Brand resonance score for CBBE model: an application in financial services

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Abstract

Purpose – Brand resonance will significantly improve the profits of the services industry in the twenty-first century. The purpose of this paper is to find the resonance score for modified customer-based brand equity (CBBE) model in mutual fund financial services and improve the conceptualization of customer-based mutual fund services' brand equity through brand resonance.

Design/methodology/approach – The path values of SEM model was used to estimate the relative weights of criteria and sub-criteria in analytic hierarchy process (AHP) model and it was empirically tested with a sample of 240 mutual fund investors.

Findings – The brand resonance using AHP has been quantified. The resonance quantification of each brand has been demonstrated using two renowned Indian mutual fund services brands State Bank of India and Hong Kong and Shanghai Banking Corporation.

Research limitations/implications – The interdependency of the factors which influence the resonance score is not explored.

Practical implications – Research findings provide useful guidelines for fund managers/analysts of mutual fund services companies while improving the brand equity and strong brand's resonance with investors.

Originality/value – The paper examines quantification of resonance for modified CBBE model in mutual fund services using data from a sample of investors in India with two mutual fund brands. The AHP structure model helps firms effectively quantify the resonance score.

Keywords Analytical hierarchy process, Structural equation modelling, Brand resonance, Mutual fund services

Paper type Research paper

1. Introduction

Brand equity is very important to companies for their existence in the contemporary business environment. Brand equity is an intangible asset, "it is a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers" (Longwell, 1994). Brand equity is a very important concept in business practices for marketers who can gain competitive advantage through successful brands (Lassar *et al.*, 1995). Brand equity with tangible goods has received great attention in literature but brand equity for services is yet to emerge, importantly in the financial services area. Most of what is known about brand equity for services is based on theoretical or anecdotal evidence (Krishnan and Hartline, 2001). Brand power is very important to service firms. Service marketer's understanding of how to measure and manage brand power has occurred primarily through the investigation of brand equity (Taylor *et al.*, 2007). The importance of brand equity has grown in recent decades and

research has focused primarily on its effect on physical goods (Berry, 2000). But, service brand equity has received relatively little scrutiny in the academic literature and popular press (Berry, 2000) and there is a lack of research on the brand equity of financial services especially mutual fund services.

Brand equity is vital for services. The services sector has been a great stimulus to the Indian economy, accounting for 56.9 percent of the gross domestic product, wherein the financial services segment has been a major contributor. Service industries such as financial services are facing increasing competition; so they try to establish strong brands not only in the market, but also in the head of the customer (Gustafsson *et al.*, 2005). Many of the existing consumer-based measures of brand equity, which have traditionally been used in the consumer good markets, can also be used to capture brand equity in the services markets (Maio Mackay, 2001). Mutual funds services have played an active role in the global financial markets. The first modern mutual fund came up in the USA in 1924 before the Great Depression. World mutual fund sector has witnessed exponential growth in the last decade in spite of witnessing one of the world's worst financial crises. Currently worldwide assets in mutual funds are at USD246 trillion and Indian Mutual Fund industry stands at INR7.1 trillion of assets under management raised from 470 million accounts (Sundaram, 2012). When it comes to understanding Keller's customer-based brand equity (CBBE) building blocks and mutual fund financial services, enough studies have not yet been conducted. This study is concerned with refining the general theory on brand equity and developing a conceptual framework model to understand the building of brand resonance through the mutual fund services brand.

The objective of this research is to asses Keller's brand equity model in the context of mutual fund services. The end results of this research can lead to a deeper understanding and structural composition of Keller's brand equity determinant's interrelationships in the mutual fund services sector. The author conceptualizes brand equity using the CBBE model (Keller *et al.*, 2011). Furthermore, the study provides empirical evidence about the existence of interrelationships between Keller's brand equity building blocks. This study is testing Keller's CBBE concept in the mutual fund financial services context. In the literature, brand equity has been discussed by many researchers. Brand development is imperative in services because of the complicatedness in differentiating products that are deficient in terms of material differences (Zeithaml, 1981).

The research is intended to add to the extant literature. First, much of the published brand equity research has focused on Aaker's brand equity dimensions only. Literature available on the Keller's CBBE model is scarce and in the available literature also no research that quantifies the brand resonance has been carried out. Quantifying brand resonance is very beneficial to the corporates in their strategic issues. This study, therefore tests the Keller's CBBE pyramid model in mutual fund financial services using data from a sample of investors in India and this research is a new step in the direction of building brand equity for the financial services sector. Brand resonance is very important for every service-based company because most of the companies give high priority to resonance. Quantification of brand resonance will give value to the companies while comparing with competitors and set strategies according to the resonance.

A decision maker evaluates business alternatives by using multiple criteria and multi-criteria decision making (MCDM) tools play an important role in making the evaluation clear and simple (Chitnis and Vaidya, 2016).The analytic hierarchy process (AHP) is one of the techniques of MCDM, used to evaluate the alternatives and determine the relative priorities or weights to be assigned to different criteria and alternatives (Liang, 2003) and provides an easily understood way of analyzing complicated problems (Dey, 2002). In this research paper, an effort has been made to arrive at a brand resonance score by combining structural equation modeling and AHP.

