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Qualitative Explorations into Customer Based Brand Equity (CBBE) for Medical Tourism in India

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Qualitative Explorations into Customer Based Brand Equity (CBBE) for Medical Tourism in India

Abstract

The focus of our research is Customer Based Brand Equity (CBBE) in Indian medical tourism which has gained wider attention world-wide. To be able to operationalize CBBE (brand equity) for medical tourism scale development, we generated items for such a scale through content analysis. The research questions for this study were (a) What are the dimensions for a brand equity scale for medical tourism considering social, economic, and market influences? (b) How is culture along with an economic indicator such as infrastructure/superstructure relevant in the context of CBBE for medical tourism? and (c) To what extent does the content analysis of interviews based on questionnaires from literature reviews support the variable? The respondents were contacted from two large East Indian Hospitals with continuous visits by heterogeneous foreign patients. Content analysis was used to evaluate the responses using the framework for coding as given by Corbin and Strauss (2008). This paper explores the reasons as to why the patients from western countries and the Middle East prefer other destinations as compared to India for medical tourism. The medical tourism market is growing due to comparatively affluent middle class, better connectivity and wiser cost decisions by patients. The Indian medical tourism market has gained wider attention due to well trained and competent physicians, cost consideration, quality service, better international accessibility and popular use of English as the primary mode for spoken and written communication language. However, there is no general relevant Customer Based Brand Equity (CBBE) scale for medical tourism market till present day. We have identified six dimensions (three new) for a consolidated and unified CBBE scale for medical tourism. In the later part, we have done a content analysis of 90 patient interviews conducted in Eastern Indian hospitals. The interview questionnaire was developed from the literature review. Lastly, a content analysis is done using Nvivo software for logical validation of literature findings. The content findings and prior literature review enabled us to propose the dimensions of the CBBE scale for medical tourism. The new dimensions may be used for future CBBE research in medical tourism at the global level.

Keywords

Medical Tourism, Customer Based Brand Equity Scale, Culture, Infrastructure, Content Analysis, Qualitative Analysis

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Qualitative Explorations into Customer Based Brand Equity (CBBE) for Medical Tourism in India

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The focus of our research is Customer Based Brand Equity (CBBE) in Indian medical tourism which has gained wider attention world-wide. To be able to operationalize CBBE (brand equity) for medical tourism scale development, we generated items for such a scale through content analysis. The research questions for this study were (a) What are the dimensions for a brand equity scale for medical tourism considering social, economic, and market influences? (b) How is culture along with an economic indicator such as infrastructure/superstructure relevant in the context of CBBE for medical tourism? and (c) To what extent does the content analysis of interviews based on questionnaires from literature reviews support the variable? The respondents were contacted from two large East Indian Hospitals with continuous visits by heterogeneous foreign patients. Content analysis was used to evaluate the responses using the framework for coding as given by Corbin and Strauss (2008). This paper explores the reasons as to why the patients from western countries and the Middle East prefer other destinations as compared to India for medical tourism. Keywords: Medical Tourism, Customer Based Brand Equity Scale, Culture, Infrastructure, Content Analysis, Qualitative Analysis

Introduction

Carrera and Bridges (2006) defined medical tourism (MT) as, “The organized travel outside one’s local environment for the maintenance, enhancement or restoration of an individual’s well-being in mind and body” (p. 447). Medical tourism is shaped by the interactions of political, medical, legal, and social forces inside a destination (Smith & Forgione, 2007). According to De Arellano (2007), prospering in the medical industry paves the way to the increased gross domestic product (GDP), improved service sectors, foreign exchange, and trade balance, and elevates the tourism portfolio. Therefore, it is a priority to evaluate the Customer Based Brand Equity (CBBE) in a specific industry domain such as medical tourism.

Customer-based brand equity (CBBE) has been defined as, “A differential effect of brand knowledge on consumer response to the marketing of the brand” (Keller, 1993, p. 17). In short, CBBE is a way to evaluate the brand equity from customers’ perspectives. CBBE is also described as, “The difference in consumer choice between the focal branded product and an unbranded product given the same level of product features” (Yoo, Donthu, & Lee., 2000, p. 196) and as, “A set of characteristics that make a brand unique in the marketplace” (Clow & Baack, 2005, p. 17).

Medical tourism in India does have acute potential and not many types of research pertaining to this area have been conducted that study relevant contextual dimensions in order to assess the worth of brand equity through CBBE. The CBBE is measured by dimensions called scale constructs which include the selection of a hospital, destination choice, choice of physician, country infrastructure, and advertisement (Heung, Kucukusta, & Song, 2011) making the CBBE dynamic in nature. This research opens a gate to a comparative glance across

various medical tourism destinations at the global level and can be a foundation to analyze why people from Europe and the USA prefer Argentina or the Middle East over India, and why affluent people from neighboring countries travel to the Middle East when many doctors there are of Indian origin. Given that culture (language, religion, staff quality) and infrastructure (hospital, medical, and country infrastructure) are manifestations of the socio-economic indexes, this scale can be useful in comparing the brand equity of hospitals (unity of measurement of CBBE) across places such as the USA, Europe, Australia, Korea, India, and the Middle East.

Customer Based Brand Equity provides quantification for a brand's popularity and success. Yet there is no specific relevant available scale for measuring CBBE for medical tourism in India or anywhere else. CBBE is measured by various dimensions (brand awareness, brand association, loyalty, and perceived quality), and the dimensions change contextually with the need and characteristics of specific industries. Wang and Finn (2013), Yoo and Donthu (2001), Netemeyer et al. (2004), and Jarvis, MacKenzie, and Podsakoff (2003) demonstrated that the CBBE has different dimensions across different industry domains. As medical tourism is a blend of healthcare, tourism, and other service industries such as hospitality and transportation, the brand equity scale of medical tourism may deviate from any of the mentioned individual industries. With time, CBBE scales are modified and refined for service verticals such as retail, healthcare, hospitality, and tourism. Therefore, the literature for a medical tourism CBBE scale has a gap that is yet to be explored. It is, therefore justified to explore CBBE scale dimensions for the medical tourism industry, to incorporate recent findings pertaining to the related industries.

Any model for sustainable tourism not only depends on the physical environment but depends on the social and cultural environment of destinations (Andereck et al., 2005). Cutter (1985) explained that consumer perceptions of the objective conditions include economic activity, social/cultural institutional presence, and environmental conditions. Jones and Coviello (2005) defined how any business operates in an environment of market characteristics, industry characteristics, and environmental characteristics. We embedded these objectives while defining the scale, with social, cultural, and economic perspectives.

Due to the lack of a specific scale for medical tourism and the need for socio-economic dimensions such as culture and infrastructure, we framed our research questions to define the constructs of a proposed scale. The research questions summarize the contributions of the study in chronological order.

Research question 1: What are the dimensions/constructs for a CBBE scale for medical tourism, considering social, economic, and market influences?

Research question 2: How are socio-economic indicators such as culture and infrastructure/superstructure relevant in the context of CBBE for medical tourism?

Research question 3: To what extent does the content analysis of interviews based on questionnaires from literature reviews support the scale dimensions?

Literature Review

Aaker's (1991) CBBE scale proposed the basic foundation for CBBE dimensions, which were potent for most situations. However, Tasci and Guillet (2011), and Christodoulides and De Chernatony (2010) pointed out that there are no universally accepted CBBE

dimensions. Therefore, researchers have conceived and used various dimensions to cover product, service, demography, culture, and income for brand equity measurement.

We started to review literature for individual service sectors such as healthcare, tourism, and destination branding to frame the right dimensions to measure CBBE in medical tourism. Kim et al. (2008) did a pioneering quantitative study to identify the dimensions (brand, loyalty, and brand awareness) influencing CBBE in the health care sector. Chahal and Bala (2012) contributed to the identification of relationships among perceived service quality and brand loyalty and brand image with CBBE in healthcare. We started with this research to cross reference dimensions for medical tourism CBBE. The next step was to identify the unity (unit) of the scale (i.e., what the CBBE scale is supposed to measure: hospital or location/destination/country brand equity). Boo, Busser, and Baloglu (2009) refused to accept the existence of a measure of the unity of medical tourism destination. Therefore, we followed the pioneering work of Das and Mukherjee (2016) and identified the hospitals as the unity of medical tourism CBBE scale to measure the worth of Indian medical tourism hospitals.

Customer Based Brand Equality

The American Marketing Association (2011) defines CBBE as the following: “From a consumer perspective, brand equity is based on consumer attitudes about positive brand attributes and favorable consequences of brand use” (from <https://www.ama.org/resources/pages/dictionary.aspx?dLetter=B>). The Marketing Science Institute defined CBBE as, “The set of associations and behaviors on the part of the brand’s consumers, channel members, and parent corporation that permits the brand to earn greater volume or greater margins than it would without the brand name and that gives the brand a strong, sustainable, and differentiated advantage over competitors” (Leuthesser, 1988, p. 2).

