

Prioritizing CSR barriers in the Indian Service Industry: A Fuzzy AHP Approach

Divesh Kumar*, Praveen Goyal**, Vinod Kumar***

Abstract

The present study identifies and prioritizes the barriers pertaining to implementation of corporate social responsibility (CSR) policies in Indian service industries. The 10 most important barriers related to CSR implementation have been first identified and then evaluated for the ranking process using Fuzzy Analytical Hierarchy Process (AHP) based methodology. The outcome of the study clearly presents that lack of top management commitment, lack of significant benefit of CSR, and financial constraints are the most important barriers in effective implementation of sustainable CSR initiatives among organizations belonging to the Indian service industry. These results may be used by decision makers to understand and these barriers, and identify critical success factors for the CSR process, which will help them to ensure that CSR is effectively implemented in their respective organizations.

Keywords: Analytical hierarchy process (AHP); Barriers; Corporate social responsibility; Fuzzy AHP; India.

JEL classification: C35; L80; M14.

1. INTRODUCTION

Legal obligations in many countries and stakeholder pressures have had a positive impact on CSR implementation, making it imperative for business organizations to not only think about but also act for the welfare of society. CSR has thus become an issue of “mainstream public agenda”, making it mandatory for firms to meet global CSR standards by adopting CSR practices (Yuen and Lim, 2016; Kuo *et al.*, 2016; Barkemeyer, 2009). Taking into consideration its growing importance, the issue of CSR implementation is now increasingly being reflected in both academic and managerial discussions (Kolk, 2016; Goyal and Rahman, 2014b; Goyal *et al.*, 2013; Lindgreen and Swaen, 2010). While

* Malaviya National Institute of Technology, Jaipur, India; e-mail: diveshcms@gmail.com.

** Birla Institute of Technology and Science, Pilani, India; e-mail: praveeng23@gmail.com.

*** International Management Institute New Delhi, Delhi, India; e-mail: vkmehta.iitr@gmail.com (corresponding author).

responsible organizations tend to fulfill their responsibilities towards their stakeholders, there is another set of organizations that questions the very concept of CSR and argues why they should spend their profits to fulfil such stakeholder demands (Harjoto and Laksmana, 2016; Wang *et al.*, 2016). In such an organizational mindset, the focus primarily is on "maximizing shareholder values", which makes it totally irrelevant for them to think of socially responsible behavior (Nwoke, 2017). Moreover, stakeholders of such business organizations ask for better returns on the CSR funds *vis a vis* its implementation. Companies also look at returns on CSR investment and monitor the performance of CSR funds and its implementation (Luke, 2017). Consequently, CSR implementation has become a cause of concern for both academicians and managers. The research community, therefore, needs to look into the reasons why some organizations are reluctant to implement CSR.

Several studies have concluded that there exists a positive relationship between an organization's CSR initiatives and its profitability (Goyal and Kumar, 2017; Goyal and Rahman, 2014a; Goyal *et al.*, 2013; Luo and Bhattacharya, 2006). Companies adopt CSR practices as part of a strategy to position their firm as responsible corporate citizens (Kuo *et al.*, 2016; Bhattacharya and Sen, 2004). Managers develop strategies for CSR and put their resources together to ensure that their social responsibilities are properly implemented. In spite of this, however, there are certain barriers which hinder the effective implementation of CSR in these organizations. It thus becomes important for the organizations to first identify and then formulate a plan to lessen the impact of the possible critical barriers so that the CSR initiatives are effectively implemented.

Various studies have discussed different barriers which impede CSR implementation in organizations (Wickert *et al.*, 2016; Lenssen *et al.*, 2010). However, every industry is unique and heterogeneous in nature when it comes to implement CSR. Thus, the barriers to implement CSR should also be unique according to different type of industry (Jenkins, 2004, Laudal, 2011). The majority of the existing studies emphasize on CSR issues in manufacturing organizations in developed economies, while CSR research in the service sector is thus far very limited, as far as developing economies are concerned (Goyal *et al.*, 2013; Goyal and Rahman, 2014a). By focusing on emerging economies, academics, researchers and managers may come to an understanding of the local approach while dealing with CSR issues.

Organizations often have limited resources, making it necessary for them to develop priorities, ensure proper resource allocation and remove CSR implementation barriers (Lincoln, 2017). Hence, the present research attempts to contribute to existing literature by identifying and prioritizing the barriers to implement CSR in service sector. The study follows the regular structure of research papers. The next section of the study deals with identification of CSR barriers, followed by the objective of the study. After the discussion on fuzzy methodology, a case study is presented to understand the priority of CSR barriers. In the last section, conclusion, limitations and managerial implications of the study are presented.

2. IDENTIFICATION OF CSR BARRIERS

A total of 10 barriers were identified and selected based on the literature review using the following keywords: CSR, Corporate social responsibility with keyword barriers (Table no. 1). A comprehensive list of papers was extracted and these papers were screened and scrutinized to check whether they were relevant to the objective of this study.

