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MEASUREMENT OF BRAND EQUITY - AN EMPIRICAL EVIDENCE OF INDIAN CAR INDUSTRY

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Abstract

In the dynamic scenario of competitive market and with the increasing concern for quality, brand and brand management have become a core element of the corporate policy. Brand is a distinguishing name and a symbol, logo, trademark, package, and design intended to identify the goods or services of either one seller or a group of sellers and to differentiate these goods and services from those of competitors. Brand Loyalty is the psychic allegiance to the combination of attributes of a branded product focusing on the valuation of a brand. A brand is an index of how strong and successful a firm is. Hence Brand Valuation has become important in the current business environment. This paper vividly describes the Interbrand Method of Brand Valuation and evaluates the Brand Equity of selected car manufacturing units. The analytical result reveals that Maruti has scored the maximum brand equity, followed by Hyundai and Tata.

Keywords: Brand Equity, Brand Valuation, Interbrand, Indian Car Industry

1. Introduction

In the dynamic scenario of competitive market and with the increasing concern for quality, Brand and Brand Management have become a Core Element of the Corporate Policy. According to Aakar (1991) [1,] "Brand is a distinguishing name and a symbol, logo, trademark, package, and design intended to identify the goods or services of either one seller or a group of sellers and to differentiate these goods and services from those of competitors. Brand Loyalty is the psychic allegiance to the combination of attributes of a branded product focusing on the valuation of brand". Brand Evaluation has become an important measure of valuing a product in the current business environment. A Brand is an index of how strong and successful a firm is. There are various methods developed for valuing Brand Equity. They are Cost Based Approaches, Market Based Approaches, Royalty Method, Discounted Cash Flow Method and Interbrand Method. Among them, Interbrand has been adjudged as the widely used method to ascertain brand strength and to arrive at the brand value. Valuing Brand Equity of selected car brands is presented in this paper.

2. Major Car Manufacturers in India

There are many companies producing cars such as Maruti, Tata, Hyundai, Ford, Honda, Toyota, Chevrolet etc. in the Indian Market. The top leaders in this domain are Maruti, Tata and Hyundai as these companies have a total market share of 75 percent and provide confidence, tangible values and status to the customers by giving a brand name to its product. Hence this Study focuses on only three companies-Maruti Suzuki Indian Limited, Tata Motors India Limited and Hyundai Motors India Limited. A brief description of the selected car manufacturers is given below.

Maruti Suzuki India Limited is the premier car company in India. Maruti Udyog Limited (MUL) was established in Feb 1981. The company entered into collaboration with

Suzuki Motor Corporation of Japan to manufacture cars. Maruti is the highest volume car manufacturer in Asia, outside Japan and Korea. Despite there being 19 companies now in the passenger car market in India, Maruti holds about 50% of the total market share. Maruti Udyog Limited has many unique service advantages for the customers. On 17th September 2007, Maruti Udyog was renamed as Suzuki India Limited. Both in terms of volume of vehicles sold and revenue earned, the company is India's leading automobile manufacturer and the market leader in the car segment. It has bagged the First Position in JD Power Customer Satisfaction Index consecutively for the last ten years. The company was also ranked the highest in the India Sales Satisfaction Study. The models of Maruti Udyog Limited cars are Maruti 800, Maruti Alto, Maruti Zen, Maruti Zen Classic, Maruti Esteem, Maruti Gypsy, Omni, Wagon R, Versa, Baleno, Swift and Grand Vitara.

Tata Motors Limited is India's largest automobile company with large revenues. It ranks first in the category of commercial vehicles and the second largest in the passenger vehicles, mid size car and utility vehicle segments. The company is the world's fifth largest medium and heavy commercial vehicle manufacturer. Over 3.5 million Tata vehicles are moving on Indian roads since 1954. The models of the company are Tata Indigo, Tata Indica, Tata Sumo, Tata Safari and Tata Indigo Marina.

Hyundai Motor India Limited (HMIL) was established in 1996 and it is a wholly owned subsidiary of South Korean Multi National, Hyundai Motor Company. HMIL is the fastest growing and the second largest car manufacturer in India and presently selling 30 variants of passenger cars in six segments. The Company has set up more than 70 dealer workshops that are equipped with the latest technology, machinery and international quality press, body and paint shops, across the country, thereby providing a one-stop shop for a Hyundai customer. Hyundai also has a fleet of 78 emergency road service cars that can provide emergency service to all its customers anytime, anywhere. The models of Hyundai are Santro, Getz, Accent, Elantra, Sonata, Tucson and Terracan. The new models of Hyundai Motors are Verna, Getz next generation and Santa Fe.