Aaker (1991) attributed measurement of CBBE to five prime drivers or assets namely brand awareness, brand associations, perceived quality, brand loyalty, and other proprietary assets. Aaker's scale (1991) proposed the foundation for CBBE dimensions, which were adequate for most situations. However, Tasci and Guillet (2011) pointed out that there are no universally accepted CBBE dimensions. Therefore, researchers have conceived and used various dimensions to cover product, service, demography, culture, and income for brand equity measurement. Any model for sustainable tourism not only depends on the physical environment but depends on the social and cultural environment of destinations (Andereck et al., 2005). Our aim is to capture the effect of social impact with a dimension called culture and economic impact through the dimension of infrastructure.

Research Design

The research is grounded in qualitative content analysis of interview data. Qualitative research best works for complex relationships and new areas of inquiry to gather insights for taking up empirical works. Our intention is to accommodate the behavioral response of customers to environmental stimuli such as brand, economy, and ethnographic features of the brand, country, and customer. Consequently, the literature review was not exhausted (Goulding, 2005, p. 296) prior to the qualitative outlook due to involvement of variety of industries such as healthcare, tourism, destination branding, and service branding. Due to the presence of tabula rasa and absence of adequate theoretical consolidation, we took a middle path to compare literature and interview data. This qualitative analysis provides a better understanding of real dimensions of the brand equity scale and uses a hybrid method by using comparison between literature and content analysis. This kind of hybrid method has already been taken up by Wolf, Stidham, and Ross (2014). Our work only used NVivo software yields

for comparison. This explains the purpose and perspective (Ng & White, 2005, p. 218) of our research. Goulding (2005, p. 298) referred to the methodological variations of qualitative analysis. The comparisons of the literature support with analyzed interview data is one of them (Hsieh & Shannon, 2005).

This stage of research is more of establishing the relevance of our future empirical research by a prior qualitative verification. As the scale had 52 items, we needed scientific support to proceed with a higher number of survey data for empirical research. Qualitative analysis has the scope of theory-observation comparability and use of literature (Gortner & Schultz, 1988, p. 24) to maintain consistency and relevance (Popper, 1968). Glaser and Strauss (1967) approved of using literature in conjunction with qualitative analysis. To create the broader structural conditions (Strauss & Corbin, 1990) and scope for our analysis, we developed the interview questionnaire from the literature review. The questionnaires were a guide to top level dimensions, and the depth (the items) was deduced from the interviews. This is the reason why we have chosen a data collection driven by a literature-based questionnaire and a subsequent qualitative analysis of the content.

Qualitative research has been defined as, “A research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p. 1278). The researchers have put forward three approaches for qualitative content analysis, based on the depth of inductive reasoning. The first is conventional qualitative content analysis, which is used just as grounded theory development. The second approach creates the word count, word clustering, or word cloud-based analysis. The third approach is directed content analysis, data are collected from a theory with the help of questionnaires, and pattern verification is identified from raw data. We have used this last method for our work.

This research is based on four phases. In the first phase, we assembled the interview questionnaires according to six dimensions that we derived from literature review (see Table 1 in Appendix A). In the second phase, we interviewed 90 international patients visiting India for medical tourism. In the third phase, we did the coding, and the content analysis of the interview transcripts using NVivo software. The NVivo software generated the word cloud, and later hierarchical clustered stems (dendrogram) pointing at the highly correlated words and thereby generating the items under the themes or dimensions. In the fourth phase, we did a logical validation of the items and dimensions proposed from the content analysis with that assembled from the literature. The content analysis coding analysis was framed by the guidance from the approach of Corbin and Strauss (2008). We derived the themes based on the theoretical sensitivity (Strauss & Corbin, 1990), where the links between individual item and dimensions are theoretically relevant. The coding was continued by identifying relevant key words until saturation was reached and then the items were compared with literature-based findings.

Questionnaire Design

The research was started by identifying the superset for literature screening and analysis. We put weight on the fact that medical tourism is a combination of two individual service categories (treatment and tourism) and is dynamic in nature. Therefore, we believed that the CBBE constructs should be analyzed for the medical sector as well as the tourism sector though with less emphasis on the tourism part; the journals were chosen based on these criteria. We tried to cover tourism marketing, healthcare marketing, and similar domains as service marketing and destination branding. Several journals such as *Journal of Travel & Tourism Marketing*, *Tourism Management*, *International Journal of Pharmaceutical and Healthcare Marketing*, and *Annals of Tourism Research* had been thoroughly searched for

existing (i.e., brand awareness, brand association, brand quality, brand loyalty) and new constructs (i.e., culture, infrastructure/superstructure). Peripheral focus had been given to the CBBE elements for service marketing. Relevant resources such as *American Journal of Management*, *Journal of Consumer Psychology*, *Journal of Business Research*, *The Journal of Marketing*, and *The Journal of Marketing Management* had been thoroughly searched for existing literature to accommodate service, healthcare, tourism, and destination branding/marketing. Diya Guha Roy (contributor of this article) did the primary screening and Dr. Sujoy Bhattacharya and Dr. Srabanti Mukherjee contributed in fine tuning by adding experience in research design, content analysis, and questionnaire design. A wide variety of consumer behavior and brand equity related papers were checked to justify the relevance of these individual new items. For example, to find a manageable number of rational items for brand awareness we verified the brand awareness items from healthcare, tourism, hospitality, and destination branding papers, In total we found 51 items for the proposed dimensions: 5 brand equity, 6 brand awareness, 10 brand association, 10 perceived quality, 7 brand loyalty, 4 infrastructure/superstructure, and 9 culture. The criteria to select items were based on comparative industries (e.g., healthcare, service, hospitality, destination branding, country branding), CBBE dimensions, and the research paper by Heung et al. (2011). We did not include any dimension that did not tally with the findings regarding medical tourism by Heung et al. (2011), and Connell (2013). We have selected the items based on thematic relevance. If brand awareness yielded 12 items across all domains such as healthcare, service, destination branding, country branding, their contextual relevance to medical tourism industry had been assessed by peer-reviewed papers and the best relevant six items had been selected for our research.

An open-ended survey question such as, “I know all the major hospitals in India” was put forward as, “Do you know all the major hospitals in India?” Similarly, “I chose Indian hospitals as India is easily accessible to me” was posed to an interviewee as, “Did you choose Indian hospitals as India is easily accessible to you”? We have consolidated the actual questions asked in Table 1 (see Appendix A).

Data Source

We approached two large hospitals in the Eastern part of India that have a steady flux of international patients from neighboring countries. The hospitals were chosen based on their reputation of being in the first tier of the hospitals in India to cater to international patients. These hospitals also promote medical tourism in neighboring countries. One of these is a private hospital (for profit) and another belongs to a pan India non-profit medical group. We approached the hospital authorities with a request to meet the patients at the hospital premises.

First, we gained ethical approvals from the boards of the hospitals by presenting documents, our research design, and requirements for participating. Secondly, we acquired approvals from the respective heads of security, operation, and marketing departments and signed non-exposure documents for the data for any commercial profits. Finally, the patients were guaranteed a confidentiality benefit by not asking their names, address, or phone numbers. As this was a verbal communication-based research, there was no physical risk hazard and approvals were acquired based on such understanding. We reached out to international patients from the outpatient pool or companions (relatives) of admitted patents for surgeries.

During approval for ethical clinical research from these two large hospitals in Eastern India, we agreed to interview patients from 21 to 65 years with a possible 50:50 target ratio for male and female. The patients were visiting from countries such as Bangladesh (95%), Bhutan, China, and Taiwan (5%). Diya administered the survey with the help of a hospital attendant. While collecting the data we approached certain wings of the hospital where we could only get

international patients visiting for surgical procedures for cardiac issues, heart transplant, liver diseases, and orthopedic problems such as knee surgeries and hip replacements. All the visiting international patients were approached individually in the outdoor sections of the hospitals with the help of hospital attendant. If the patients met our criteria of age, national identity, and reason for visiting, we explained about our study and requested an interview. On acceptance of the offer, and recitation of the clauses, the agreeing patients were approached for interviews. However only 10% of the female patients were available and 2 % of the patients were younger than 40 years of age. We followed ethics by disclosing the reason for the interview, showing hospital permission, and promising confidentiality and anonymity.

We met individuals or a small group of 3-4 people in our face-to-face interviews. The group interviews were conducted when a family of patients or friends/colleagues had no time or there was a linguistic barrier for an individual interview. In many cases, the group interviews were encouraged to get comparative perceptions from different demographic segments (e.g., male, female, age, profession). The perceived conveniences were different for travel, visa, communication, awareness, and association. In total 90 respondents provided interview data for descriptive content analysis.

Data Collection

Glaser (2002) identified that in qualitative data analysis (QDA) the constructivist approach involves the data which are “constructed with interacting interpretations” (p. 1) and involves interviewer(s) and interviewees. Our raw data are the interview transcripts (see Transcripts 1 and 2 in Appendix B), intermediary processed data are the post-coding memos (Interview memo transcripts, see Appendix C) built up from the interviews and analyzed data are what are shown in the Results section with a comparison between literature review data and interpreted data from content analysis by NVivo software. However, grounded theory suggests varied forms of data collection (Clarke, 1998; Star, 1998) and we gathered extensive and rich data (Charmaz 1995; Charmaz, 2000) involving interview memos of 90 respondents of foreign origin.