CSR is defined as “situations where the firm goes beyond compliance and engages in actions that appear to further some social good, beyond the interests of the firm and that which is required by law” (McWilliams *et al.*, 2006, p. 1). Barnett (2007, p. 801) defined CSR as “a discretionary allocation of corporate resources toward improving social welfare that serves as a means of enhancing relationships with key stakeholders.” Followers of this concept, recommend that corporations should be involved in activities that stretch beyond the legal and economic boundaries of the organization for the benefit of society (Barnett, 2007). CSR is considered to be an intention by which certain important aspects of the community are developed or one by which a better association with the community is developed (Arevalo and Aravind, 2011). Some perceive CSR as an economic responsibility, while others view it as socially responsible behavior. It is considered to be a mode in which business organizations interact with both internal and external stakeholders (Snider *et al.*, 2003; Waddock *et al.*, 2002). According to studies conducted, organizations interact with their environment continuously. As a result of this, their operations have some effect on the community and the environment (Goyal *et al.*, 2013). Described as “the subset of corporate responsibilities that deals with a company's voluntary/discretionary relationships with its societal and community stakeholders” (Waddock, 2004, p. 10), CSR has thus become important, not only for firms of different sizes but also for organizations in different sectors (Hopkins, 2003). Companies are obliged to satisfy the needs of all their stakeholders, including the government, society at large, consumers and others (Yu and Choi, 2016). CSR has also been depicted as being subjective, ambiguous, intangible, a fuzzy concept with a blurred periphery, and one which has triggered debates among various scholars and practitioners (Cramer *et al.*, 2004; Frederick, 1986; Lantos, 2001; McGuire, 1963; McWilliams *et al.*, 2006; Sweeney, 2007). Clarification of the CSR concept and its various associated issues, that have gained popularity in the last quarter of the 20th century, is thus sought from research and industrial communities.

Various scholars and practitioners have attempted to study CSR from different perspectives, such as responsibility towards the environment, responsibility towards society, and so on (Goyal *et al.*, 2013). Harila and Petrini (2003) suggest that there is no standard method of integrating CSR, and firms could implement CSR in different ways and at different levels of management. Cramer (2005) also corroborates that there seems to be no universal procedure by which to integrate CSR. CSR issues have been getting the attention of firms due to a number of reasons, such as competitive pressure, the increasing interest of customers and stakeholders, as well as globalization. These factors are thus responsible for changing the corporation's attitude to view social responsibilities from the shareholder's perspective to that of the stakeholder. Being an integral part of the global economic growth, emerging economies are enjoying an upturn and can thus provide deeper insights into this. Managers and scholars interested in this field of study would, therefore, benefit from an understanding of the CSR model in emerging economies (Arevalo and Aravind, 2011).

However, in spite of the growing interest in CSR which has provided fresh insights on the social responsibilities of business organizations, there are several variables which hinder its effective implementation. Numerous studies from diverse perspectives have identified a variety of barriers that impede implementation of CSR strategies. Valmohammadi (2011) analyzed the drivers and barriers of CSR from the Iranian perspective, taking into consideration ISO 26000 guidelines. In this study, the author found that the most important barrier that impedes CSR implementation is generally the lack of knowledge or awareness

of CSR. In another study, [Arevalo and Aravind \(2011\)](#) evaluated CSR practices from the perspective of the Indian subcontinent. They found that the most significant barriers of CSR implementation were lack of resources and the 'complexity and difficulty' involved in its implementation. In an interesting study, [Lincoln \(2017\)](#) found the barriers related to CSR implementation by female entrepreneurs. He found that variables like the monitoring cost, lack of financial resources, and lack of support from the government and NGOs act as major barriers that affect CSR implementation. [Nwoke \(2017\)](#) also tried to identify the barriers of CSR implementation by comparing the two ideologies of maximizing the shareholder's value and effective CSR.

In a study conducted by [Lee and Kim \(2009\)](#), it was found that financial constraints are one of the most important barriers in CSR implementation. According to [Warhurst and Mitchell \(2000\)](#), CSR is not considered a strategy that is cost-efficient. In emerging economies, corporations still consider involvement in CSR practices as cost to the organization. In his study on female entrepreneurs in Nigeria, [Lincoln \(2017\)](#) arrived at the same conclusion. Therefore, it has been found that organizations always try to invest their funds in activities that will yield positive and tangible financial returns. According to [Yuen and Lim \(2016\)](#), the most important barriers of CSR implementation in the shipping industry of Singapore are: lack of resources, lack of strategic vision, lack of a measurement system, high regulatory standards, and low willingness to pay for CSR.