3. Review of Literature

A brief description of the literature relating to this research topic is given below.

According to Roger A. Kerin & Raj Sethuraman (1998)[2], it is generally claimed that brand names are a corporate asset with an economic value that creates wealth for a firm's shareholders. However, the scholarly literature has neither provided a comprehensive theoretical basis for this claim nor documented an empirical relationship between brand value and shareholder value. This exploratory study describes a rationale for, and documents the statistical strength and functional form of a Brand Value Shareholder Value Relationship for publicly held consumer goods companies in the United States. A theoretical argument supportive of a positive relationship between a firms' accumulated brand value and Market-to-Book (M/B) Ratio was empirically validated. Even though firms with higher accumulated brand values have higher M/B Ratios, the functional form of the relationship was found to be concave with decreasing returns to scale. Theoretical and managerial implications of these findings are outlined, as well as study limitations and directions for future research.

From the point of view of Thomas J. Madden, Frank Fehle & Susan Fournier (2006)[3], this research responds to the attendant need for empirical evidence pertaining to how marketing affects firm performance. Using the Fama-French Method, common in finance, and a leading marketplace measure of a brand's financial equity value, the authors provide empirical evidence for the Branding-Shareholder Value Creation Link. The results extend previous research by showing that strong brands not only deliver greater returns to stockholders than does a relevant benchmark but do so with less risk. This finding holds even when market share and firm size are considered.

Fang Wang & Xiao-Ping (Steven) Zhang & Ming Ouyang (2008)[4], enquire into the nature and degree of advertising effects on firm intangible values. Based on marketing research on consumer based brand equity, this paper challenges the prevailing decaying assumption employed in the accounting/finance disciplines to model the advertising-firm value relationship. Meanwhile, using financial data and methods, they provide new measures for the marketing discipline to evaluate the effectiveness of advertising to create brand intangible. Results indicate that advertising effects on firm intangible assets are sustainable and accumulative and support the asset/investment-like characteristics of advertising expenditures. The research provides an empirical method to assess long-term advertising performance and suggests firms' varying effectiveness in creating brand equity through advertising. This study is the first to report negative persistence effects of advertising to firm intangible values.

According to Robert A. Peterson & Jaeseok Jeong (2010)[5], a parsimonious framework linking advertising expenditures and research and development expenditures to brand value, and brand value in turn to firm-level financial performance, was proposed and empirically investigated under four data conditions: data form, brand type, financial performance metric, and lag structure. Using pooled data from 125 firms (848 firm-year observations) over the period 1991–2007, 108 path analyses were conducted to compute five path model output metrics. Data on these metrics were then compared for each of the data conditions by means of analysis of variance. Although significant relationships were generally observed among framework variables, study results differed considerably across three of the four data conditions. The principal take-away from the study is that the impact of marketing activities on firm-level financial performance is likely to be in large part a function of the specific research purpose and methodology employed. As such, the take-away has implications while interpreting value-relevance findings, constructing theories involving market-based assets, and designing studies to investigate relationships between marketing and financial performance.

The review of literature reveals that many studies were done on Brand Valuation only in relation to FMCG Products and Service Sector Units. This study focuses on durable goods relating to automobile industry, especially Passenger Cars. Further, literature review vividly shows that the studies were focused on building and conceptualizing Brand Equity with no consensus on how to measure it or what constructs to include in the measurement process. Therefore, there is an urgent need to identify and opertionalize Brand Equity Constructs in a way that allows researchers to empirically measure them and effectively analyze the key factors associated with brand market performance.