Face-to-face interviews were descriptive in nature and were based on “cross-sectional” survey questionnaires developed from the literature review (see Table 1 in Appendix A). The format of the interviews was structured, open ended for respondents. The intent was to generate an emerging idea about the individual research items (DiCicco-Bloom & Crabtree, 2006).

The interviews were conducted by Diya Guha Roy along with the research associate from the hospitals. Diya has handed over 52 full length questions (see Table 1 in Appendix A) to each patient and asked them to elaborate on the point. The time span was on average 45-50 minutes. A note was scribbled on each sheet with most important key words and summary of their new inputs. Two such interview memos (Transcript 1, Transcript 2) are shared in Appendix B.

Open-ended questions following the ones in Table 1 (Appendix A) were often administered in the form of: “Given that India is your first choice, what is your rationale behind your choice?” Vignettes (Collins, 2008) were used for semi-structured interviews along with literature-based questions (see Table 1 in Appendix A) to provide a vivid simulation to make the interviewees understand the real depth of the problem. Vignettes are often used to make an interviewee understand the relevance and context of a question. Some patients did have a problem in understanding how staff competency has to be ranked on a Likert scale. The best way was to present them a few real-life simulations such as bad behavior/rude behavior/improper billing to understand how staffs in hospitals are important to the patients. The simulations tried to avoid researcher bias without emphasizing decision outcome and importance level (“If you usually find rude behavior, will you be willing to come to India for

medical tourism?": refer to last four questions in culture section in Table 1 in Appendix A). The listening part was fine-tuned as per instructions by Rogers (1965). These vignettes helped us to find new problems such as queuing and inefficiency in medical records handling which were not covered in literature. In the future these points will help us to reconcile new items.

Member checking for data collection. The method of providing the interview note sheet to the interviewee and verifying the reported data is known as member checking. Richards (2003) described member checking as a way of validation to "seek views of members on the accuracy of data gathered, descriptions, or even interpretations" (p. 287). Doyle (2007) mentioned member checking in the context of validation, verification, or assessing the trustworthiness of qualitative findings.

The patients who were approached for an interview were handed over the interview transcripts at the end of the interview. This way the respondent could verify if we tabulated their responses correctly. Secondly, we used a triangulation method (Creswell & Miller, 2000) for a particular item for verification from multiple patients. Thirdly, a disconfirming evidence method (Huberman & Miles, 1994) was used to verify if the negative was valid (Do you think that condition of country's infrastructure/superstructure [telecommunications systems, transportation, uninterrupted electricity and water supply etc.] is not at all valid for you to come to India for medical tourism?" related to infrastructure section of Table 1 in Appendix A). The disconfirming evidence method ensured that there was no ambiguity in a "yes" or "no" response and to what extent an item/attribute was important to the patient.

Content Analysis

Our intention behind the qualitative analysis is grounded on refinement and verification of literature driven outputs. Our content analysis is based on a constructivist approach and includes a two-stage coding process (open and axial), memo writing (Charmaz, 2000), clustering the data from the memos, and integration with theoretical framework. We have done the coding meticulously to avoid the perception bias from the literature review and let the nascent ideas emerge from the interviews. The memo writing tried to hook on to the nascent ideas from the data and concentrated the focus around central themes (Charmaz, 2000).

We have done the coding manually with the guidelines from Glaser (1978, 1992) and Charmaz (1983, 1995, 2000) and as needed for the NVivo software. To identify themes for open coding we have put the 90 interview snippets in one-word document and generated a word cloud by maximum number occurrences algorithm (Curtis et al., 2002) using NVivo software. From the word cloud we screened out the articles, nouns, verbs, and adjectives. Then we identified the relevant keywords in conjunction to the core themes from the prior literature review. We identified keywords such as "awareness," "word of mouth feedback," "advertisement," "travel," "cost," "visa," "culture," "language," "local people," "loyalty," "return visit," "repeated visit," "infrastructure," "report," and "laboratory." These keywords were then clustered around specific themes chosen from prior literature review based on their thematic relevance. We have disintegrated the transcripts and put related lines under definite themes by the discretion of the researchers. This approach has been named as a "template approach" based on prior research and theoretical perspectives (Miller & Crabtree, 1999, 2005). The template approach is similar to generating themes/categories for open coding by comparative analysis of similarities/differences of interview contents (Belgrave & Charmaz, 2015; Corbin & Strauss, 2008). Then we rearranged the transcripts and put relevant sentences under each theme by the discretion of the researchers (axial coding). Axial coding is a "coding framework from which to synthesize and organize data into more coherent, hierarchically structured categories and subcategories" (Scott & Medaugh, 2017, p. 1).

In the fourth stage of our analysis, we clustered the organized interview memo (generated by axial coding) using NVivo software, which yielded the first-tier cluster of word nodes (see Figure 1). The next step yielded the hierarchical tree or dendrogram (see Figure 2) with related words hierarchically clustered under each of the nodes found from Figure 1. The hierarchical tree (see Figure 2) is a dendrogram in which the lower most stems are arranged with highly correlated items with least spatial distance.

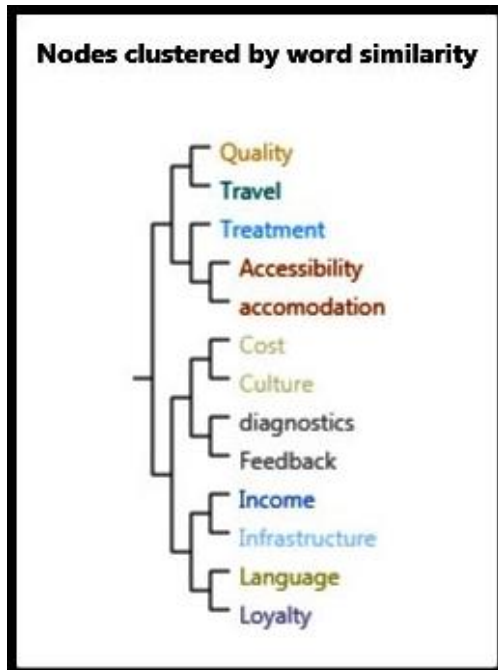


Figure 1: The first set of word nodes after content analysis

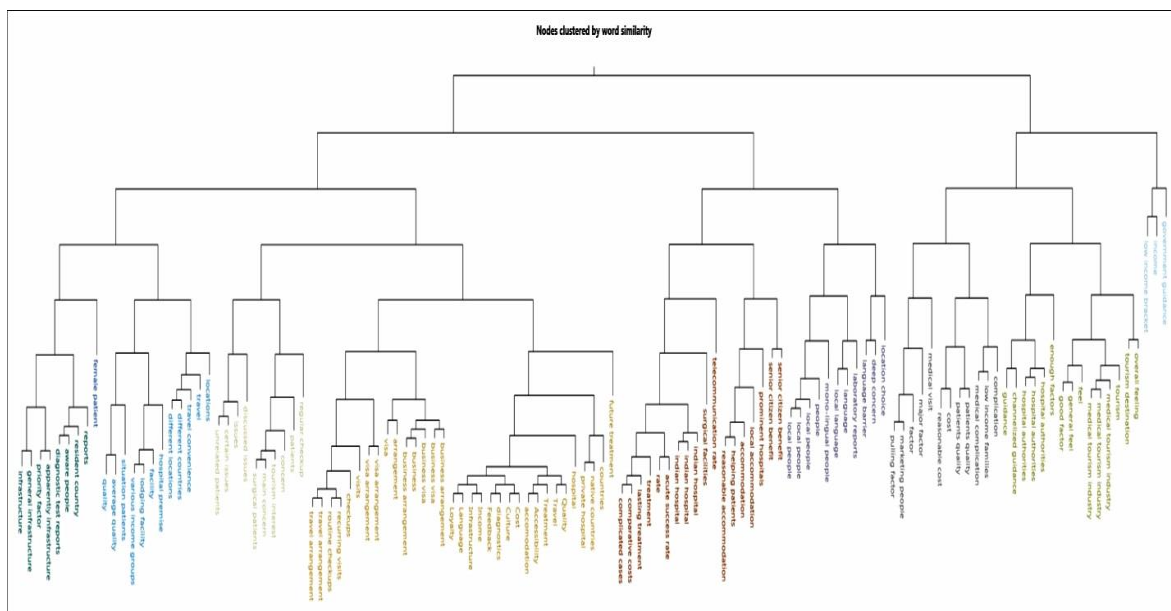


Figure 2: The hierarchical clusters with maximum importance in the interviews

The dendrogram is a pictorial output for hierarchical clustering where the lowest leaves are merged into a closest possible cluster (Heller & Ghahramani, 2005) and in a bottom up algorithm, the clusters are organized in accord with intuitive real-world classification (Duda & Hart, 1973). In the next section, the logical findings from the literature and dendrogram output

from Nvivo are compared to justify the dimensions proposed for CBBE. The reason behind the disparity between the obtained word clouds from literature reviews and NVivo is that the interview questions were asked without technical terms such as brand awareness and association as general medical tourists would not have understood the meanings. Thus, the technical jargon was explained in simple words and answers were noted. To translate a question on brand awareness, a closer focus had been given to awareness about the hospital the patient was visiting. Cultural adaptation and personal bias (Gil, Andres, & Martinez Salinas, 2007) of the patient were the crucial points during this translation. The patients were mostly monolingual and could not relate to the English words. The interviewer (the primary author of this article) is fluent in English as well as Bengali and Hindi. As it was difficult to define a term such as “association” in a few sentences to illiterate people, we mostly relied on the items gathered from literature reviews and extended the interviews after responses from the patients. The language (Bengali, Hindi) used were at par with the level of cognitive and verbal capacity of the patients. To bypass the personal bias of the researcher, first an independent translation was done and then the back translation was verified from the patients (Brislin, Lonner, & Thorndike, 1973). And finally, the content analysis through NVivo yielded the dendrogram. The lowest leaves of the hierarchical cluster are strongly related denoting strong statistical relationships between the items.