2. Keller's CBBE

A thorough understanding of brand equity from the customer's point of view is essential for successful brand management (Tong and Hawley, 2009). Brand equity occurs when a brand is known and has some strong, favorable and unique associations in a consumer's memory (Keller, 1993). As shown in Figure 1, the CBBE model identifies four building blocks for building a strong brand. In this pyramid, each block is dependent on successfully achieving the previous from brand identity to brand meaning, brand response and finally brand relationships. These steps in turn consist of six brand building blocks – brand salience, brand performance, brand imagery, brand judgments, brand feelings and brand resonance. The ultimate aim is to reach the pinnacle of the CBBE pyramid-brand resonance – where a completely harmonious relationship between customers and the brand is attained. According to Keller (2001), the six building blocks are:

(1) brand salience, which relates to how often the mutual fund brand is evoked in the minds of the investors investing money in specific mutual fund companies;

(2) brand performance, the degree to which the mutual fund brand meets the functional needs of investors;

(3) brand imagery, which relates to the extrinsic properties of the mutual fund services;

(4) brand judgments, which concentrate on the personal opinions and evaluations of investors of mutual funds;

(5) brand feelings, which are the emotional responses and reactions of investors of mutual funds toward the brand; and

(6) brand resonance, which refers to the investor relationship and the degree to which investors believe that they are "in sync" with the mutual fund brand.

In the brand building block, brand resonance occurs when all other brand building blocks are established and investors express a high degree of loyalty to the brand such that they actively interact with brand and share their experience with others when true brand resonance is present (Keller, 2001).

The Keller model mainly focuses on mutual fund investor's perceptions of brands on the assessment of brand equity; but in the context of mutual fund financial services, brand salience, performance, imagery, judgments, feelings and resonance building blocks have interrelationships among them and have a positive impact. The first step in building a strong brand is to ensure the correct brand identity. The second building block establishes brand meaning which is made up of two major categories of brand associations related to performance and imagery (Keller *et al.*, 2011). These associations can be formed directly, from the investor's own experience and contact with the specific mutual fund brand, through advertising or word of mouth. Brand performance describes how well the mutual fund service
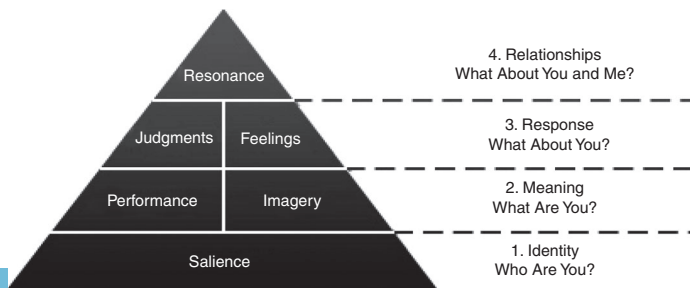

Figure 1.
Keller's customer-based brand equity pyramid

meets the investor's functional needs such as service effectiveness, service efficiency and service empathy. The other main type of brand meaning is brand imagery which depends on extrinsic properties of the service. Brand response is the third building block in the Keller model and represents what investors think or feel about the brand. Brand responses are distinguished either as brand judgments or brand feelings. Investors may make four types of judgments which are quality, credibility, consideration and superiority with respect to the brand. Brand feelings are investor's emotional responses and reactions to the brand such as warmth, fun, excitement, security, social approval and self-respect (Keller, 2013). Brand resonance is the final building block in the pyramid where brand response is converted to create an active loyalty relationship role between investors and the brand. The pinnacle of the pyramid is resonance, described as having four elements: behavioral loyalty, attitudinal attachment, sense of community and active engagement (Keller *et al.*, 2011).

2.1 Modified CBBE model
Modified CBBE consists of brand meaning, brand response and brand relationship only. Brand identity will not be considered in this model because respondents who are well informed about brands are considered as the sample of this study. The brand meaning constructs brand performance; brand imagery influences the brand response and it constructs brand judgments and brand feelings. Finally, brand response will lead to the brand relationship like brand resonance which is the ultimate goal of firms. The model has to be changed in order to arrive at the quantification score. The modified CBBE model is shown in Figure 2.

3. Research gap
A literature review of brand equity shows that, there has been great research on Aaker's brand equity model but in the Keller CBBE model, less research has been done especially in financial services. Using CBBE model, quantification of brand resonance has not been explored. Hence, to address this research gap, an attempt has been made in this paper to arrive at a brand resonance score for modified CBBE model in mutual fund services brands.

3.1 Objectives of the study
To address the above research gap, the following objectives have been constructed:

- to develop a model for quantifying the resonance; and
- to show how resonance quantification value can benefit the mutual fund services firms.
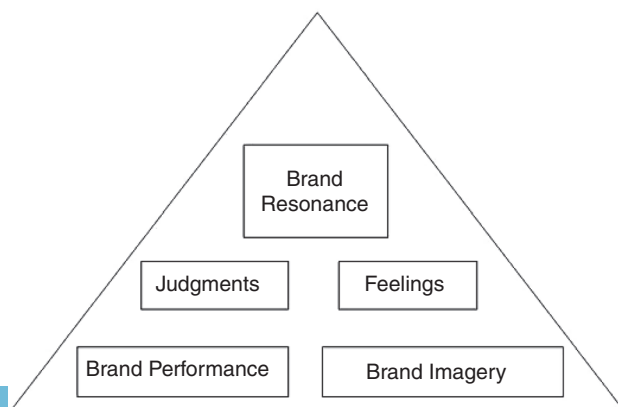

Figure 2.
Modified CBBE model

4. Methodology

4.1 Justification of the framework for resonance quantification

A modified CBBE is the base; the model has been developed to act as a conglomerate model using structural equation model and AHP. This is shown in Figure 3:

(1) The decision-making process which helps in arriving at resonance quantification value of any brand needs to be framed in hierarchical form.

