

Measuring the Power of Brand: a Customer based perspective in Health Care Industry

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ABSTRACT

The purpose of the paper is to identify and examine the importance of brand equity for healthcare industry. The components like brand awareness, brand loyalty, perceived quality, and brand image are taken for analyzing the relationships among them for enhancing the brand equity of healthcare industry. A sample size of 245 is taken for analysis. The finding of the study shows that there is a greater impact of perceived quality, brand awareness and brand loyalty for enhancing the brand equity of healthcare sector. The research is done in Rohilkhand Region of Uttar Pradesh. The study has contributed to the service sector particularly to healthcare industry focusing on customer based brand equity concept. It also provide direction to healthcare service provider, practitioners, and policymaker, for creating and maintaining brand equity by giving importance to brand awareness, perceived quality, brand loyalty.

Keywords: *Brand Equity, Perceived Quality, Brand Image, Ranking*

I. INTRODUCTION

In the competitive world business excellence is a very important aspect for generating value of a company. Business excellence is nothing but the excellence in delivering service by a service sector like Health Care Industry. In the government perspective health care sector is a not for profit making, but for private sector things are different, they have to earn revenue by delivering proper service to their customers or patients. It is needless to say that competition ensures better products and service to satisfy the need of customers and for that health care sector is not an exception. It is really challenge to justify the impact of marketing activities and this has created new ideas for measuring marketing performance (O' Sullivan and Abela 2007). The financial measure like sales and profit indicates the short term goal. The intangible, market-based assets provide a deep understanding of marketing performance. Brand equity is an important marketing asset (Ambler 2003; Davis 2000), which can have the relationship with the firm and its stakeholders (Hunt and Morgan, 1995). The concept of growing brand equity is a key objective achieved through favorable association and feelings amongst target customers. The motive of brand equity to create value for customers and firms. Brand equity is defined as the incremental utility and value that a brand name adds to a product (Farquhar et al., 1991). Yahoo and Donthu (2002) pointed out that the cultural and economic differences as well as service practices might mediate the effect of marketing effort for creating brand equity. It is imperative to say that brand equity plays a special role in health care industry as strong brands increase customers' trust of invisible, enabling them to better visualize

and understand the intangible and reduce customers' perceived financial, social and safety risk (Simoes and Dibb, 2001). The service brand is quite different as because the service characteristics are different from physical goods. It shows that service brand is different from product. Health Care Industry shares the same characteristics applicable to services. When the nature of Health Care Service is considered, customers (patients/attendant) leave the hospital with only the good health, safety and care as the memory of their experiences. The biggest challenge for Health Care Industry today is 'tangibilizing the intangible health care experience'. This challenge can be overcome by creating strong brand, which represents the health care services and appears to customers tangible characteristics of an actual product. The health care services face different kind of challenges like uninformed customers and increasing competitive market. Hence the enhancement of the brand equity is the need of the hour. In case of service firms, a brand's equity is essentially a promise about the nature of the future experience with the service provider (Berry and Seltman, 2007). In order to deliver an exemplary health care service, a high degree of brand equity is required for the Health Care Industry. Indian Health Care Industry is an important service sector to contribute economy of India. As medical tourism is a concept of service all over the world and that too India is also a prominent destination of medical tourism. In this line there so many factors which is not exposed to the customers about the choice of health care service. Hence the brand equity is one of the important dimensions of health care service delivery.

II. REVIEW OF LITERATURE

Several studies have focused on the relationships between competition and quality of health care (Zwanziger and Melnick, 1996). Miller (1996) pointed out about competition and patient satisfaction. They have shown in their study about the increasing customer satisfaction leads to competition. Another reason of high competition is due to governmental healthcare reform and newly insured patients. It has been observed that marketing plays an important role for hospitals to compete on care and quality outcomes. Further a strong and efficient marketing strategy needs a powerful brand identity. Moreover a brand is a promise to consumers that a hospital will deliver the types of care a patient need. The brand identity drives business as well growth perspective for an organization when there is a presence of high level of customer satisfaction. So in nutshell a vibrant branding strategy is required to retain the brand equity and explore it for building trust and managing customer perceptions. In this juncture, a consumer and a brand is having a dyadic relation. The brand relationship may take any form, like a consumer brand relationship can be cognitive, habitual or emotional (Park et al., 2009). From the customer point of view, key benefits include the reduction of perceived risk and search costs. In terms of owner, key arguments are the ability charge premium over and above the rival and the ability to gain market share and building brand loyalty among customers that reduce marketing costs. A little conceptual or empirical research has addressed the impact of brand experience on brand equity. Blackston (1992) conceptualized trust and satisfaction with company as dimensions of brand equity; Kim et al. (2008) empirically tested brand awareness and brand loyalty as dimension of brand equity Korean hospital context. Chahal and Bala (2008) tested brand awareness, brand association and brand loyalty as dimensions of brand equity. Ravi et al. (2013) examines the effect of brand experience on customer-based brand equity in the context of a credence-based