Results

The results discussion is more of a summative content analysis (Hsieh & Shannon, 2005, p. 1285) in which the contextual use of the words in the dendrogram stem is materialized into practical meanings and implications. How the keywords are getting clustered together and their positional relevance in our scale is deduced. This eventually leads us to select the relevant items under proposed dimensions. It also justifies how a particular dimension chosen from literature is upheld by the summative analysis. The analysis is also formulated so that it can focus on the similarities between items from our literature review and coding (Hsieh & Shannon, 2005, p. 1283). This way of analysis will also remove the biases of the researchers in the realm of qualitative analysis and will increase the trustworthiness of the item.

In our research, we deduced the theoretical relevance through certain steps. First, a brief literature review of each dimension of the proposed scale will be given to provide a concise definition in context of the following text analysis. During this phase, the reviews will encompass the items that we will be focusing on in subsequent tables (yielded from literature and NVivo). The NVivo output is a large table with a dendrogram (see Figure 2), which is not readable in a word document. So, we have split this table under each dimension for readability and ease of analysis. In the second phase, we will explain what we found from the text analysis by NVivo. Our aim of the content analysis is to provide a qualitative validation of the dimensions and items proposed. So, in the last phase, we will try to find a correlation between the findings from the literature review and NVivo qualitative output. Finally, a conclusion will be made by proposing the dimension for the CBBE scale for medical tourism.

Brand Awareness

Rossiter and Percy (1987) framed the definition of brand awareness as the consumer's ability to identify or recognize a brand. Keller (1993) mentioned brand awareness as the consumer's knowledge and recall capacity for a product or service. Gil, García-Viguera, Artés, and Tomás-Barberán (1995) stated that first step of building brand equity is to form awareness. Dalqvist and Linde (2002) found information as a source of knowledge and we have used knowledge as a measuring item for brand awareness (Im et al., 2012). Keller and Lehmann

(2003) described that word of mouth (positive or negative) feedback affects all of the brand awareness, brand association, perceived quality, and loyalty. We have found the relevant items for brand awareness (see Figure 4) from a vast literature.

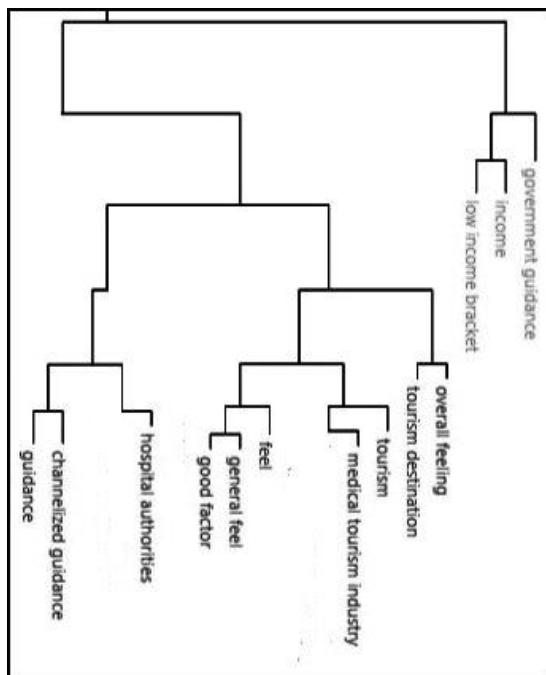


Figure 3: Brand Awareness word cluster

1	Brand (Destination) Awareness	Awareness	Keller (1993)
2		Recall	Dunn and Iso-Ahola (1991)
3		Recognition	Keane (1997)
4		Recall	Dunn and Iso-Ahola (1991), Heung et al. (2011)
5		Brand name	Aaker (1990), 1991
6		Knowledge	Im, Kim, Elliot And Han (2012)

Figure 4: Brand Awareness items based on literature review

For brand awareness, we have found two distinct stems (see Figure 3) in the dendrogram, which relate directly to brand awareness. The income and government guidance fall in one stem and other awareness related attributes fall under two sub-branches. The government guidance (knowledge, awareness) relates to income and low-income bracket. During our interviews, we often found word of mouth feedback from friends and family directed new low-income patients to Indian hospitals such as “Peerless,” “RN Tagore,” and “Vellore” which are not-for-profit reputed hospitals in India. During an interview, a patient said, “Lot of people from our village came here and got treated and recovered. That is why we come here. The cost is cheaper than private profit based hospital.” Another patient mentioned, “Local doctors in our country behave badly; we have to re-do the same tests and spend a lot of money. India is cheaper; doctors are better and well-behaved.”

Dalqvist and Linde (2002) found information as a source of knowledge and we have used knowledge (see Figure 4) as a measuring item for brand awareness (Im et al., 2012). Bornmark, Göransson, and Svensson (2005) described that information or knowledge is derived from personal sources, commercial sources, public sources, and experiential sources.

The high-income people are often seen to rush to specific hospitals in India due to past feeling, experience or in some cases treatment from a specific famous doctor.

The node (see Figure 3) with feeling and tourism destination is further elaborated in the next two branches. How corporate/hospital guidance promotes awareness is covered in the left most branch. The interviews yielded the terms guidance, feel, government guidance, which were related to the respective terms such awareness, recognition, knowledge (see Figure 4). As per our findings income bracket influence how people get their source of awareness in case of medical tourism. High income educated people have tended to show more proficiency in finding information about any medical tourism destination from personal sources, the internet, local visits. As one patient mentioned, "We came here, booked a hotel through internet. After coming, my wife and I started to screen the hospitals with doctors list, smart medical packages, and time." "Overall feeling" is actually portraying the awareness and association together. Pitta and Prevel Katsanis (1995) recorded that there is a correlation between brand awareness and brand association due to the definite memory association. Woodside and Lysonski (1989) attributed the affective associations related to a place to the awareness of tourists about a destination. The patients, who often gather information and try to visit the local hospitals before making a choice, are more conscious and they acquire a general feel and first-hand experience about the hospital better. The findings from interviews and NVivo analysis do approve our first proposition for CBBE scale based on our literature review. In future research, we can also verify if income bracket is also an item for awareness. How association and awareness are related in the medical tourism industry will be checked in a future paper with statistical analysis.

Proposition 1: Brand Awareness contributes positively to Consumer Based Brand Equity for medical tourism in India.

Brand Associations

Aaker (1991) stated brand associations to be "anything linked in memory to a brand" and brand image as, "A set of brand associations, usually in some meaningful way (p. 109). Brand associations help consumers to process, organize, and retrieve information in memory, and to create a reason to buy (Aaker, 1996).

The NVivo yielded dendrogram that has three distinguished streams. The first is related to telecommunication rate (see Figure 5) and is projecting the economic development of the country (Echtner & Ritchie, 2003). The surgical facilities linked to Indian hospitals and further elaborated on success rate, treatment quality and comparative costs; these are the reasons and indications why patients like and trust (see Figure 6) the Indian hospitals. A patient elaborated, "My father got operated in 1991 and since then we visited India several times for repeated routine checkups." "The nursing and post-surgical care are of better quality and reasonable cost." As we collected data mostly from surgical patients, the surgical facilities emerged in the context of association. The keywords such as "complication" (see Figure 5) manifest medical situation and "low income families" do find that treatment in India is of "lasting" quality at "reasonable cost." The cost convenience (see Figure 6) in the literature review covers the total cost of treatment and travel. There are a few times senior citizen benefits in private hospitals or non-profit hospitals do attract more people.

The promotional offer had been new to international locations by individual hospitals or workshops with visiting doctors from India. Many patients do come to know about specific hospitals or doctors in this way. Therefore, the medical visits depend on marketing people and pull factor (see Figure 5). We have seen literature mentioned that promotions are taking place by hospital authorities and the Indian Ministry of medical tourism. Gill and Singh (2011),

Bianchi, Milberg, and Cúneo (2017), and Ailawadi, Neslin, and Gedenk (2001) mentioned promotional offers in regard to medical tourism.