(2) The CBBE model framework itself is in a hierarchical form which provides ample opportunity to apply techniques like SEM, AHP.

(3) The criteria and sub-criteria scores are estimated using SEM. This is done from the responses of the sample data (it automatically includes the fuzziness). Afterwards, in the lower level for the alternatives the AHP is used wherein the chances for fuzziness are less.

(4) Modified CBBE model has only four levels as shown in Figure 4. The identities are established for the brands for which the resonance is sought. Then, criteria and sub-criteria levels are used as SEM to calculate relative weights from path estimates. These estimates are arrived through the respondents.

(5) The alternatives are evaluated by forming pair-wise comparison matrix with respect to brand performance and brand imagery. The structure does not permit to arrive and use the path estimates of SEM for the alternative's evaluation. This requires using the AHP process to arrive at the relative weights for the alternatives.

(6) The relative weights arrived by both AHP and SEM are synthesized to arrive at the resonance score for each brand.

4.2 Estimation of path values using SEM

The importance of each criterion, sub-criterion constructs can vary from one brand to another. Therefore, we propose a questionnaire-based survey to obtain this information and incorporate this into the model. Relative weights are arrived from path estimates of SEM and the path estimates are arrived from the collective response of the respondents. SEM is the preferred technique because of the following reasons (Punniyamoorthy *et al.*, 2011):

(1) SEM does not have a limitation on the number of variables. Furthermore, there is no difficulty in hypothesis testing in SEM because it takes the confirmatory approach rather than the exploratory approach for factor analysis.

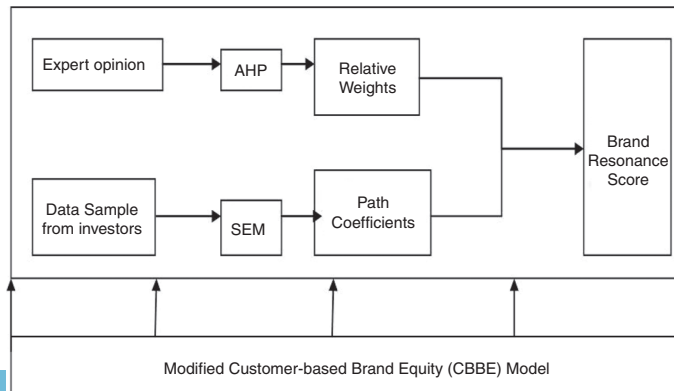(2) SEM is employed for testing the significance of the constructs as well as the indicators.

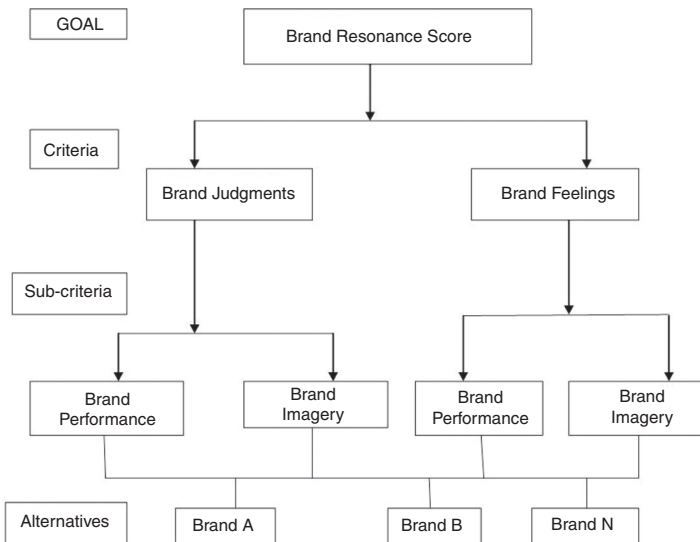**Figure 3.**
Brand resonance score model

Figure 4.
Hierarchical
structure of brand
resonance score

SEM consists of a twofold model: lower order model which explains the constructs and their items. The construct loading for each item against each construct is obtained from the lower order model. Higher order model explains the construct scores which are obtained from the construct loadings of the lower order model. Figure 5 shows the higher order model of CBBE.

The relationship between dependent and independent factors: path's estimates of brand performance to brand judgments and brand feelings (α_1, α_2), brand imagery to brand judgments and brand feelings (λ_1, λ_2) and brand feelings to brand resonance and brand judgments (γ_1, γ_2) are arrived by using SEM.
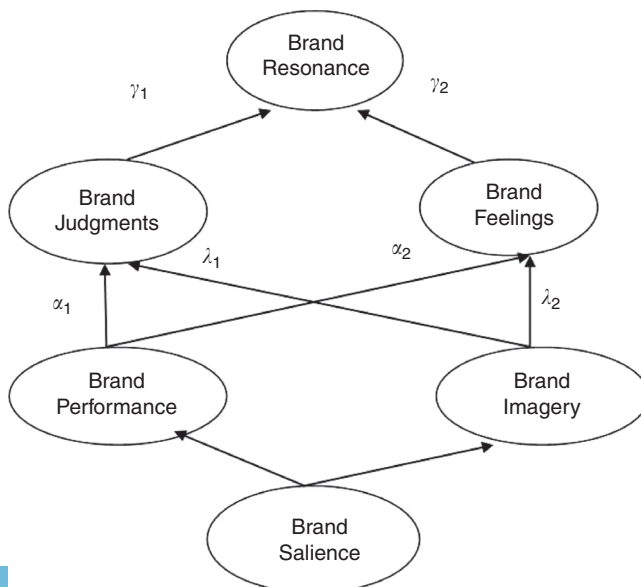