Table no. 1 – List of Barriers in CSR Implementation

S.N.	CSR barriers	References
1	Lack of top management commitment	Denton, 1999; Duarte and Rahman, 2010; Kuo et al., 2016; Waddock et al., 2002; Yuen and Lim, 2016
2	Lack of significant benefits from CSR	Goyal and Kumar, 2017; Husted, 2003; Kuo et al., 2016; Luke, 2017; Warhurst and Mitchell, 2000; Yuen and Lim, 2016
3	Financial constraints	Lee and Kim, 2009; Lincoln, 2017; Werther and Chandler, 2005; Yuen and Lim, 2016
4	Lack of necessary skills	Frynas, 2005; Mamic, 2005; Warhurst and Mitchell, 2000
5	Lack of employee participation and training	Daily and Huang, 2001; Denton, 1999; Kuo et al., 2016; Maon et al., 2008; Welford and Frost, 2006
6	Lack of knowledge about CSR	Faisal, 2010; Goyal et al., 2013; Knox and Maklan, 2004; Kuo et al., 2016; Lincoln, 2017
7	Time consuming CSR process	Goyal and Kumar, 2017; Kuo et al., 2016; Werther and Chandler, 2005
8	Complexity of CSR issues	Goyal et al., 2013; Kleine and von Hauff, 2009; Knox and Maklan, 2004; Kuo et al., 2016; Luke, 2017; Yuen and Lim, 2016
9	Lack of effective strategic planning	Galbreath and Benjamin, 2010; Kuo et al., 2016; Madsen and Ulhoi, 1996; Werther and Chandler, 2005; Yuen and Lim, 2016
10	Consumer's passive attitude towards CSR	Polonsky and Jevons, 2009; Carroll, 1999; McAlister and Ferrell, 2002; Muller, 2006

Absence of expertise in this field also acts as barrier in effective CSR implementation ([Frynas, 2005; Kuo et al., 2016; Mamic, 2005; Warhurst and Mitchell, 2000](#)). The concept of CSR is still considered to be synonymous with various other ideas like business ethics, corporate governance etc. According to [Madsen and Ulhoi \(1996\)](#) "*Employees generally indicate that they do not feel sufficiently informed about environmental matters.*" Absence

of proper information about CSR is thus one of the reasons that impede CSR implementation in business operations. Trained on various functional areas of management but not on social issues, managers are neither able to effectively understand nor define the symbiotic relationship between business and society.

To be an integral part of corporate strategy, CSR needs to be not only aligned with the corporate business strategy, but more importantly, to be deeply embedded in its principles and values. Corporations have not formulated effective action plans to implement CSR strategy as it is not at the core of their business objectives, competencies, or activities. Thus, in the long run, absence of proper planning for CSR may have a negative impact on the company's competitive position (Faisal, 2010). An effective union of CSR and the firm's mission and objective results in the firm's better administrative control for CSR assessment (Kuo *et al.*, 2016; Husted, 2003) and absence of effective strategic planning for CSR can hinder its effective implementation (Galbreath and Benjamin, 2010).

As mentioned earlier, CSR is an issue of strategic importance and hence the involvement of the top management is very important for its effective implementation. A passive attitude of the top management towards CSR will not provide the proper environment for effective planning of CSR initiatives. In developing economies, the top management continues to give precedence to profitability as the prime objective over CSR issues. It has been observed that rather than fostering a socially responsible mindset in their employees, those in top managerial positions have only cultivated a profit making culture in their organizations. *"The support of the top management can strengthen responsibility initiatives and the lack of support can cripple any progress on integrating responsibility issues into corporate practices"* (Waddock *et al.*, 2002, p. 140).

Globally, various scholars have tried to identify the relationship between CSR efforts and the firm's performance, but the results are still inconclusive in nature (Goyal *et al.*, 2013). In the existing studies, there are contradictions about the relationship between CSR efforts and a firm's performance (Goyal and Rahman, 2014a). This inconclusiveness in the existing literature, in turn, creates a situation which affects the decisions of the top executives of the organization (Knox and Maklan, 2004). In addition to this, lack of effective legal provisions and evidence of significant benefits divert the manager's attention from CSR to concentrate on short term profitability goals (Werther and Chandler, 2005). Although organizations from both developed and developing economies publish corporate sustainability reports, lack of authentic information and qualitative data, as well as lack of an index by which to measure the corporation's efforts, especially in developing countries, de-motivate managers. This results in proper attention not being paid to CSR issues.

Luke (2017) has highlighted "the complexity of applying a single social reporting framework across sectors (particularly for private sector for-profit organizations), as well as the reluctance towards comprehensive reporting until positive results are achieved for the 'survival' stage of third sector organizations". Because of the complexities involved in its implementation, CSR investments require a long gestation period before the results become visible. CSR implementation is a process of change that should be communicated at all levels of management (Fassin, 2008). Executives also require time to communicate the corporation's efforts of social responsibilities to all stakeholders (Arvidsson, 2010). CSR impacts all functional areas in organizations. This needs an attitudinal change at all levels of management, while its effective implementation can only take place by concentration on different organizational actions (Valor, 2007).