service in an emerging economy. Experience is one of the indicators of service performance and results in better marketing and financial outcome for the firm (Grewal et al., 2009; Pine and Gilmore, 1999). A memorable, unique and sustainable experience with a brand creates strong brand equity, especially for credence-attribute dominated service like healthcare. Building strong brand equity is essential for differentiating a firm's offerings from its competing brands (Yoo et al., 2000). The greater the credence attributes of service, the greater is the importance of brand equity as a source of competitive advantage (Bharadwaj et al., 1993). Within services, healthcare processes are dynamic and complex systems that offer a fertile arena for research. Marketing for healthcare service poses unique challenge because in healthcare service delivery the interaction between the customer and service provider is very high. This service is high in credence attributes because even after the consumption of service its performance cannot be judged (Moorthi, 2002). It is one of the most intangible of all services, often with high perceived risk. Branding is still relatively new to the healthcare sector (Mangini, 2002) because of high regulation and public scrutiny (Kotler and Clarke, 1987). The development of brand equity for healthcare services is under-researched and unexplored though brand equity is one of the most important concepts in business practice as well as in academic research (Kim et al., 2008).

III. RESEARCH GAP AND RESEARCH PROBLEM

Research Gap

There is a gap in brand equity literature as to what is meant by health care brand equity, what perspective it should be viewed and operationalized. Most of the studies focus on individual service brand equity like product loyalty (Herman et al., 2007), service quality (Bamert and Wehrli, 2005), customer loyalty (Taylor et al., 2004), service loyalty (Rauyrueen and Miller, 2009), Kim et al. (2008) suggested that the hospitals should focus on the development of customer relationship management to enhance the brand equity. However this study explores brand equity components in healthcare sector that can have significant impact on the brand equity. It primarily evaluates brand image, brand loyalty, perceived quality, and brand image. The study aims to make contribution towards a theory of service brand equity and specifically health care brand equity literature. This study promises valuable information for the measurement of customer based brand equity components and how they interact with each other in the system of health care industry. This study will lead to deeper understanding of health care brand equity concept as well as implication for practitioners.

IV. RESEARCH PROBLEM

The effects of customer based brand equity dimensions on Health Care Industry.

Objectives

- To analyze the importance of brand awareness to enhance brand equity
- To identify how brand loyalty will affect brand equity.
- To know the impact of brand image perceived service quality for brand equity evaluation

- To find out the relative ranking of customers as per the parameters

Hypothesis

H1. Brand equity of healthcare services is directly influenced by perceived service quality.

H2. Brand equity is directly influenced by brand loyalty.

H3. Brand equity is directly influence by brand awareness

H4. Brand equity is directly influenced by brand image.

H5. Brand image has indirect effect on brand equity through brand loyalty.

V. RESEARCH METHODOLOGY

Measurement

The measures used in the study consist of brand awareness, brand loyalty, perceived service quality, and brand image. A structured questionnaire is used having all these factors including demographic profiles. The brand awareness regarding the degree to which they were familiar, recognized, and had heard of before, were three items adapted from Simmonin and Ruth's (1998) study. From the perspective of service, brand loyalty is associated with service loyalty, purchase intention, word of mouth, and price sensitivity which are the important components of brand loyalty taken from the studies of Bloemer et al. (1999). The perceived quality includes assurance, tangibles, empathy, reliability, and responsibility which are mainly derived from the works of Parasuraman et al. (1985), Aaker (1991), Kim et al. (2003), and Thantry et al. (2006). The components of brand image consist of items derived from the studies of Lassa et al. (1995) and Kim et al. (2003). Over all brand equity is measured in the literature using two items like excellent performance of the unit as compared to other units and continuous improvement of performance (Krishnan and Hartline, 2001; Ballester and Aleman, 2005). These two items are taken in our study for service brand equity components.

VI. CONSTRUCTION OF SCALES

The scale items is prepared by the help literature and discussion with medical professionals and researchers, we have constructed the scale of brand awareness with three items, brand loyalty with seven items, perceived quality with 15 items and brand image with five items and service brand equity with two items. This also checked by content validity of the instrument. All the dimensions are measured with the help of five point scale with '5' as 'completely agree' and '1' as 'completely disagree'. Besides these, name of the hospital, years of attachment with the hospital as well as demographic profile is also collected. The names of the hospitals are not disclosed in this study.