Figure 5.
Higher order model of
SEM with estimates

The relative weights for constructs: brand judgments and brand feelings which are criteria and brand performance and brand imagery which are sub-criteria are calculated. The relative weightage for criteria constructs is calculated using the expressions given below and the same formula is extended for relative weightage for sub-criteria constructs also:

$$\text{Criteria}_1 = \frac{\gamma_1}{\gamma_1 + \gamma_2} \tag{1}$$

$$\text{Criteria}_2 = \frac{\gamma_2}{\gamma_1 + \gamma_2} \tag{2}$$

4.3 Hypothesis formulation
The study aims to investigate the interrelationship between Keller's CBBE building blocks. On the basis of literature, we hypothesized directional relationships among brand salience, brand performance, brand imagery, brand judgments, brand feelings and brand resonance.

Brand identity and brand meaning. Based on the literature, for Keller's model, we propose a conceptual measurement model of CBBE. For this research achieving the right brand identity is creating brand salience with the respondents. Brand salience measures the awareness of the brand and it refers to the customer's ability to recall and recognize the brand under different conditions and link the brand name, logo, symbol and so forth to certain associations in memory (Keller *et al.*, 2011). Brand salience forms the foundation in developing brand equity.

Brand salience is usually not sufficient in building brand equity. For respondents, other considerations, such as the meaning or image of the brand play a major role. Brand meaning can broadly be distinguished in terms of functional, performance-related considerations vs abstract imagery-related considerations. Based on the objectives of the study, the following hypotheses were formulated between brand identity and brand meaning building blocks:

H1. Brand salience influences the brand performance.

H2. Brand salience influences the brand imagery.

Brand meaning and brand response. In Keller's model, after the brand salience building block, brand meaning will follow. After successful achievement of the right brand performance and brand imagery we have to develop brand responses which are how respondents judge and feel about a specific brand. Based on the brand meaning and brand responses constructs we created four hypotheses below:

H3. Brand performance influences the brand judgments.

H4. Brand performance influences the brand feelings.

H5. Brand imagery influences the brand judgments.

H6. Brand imagery influences the brand feelings.

Brand response and brand relationships. Finally, the pinnacle of Keller's pyramid is brand resonance. It focuses upon the ultimate relationship and level of identification that the respondents have with the brand. Brand resonance refers to the relationship between a brand and its users, including the consumer's willingness to purchase and to recommend to others (Wang *et al.*, 2008). Repurchase intention or loyalty is a core dimension of brand

equity (Aaker, 1996). Brand judgments and brand feelings will have influence on brand resonance construct; we created two hypotheses based on this below:

H7. Brand judgments influence the brand resonance.

H8. Brand feelings influence the brand resonance.

4.4 Calculate values for brands using pair-wise comparisons
A pair-wise comparison matrix is used to compare the brands with respect to brand performance and brand imagery constructs. Assuming that there are two brands, a 2×2 matrix will be used to compare brands against brand performance and brand imagery constructs (Tables I and II).

Pair-wise comparison values are according to Saaty AHP. The B_{P12}, B_{P21} and B_{I12}, B_{I21} values are the relative importance of one brand over another brand with respect to performance and imagery sub-criteria constructs.

The B_{P12}, B_{P21} values for brand performance and B_{I12}, B_{I21} values for brand imagery are calculated from the respondent's response of the two brands. The calculated values are correlated with Saaty scale and accordingly the importance values are assigned in the cell of the matrix.

4.5 Formulate an expression for brand resonance score
The relative weight of criteria and sub-criteria constructs and the impact of relative weight of brand i with respect to sub-criteria constructs are substituted to deduce the brand resonance score for brand i which is arrived as follows:

$$
\begin{aligned}
\text{Resonance score for brand } i = {} & [(\text{criteria 1 relative weight}) \\
& \times (\text{sub-criteria 1 relative weight}) \\
& \times (\text{relative weight of brand } i \text{ with respect to sub-criteria 1})] \\
& + [(\text{criteria 1 relative weight}) \times (\text{sub-criteria 2 relative weight}) \\
& \times (\text{relative weight of brand } i \text{ with respect to sub-criteria 2})] \\
& + [(\text{criteria 2 relative weight}) \times (\text{sub-criteria 3 relative weight}) \\
& \times (\text{relative weight of brand } i \text{ with respect to sub-criteria 3})] \\
& + [(\text{criteria 2 relative weight}) \times (\text{sub} - \text{criteria 4 relative weight}) \\
& \times (\text{relative weight of brand } i \text{ with respect to sub-criteria 4})]
\end{aligned}
$$

	Brand 1	Brand 2	
Brand 1	1	B_{P12}	Evaluation of brands with respect to performance construct
Brand 2	B_{P21}	1	

Table I.
A pair-wise comparison of brands with respect to performance

	Brand 1	Brand 2	
Brand 1	1	B_{I12}	Evaluation of brands with respect to imagery construct
Brand 2	B_{I21}	1	

Table II.
A pair-wise comparison of brands with respect to imagery

5. Application

5.1 Mutual fund services sector – an overview

Global mutual fund industry growth in the last decade, in spite of witnessing one of the world's worst financial crises, is exponential and the world's mutual fund assets have grown by 14 percent annually since 1999 (Sundaram, 2012). The first mutual fund in the USA was set up in March 1924 and it continues to be the largest contributor with 52 percent of world's mutual fund industry.