4. Brand Valuation

In today's business arena, Brand Valuation plays a key role. The intellectual properties of the business like patents, copyrights, design, trademarks are getting greater importance. The valuation of such intangible assets helps the Brand Valuation. It is most frequently used in some sort of transaction, including balance sheet. According to Harsh (2008), [8] "Brand Valuation is the process of assigning financial value of brand. Brand Value is the Net Present Value (NPV) of the forecast brand earnings, discounted by the Brand Discount Rate (Interbrand). The value of the brand depends both on a good and a strong financial performance and the result of owing powerful brand to the increased shareholders value". The Brand Value does not depend only on the consumers' behavior and therefore, it is crucial to conceptualize Brand Value Creation Process and develop adequate quantitative methods of measuring Brand Value. A brand is an index of how strong a firm is. There are various methods which have been proposed for evaluating a brand. These include Cost Based Method, Market-Based Method, Royalty Method, Discounted Cash Flow Method and Interbrand Method. Interbrand has also proposed a procedure which is based on brand strength to arrive at brand valuation.

4.1 Cost Based Method

Typically, Cost-Based Brand Valuation Methods take into consideration the costs that have been incurred by the company to create the brand. These methods are not forward looking. Rather, they look backwards into history. The Cost-Based Method is conceptually the least defensible. It is perhaps the weakest. In order to arrive at the value of all costs including advertising, promotions, research and development, that have gone into brand creation are added and converted into current prices. For instance, for an imaginary brand like 'Rootsa' Rs.50 Crores was spent in brand building. According to Cost Based Method, the Brand's Value Would be Rs.50 Crores.

4.2 Market Based Method

Consider how various things are traded on the basis of market price. For instance, if a maruti 800 car is available for sale, how does one calculate its price? The immediate point of reference that is taken for arriving at its value is the year of its purchase and the price at which other cars are sold or bought with the same characteristics. The price which is generally quoted is above, equal to or less than the average price of similar goods or articles. Here, the value is determined by making a reference to the market price of comparable brands in recent transactions.

4.3 royalty method

Under the royalty method, the brand value is estimated by the royalty income that a brand would generate if it is licensed out to another party [8]. For instance, what would be the brand value of nescafe brand for nestle? Or in other words, how much royalty would nestle have to pay to a third party if it did not have its own coffee brand and desired to use nescafe? The royalties in this method are added for a specific period in future and then added and discounted to arrive at the net present value. This method of brand valuation is quite popular among accounting firms. There are two important dimensions of these methods: The expected future sales or forecast sale and the royalty rate. Both these numbers need extreme caution in its calculation. A wrong sales projection or incorrect royalty rate that is applied to the sales may throw the whole brand valuation exercise out of gear. Therefore, while calculating the royalty rate applicable to brand sales, a reference has to be made with reference to the industry scenario, characteristics of comparative licensing arrangement, nature of business, speculative or established, etc.,

4.4 Discounted Cash Flow Method

"An asset is something which is useful to the business because of its unique capability to generate revenues or profits in future. The economic value of an asset to a great extent depends on the revenue or profit stream which is associated with it. Greater the revenue, the more will be its valuation, and vice versa. The discounted cash flow method of brand valuation takes the brand as an asset" [9]. It is to be observed that the brand ownership brings cash flows or returns. The estimation of the returns from brand ownership is what is aimed at in this technique of Brand Valuation.

4.5 Inter Brand Method

"The Inter Brand method of valuation is a kind of discounted cash flow method. Historical earnings are not sufficient for valuing the brand, because past earnings may not provide authentic and reliable indication of a brand's future performance. Therefore, this method relies on future cash flows which could be associated with the brand" [9].

The Interbrand Procedure includes the following step: Firstly, the percentage of revenues which could be accounted for by the brand from the total earnings of the business is figured out. Secondly, with the help of experts, projections are made about the net earnings of that business. Thirdly, earning due to intangible factors is found out. This is done by deducting a charge for the ownership of tangible assets. Their contribution to the earnings is deducted. The residual is earnings generated by intangible assets like patents brand, etc., The fourth step is to identify the earnings of intangible assets. The issue is something like this: when we buy groceries from a store, is the earning to the store due to brand name or its physical location which provides convenience to customers?