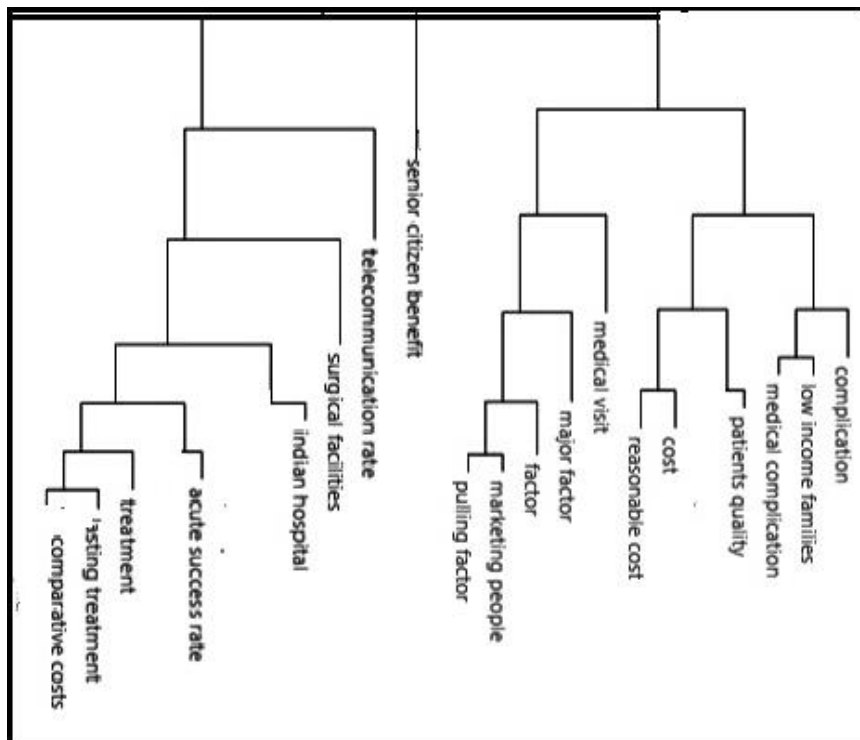


Figure 5: Brand Association word cluster

1	Brand (Destination) Association	Like	Aaker (1991)
2		Proud	Koo (2003)
3		Trust	Pappu et al. (2005)
4		Promotional Offer	Gil(2007), Bianchi and Milberg (2016), Ailawadi et al. (2001)
5		Travel convenience	Echtner and Ritchie (2003)
6		Travel Accessibility	Echtner and Ritchie (2003)
7		Economic Development	Echtner and Ritchie (2003)
8		Political Stability	Echtner and Ritchie (2003)
9		Cost convenience	Marino (2014), Moreira (2013)

Figure 6: Brand Association items based on literature review

Park and Srinivasan (1994) suggested that brand associations are of two distinctive natures: attribute-based and non-attribute-based associations (p. 274). Non-attribute-based brand associations are the ones which are not related to product attributes and refer to peripheral attributes. The general attributes such as marketing, senior citizen benefit, telecommunication rate, low income families are related to non-attribute-based brand associations. Attribute-based- brand association encompasses treatment, success rate, and cost. Income bracket of visiting patients is related to this context.

Proposition 2: Brand Association/ Destination Association contribute positively to Consumer Based Brand Equity for medical tourism in India.

Perceived Quality

Perceived quality is the aggregated portrayal of the relative standard of the organization or product or service (Zeithaml, 1988). In the medical tourism industry, language barriers, inefficient communication, low quality medical care, an uncomfortable atmosphere, low-quality services, and unkind staff have a high impact on perceived quality (Gan & Frederick, 2011; Han & Hyun, 2015; Snyder, Crooks, & Johnston, 2011). Healthcare service quality has also been found to depend on dimensions such as physical environment, interaction/courtesy, treatment cure, technical quality care competency, accessibility, promptness (minimum waiting time), finance factor (cost), and facility premises (Dansky & Miles, 1997; Risser, 1975; Tam, 2007; Tomes & Chee Peng Ng, 1995; Zifko-Baliga & Krampf, 1997). Fornell and Larcker (1981) noted cost has a direct relation with quality.

According to the dendrogram stem (see Figure 7) quality is directly linked to travel and correlated to treatment, accessibility, and travel. This finding is consistent with literature review-based items (see Figure 8). Literature emphasized that perceived quality can be measured with cost convenience, food, and accommodation, quality of service, and cost of travel and treatment (see Table 1 in Appendix A). Travel convenience is related to the association. Dib and Alhaddad (2014) mentioned brand awareness has a direct influence on perceived quality. They also found the direct influence of brand association on perceived quality. The mediator effect of brand awareness on direct relation between brand association and perceived quality was also found in this research. Due to the effect of association on quality, travel convenience (item for brand association, see Figure 6) is found relevant in perceived quality. One newlywed couple on a trip for medical tourism specifically mentioned, “We came to Kolkata on a business visa to avoid medical visa related complications. We chose a hotel first and used the internet to find hospital depending on reviews and word of mouth feedback.” This shows awareness does have a secondary role on quality. Most of the people, who are aware of the hospital name in advance, also do have a fair insight about food, accommodation, and other utilities through personal sources.

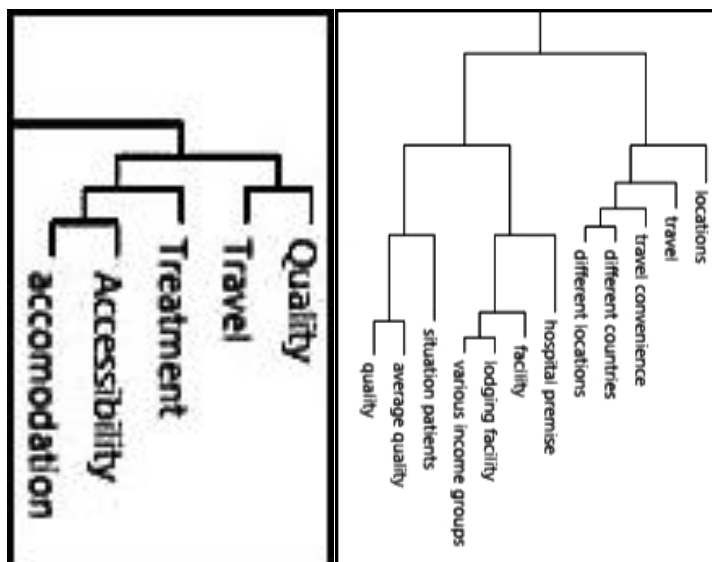


Figure 7: Perceived Quality word cluster

We have created crisp narratives from our interview notes regarding cost, which is seen as valid through “various income groups” (see Figure 7). Cost convenience (see Figure 8) is related to the income group factor. Affordability is also a matter for lodging, food, and transportation (airfare, train fare, visa, and customs clearances).

“We come here as the cost is less in India for any advanced medical treatment procedures.”

“The diagnosis is better at more affordable cost.”

“We can find lodging and food depending on affordability.”

1	Perceived (Destination) Quality	Good Quality	Aaker (1991)
2		Consistent	Aaker (1996a, b)
3		Reliable	Yoo et al. (2000)
4		Durable	Pappu et al. (2005)
5		Cost convenience	Aaker, 1991; Biel, 1992; Keller, 2002, Fetscherin and Stephano (2016), Konecnik and Gartner (2007)
6		Food and accommodation	Ethchner and Ritchie (2003), Li and Kaplanidou(2013)
7		Ambiance	Li and Kaplanidou (2013)
8		Hospitality	Ethchner and Ritchie (2003)
9		Quality of Service	Ethchner and Ritchie (2003)
10		Commercialization	Ethchner and Ritchie (2003)

Figure 8: Perceived Quality items based on literature review

Quality and service quality came repeatedly as a primary topic during our interviews. The treatment factor (see Figure 7) is repeatedly supported by a literature review (Items 1, 2, 3, and 4, see Figure 8). The facility and hospital premises (see Figure 7) are propped by ambience (Li & Kaplanidou, 2013). The term, “situation patients,” is what we found from the interviews. The term refers to the patients visiting India for different reasons, and who had a sudden medical condition. Most such patients (Nigerian, Bangladeshi) referred to Indian hospitals of average quality and affordable. As this is a minority patient pool, we did not consider this a primary value assessing perception. The steady or loyal patients are satisfied and considered quality to be at a good standard. The constant emphasis on quality during interviews and literature motivated us to consider perceived quality as a CBBE scale dimension.

Proposition 3: Destination Perceived Quality contributes positively to Consumer Based Brand Equity for medical tourism in India.

Loyalty

The term, Loyalty, is defined as, “A deeply held predisposition to re-patronize a preferred brand or service consistently in the future, causing repetitive same brand purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior” (Oliver, 1999, p. 34). The brand loyalty has been often considered as a core component of brand equity (Aaker, 1991; Ringham, Johnson, & Morton, 1994).

Netemeyer et al. (2004) pointed that multiple purchases are a better index of loyalty than a single purchase. We adopted this theory in analyzing revisiting medical tourism destination. We can relate this to the regular checkup in Figure 8. Word of mouth

feedback/positive response has been identified as important in revisiting loyalty scores (Baker & Crompton, 2000; Getty & Thompson, 1994; Oh, 1999). Bianchi, Pike, & Lings (2014) mentioned that attitudinal destination loyalty is measured by intent to visit.

