject the null hypothesis.
2	The distribution of LOYALTY is normal with mean 5.41 and standard deviation 1.341.	One-Sample Kolmogorov-Smirnov Test	.001[1]	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

[1] Lilliefors Corrected

H20: The null hypothesis is failing here means that there is significant association between brand awareness of company H and E.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories defined by COMPANY = COMPANY H and COMPANY E occur with probabilities 0.5 and 0.5.	One-Sample Binomial Test	.001[1]	Reject the null hypothesis.
2	The distribution of AWARENESS is normal with mean 5.70 and standard deviation 1.159.	One-Sample Kolmogorov-Smirnov Test	.000[1]	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

[1] Lilliefors Corrected

H30: The null hypothesis is failing here means that there is significant association between brands perceived quality of company H and E.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories defined by COMPANY = COMPANY H and COMPANY E occur with probabilities 0.5 and 0.5.	One-Sample Binomial Test	.001[1]	Reject the null hypothesis.
2	The distribution of QUALITY is normal with mean 5.81 and standard deviation 1.124.	One-Sample Kolmogorov-Smirnov Test	.000[1]	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

[1] Lilliefors Corrected

H40: The null hypothesis is failing here means that there is significant association between brand association of company H and E.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories defined by COMPANY = COMPANY H and COMPANY E occur with probabilities 0.5 and 0.5.	One-Sample Binomial Test	.001[1]	Reject the null hypothesis.
2	The distribution of ASSOCIATION is normal with mean 5.52 and standard deviation 1.185.	One-Sample Kolmogorov-Smirnov Test	.000[1]	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

[1] Lilliefors Corrected

5.2 Second Objective

Study on the various components of Brand equity

Loyalty Refer Appendix 1 a)

Interprets loyalty of company H is higher than Company E overall, namely the group with higher mean rank. Further the test statistics provides U statistics as well as the asymptotic significance (2 tailed) P value. It can therefore be concluded that the loyalty in Company H and the company E with the U =260 calculated at and p=0.448 which is greater than 0.05 is not statistically significant which means there is no statistically difference in loyalty score of company E and H and whatever is there is attributed to chance.

Brand Awareness Refer Appendix 1b)
Interprets Brand Awareness of company H is higher than Company E overall, namely the group with higher mean rank. Further the test statistics provides U statistics as well as the asymptotic significance (2 tailed) P value. It can therefore be concluded that the Brand Awareness in Company H and company E with the U = 205 calculated at and p=0.071 which is greater than 0.05 is not statistically significant which means there is no statistically difference in Brand Awareness of company E and H and whatever is there is attributed to chance.

Perceived Quality Refer Appendix 1 c)
Interprets Perceived Quality of company H is higher than Company E overall, namely the group with higher mean rank. Further the test statistics provides U statistics as well as the asymptotic significance (2 tailed) P value. It can therefore be concluded that the Perceived Quality in Company H is statistically significant higher than the company E the U is 170.5 calculated at and p=0.014 which is less than 0.05 is statistically significant which means there is statistically difference in Perceived Quality of company E and H and nothing is attributed to chance.

Brand Association Refer Appendix 1 d)
Interprets Brand Association of company H is higher than Company E overall, namely the group with higher mean rank. Further the test statistics provides U statistics as well as the asymptotic significance (2 tailed) P value. It can therefore be concluded that the Brand Association i in Company H and company E with the U = 231.5 calculated at and p=0.194 which is greater than 0.05 is not statistically significant which means there is no statistically difference in Brand Association of company E and H and whatever is there is attributed to chance.

5.3 Third objective

Suggest brand strategies to enhance the weak components as concluded from the above analysed factors.
Perceived Quality enhancement strategies-The Selected Firms in Indian Fibre Cement Sheets industry should increase the customer involvement by highlight superior features and advantages of these sheets vis-à-vis substitutes such as Metal sheets on factors such as better insulation against heat, rain and sound in various technical forums. The reliability and long life of the products manufactured by them can be demonstrated by virtue of site visits and or showing photographs signifying the long life product usage. This will educate the customer to carefully choose the product. The selected firms could increase their price worthiness of their offerings i.e. product and services by enhancing perception on quality, The value of money vis-à-vis the substitutes reflects cumulative low budget feature of the product which in turn could be reflected in reduction in overall lowering of the total cost of the project. Conducting Training Programs- The committed customers are important to the company Vis a Vis the new one. Training programs of the channel member will improve their commitment. They are responsible for a generation of brand value and creation of brand equity. Quality and timely service are the major paradigms for generation of brand preference. Partnering with the influencers- Trouble in connecting with the target customer is mitigated by reaching them through influencers. Consumers have trust on the recommendation of consumers. Celebrity Endorsement- Choosing right celebrity endorsement has immensely helped company H since last many decades. Improvement in Perceived Quality: Selected firms should allocate some resources to convincing channel to encourage selling through displays and advertising flyers. Their effectiveness increases for infrequently procured items such as sheets. Besides this, extra efforts are to be made to increase the perceived quality attributed to the respective brand. Additionally companies should focus on the perceived quality attributed to the brand or to the technical attributes for reducing the perceived risk, rather than gain economic deals.

6 CONCLUSION

There is significant association between various components of Brand Equity for the two firms under study. The various components such as Loyalty, Brand Awareness, Perceived quality and Brand Association of the Company H are higher than Company E. The various strategies have been suggested to improve the weak components of the Brand Equity. The improvement of Brand Equity shall enhance the Top and Bottom line and the overall performance of the firm in short as well the long term.