In India, mutual fund industry is divided into four phases:

(1) 1964-1987 (mutual fund concept was introduced in India with the setting up of Unit Trust of India (UTI) in 1963);

(2) 1987-1992 (entry of mutual fund companies sponsored by nationalized banks like State Bank of India (SBI) and insurance companies);

(3) 1992-1997 (Securities and Exchange Board of India issued the mutual fund regulations in 1993); and

(4) beyond 1997.

Indian mutual funds are spread across a wide range of industries and sectors. The mutual fund concept was introduced with the setting up of UTI in 1963, when the government created UTI. The UTI enjoyed a monopoly in the Indian mutual fund market till 1987. Later, the government permitted public sector banks, Life Insurance Corporation of India and General Insurance Corporation of India to the mutual fund sector. In 1993, private sector was allowed to enter the mutual fund sector.

In India, 44 mutual fund companies are offering different schemes which are categorized according to the type of investments as given below:

- equity funds/schemes;
- debt funds;
- diversified funds;
- gilt funds;
- money market funds;
- sector-specific funds; and
- index funds.

Equity funds are providing capital growth/appreciation by investing in the equity and equity-related instruments of companies over the medium to long term. Such funds normally invest a major part of their corpus in equities and these funds have a comparatively high risk. Equity schemes are good for investors having a long-term outlook. Mutual fund investors are investing more on equity funds of different mutual fund services brands in the market. In this research, we took a sample of respondents of SBI and Hong Kong and Shanghai Banking Corporation (HSBC) mutual fund services brands. SBI is the largest nationalized bank mutual fund brand in India and HSBC is a private bank mutual fund brand in India. The reason for taking only SBI and HSBC mutual fund brands is: one has a high brand equity and another has a low brand equity in the market.

In order to test our conceptual model, we surveyed a sample of SBI and HSBC Indian mutual fund investors about their opinion on CBBE model components. A total of 240 Indian mutual fund investors participated in this study. The research framework was designed to test the hypothesized relationships in a mutual fund marketing environment using SBI and HSBC mutual fund service brands in India. For the purpose, the mutual fund

sector in India was targeted. The huge investors in mutual funds are from the segments of farmers, teachers and engineers in the market. The collected samples from farmers, teachers, housewives and engineers have sufficient representative power for validity and generalizability of the real people for this research study. After the data collection, a total of 240 usable questionnaires were obtained, which is well above the critical sample size of 200 for developing structural equation models (Hair *et al.*, 2006).

5.2 Validity and reliability
We developed a scale on the basis of items used in the literature. Keller's CBBE consists of the six building blocks of the pyramid and it consists of salience, performance, imagery, judgments, feelings and resonance constructs. All construct items measuring brand equity were measured on a five-point Likert scale anchored by "1 = Strongly Disagree" and "5 = Strongly Agree". Brand salience, brand imagery, brand judgments, brand feelings and brand resonance were measured using a 19-item scale adapted from the branding literature (Keller, 2001) and for brand performance a six-item scale in the mutual fund sector was developed and validated through a series of discussions with experts in the mutual fund domain. The first section of the questionnaire consists of the demographic information about mutual fund investor with seven items – gender, age, educational level, occupation, monthly income, mutual fund company and type of mutual fund. In total, 240 samples were analyzed using SPSS 18.0 and IBM AMOS 20 software.

To conduct the exploratory factor analysis it was required to examine whether the items produced the proposed factors and if the individual items were loaded on their appropriate factors. Factor analysis with a principal component extraction and the varimax rotation technique was conducted on all measure items, and as intended, six distinct factors were found. Finally, confirmatory factor analysis was used to assess the items of the constructs more rigorously, based on the correlation matrix of the items. Specifically, confirmatory factor analysis was used to detect the unidimensionality of each construct. Unidimensionality is an evidence that a single trait or construct underlies a set of measures (Anderson and Gerbing, 1988). Measurement model will have six latent variables (factors/constructs). Each item was prescribed to be loaded on a specific latent variable. A completely standardized solution produced by the AMOS 20.0 maximum likelihood method showed that all 25 items were loaded highly on their corresponding factors which supported the independence of the constructs and provided strong empirical evidence of their validity. The clean factor patterns shown in the exploratory factor analysis was consistently found in confirmatory factor analysis.

Convergent validity is expected when each measurement's estimated pattern coefficient on its underlying construct factor is significant. The internal validity of the measurement model is examined by the calculating construct reliability and average variance extracted (AVE). As seen in Table AI, the construct reliabilities of the six constructs range from 0.835 to 0.947 and are well above the recommended value of 0.7 (Hair *et al.*, 2006). The AVE of each construct ranges from 0.743 to 0.825,which is more than 50 percent of the variance (Bagozzi and Yi, 1988) and this indicates that the variance captured by the construct is greater than the variance due to measurement error (Fornell and Larcker, 1981). As shown in Table AII, a squared root of AVE for each construct is greater than the correlation coefficient of the corresponding inter constructs, confirming discriminant validity (Fornell and Larcker, 1981). Therefore, the internal validity of the measurement model is adequate.