Our interview findings conclude that repeat patients have a greater loyalty and they prefer India for future treatment (see Figure 9). Affluent patients do consider alternate destinations such as Singapore, Malaysia, and Dubai. In most cases, we found that intention of travel/tourism was a major factor behind this fluctuating loyalty.

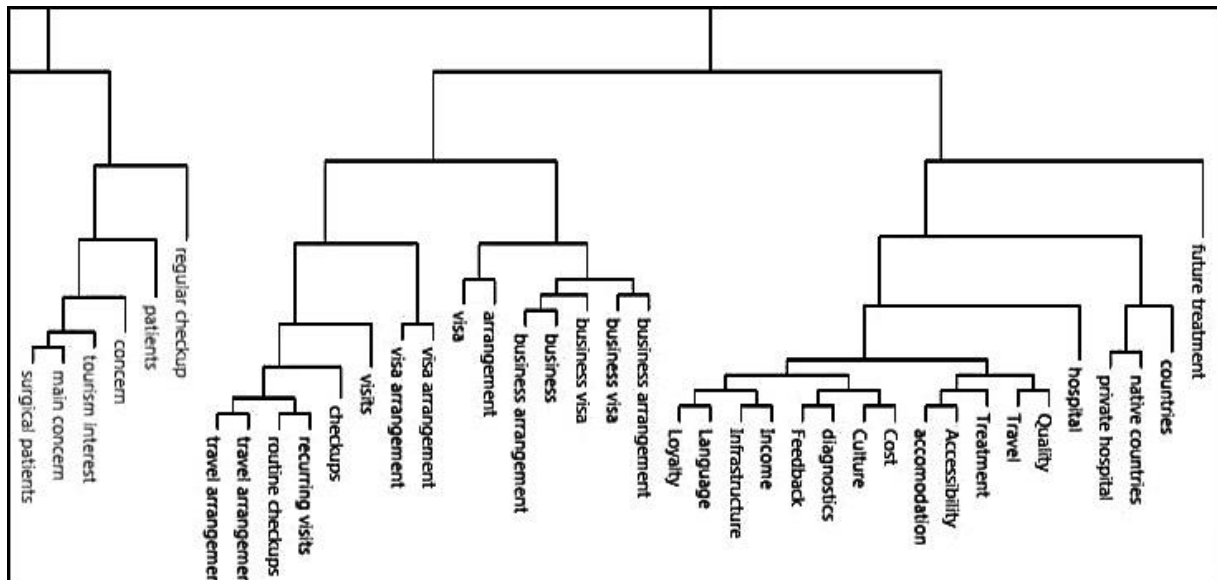


Figure 9: Loyalty word cluster.

1	Loyalty	Preferred choice	Aaker (1991)
2		Loyal	Arnett et al. (2003)
3		Only choice	Yoo and Donthu (2001)
4		First choice	Pappu & Quester (2006)
5		Tax	Anna Garcí'a-Alte's (2004)
6		Law	Anna Garcí'a-Alte's (2004)
7		Brand preference	Mc Dougall and Levesque (2000)

Figure 10: Loyalty items based on literature review

Prior literature suggests that there are two dimensions of loyalty: behavioral loyalty and attitudinal loyalty (Jones & Taylor, 2007; Li & Petrick, 2008). Bianchi and Pike (2010) provided the following descriptions of the two categories of loyalty. “Behavioral loyalty refers to the frequency of repeat or relative volume of same brand purchase.” “Attitudinal loyalty refers to a positive attitude a person has about a destination and although they may not be visiting it (again), they will provide positive word of mouth” (p. 6). The items found under “checkups” are related to this. “Issues” and “concern” relate to “choice” and “preference” in literature. Repeat patients have a greater loyalty and they prefer India for future treatment. According to one patient, the diagnostic test reports are more reliable in India and aware people in the resident country prefer to see doctors here partly because of accurate diagnosis. Accessibility and travel convenience were experienced in various ways depending on patients from different countries and different locations in the same country. Some of the patients who are in business arrangements with Indian companies or travelling on business visas often get treated even for minor problems due to better service reputation (brand preference, preferred choice in Figure 10). Accessibility and travel convenience are of no concern to them. Thus, the

visa is related to checkup success in the dendrogram and connects to the law in the literature support. Peng (2006) pointed out that brand awareness has the greatest total effects on brand loyalty. Feedback is an integral point of awareness and therefore feedback and diagnostics (quality) are also seen in loyalty (see Figure 9). How loyalty is related to quality and awareness (see Figure 9) can be later checked through statistical analysis. With literature support and qualitative analysis, we propose loyalty as a dimension for CBBE scale in medical tourism.

Proposition 4: Loyalty contributes positively to Consumer Based Brand Equity for medical tourism in India.

Culture

There had been numerous ways to define culture through the lens of various subjects and requirements. In 1952, the American anthropologists, Kroeber and Kluckhohn, assembled a list of 164 different definitions. Lewis (2000) provided a cultural model defining the importance of culture and classified cultures in linear-active, multi-active and reactive categories.

Our research goal is to check how culture can impact customer-based brand equity in medical tourism. In this context, we ought to review the contextual relationships among organizational/brand culture, destination culture, individual culture, and CBBE. Culture has a strong influence on consumer behavior (Arnold & Bianchi, 2001; Arnould & Thompson, 2005; Hofstede, 1998). Hofstede's cultural values dimensions are one of the most useful frameworks to examine cross-cultural consumer behavior (Baack & Singh, 2007). Country of origin effects on the brand (Gürhan-Canlı & Maheswaran, 2000; Lim & O'Cass, 2001) and culture of the brand origin (Lee & Ganesh, 1999; Lim & O'Cass, 2001) were also discussed in the literature. Tourism representations do not exist in isolation but are inarguably tangled in a circuit of culture whereby representations utilize and reinforce identity and in which images are continuously sprouted and consumed (Hall, 1997). Aaker (2004) described the corporate brand as a brand that represents an organization and reflects its own heritage, values, culture, people, and strategy.

Medical tourism and culture and CBBE. As per Carrera and Bridges (2006) medical tourism is "the organized travel outside one's local environment for the maintenance, enhancement or restoration of an individual's wellbeing in mind and body" (p. 447). Connell (2011) deduced that a patient's ulterior motivation for overseas treatment is driven by a broader CBBE spectrum of "availability," "affordability," "familiarity," and "perceived quality." If we analyze cultural familiarity as a factor, we can find several supports from previous and current/ongoing research.

Medical tourism is a service sector in which hospitals, clinics, and the destination country (e.g., country related infrastructure, the legal system, visa) are service providers. Therefore, modification of existing CBBE models for different cultures is required (Lee & Back, 2008; Nam, Ekinici, & Whyatt, 2011).

We found international patients do visit Indian tourism hubs and undergo treatment at the same time during local festivals. There is a rush of medical tourists before Diwali and Durga festivals. These patients often visit for a routine checkup, minor treatments, or first-time visit. "We come before Durga Puja and get the hospital visits done, and then we stay for a week or two to enjoy the festivals. We have been to Singapore and liked the place due to cleanliness, but India is more important for cultural reasons." We met people who simply prefer India due to the lesser barrier in cultural context and language proficiency apart from cost.

Richardson and Crompton (1988) found "mother tongue" (language first learned as a child and still understood) or household language (the language most often spoken at home) as

differentiating factors of culture. Han and Hyun (2015) found leverage in clubbing certain factors such as accommodation for accompanying family members, shopping, sightseeing tours relevant in a medical tourism context. The content analysis using Nvivo yielded the following words.

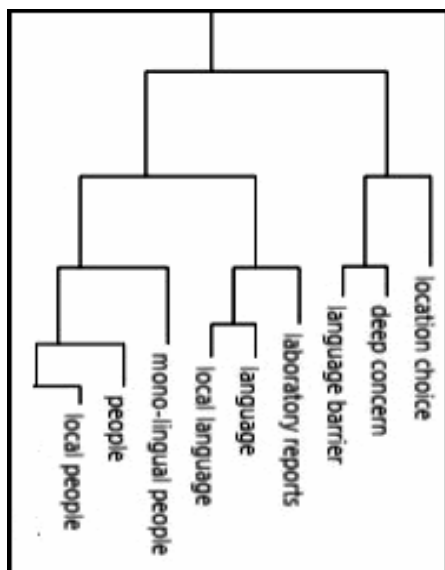


Figure 11: Culture word cluster.