Brand Equity Valuation

Brand Value is the net present value of future earnings generated by the brand alone. The Interbrand Method is based on three economic functions of the brand: first, Cost Synergies, second, Demand Generation and third, Secure Future Demand (thereby reduce operative and financial risk). The Brand Evaluation Process consists of the following five steps:

i) Segmentation

Markets are generally made up of different segments. Consumer Behaviour and attitudes vary towards brand. This calls for separate assessments for individual segments for arriving at correct valuation of the brand.

ii) Financial Analysis

The Brand Valuation Process starts with the assessment of company value and then the contribution made by the brand. This requires isolation of brand's contribution from total income. Accordingly, economic value added is calculated. This helps us to find out whether the firm is able to generate returns that exceed cost of capital.

iii) Demand Analysis

Brand's Value is influenced by how it is positioned in the minds of customers. Interbrand Valuation takes into account the factors that influence consumer demand and motivate purchase. The factors so identified are weighed in terms of their influence on demand. The contribution of brand's association is statistically calculated and expressed as Role of Brand Index (ROBI)

iv) Brand Strength Analysis

Brand Strength is inversely related to risk. Low risk implies greater certainty of future earnings. The brand's strength is analyzed in comparison with its competitors on the basis of seven facts. These include market, stability, brand leadership, support, trend, internationality and protection. This measure diagnoses the brand's competitive position.

v) Net Present Value

The economic value of future earnings of a brand is inversely correlated with estimated risk (and risk has direct relation with brand strength). The Brand's Strength is transformed into Brand Risk through S-curve. Depending upon the Brand Strength, the discount rate is applied (risk free rate from strongest brands).

Some brands are strong and some brands are weak. Strong brands signify strength and certainty in future earnings. Under weak brands, future earnings tend to be shrouded with uncertainties. The final step in the Interbrand Valuation Method is to calculate the Brand Strength. The features of Brand Strength are:

1. **Market Characteristics:** Brands in growing markets are better and stronger than declining or trend based markets.
2. **Stability:** Established and familiar brands tend to be stronger and enjoy customer loyalty.

3. **Leadership:** Leading brands in the product category are stronger. They are better positioned to influence the market they operate in.

4. **Internationality**: This signifies a brand's acceptance in other markets. Widely accepted brands can always offset misfortune in one market with gains in the other markets.

5. **Trend:** What is brand's performance over time? Consistent brands exhibit their relevance to customers.

6. **Support:** How consistently has the brand been supported by the company? It is not a matter of one time investment in the brand, rather quality and consistency of investments made in the brand matter.

7. **Protection:** Protected brands are stronger. Brand Protection is Brand Strength. These seven dimensions of Brand Strength Criteria are not equally weighted. Thus, a total score is divided amongst these dimensions on the basis of their importance.

5. Objectives of the Study

The main objective of the study is to evaluate Brand Equity of selected car manufacturers in India.

6. Hypotheses of the Study

1. There is no difference between the values of NOPAT and Brand Value
2. There is no difference between the values of TBV and Brand Value

7. Methodology of the Study

It is an analytical study based on secondary information provided by the selected car manufacturing units. Among the several models of computing Brand Equity, Interbrand Method is widely adopted. Hence the Researchers also have used the Interbrand Method for computing Brand Equity of the selected car manufacturing units. It is based up on the application of Brand Strength Assessment because they require a complete and comprehensive brand analysis and then to balance that valuation against the other less comprehensive methods to set final Brand Value. The study period covered the period 2006 -2010. Researchers have modified this method on the following lines.

Financial Performance measures an organization's raw financial returns to the investors. But for Brand Equity Valuation, the Researchers have used the Concept of Economic Profit which is a concept akin to EVA.

To determine economic profit, Net Operating Profit After Tax (NOPAT) was calculated. From NOPAT, a capital charge is subtracted to account for the capital used to generate the brand's revenues and this provides the Economic Profit for each analyzed year.

For the purpose of rankings, the Capital Charge Rate is set by the Industry Weighted Average Cost of Capital (WACC). The financial performance was analyzed for a five-year forecast and for a terminal value.

The Terminal Value represents the brand's expected performance beyond the forecast period. The Economic Profit is then multiplied against the role of brand to determine the branded earnings that contribute to the valuation total as noted earlier.