The conceptual model for brand resonance quantification is of the type shown in Figure 4. The first level constitutes the criteria for the brand resonance score. The second level is sub-criteria which explains the brand performance and brand imagery with respect to each criterion. In the first level and second level, the relative weightage of criteria and sub-criteria is found out using SEM approach. These relative weightages are used to arrive at the brand resonance score.

5.3 Hypothesis testing

The conceptual model is tested by SEM, which is performed in AMOS 20. The model includes brand salience as the exogenous construct. The exogenous construct is selectively related to five endogenous constructs brand performance, brand imagery, brand feelings, brand judgments and brand resonance. Overall, the model has resulted that the path estimates and their statistical significance the t-value of the all paths of models range from 2.33 to 11.37 with attained levels of significance at 0.05. The results of the hypothesis is shown in Table III.

The test of the model has achieved a reasonable fit. The RMSEA value is an acceptable one. Other fit indices like GFI, AGFI, NFI and CFI all provide good result for the model. The RMSEA value $\leqslant 0.1$ shows a mediocre fit (MacCallum *et al.*, 1996) and CFI value 0.910 is indicative of good fit (Hu and Bentler, 1999). The p-values of the estimates for hypothesis testing were determined in two-tailed t-tests (Table IV).

5.4 Applying AHP for brand resonance score

AHP is a decision-making method that decomposes a complex MCDM problem into a hierarchy and AHP incorporates the evaluations of all decision makers into a final decision, without having to elicit their utility functions on subjective and objective criteria by using pair-wise comparison of the alternatives (Saaty, 1990). The latent factors given by the SEM model is considered for the relative weighing of the criteria and sub-criteria. The relative weightage of criteria and sub-criteria are found out and tabulated in Table V.

According to Table V, the respective weights of the two criteria and two sub-criteria are brand judgments (0.87), brand feelings (0.13), brand performance (0.53) and brand imagery (0.47) with respect to judgments, brand performance (0.45) and brand imagery (0.55) with respect to feelings. Mutual fund investors' most important concerns are brand judgments compared to feelings. The investors are making huge judgments based on the performance

Hypothesized relationship	Parameter	Estimate	t-value	Conclusion
Relationships of the brand identity to brand meaning				
H1: brand salience→brand performance	A1	0.34	7.96	Supported
H2: brand salience→brand imagery	A2	0.70	11.37	Supported
Relationships of the brand meaning to brand response				
H3: brand performance→brand feelings	B1	0.14	2.94	Supported
H4: brand performance→brand judgments	B2	0.34	8.41	Supported
H5: brand imagery→brand feelings	B3	0.17	5.33	Supported
H6: brand imagery→brand judgments	B4	0.30	8.38	Supported
Relationships of the brand response to brand relationship				
H7: brand feelings→brand resonance	C1	0.12	2.33	Supported
H8: brand judgments→brand resonance	C2	0.83	9.19	Supported

Table III.
Results of the hypothesis

Index	Fit indices of SEM	Suggested values
RMSEA	0.1 (mediocre fit)	0.08-0.1
GFI	0.8	0.80-1
AGFI	0.77	0.80-1
NFI	0.891	0.80-1
CFI	0.910	$\geqslant 0.9$

Table IV.
Fit indices table of SEM

of a specific mutual fund. But, brand imagery which gives intrinsic properties has the highest value and influence on brand feelings.

Two mutual fund brands are chosen in this research study for quantification of brand resonance, namely, SBI mutual funds and HSBC mutual funds in India. SBI mutual funds have high brand equity and have captured a major market share compared to HSBC which has a low brand equity and less market share. By using eigenvalue method, we calculated the related weightage of mutual fund brands with respect to each sub-criterion like performance and imagery. This is shown in Table VI.

Brand performance average for SBI is 3.7124 and for HSBC is 3.011 from the respondent's data. So, the difference between the two brands is 0.701 with respect to performance. Brand imagery average for SBI is 3.8483 and for HSBC is 3.029 from the respondent's data. The difference between the two brands with respect to imagery is 0.820. Based on these values, for brand performance construct, SBI has intermediate over HSBC and for brand imagery construct, SBI has moderate over HSBC.

The above comparison matrix shows the relative importance of SBI over HSBC with respect to performance and imagery constructs. The comparison matrices are checked with consistence index and consistency ratio (CR) and the CR value is less than 0.1. So, that the above pair-wise comparison matrices are consistent.

The SBI mutual fund brand has the highest brand resonance score and HSBC has low brand resonance score. It shows that investors of SBI mutual funds resonate well with the brand, and it leads to high brand equity (Table VII).