VII. SAMPLE DESIGN AND DATA ANALYSIS TECHNIQUES

The sample of data is collected from Rohilkhand Region. The total usable sample is 245. The data is collected through non-probability convenience sampling. Descriptive Statistics, Factor Analysis and Regression analysis is used for the evaluation of brand equity. **Ridit and Grey Relational Analysis** are also used for rank the brand equity parameters of the hospitals.

VIII. RIDIT ANALYSIS

RIDIT Analysis was first proposed by I. Boss and has been applied to the study of various business management and behavioral studies. Ridit analysis is the distribution free in the sense that it makes no assumption about the distribution of the population under study. Suppose that there are m items and n ordered categories listed from the most favoured to the least favoured in the scale, and then RIDIT analysis goes as follows (Chien Ho Wu, 2007).

1. Compute ridits for the reference data set
2. Compute ridits and mean ridits for comparison data set. Note that the comparison data set is comprised of the frequencies of responses of each category of a likert scale items in this illustration, there will be m comparison data set.

IX. GREY RELATIONAL ANALYSIS

J. Deng argued that many decision situations in real life do not confirm to those assumptions, and may not be financially or pragmatically justified for the required sample size. Hence in order to make decision under uncertainty and will insufficient or limited data available for analysis is actually a norm for managers in either public or private sectors. J. Deng developed the grey system theory that has been widely adopted for data analysis in various fields.

A procedure for the grey relational analysis, which is appropriate for likert scale data analysis, is indicated below:

Step 1: Generate reference data series

Step 2: Generate comparison data series

Step 3: Compute the difference data series

Step 4: Find the global maximum value D_{max} and minimum value D_{min} in the difference data series.

Step 5: Transform each data point in each difference data series so to grey relational coefficient.

Step 6: Compute grey relational grade for each difference data series.

Step 7: Sort t value into either descending or ascending order to facilitate the managerial interpretation of the results.

X. DATA ANALYSIS AND RESULT

The demographic characteristics of sample, like gender, age, income, health insurance taken, education, occupation and type of treatment are as follows: In gender group about 55 percent are male and 45 percent are

female. The majority of them belong to age group of '20-40' (48 percent) followed by '40-50' (40 percent) and above 50 (12 percent). About 52 percentage more than monthly income of '30,000-40,000' 10 percent of sample is having below monthly income of Rs.10,000. 30 percent of the respondents are belonging to service class 25 percent are professionals and 45 percent of respondents are business class. 34 percent have purchased medical insurance policy. Most of the respondents are educated. 48 percent are graduate and 31 percent are postgraduate. 13 percent are matriculate/+2. As far as treatment is concerned 15 percent include ENT, 12 percent in skin, 20 percent in surgery and 11 percent in eye, and 42 percent in other services. A total of 53 percent respondents were attached to the hospital for more than three years. Similarly 9 percent of the respondents had been known to the hospital for less than one year.

XI. CORRELATION OF BRAND AWARENESS, BRAND LOYALTY, PERCEIVED QUALITY, AND BRAND IMAGE

It is evident from the correlation analysis that the relationship between perceived quality and brand image ($r = 0.569$), and brand loyalty and brand image ($r = 0.511$), and brand image and brand awareness ($r = 0.501$). There is a significant relationship between perceived quality and brand loyalty ($r = 0.634$) followed by brand awareness and brand loyalty ($r = 0.567$). There is a moderate relationship with brand loyalty and brand image ($r = 0.501$). A regression analysis is conducted by taking services.

Table 1:

Correlation among Brand Awareness, Brand Loyalty, Perceived Quality and Brand Image

Components	Brand Awareness	Brand Loyalty	Perceived Quality	Brand Image
Brand Awareness	1			
Brand Loyalty	.567*	1		
Perceived Quality	.612*	.634*	1	
Brand Image	.501*	.501*	.569*	1

Notes: * Correlation is significant at the 0.01 level (one-tailed)

Table 2:

Factor-wise Mean Score Values, Factor Loading Values and Percentage Variance

	Mean Score Value	Std. Deviation	Factor Loading	Percentage of Variance
Brand Awareness				76.85
I am familiar with the hospital	4.11	.76	.82	
I recognize the hospital	4.1	.77	.83	
I had heard the hospital before	3.9	.86	.75	
Brand Loyalty				68.72
Prefer for same treatment	4.35	.79	.86	
Prefer for other treatment	4.12	.79	.81	
Select as first choice	4.09	.98	.73	
Recommend to others	3.65	.88	.86	
Positive attitude	3.7	.86	.76	
Perceived Quality				65.12
Courteous staff	3.84	.81	.85	