8. Analysis & Discussion

Brand Equity has been calculated by adding Discount Brand Earning and Terminal Brand Value. The basic assumptions laid down for adopting this Model are:

1. The average annual growth rate of the car industry is 2.5%
2. The Weighted Average Cost of Capital 15%

This Model helps the management to review the brand decisions on a Return-On-Assets basis which tries to link investment made on a brand to the increments in Brand Value over a reasonable period of time. Brand Equity Valuation using the Interbrand Model, reveals to the management the disparities between its assumptions and the market realities pertaining to the brand, and also brings the management closer to its consumers and helps them to be more responsive to market needs. The cumulative effect of brand value over a period of last five years has been computed and shows the Brand Equity of the car unit. While comparing the results of Brand Equity Value of three car units, Maruti obtains the highest value, followed by Hyundai and Tata Motors. Based on the T-test, the results indicate that the calculated value (5.62) is more than table value (2.6) and hence it is concluded that there is significant difference between NOPAT, TBV and Brand Value at 5% level of significance.

9. Conclusion

In a nutshell, this article highlights the emerging need for gaining Brand Equity to be the sine qua non for all types of industries to thrive in the competitive environment. Car Industry is not an exception to this competitive strategy. The continuous promotion of Brand Value will facilitate the unit to capitalize on its brand and gain Brand Equity. The result of this paper clearly shows that MUL was able to maintain Brand Equity consistently during the Study Period and it ranks No.1 in terms of Brand Value.

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Exhibit - 1 Maruti Suzuki Brand Value

	Rs.Crore				
PARTICULARS	**2006**	**2007**	**2008**	**2009**	**2010**
NOPAT	1189.1	1561.6	1730.8	1218.7	2497.6
CAPITAL EMPLOYED	5524.3	7484.7	9315.6	10043.8	12656.5
CAPITAL CHARGED @ 8%	441.944	598.776	745.248	803.504	1012.52
INTANGIBLE EARNINGS	747.156	962.824	985.552	415.196	1485.08
ROLE OF BRANDING INDEX @79% BRAND EARNING	590.2532	760.631	778.5861	328.0048	1173.213
BRAND DISCOUNT RATE @ 15%	88.53799	114.0946	116.7879	49.20073	175.982
DISCOUNTED BRAND EARNINGS	501.7153	646.5363	661.7982	278.8041	997.2312
NPV OF DISCOUNTED BRAND EARNINGS					3086.085
NPV OF TERMINAL BRAND VALUE					10971.46
BRAND VALUE					**14057.54**

Source: www.marutisuzuki.com

Exhibit - 2 Hyundai Motors Brand Value

	Rs.Crore				
Particulars	**2006**	**2007**	**2008**	**2009**	**2010**
NOPAT	406.92	525.1	466.75	514.12	195.64
CAPITAL EMPLOYED	1948.01	2576.97	4411.43	6137.11	7274.59
CAPITAL CHARGED @ 8%	155.8408	206.1576	352.9144	490.9688	581.9672
INTANGIBLE EARNINGS	251.0792	318.9424	113.8356	23.1512	-386.327
BRAND EARNING	198.73	251.96	89.93	18.29	-305.2
BRAND DISCOUNT RATE @ 15%	29.8095	37.794	13.4895	2.7435	-45.78
DISCOUNTED BRAND EARNINGS	168.9205	214.166	76.4405	15.5465	-259.42
NPV OF DISCOUNTED BRAND EARNINGS					215.6535
NPV OF TERMINAL BRAND VALUE					2019.12
BRAND VALUE					**2234.774**

Source: www.hyundaimotors.com

Exhibit - 3 Tata Motors Brand Value

	Rs.Crore				
Particulars	**2006**	**2007**	**2008**	**2009**	**2010**
NOPAT	1528.88	1913.39	2028.92	1016.55	2240.08
CAPITAL EMPLOYED	8447.52	10852.94	14094.51	25534.76	31591.38
CAPITAL CHARGED @ 8%	675.8016	868.2352	1127.561	2042.781	2527.31
INTANGIBLE EARNINGS	853.0784	1045.155	901.3592	-1026.23	-287.23
ROLE OF BRANDING INDEX @79% BRAND EARNING	673.93	825.67	712.08	-810.72	-226.9
BRAND DISCOUNT RATE @ 15%	101.0895	123.8505	106.812	-121.608	-34.035
DISCOUNTED BRAND EARNINGS	572.8405	701.8195	605.268	-689.112	-192.865
NPV OF DISCOUNTED BRAND EARNINGS					997.951
NPV OF TERMINAL BRAND VALUE					956.95
BRAND VALUE					**1954.901**

Source: www.tatamotors.com