6. Results and discussions
The study shows SBI mutual fund services brand has a very high brand resonance score. Research findings exhibit the following:

(1) SBI brand achieving resonance through brand performance related to brand judgments having a score of 0.3089 compared to HSBC brand score of 0.1522;

(2) SBI brand resonance through brand imagery related to brand judgments having score of 0.3066 compared to HSBC brand score of 0.1022;

	Criteria				
	Brand judgments 0.87 Sub-criteria			Brand feelings 0.13 Sub-criteria	
Brand performance 0.53	Brand imagery 0.47		Brand performance 0.45	Brand imagery 0.55	

Table V. Relative weightage of criteria and sub-criteria

Performance	SBI	HSBC	Imagery	SBI	HSBC
SBI	1	2	SBI	1	3
HSBC	1/2	1	HSBC	1/3	1

Table VI. Comparison matrix of brands with respect to performance and imagery

S. no.	Mutual fund brands	Brand resonance score
1	SBI	0.7084
2	HSBC	0.2915

Table VII. Brand resonance scores for SBI and HSBC mutual funds

(3) SBI brand resonance through brand performance related to brand feelings having score of 0.0392 compared to HSBC brand score of 0.0193; and

(4) SBI brand resonance through brand imagery related to brand feelings having score of 0.0536 compared to HSBC score of 0.0179.

The brand resonance is reached after achieving the brand meaning and brand response of the brand. The quantification of brand resonance score will arrive from the sum of all above four paths of the model. The findings show that SBI mutual fund service brand which has high brand equity (www.indiantelevision.org.in/release/y2k7/aug/augrel23.php) enjoys highest priority with a 0.7084 brand resonance score and HSBC mutual fund service which has low brand equity has a 0.2915 brand resonance score.

Figure 6 shows the comparison between HSBC and SBI mutual fund brands. The HSBC mutual fund brand has scored low on performance, which fulfills the functional needs of mutual fund investors related to judgments shown in Figure 6(A). The HSBC mutual fund investors have given less score of judgments based on performance, and this leads to
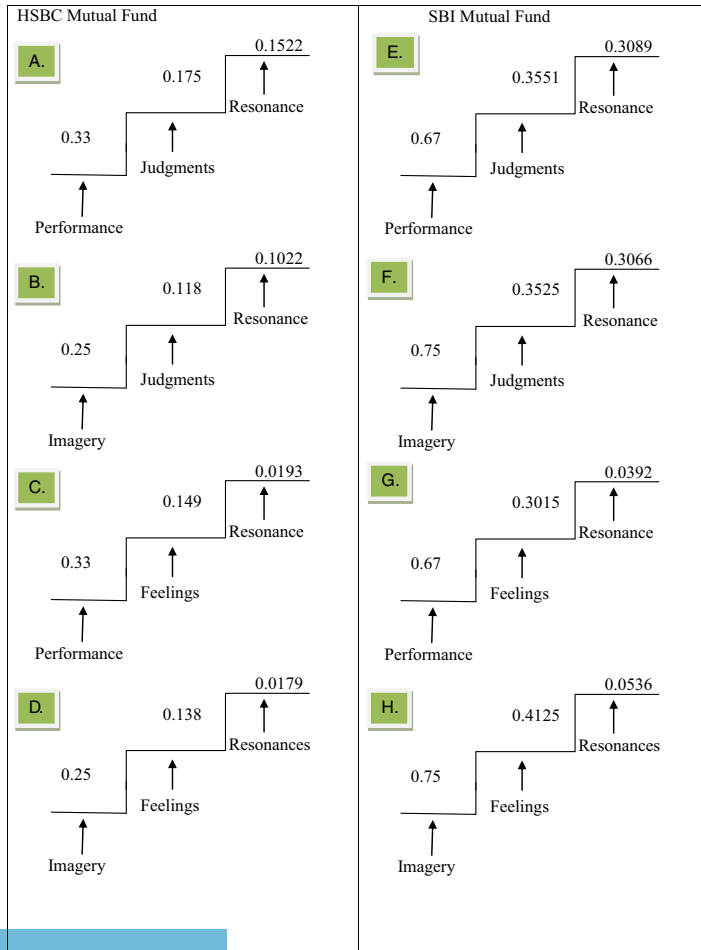

Figure 6.
The comparison between HSBC and SBI mutual fund brands

influence brand resonance. Ultimately, HSBC mutual fund brand resonance score through performance related to judgments is less compared to SBI mutual fund brand shown in Figure 6(E).

The HSBC mutual fund brand has low brand resonance score through imagery related to judgments compared to SBI mutual fund brand shown in Figure 6(B) and (F). So, HSBC has to establish the brand meaning in the investor's mind by strategically linking a host of intangible brand associations such as user profile, purchase and usage situations, personality values, etc.

The HSBC mutual fund brand has low brand resonance score through performance related to feelings compared to SBI mutual fund brand as shown in Figure 6(C) and (G). Based on the mutual fund performance, investors have emotional feelings and reactions with respect to brand on important aspects like security, self-respect, etc.

The HSBC mutual fund brand has low brand resonance score through imagery related to feelings compared to SBI mutual fund brand as shown in Figure 6(D) and (H). Imagery attributes are intrinsic properties of the brand, and give a strong brand meaning. After achieving the strong brand meaning, mutual fund investors should have strong emotional feelings and reactions with respect to the brand. Ultimately, these strong feelings lead the brand to resonate with investors so that the investors really love, prefer and consider that the brand is special, and they are likely to talk about the brand to others, etc.

In this research study, the leader and the follower of the mutual fund brands are taken into consideration. The model could be used for any number of alternatives (mutual fund brands). This is a generalized model and the authors have considered only two mutual fund brands. The model could be used for more than two mutual fund brands.

The developed model based on modified CBBE model for brand resonance score is general in nature. This model could be used and tested for different service industries like insurance service brands, banking services and even product brands.