Supportive staff	3.56	.84	.87	
Individual attention	3.67	.85	.89	
Equipped modern equipment	3.76	.84	.76	
Adequate stock of medicine	4.11	1.03	.88	
Clean premises	3.88	.85	.87	
Clean room and toilets	3.52	.88	.83	
Professional appearance	3.57	.87	.85	
Good parking area	3.87	.84	.76	
Accurately identified health problem	3.86	.83	.79	
Provide service at right time	4.01	.87	.78	
Caring staff	3.57	.81	.85	
Effective communication of staff	3.75	.91	.76	
Effectively respond the requests	4.11	.89	.77	
Staffs are ready to help	4.05	.85	.75	
Brand Image				53.78
Sincere to patient patients	3.77	.86	.87	
Clean environment	3.68	.83	.79	
Perform social activities	3.88	.88	.75	
Quiet and restful	3.66	.84	.81	
Positive image	3.75	0.85	0.78	
image differentiation	3.54	.81	.87	

Brand equity as dependent variable and four independent variables like brand awareness, brand loyalty, perceived quality, and brand image. The beta coefficient value indicates that brand awareness, brand loyalty, perceived quality and brand image influence brand equity ($p = 0.000$). The R square value is 0.386. and mean square of regression is 22.312. The result of Factor analysis as per Table 2 shows that 76.85 percent of variance is explained by brand awareness, 68.72 percent by brand loyalty followed by 65.12% by perceived quality.

From the confidence interval shown in Table 3, it can be seen that the respondent's opinion about brand image is different from criterion brand loyalty. On the other hand respondents have high probability of disagreeing with brand image.

Based on Kruskal-Wallis W score, it can be inferred that the opinions about the scale items among the Decision Makers are statistically different somehow. From this ridit analysis a direct sorting of mean ridits in term of the probability of being agreeing propensity gives the following sequence. Table 4 gives the significance criteria for selecting the suppliers. Decision Makers are more agreeable with brand awareness.

In Table 5 t value represents the degree of agreement to scale item. A large t value represents a high degree of agreement. According to the magnitude of t values of scale items shown in Table 5, brand awareness has highest score, followed by brand loyalty and perceived quality. Brand image is having lowest score.

Table 3:
Result of Ridits Analysis

Criteria	pi	UB	LB
Brand Awareness	0.4764	0.543067	0.409733
Brand loyalty	0.456844	0.523511	0.390178
Perceived Quality	0.486867	0.553533	0.4202
Brand image	0.579889	0.646556	0.513222

Note: UB: Upper Bound of the 95% confidence interval of mean ridit pi .

LB: Lower Bound of the 95% confidence interval of mean ridit pi .

Kruskal-Wallis W = 8.076

Table 4:
Ridits Ranking for Different Factors

Criteria	Ranking
Brand loyalty	1
Brand Awareness	2
Perceived Quality	3
Brand Image	4

Table 5:
Grey Relational Score for Four Factors Contributing to Brand Equity

tbrand awareness	64.24
tbrand loyalty	67.86
tbrand image	45.67
tperceived quality	61.23

XII. DISCUSSION

The study focuses on brand awareness, brand loyalty, perceived quality, and brand image and their relationship with brand equity in healthcare industry. It is evident that brand awareness, brand loyalty and perceived quality are important components that have a greater impact on brand equity. The brand image has indirect effect on brand equity. Further the brand loyalty is the stronger factor that influences brand equity. The findings support the hypotheses that health care brand equity is directly influenced by the perceived quality (H1), and brand loyalty (H2) and indirectly influence by image through brand loyalty (H4).

XIII. CONCLUSION

The study mainly gives a framework of healthcare brand equity and its relationship with brand awareness, brand loyalty, perceived quality, and brand image in healthcare industry. The result of the study indicates that brand

awareness, brand loyalty and perceived quality are positively contributed to brand equity. So the service provider of healthcare industry must be keen on these service parameters. In order to strengthen the perceived service quality, hospital management should focus on staff behaviour, assurance, and tangibility. The communication quality and promptness to the queries as well as staff behaviour is important. The tangible factors like adequate stock of medicine, availability of high end technology, equipments, parking space also add to perceived service quality. The brand awareness is the major factors for brand equity. Hence the promotional activities is important path to aware the customer about the service and facilities they are delivering to the customers. This will help the customer to avail the services and ultimately help the hospitals to increase their exposure and potential in the market. The service provider can build image by enhancing brand loyalty through improving organizational image and work for the people. The study concludes that brand awareness, brand loyalty and perceived value are the three major components that contribute for the enhancement of brand equity in healthcare industry.

XIV. IMPLICATION OF THE STUDY

As the study is analysed the customer based brand equity of healthcare industry by taking the customer profile as well as brand awareness, brand loyalty, perceived quality and brand image, it is more comprehensive for designing and delivering the service package for a health care industry. This study can also be utilized for further research in the area of brand equity by taking additional component relevant to service brand equity. It can also be utilized other sector having service as a component of delivery agenda.

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