7 IMPLICATION, LIMITATION OF THE STUDY AND FUTURE SCOPE OF STUDY

7.1 Managerial Implication

This research work provides noteworthy details on level of the brand equity of the two firms. The study guides well the firms to maintaining high parameters of customer service, quality, and innovation in both the firms in order to keep exceptionally high levels of various constructs of brand equity the constructs. This study can be useful in in developing advertising strategy, make brand more familiar giving quality services providing more value and enhance brand strength In this research, we found an association between components of brand equity was present between both the firms. In summary, the awareness, brand loyalty, perceived quality and brand association of both the firm was having significant relationship amongst each other. These findings reflects that strategies adopted by both the companies in terms of above said components of brand equity are similar but one may be lesser than the leader. In other words, both the companies can take inspirational references in strategy to promote the brand equity from each other. They can share information and experience from each other. Suggestive strategies to enhance the weak brand equity components have also been discussed. Theoretical Implications-The study conducted to find a relationship between various components of brand equity of the two firms. It can be interpreted that the respondents are loyal to both the companies. All are aware about the products manufactured by both the companies. The perceived quality of both the companies is high. The respondents associate themselves with the brands. It clearly signifies that companies are highly respectable. The quality of brand which respondent perceives is dependent on the information they received and stored. Brand association influences perceived quality of the brand and perceived quality also influences the value of the relationships developed. It also depicts the level of brand equity of the two firms which in total hold about forty percent of the industry share. However, one of the selected company has Relationships developed. It also depicts the level of brand equity of the two firms which in total hold about forty percent of the industry share. However, one of the selected company has weaker component of brand equity and enhancement strategies have been suggested.

The limitation of the study and Future Scope of study- Time constraint and the precise objective of the study limited us to limit this research to the first level employees and middle management, i.e. shift managers. Researchers conducted survey for 55 employees of Company H and E which constitute about 40% of market share. The location of other companies were at far corners of the country and could not be undertaken due to location, logistic and contact constraints.

The future research study could be undertaken with a larger sample size. This study could be extended from two firms to more number of firms in the industry. This study could be also applied to the allied building material industry viz cement.

"Appendix A,"

LOYALTY - Non Parametric Tests/ Mann-Whitney Test

Ranks

COMPANY		N	Mean Rank	Sum of Ranks
LOYALTY	COMPANY H	40	29.00	1160.00
	COMPANY E	15	25.33	380.00
	Total	55		

Test Statistics

	LOYALTY
Mann-Whitney U	260.000
Wilcoxon W	380.000
Z	-.759
Asymp. Sig. (2-tailed)	.448

a. Grouping Variable: COMPANY

Two-Sample Kolmogorov-Smirnov Test

Frequencies

	COMPANY	N
LOYALTY	COMPANY H	40
	COMPANY E	15
	Total	55

Test Statistics

		LOYALTY
Most Extreme Differences	Absolute	.333
	Positive	.167
	Negative	-.333
Kolmogorov-Smirnov Z		1.101
Asymp. Sig. (2-tailed)		.177

weaker component of brand equity and enhancement strategies have been suggested.

"Appendix B,"

AWARENESS - Non Parametric Tests/ Mann-Whitney Test

Ranks

	COMPANY	N	Mean Rank	Sum of Ranks
AWARENESS	COMPANY H	40	30.38	1215.00
	COMPANY E	15	21.67	325.00
	Total	55		

Test Statistics

	AWARENESS
Mann-Whitney U	205.000
Wilcoxon W	325.000
Z	-1.806
Asymp. Sig. (2-tailed)	.071

a. Grouping Variable: COMPANY

Two-Sample Kolmogorov-Smirnov Test

Frequencies

	COMPANY	N
AWARENESS	COMPANY H	40
	COMPANY E	15
	Total	55

Test Statistics

		AWARENESS
Most Extreme Differences	Absolute	.275
	Positive	.000
	Negative	-.275
Kolmogorov-Smirnov Z		.908
Asymp. Sig. (2-tailed)		.381

"Appendix D,"

ASSOCIATION - Non Parametric Tests/ Mann-Whitney Test

Ranks

	COMPANY	N	Mean Rank	Sum of Ranks
ASSOCIATION	COMPANY H	40	29.71	1188.50
	COMPANY E	15	23.43	351.50
	Total	55		

Test Statistics

	ASSOCIATION
Mann-Whitney U	231.500
Wilcoxon W	351.500
Z	-1.300
Asymp. Sig. (2-tailed)	.194

a. Grouping Variable: COMPANY

Two-Sample Kolmogorov-Smirnov Test

Frequencies

	COMPANY	N
ASSOCIATION	COMPANY H	40
	COMPANY E	15
	Total	55

Test Statistics

		ASSOCIATION
Most Extreme Differences	Absolute	.325
	Positive	.083
	Negative	-.325
Kolmogorov-Smirnov Z		1.073
Asymp. Sig. (2-tailed)		.199

a. Grouping Variable: COMPANY

"Appendix C,"

QUALITY - Non Parametric Tests/ Mann-Whitney Test

	COMPANY	N	Mean Rank	Sum of Ranks
QUALITY	COMPANY H	40	31.24	1249.50
	COMPANY E	15	19.37	290.50
	Total	55		

test Statistics

	QUALITY
Mann-Whitney U	170.500
Wilcoxon W	290.500
Z	-2.461
Asymp. Sig. (2-tailed)	.014

a.Grouping Variable: Company

Two-Sample Kolmogorov-Smirnov Test

Frequencies

	COMPANY	N
QUALITY	COMPANY H	40
	COMPANY E	15
	Total	55

Test Statistics

		QUALITY
Most Extreme Differences	Absolute	.308
	Positive	.000
	Negative	-.308
Kolmogorov-Smirnov Z		1.018
Asymp. Sig. (2-tailed)		.251

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