Employees should be provided with training so that they can upgrade their skills to meet the changing requirements of the industry, as well as help in the achievement of the organization's CSR objectives. Daily and Huang (2001) emphasize the need of training for development of required skills in employees to meet the objectives of the environmental management system. Training about CSR issues will result in increasing employee awareness (Maon *et al.*, 2008) as “any management initiative without employee involvement is useless” (Denton, 1999, p. 111). Lack of sufficient training and education would naturally hinder the desired CSR implementation in the organization (Welford and Frost, 2006).

Industrialization and the resultant availability of an extensive variety in any product category provides the consumer with a wide array of products out of which he makes the final selection. In developing economies, most of the purchasing decisions are influenced by the price that the customer has to pay for the product. At the same time, however, concern for the environment, climate change, and other issues are only of secondary importance to the customer (Yuen and Lim, 2016). It is observed that consumers may discontinue using products from socially irresponsible organizations but authentication of reward to socially responsible firms is also very rare (Valmohammadi, 2011). Hence, this passive attitude of the consumer also creates hindrances in effective CSR implementation.

3. FUZZY AHP

In this section, Fuzzy Analytic Hierarchy Process (AHP) with the fuzzy set theory is discussed. The fuzzy set theory helps in dealing with the vagueness and fuzziness of uncertain environments (Zadeh, 1965) for which healthy models for decision making are developed (Yu, 2002). In AHP, complex decisions are reduced to a series of pair-wise comparisons, although its appropriateness in real life decisions may be questioned (Shaw *et al.*, 2012). To solve this problem, decision models should incorporate a fuzzy theory to deal with the uncertainty (Lee, 2009; Yu, 2002). A selection of alternatives in fuzzy AHP is used by the fuzzy set theory in conventional AHP (Kumar *et al.*, 2016; Bozbura *et al.*, 2007).

Fuzzy AHP is frequently used in research for decision making, and various methods have been proposed for calculating fuzziness (Lee, 2009; Lee *et al.*, 2006). These methods are associated with their own advantages and disadvantages (Klir and Yuan, 1995).

Considering the simplicity of calculations and the advantages of one method over another, Chang (1996) used the extent analysis method for Fuzzy AHP. This approach deals with the uncertainty of decision making and is more robust in nature (Chan and Kumar, 2007).

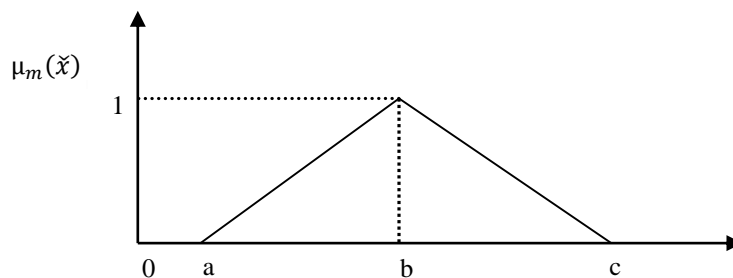


Figure no. 1 – Triangular fuzzy number

It uses a triangular fuzzy number for a pair-wise comparison of different decision variables. In addition, extent analysis is used to find the synthetic value from the pair-wise comparison.

A triangular fuzzy number M can be represented by a, b, c with its membership function as shown in Figure no. 1 (Kumar *et al.*, 2016; Cheng, 1999).

$$\mu_m(x) = \begin{cases} \frac{x-a}{b-a} & (a \leq x \leq b) \\ \frac{c-x}{c-b} & (b \leq x \leq c) \\ 0 & \text{otherwise} \end{cases} \quad (1)$$

with $-\infty < a \leq b \leq c \leq \infty$.

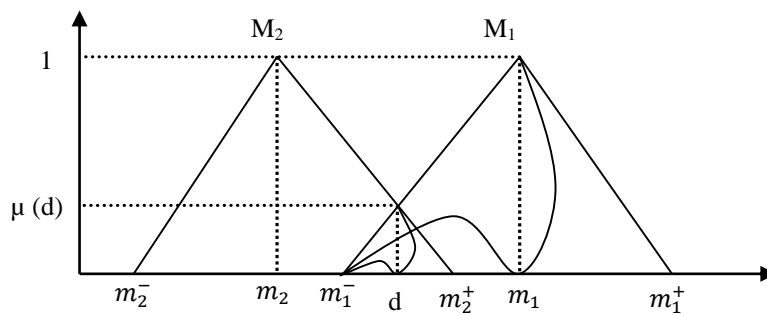


Figure no. 2 – Two triangular fuzzy numbers M1 and M2 (Lee, 2009).

The strongest grade of membership is parameter b that is, $f_M(b) = 1$, while a and c are the lower and upper bounds. Two triangular fuzzy numbers $M_1(m_1^-, m_1, m_1^+)$ and $M_2(m_2^-, m_2, m_2^+)$ are shown in Figure no. 2.