1	Culture	Ethnic background	McCrone et al. (1995, p. 45)
2		Country of origin	Gelder, 2005
4		Language	Fetscherin and Stephano (2016)
5		Mother tongue	Richardson and Crompton (1988)
6		Household language	Richardson and Crompton (1988)
7		Religion	Kashif et al. (2004)
8		Discipline	Parashar et al (2004),Nutbeam (1998)
9		Duty	Parashar et al (2004)
10		Punctuality	Parashar et al (2004)
11		Honesty	Parashar et al (2004)

Figure 12: Culture items on literature review

Culture is considered as an attribute affecting brand equity. Some researchers have assembled the range of cultural differences in product and brand evolutions (Aaker & Maheswaran, 1997; Aaker & Sengupta, 2000; Samiee, 1994; Zinkhan & Preshaw, 1994). Aaker et al. (2001) reviewed the brand personality scale with samples taken from Spain and Japan. Country of origin effects on the brand (Gürhan-Canlı & Maheswaran, 2000; Lim & O’Cass, 2001) and culture of the brand origin (Lee & Ganesh, 1999; Lim & O’Cass, 2001) were also discussed in the literature. “Location” and “language” emerged as dominant factors under the culture dimension. “People” is an umbrella term for ethnic background, discipline, duty, punctuality, and honesty (see Figure 12). In the dendrogram the “location choice” (see Figure 11) and “language” were spatially highly correlated. In many cases, where patients are little literate, the language barrier and cultural change are found to be of deep concern to them. Language barrier seems to influence the location choice within India depending on one’s country of origin. “We prefer Bengali doctor as we can directly understand the meaning of the

reports and recommended treatment.” “It is easy to visit Chennai as they provide interpreters.” One international patient mentions that “The doctors in the Middle East are mostly Indian, yet we come to India for a cheaper rate. We do not have insurance and we get a better medical facility here.” The mono-lingual people put more weight on the local language and interpreters. The Nvivo finding of a high correlation between laboratory report and language was therefore valid (i.e., these items are dependent on each other). Considering all the prior findings, we propose culture as a dimension for brand equity.

Proposition 5: Culture contributes positively to Consumer Based Brand Equity for medical tourism in India.

Infrastructure/Superstructure

Aaker (1991) first postulated that infrastructure and superstructure impact consumer-based brand equity. Lew (1987), from an intensive literature review, divided infrastructure into tourist and leisure infrastructure. He accommodated forms of access (to and from a destination, destination tour routes), information and receptivity, basic needs (accommodations, meals) under tourist infrastructure. Under leisure superstructure, he has put recreation entertainment, performances, sporting events, and amusements. Chanda (2002) assembled a few constraints regarding the same issue: infrastructure and telecommunications systems, transportation, uninterrupted electricity, and water supply.

Boga and Weiermair (2012) mentioned the critical influence of medical hardware used in diagnostics. Das and Mukherjee (2016) pointed at “surgeries and diagnostic facilities” (p. 106). Teh and Chu (2005) mentioned hardware and software improvements in the context of medical quality. Heung et al. (2011) considered medical hardware as a medical tourism pull factor. The infrastructure and superstructure (Heung et al., 2011) impacts the trade in health services.

Our content analysis found these specific word clouds (see Figure 13) under infrastructure and supported our initial proposed dimension of infrastructure/superstructure.

In Figure 13, we got female patients as a distinct separate stem and our interviews (5% female) showed that mostly female patients do not have any prior information about the laboratory. There are two distinct reasons for this. Patients mostly rely on the country, hospital, and physician rather than laboratory and infrastructure. However, the emphasis on infrastructure comes as a priority when a country is chosen. Female patients often are guided by male companions and lack awareness of such items. The percentage of single female or group of only female patients was found to be 1 in 170.

Kotler and Gertner (2002) noted that for investors it is important to look forward to infrastructures, local government, taxes and cost, and availability of labor. Gunn (1972) debated about the classification of infrastructure and service facilities. Chanda (2002) listed few items under scrutiny for destination brand equity. From these papers, we decided to test infrastructure provided by hospital and country to be tested as an individual dimension. Chanda (2002) assembled a few constraints regarding the same issue: infrastructure and telecommunications systems, transportation, uninterrupted electricity, and water supply. The dendrogram yielded the relevance of general infrastructure and diagnostic (medical) infrastructure as manifested by literature.

Discussion

The conceptual framework of our proposals had been devised on the basis of qualitative analysis. A huge number of research articles and adequate book sources had been covered to initiate a basic search for CBBE dimensions for applied use. The items are identified from the direct research domain of medical tourism and associated service industry verticals. Our main focus was mainly on customer perception and that is where culture and infrastructure looked crucial at the initial stages. The culture factor was originally produced from consumer behavior theories and driving forces behind medical tourism. The next stage was to verify the items through content analysis. The main measuring items for each typical construct were supported by content analysis of 90 face-to-face interview sessions. The dimensions were established through content verification and further literature support. A few additional items were recognized during the interviews, which can be taken into consideration for the next stage of this research process.

Implications

The first purpose of this research is to propose consolidated dimensions for CBBE for medical tourism with association, culture, and infrastructure/superstructure as new dimensions. The addition of brand association is an extension of the work of Das and Mukherjee (2016). Culture and infrastructure captured the social and economic indicators. Secondly, we theoretically examined the relevance of the items measuring the dimensions derived from literature review and comparison with hierarchical clusters yielded by Nvivo. The third addition is the assortment of 51 individual items for six CBBE dimensions from literature. These items can be used in future research for modification, contextualization, and further generalization. The fourth (industrial) implication is to provide a standard guidance to hospital tourism managers to get a clear idea about the designing dimensions for marketing mix design. The fifth is to provide the content analysis to qualitatively analyze/validate the proposal. In the sixth stage, we have found a few more items from content analysis, which can be used to see if the measurement of the dimensions becomes more precise. During this process, the extensive literature was sorted in a concise pattern for future medical tourism CBBE related researches.

Limitations

We believe that the data should be collected from various leading hospitals in India for longitudinal and cross-cultural verification. Due to lack of time, funds, and resources, we could not extend the present research scope to achieve generalizability. The content analysis being done on a translated version of vernacular interview sessions were more exposed to scrutiny, interviewer's bias, and linguistic errors from translation. The interview transcripts were validated by member checking from English speaking patients. Given the fact that a few international people did not speak English and our research communication scope is restricted to English, we have to accommodate/retain a minimum personal bias of the researcher during translation (even after member checking/triangulation).

Recommendations

The literature review focused on the prior works, existing frameworks, and the foundation of our research. The research started with identifying the possible gaps in the customer-based brand equity dimensions to assess the positioning of Indian hospitals in South-East Asia with certain additional brand leverage against other Asian medical tourism

destinations. The content analysis yielded support, in-depth practical output in favor of the literature findings. The content analysis of our interview scripts is a more focused, practical aperture to validate the theoretical propositions. The items emerged from literature tallied with the word clouds generated from content analysis. However, there is a lack of one-to-one mapping in the context of exact word/phrase. So in one way, the literature supports the findings from NVivo outputs. We also found a subset of new items while measuring the proposed dimensions. We provide a list of new findings in a table (see Table 2). These items can be reviewed again from diverse literature bases for comparable service industries or can be directly put to use for verification, validation, and reliability tests through statistical procedures such as Explanatory Factor Analysis, Confirmatory Factor Analysis, and Structural Equation Modelling.

Scale Dim	Content Analysis Item	Subjective opinion
Awareness	Income, Income bracket	The awareness is related to perceived quality and association . Cost convenience had been found to be a relevant part of perceived quality and association. So how the income is related to awareness is a new scope of study
Association	Discussed issues, certain issues, unrelated patients	There is an established view of interpersonal interaction with salesman having impact on customers' feelings and satisfaction (Grace and O'Cass, 2004). Gangadharbatla (2008) has mentioned the desire to interact and collaborate to create brand related user generated content. We have seen patients interacting with each other in context of gathering information, socializing and verification of factual turns. According to patients it helps them to find better medical system, assess discount leverage and sort other accommodation/transportation related issues.
Perceived Qual	Senior citizen benefit	Many patients argued in favor of benefit offered for senior citizen, refund in case of wrong treatment and discounts and they were vocal about assessed comparisons. How this part can be itemized in future is a broad scope, which could not be directly supported by existing literature. Tax benefit, legal benefits had been mentioned a a part of Fig 9, but cost benefit can be assessed as a new item.
Loyalty	Visa arrangement, business arrangement	Invariably all patients complained about visa and whether we can add this as a supporting item for travel accessibility/travel convenience (Fig 6) under brand association or add as a separate item for loyalty is yet to be explored. The interviews were verified if patients consider the visa arrangement as a way to relate to a hospital (association) or being loyal to Indian hospital . The answers mostly yielded a pointer towards loyalty factor.
Infrastructure	Awareness people	Whether the awareness is related to infrastructure needed to be verified through EFA, CFA, SEM. No literature support is found. People had been seen to have a natural awareness of infrastructure before travelling.

Table 2: New scope of studies yielded from content analysis and literature comparisons

Contribution

The philosophy behind the research was to find new insights to explore standard dimensions for measuring CBBE for medical tourism in India. The research identifies the literature for CBBE in medical tourism and fuses qualitative research, namely content analysis, to generate dimensions of CBBE for this sector. The findings bring culture and infrastructure, which help to extend the literature. These may be incorporated in the scale development for CBBE in medical tourism for future research.