7. Managerial and research implications
Quantified brand resonance score value for HSBC mutual fund brand is very low compared to SBI mutual fund brand and the attributes which HSBC has to improve in the market place is discussed in Figure 7.

HSBC mutual fund brand has low resonance score through performance and imagery related to judgments compared to SBI mutual fund brand. As shown in Figure 7(a) and (b), HSBC has to improve brand judgment attributes such as offer good value, superior to other mutual funds and admire and respect to reach brand resonance score of SBI mutual fund brand and beyond.

HSBC mutual fund brand has low resonance score through performance and imagery related to feelings compared to SBI mutual fund brand. As shown in Figure 7(c) and (d), HSBC has to improve brand feeling attributes such as self-respect, social approval to reach resonance score of SBI mutual fund brand and further.

8. Limitations and scope of future research
The brand resonance scores value range between 0 and 1. If more brands are considered for evaluation, then the spread of the resonance scores will narrow down. Interlink between criteria constructs and sub-criteria constructs if any are not accounted for in this study.

The present research study has certain limitations that suggest directions for further research. The developed framework shown in Figure 3 for brand resonance score is a generic one. For future study, interlink between the items under each construct could be accounted for and we can explore the effects of interlinking which could be measured using techniques like analytic network process. The role of brand resonance leads to brand equity in the organization's success and it needs to be studied.
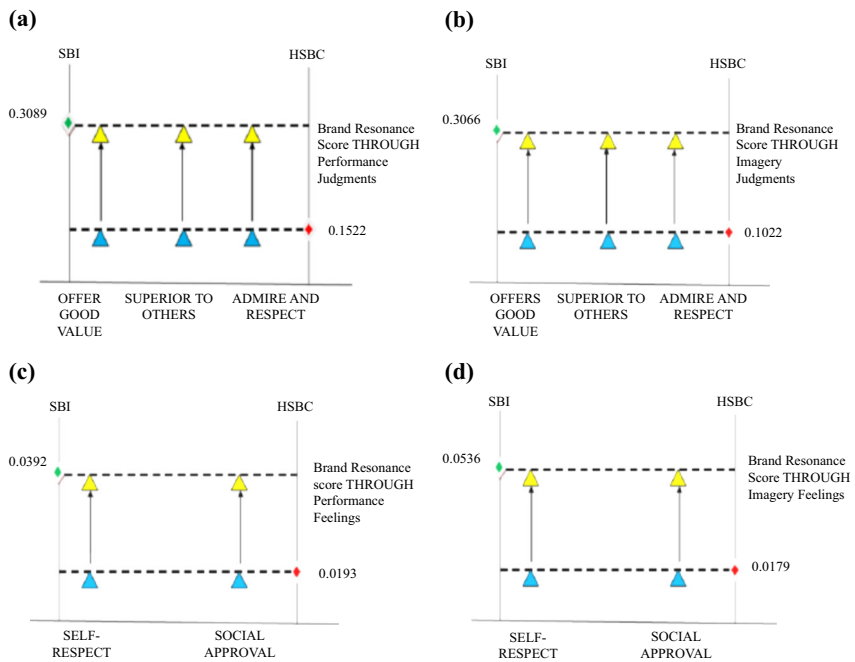
(a)

(b)

(c)

(d)

Figure 7.
Brand resonance
scores of mutual
fund brands

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(The Appendix follows overleaf.)

Appendix 1

Construct	Indicator	Standardized factor loadings	Error variance	Construct reliability (CR)	Average variance extracted (AVE)
Brand salience (BS)	BS1	0.931	0.240	0.903	*0.743*
	BS2	0.870	0.236		
	BS3	0.760	0.447		
	BS4	0.878	0.385		
Brand performance (BP)	BP1	0.986	0.073	0.947	*0.761*
	BP2	0.935	0.169		
	BP3	0.565	0.613		
	BP4	0.845	0.486		
	BP5	0.941	0.310		
	BP6	0.896	0.242		
Brand imagery (BI)	BI1	0.872	0.549	0.835	*0.745*
	BI2	0.979	0.050		
	BI3	0.719	0.471		
Brand judgments (BJ)	BJ1	0.971	0.133	0.942	*0.793*
	BJ2	0.917	0.199		
	BJ3	0.806	0.491		
	BJ4	0.931	0.311		
	BJ5	0.814	0.465		
Brand feelings (BF)	BF1	0.843	0.468	0.874	*0.825*
	BF2	0.969	0.050		
Brand resonance (BR)	BR1	0.932	0.273	0.934	*0.743*
	BR2	0.904	0.185		
	BR3	0.687	0.493		
	BR4	0.890	0.333		
	BR5	0.876	0.200		

Table AI.
Structural equation
modeling results

Appendix 2

	CR	AVE	MSV	ASV	BF	BS	BP	BI	BJ	BR
BF	0.904	0.825	0.176	0.146	*0.908*					
BS	0.920	0.743	0.377	0.266	0.419	*0.862*				
BP	0.949	0.761	0.404	0.283	0.360	0.387	*0.873*			
BI	0.896	0.745	0.416	0.334	0.411	0.580	0.630	*0.863*		
BJ	0.950	0.793	0.416	0.345	0.397	0.614	0.636	0.645	*0.890*	
BR	0.935	0.743	0.370	0.290	0.317	0.541	0.580	0.591	0.608	*0.862*

Table AII.
Correlation matrix
of constructs

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