When,

$$m_1^- \geq m_2^-, \quad m_1 \geq m_2, \quad m_1^+ \geq m_2^+ \quad (2)$$

The degree of possibility is represented in equation (3):

$$V(M_1 \geq M_2) = 1 \quad (3)$$

Otherwise, the ordinate of the highest intersection point is calculated as (Chang, 1996; Lee, 2009; Shaw *et al.*, 2012).

$$V(M_1 \geq M_2) = \text{hgt}(M_1 \cap M_2) = \mu(d) = \frac{m_1^- - m_2^+}{(m_2 - m_2^-) - (m_1 - m_1^-)} \quad (4)$$

Equation (5) to (11) can be used for the calculation of fuzzy synthetic extent value (Chang, 1996; Lee, 2009; Shaw *et al.*, 2012).

$$F_i = \sum_{j=i}^m M_{gi}^j \otimes \left(\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right)^{-1}, \quad i = 1, 2, \dots, n \quad (5)$$

$$\sum_{j=i}^m M_{gi}^j = \left(\sum_{j=i}^m M_{ij}^-, \sum_{j=i}^m M_{ij}, \sum_{j=i}^m M_{ij}^+ \right) \quad i = 1, 2, \dots, n \quad (6)$$

$$\left(\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right)^{-1} = \left[\frac{1}{\sum_{i=1}^n \sum_{j=1}^m M_{ij}^+}, \frac{1}{\sum_{i=1}^n \sum_{j=1}^m M_{ij}}, \frac{1}{\sum_{i=1}^n \sum_{j=1}^m M_{ij}^-} \right] \quad (7)$$

A convex fuzzy number can be defined as,

$$V(F \geq F_1, F_2 \dots F_k) = \min V(F \geq F_i), \quad i = 1, 2, \dots, k \quad (8)$$

$$d(F_i) = \min V(F \geq F_k) = W_i', \quad k = 1, 2, \dots, n \text{ and } k \neq i \quad (9)$$

Based on the above procedure, the weights, W_i' of the factors are:

$$W' = (W_1', W_2', \dots, W_n')^T \quad (10)$$

After normalization, the priority weights are as follows:

$$W' = (W_1, W_2, \dots, W_n)^T \quad (11)$$

3.1 Computational procedure

In this study, a hybrid model has been used by combining the fuzzy set theory with the conventional AHP. Fuzzy AHP can be used to determine the relative weights of CSR barriers (Ku *et al.*, 2010).

The computational procedure of the model is as follows:

Step 1: The CSR barriers are identified.

Step 2: A nine-point scale questionnaire is developed for pair-wise comparison by experts, included from the various departments of the companies.

Step 3: The response of the experts is used to calculate the fuzzy importance weight. Their opinions are combined to obtain a triangular fuzzy number \check{D} (Lee, 2009). The characteristic function of the fuzzy number is shown in Table no. 2 (Lee, 2009).

$\check{D} = (h^-, h, h^+)$, where:

$$h^- = \left(\prod_{t=1}^s l_t \right)^{\frac{1}{s}}, \quad \forall t = 1, 2 \dots s.$$

$$h = \left(\prod_{t=1}^s m_t \right)^{\frac{1}{s}}, \quad \forall t = 1, 2 \dots s.$$

$$h^+ = \left(\prod_{t=1}^s n_t \right)^{\frac{1}{s}}, \quad \forall t = 1, 2 \dots s.$$

and (l, m, u) are the lower, middle and upper limits respectively, of fuzzy response from expert t .

Table no. 2 – Fuzzy scale

Fuzzy Number	Membership Function
$\tilde{1}$	(1,1,2)
\tilde{x}	(x-1, x, x+1) for x= 2,3,4,5,6,7,8
$\tilde{9}$	(8,9,9)
$1/\tilde{1}$	(2 ⁻¹ , 1 ⁻¹ , 1 ⁻¹)
$1/\tilde{x}$	((x+1) ⁻¹ , x ⁻¹ , (x-1) ⁻¹) for x= 2,3,4,5,6,7,8
$1/\tilde{9}$	(9 ⁻¹ , 8 ⁻¹ , 8 ⁻¹)

Step 4: Fuzzy extend analysis is used to calculate the weights.

4. A CASE ILLUSTRATION

A case study was conducted with a multinational service provider at their corporate office based in Mumbai (India) to illustrate the effectiveness of the model. ABC Company has a healthy market presence and market share in IT & ITES industry. The company is export oriented and also has an equally significant domestic demand. Due to the increase in CSR practices across the industry, ABC Company wants to incorporate CSR related criteria in its business operations. The company realized that having a good score on the CSR performance card would directly translate to returns in terms of enhancing brand positioning, reaching the target audience and create a positive name in society. At the same time, the company needed to first understand the various barriers and their importance before bringing CSR activities into business operations. The management invited experts from the marketing, production, quality and research departments to prioritize the CSR barriers. They also put in place a team, which included people working at the top and middle management levels from operations, human resources, sales and marketing departments, to identify the various issues related with CSR implementation.