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Appendix A

BRAND EQUITY	
1	Do you find Indian hospitals unique?
2	Are you willing to pay relatively more price (<i>premium</i>) for Indian hospitals than that of other medical tourism destinations?
3	Did you choose Indian hospitals for practical benefits (<i>reliability, efficiency, effectiveness, serviceability, comfort, necessity</i>)?
4	Did you choose Indian hospitals for functional benefits (<i>Cost, loyalty, utility, service value etc.</i>)?
5	Did you choose this hospital because of its name (<i>reputation</i>)? <i>What else?</i>
BRAND AWARENESS	
1	How well do you know all the major hospitals in India?
2	How well do you recall special characteristics of this hospital in India in future?
3	How well do you recognize this hospital from a list of hospital names?
4	Can you recall overseas campaign/other (<i>collaboration with hotels</i>) national campaign promoting Indian medical tourism industry?
5	How well do you identify India as a Medical Tourism destination?
6	How well are you informed about India as a medical tourism destination?
BRAND ASSOCIATION	
1	How well do you like India as a medical tourism destination?
2	How much proud are you to visit India as a medical tourism destination?
3	How much do you trust India as a medical tourism destination?
4	Have you seen any promotional offer by Indian Ministry of health/hospital board/foreign affairs/tourist board/other organization?
5	Did you choose Indian hospitals as India is convenient to travel to?
6	How easily Indian hospitals are accessible to you?
7	How economic conditions of India are relevant to you in context of your medical travel?
8	How political conditions of India are relevant to you in context of your medical travel?
9	How relevant is the total cost of travel and treatment for your choice of Indian hospitals?
PERCEIVED QUALITY	
1	Did you choose Indian hospitals due to good medical service?
2	Did you choose Indian hospitals due to the consistent quality of medical service?
3	Did you find medical service in India reliable?
4	Did you find medical implants in India durable?
5	Did you find the cost of Indian medical system value additive?
6	Did you choose Indian hospitals for food and accommodation qualities of Indian hospitals?
7	Did you choose Indian hospitals for quality of the physical environment of Indian hospitals?
8	Did you choose Indian hospitals for the hospitality of the staffs of Indian hospitals?
9	Did you choose Indian hospitals for communication language support of Indian hospital staffs?
10	Did you choose Indian hospitals due to the internet and other communication facilities of Indian hospitals?
LOYALTY	
1	How do you prefer India as medical tourism destination?
2	Are you loyal to India as a medical tourism destination?
3	Is India your only choice as a medical tourism destination?
4	Is India your first choice as a medical tourism destination?
5	Did you choose Indian hospitals due to tax benefits by Indian hospitals?
6	Did You choose Indian hospitals due to legal benefits by Indian hospitals?
7	Will you return to India in future (<i>if necessary</i>) for further treatment?
INFRASTRUCTURE	
1	Did you choose Indian hospitals due to the infrastructure of hospital/clinic?
2	Did you choose Indian hospitals due to the medical infrastructure, <i>machinery, medical equipment, and medical infrastructure</i> ?
3	Did you choose Indian hospitals due to the country's infrastructure/superstructure (<i>Telecommunications systems, Transportations</i>)?
4	Did you choose Indian hospitals due to collaboration with hotels (<i>for accompanying candidate(s)</i>), medical centers?
CULTURE	
1	Did you choose Indian hospitals due to your ethnic background?
2	Did you choose Indian hospitals due to your country of origin?
3	Did you choose Indian hospitals due to your home country India)? (<i>Applicable for NRIs and expatriates</i>)
4	Did you choose Indian hospitals due to local language in India?
5	Did you choose Indian hospitals due to your mother tongue?
6	Did you choose Indian hospitals due to your household language?
7	Did you choose Indian hospitals due to your religious background?
8	Did you choose Indian hospitals due to the disciplines (<i>code of conducts that helps the medical tourists</i>) of Indian hospital staffs?
9	Did you choose Indian hospitals due to a sense of duty of Indian hospital staffs?
10	Did you choose Indian hospitals due to punctuality of Indian hospital staffs?
11	Did you choose Indian hospitals due to the honesty of Indian hospital staffs?

Table 1: Interview questionnaire.

Appendix B

Transcript 1: “I am a businessman and frequently visit India on business trips. I prefer to get treated here due to cost convenience. The treatment is better and cheaper. In my country we need to wait for longer times for getting an appointment. After getting the appointments, native doctors send us for same tests over and over. I really do not know how relevant these test reports are. Getting multiple checkups and doing repeating tests cost more. In India the same treatment is done more accurately at reasonable cost. However, getting here is always tough as getting medical visa is tough. We also have to wait in the general queues in the hospitals with Indian patients and that takes longer time for medical visit. This increases the cost for accommodation. But I have noted that the gross cost is always less.”

Transcript 1

Transcript 2: “I am coming to India since 1992 when my father had a bypass surgery for his heart at Kothari hospital in Kolkata. Things were different then. The treatment was good and advanced compared to Bangladesh. It is still advanced when it comes to microsurgeries and specialized treatments as kidney replacement. However Indian hospitals have become more commercialized. But the cost is still comparatively cheaper even with transportation. We prefer Eastern India due to language and cultural affinity. Going to South or West India requires more money and we need to cover more distance. In Eastern India we find accommodation at reasonable cost. The food is better here.”

Transcript 2

Appendix C

Interview Memo Support

Cost. In general, the medical tourists in India, the majority of who come from Bangladesh, find the treatment in India of better quality and reasonable cost. Long lasting treatment and complicated cases are often taken to Indian hospitals due to lower or comparative costs and better success rate. Low income families are reluctant to revisit if the associated cost is too high and the medical complication is not persisting or major.

Infrastructure. The general infrastructure of the country is appreciated better from people of poor background or people who have never travelled abroad. People who have visited countries such as Malaysia, Singapore find the infrastructure of average quality. Apparently, infrastructure was never a priority factor for the decision to get treated in India. However, patients those who have prior information about medical tourism industry have a general feel good factor about the infrastructure and superstructure in India.

We interviewed a couple of younger patients (under 30 years of age) who travel to India often. They seem to be pleased with the internet access, telecommunication rate, and package. The infrastructure of the country did seem to influence the decision at the last stage and not relevant while the quality of treatment is being assessed.

Food and accommodation. The food and accommodation related experiences are varied among the people from various income groups depending on where they could find a lodging facility. The hospitals in India are rarely seen to help patients with local accommodation. The quality of food and accommodation in the hospital premises and outside seem to have a general impact on the satisfaction level of the patients. However, most of the medical tourists mentioned these are not big enough factors when a hospital qualifies for better service. However, this overall feeling is dissuading some visitors to consider India as a tourism destination in future.

Culture and language. In many cases, where patients are little literate, the language barrier and cultural change are found to be of deep concern to them. The language barrier seems to influence the location choice within India depending on country of origin. The monolingual people put more weight on the local language. The presence of an interpreter makes their choices wider across India. Patients did put emphasis on local language and interpreter in order to have more awareness while communicating with the physician and understand laboratory reports. As the staffs mostly speak Hindi, Bengali, Tamil, and few other local languages understood by medical tourists, patients from countries such as Bangladesh, Sri Lanka, and Nepal are flocking more frequently due to communication advantage. A few prominent hospitals in Southern India are keeping Bengali interpreters to compete with hospitals in the Eastern region to entice Bangladeshi patients.

The responses regarding culture and causal relation to medical visits were found to be diverse. According to one Bangladeshi patient, the shopkeepers in India do not provide adequate attention to them due to cultural differences. He found the shopping mall staffs snobby and non-cooperating. The local people were mentioned as reluctant to socialize in many cases due to the language barrier. On the other hand, a few patients from the same country mentioned that the behaviors of local people are better than that found in Bangladesh.

Accessibility, visa, and travel convenience. Accessibility and travel convenience were experienced in various ways depending on patients from different countries and different locations in the same country. Some of the patients who are in business arrangements with Indian companies or travelling on business visas often get treated even for minor problems due to a better service reputation. Accessibility and travel convenience are of no concern to them. An Indian born Chinese patient travelled to India from Taiwan just because of trust in better diagnostics. He relied on past diagnosis for a long prevalent disease. He was keener on the knowledge of the physician and the known place.

A few people mentioned that modes of transportation are cheaper here, more frequent and they find it easier to travel around for shopping purposes. Many patients seek a better visa and travel arrangement for regular routine checkups and post-treatment recurring visits. However, they emphasized that the quality of treatment was more important than getting an easier visa arrangement.

Loyalty. Repeat patients have a greater loyalty and they prefer India for future treatment. According to one patient, the diagnostic test reports are more reliable in India and

aware people in the resident country prefer to see doctors here partly because of accurate diagnoses. Affluent patients do consider alternate destinations such as Singapore, Malaysia, and Dubai. In most cases, we found that intention of travel was a major factor behind this fluctuating loyalty. An administrative officer in a reputed private hospital mentioned that many Bangladeshi patients prefer treatment in India even though Apollo has opened a branch in their native countries. He attributed this loyalty to the acute success rate in India compared to Apollo (Bangladesh). This opinion has been propped by the positive response from several Bangladeshi patients.

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