A brainstorming session was organized to identify the CSR barriers. The designations of the six experts were as follows: Team Leader (02), Operations Manager (01), Human Resources Manager (01), Vice president - Marketing (01), Sales Manager - Lead Generation (01). Literature related to each barrier was circulated to the experts through emails, and the experts were expected to read it and come prepared for the brain storming sessions. These all paper were in English language. List of the papers sent to the experts is given in [Table no. 3](#). After three brain storming sessions were conducted, it was found that all the experts had unanimously agreed upon the 10 barriers that were affecting CSR implementation. The experts in the team were found to be focused upon the barriers that were directly related to their jobs, while the team leaders were found to be keen to train the employees for CSR.

Table no. 3 – Literature Shared with the Experts

S. No.	Author (s)	Title of the Paper
1	Duarte and Rahman (2010)	Perceptions of Corporate Social Responsibility by Bangladeshi Managers: An Exploratory Study
2	Faisal (2010)	Analyzing the barriers to corporate social responsibility in supply chains: an interpretive structural modelling approach
3	Frynas (2005)	The false developmental promise of Corporate Social Responsibility: Evidence from multinational oil companies
4	Lantos (2001)	The boundaries of strategic corporate social responsibility
5	Kuo <i>et al.</i> (2016)	Motivations and barriers for corporate social responsibility reporting: Evidence from the airline industry.
6	Lincoln (2017)	Corporate Social Responsibility in Nigeria: Drivers and Barriers Experienced by Female Entrepreneurs When Undertaking CSR
7	Luke (2017)	Statement of Social Performance: Opportunities and Barriers to Adoption.
8	Montiel (2008)	Socially responsible purchasing in supply chains: drivers and barriers in Sweden
9	Nwoke (2017)	Corporations and development: The barriers to effective corporate social responsibility (CSR) in a neoliberal age.
10	Sweeney (2007)	Corporate social responsibility in Ireland: barriers and opportunities experienced by SMEs when undertaking CSR
11	Yuen and Lim (2016)	Barriers to the Implementation of Strategic Corporate Social Responsibility in Shipping

A hierarchal model (Figure no. 3) was shown to each member. The goal was to implement CSR effectively by taking into account the various barriers faced by organizations in effective CSR implementation. All the experts were given the comparison sheet on which the experts had to mark their responses on the sheet by using the 9 point Fuzzy AHP scale (Table no. 2). After several rounds of brain storming sessions were conducted, the average response of all the experts for the pair-wise comparison is shown in Table no. 4.

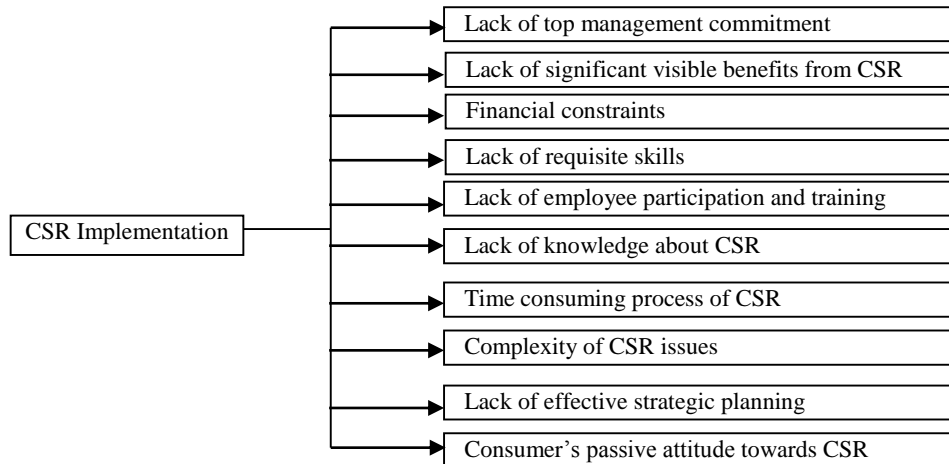
**Figure no. 3 – Hierarchal model of CSR barriers**

Table no. 4 – Comparison of selection criteria

SN	1	2	3	4	5	6	7	8	9	10
1	1.00, 1.00, 1.00	1.51, 1.82, 2.94	0.48, 0.66, 0.93	1.59, 2.08, 3.17	1.59, 2.08, 2.83	1.62, 1.91, 3.05	1.59, 2.08, 3.17	1.35, 1.82, 2.62	1.59, 2.08, 3.17	0.27, 0.38, 0.52
2	0.34, 0.55, 0.66	1.00, 1.00, 1.00	1.00, 1.44, 2.00	1.59, 2.08, 3.17	1.59, 2.08, 3.17	1.51, 1.82, 2.94	1.26, 1.44, 2.24	2.14, 2.85, 3.96	0.40, 0.58, 0.71	1.51, 2.18, 2.94
3	1.07, 1.52, 2.08	0.50, 0.69, 1.00	1.00, 1.00, 1.00	1.41, 1.73, 2.52	1.51, 2.18, 2.94	1.91, 2.62, 3.70	1.59, 2.08, 3.17	1.51, 2.04, 3.14	1.51, 2.04, 3.14	0.46, 0.56, 0.87
4	0.31, 0.48, 0.63	0.31, 0.48, 0.63	0.40, 0.58, 0.71	1.00, 1.00, 1.00	1.00, 1.12, 2.14	0.46, 0.56, 0.87	0.92, 1.07, 1.73	0.41, 0.45, 0.78	1.51, 1.82, 2.94	0.35, 0.48, 0.63
5	0.35, 0.48, 0.63	0.31, 0.48, 0.63	0.34, 0.46, 0.66	0.47, 0.89, 1.00	1.00, 1.00, 1.00	1.26, 1.44, 2.52	1.41, 1.73, 2.83	1.00, 1.00, 1.41	0.31, 0.48, 0.63	1.29, 2.24, 2.42
6	0.33, 0.52, 0.62	0.34, 0.55, 0.66	0.27, 0.38, 0.52	1.15, 1.78, 2.15	0.40, 0.69, 0.79	1.00, 1.00, 1.00	1.26, 1.44, 2.52	1.12, 1.20, 1.59	0.31, 0.48, 0.63	0.92, 1.07, 1.73
7	0.31, 0.48, 0.63	0.45, 0.69, 0.79	0.31, 0.48, 0.63	0.58, 0.93, 1.09	0.35, 0.58, 0.71	0.40, 0.69, 0.79	1.00, 1.00, 1.00	0.89, 0.89, 1.78	1.00, 1.00, 1.41	1.00, 1.00, 1.41
8	0.38, 0.55, 0.74	0.25, 0.35, 0.47	0.32, 0.49, 0.66	1.29, 2.24, 2.42	0.71, 1.00, 1.00	0.63, 0.83, 0.89	0.56, 1.12, 1.12	1.00, 1.00, 1.00	1.12, 1.20, 1.59	0.40, 0.58, 0.71
9	0.31, 0.48, 0.63	1.41, 1.73, 2.52	0.32, 0.49, 0.66	0.34, 0.55, 0.66	1.59, 2.08, 3.17	1.59, 2.08, 3.17	0.71, 1.00, 1.00	0.63, 0.83, 0.89	1.00, 1.00, 1.00	1.59, 2.08, 3.17
10	1.91, 2.62, 3.70	0.34, 0.46, 0.66	1.15, 1.78, 2.15	1.59, 2.08, 2.83	0.41, 0.45, 0.78	0.58, 0.93, 1.09	0.71, 1.00, 1.00	1.41, 1.73, 2.52	0.31, 0.48, 0.63	1.00, 1.00, 1.00

Following the process of Fuzzy AHP calculation as discussed in the previous section, Equation no. 1 to 11 can be calculated as follows:

$$\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j = (1,1,1) + (1.51,1.82,2.94) + \dots + (1,1,1) = (81.53,105.00,145.37)$$

$$\left(\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right)^{-1} = \left(\frac{1}{145.37}, \frac{1}{105.00}, \frac{1}{81.53} \right) = (0.0068, 0.0095, 0.0122)$$

$$\sum_{j=1}^m M_{g1}^j = (1,1,1) + (1.59, 2.08, 3.17) + \dots + (0.27, 0.38, 0.52) = (11.76, 15.52, 21.71)$$

$$\sum_{j=1}^m M_{g2}^j = (12.39, 15.98, 23.10), \sum_{j=1}^m M_{g3}^j = (12.22, 15.83, 23.13), \sum_{j=1}^m M_{g4}^j = (6.64, 8.38, 11.79),$$

$$\sum_{j=1}^m M_{g5}^j = (7.98, 10.33, 14.06), \sum_{j=1}^m M_{g6}^j = (6.99, 8.34, 12.35), \sum_{j=1}^m M_{g7}^j = (5.90, 7.64, 9.35),$$

$$\sum_{j=1}^m M_{g8}^j = (7.51, 10.25, 12.08), \sum_{j=1}^m M_{g9}^j = (8.75, 11.37, 15.06), \sum_{j=1}^m M_{g10}^j = (9.50, 12.33, 16.66)$$

$$F_1 = \sum_{j=1}^m M_{gi}^j \otimes \left[\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right]^{-1} = (11.76, 15.52, 21.71) \otimes (0.0068, 0.0095, 0.0122) = (0.08, 0.15, 0.27)$$

$$\begin{aligned}
F_2 &= (12.39, 15.98, 23.10) \otimes (0.0068, 0.0095, 0.0122) = (0.09, 0.15, 0.28) \\
F_3 &= (12.22, 15.83, 23.13) \otimes (0.0068, 0.0095, 0.0122) = (0.08, 0.15, 0.28) \\
F_4 &= (6.64, 8.38, 11.79) \otimes (0.0068, 0.0095, 0.0122) = (0.05, 0.08, 0.14) \\
F_5 &= (7.98, 10.33, 14.06) \otimes (0.0068, 0.0095, 0.0122) = (0.05, 0.10, 0.17) \\
F_6 &= (6.99, 8.34, 12.35) \otimes (0.0068, 0.0095, 0.0122) = (0.05, 0.08, 0.15) \\
F_7 &= (5.90, 7.64, 9.35) \otimes (0.0068, 0.0095, 0.0122) = (0.04, 0.07, 0.11) \\
F_8 &= (7.51, 10.25, 12.08) \otimes (0.0068, 0.0095, 0.0122) = (0.05, 0.10, 0.15) \\
F_9 &= (8.75, 11.37, 15.06) \otimes (0.0068, 0.0095, 0.0122) = (0.06, 0.11, 0.18) \\
F_{10} &= (9.50, 12.33, 16.66) \otimes (0.0068, 0.0095, 0.0122) = (0.07, 0.12, 0.20) \\
V(F_1 \geq F_2) &= 1, \quad V(F_1 \geq F_3) = 1, \quad V(F_1 \geq F_4) = 1, \quad V(F_1 \geq F_5) = 1, \\
V(F_1 \geq F_6) &= 1, \quad V(F_1 \geq F_7) = 1, \quad V(F_1 \geq F_8) = 1
\end{aligned}$$

Similarly,

$$\begin{aligned}
V(F_2 \geq F_1 F_3 F_4 F_5 F_6 F_7 F_8 F_9 F_{10}) &= (1, 1, 1, 1, 1, 1, 1, 1) \\
V(F_3 \geq F_1 F_2 F_4 F_5 F_6 F_7 F_8 F_9 F_{10}) &= (1, 1, 1, 1, 1, 1, 1, 1) \\
V(F_4 \geq F_1 F_2 F_3 F_5 F_6 F_7 F_8 F_9 F_{10}) &= (0.46, 0.42, 0.46, 0.82, 1, 1, 0.82, 0.73, 0.64) \\
V(F_5 \geq F_1 F_2 F_3 F_4 F_6 F_7 F_8 F_9 F_{10}) &= (0.64, 0.62, 0.64, 1, 1, 1, 0.92, 0.83) \\
V(F_6 \geq F_1 F_2 F_3 F_4 F_5 F_7 F_8 F_9 F_{10}) &= (0.50, 0.46, 0.50, 1, 0.83, 1, 0.83, 0.75, 0.67) \\
V(F_7 \geq F_1 F_2 F_3 F_4 F_5 F_6 F_8 F_9 F_{10}) &= (0.27, 0.20, 0.27, 0.86, 0.67, 0.86, 0.67, 0.56, 0.44) \\
V(F_8 \geq F_1 F_2 F_3 F_4 F_5 F_6 F_7 F_9 F_{10}) &= (0.58, 0.55, 0.58, 1, 1, 1, 0.90, 0.80) \\
V(F_9 \geq F_1 F_2 F_3 F_4 F_5 F_6 F_7 F_8 F_{10}) &= (0.71, 0.69, 0.71, 1, 1, 1, 1, 0.92) \\
V(F_{10} \geq F_1 F_2 F_3 F_4 F_5 F_6 F_7 F_8 F_9) &= (0.80, 0.79, 0.80, 1, 1, 1, 1, 1)
\end{aligned}$$

The weight vectors are calculated as follows:

$$\begin{aligned}
d(f_1) &= \text{MinV}(F_1 \geq F_2 F_3 F_4 F_5 F_6 F_7 F_8 F_9 F_{10}) = \text{Min}(1, 1, 1, 1, 1, 1, 1, 1) = 1 \\
d(f_2) &= \text{MinV}(F_2 \geq F_1 F_3 F_4 F_5 F_6 F_7 F_8 F_9 F_{10}) = \text{Min}(1, 1, 1, 1, 1, 1, 1, 1) = 1 \\
d(f_3) &= \text{MinV}(F_3 \geq F_1 F_2 F_4 F_5 F_6 F_7 F_8 F_9 F_{10}) = \text{Min}(1, 1, 1, 1, 1, 1, 1, 1) = 1 \\
d(f_4) &= \text{MinV}(F_4 \geq F_1 F_2 F_3 F_5 F_6 F_7 F_8 F_9 F_{10}) = \text{Min}(0.46, 0.42, 0.46, 0.82, 1, 1, 0.82, 0.73, 0.64) = 0.42 \\
d(f_5) &= \text{MinV}(F_5 \geq F_1 F_2 F_3 F_4 F_6 F_7 F_8 F_9 F_{10}) = \text{Min}(0.64, 0.62, 0.64, 1, 1, 1, 0.92, 0.83) = 0.62 \\
d(f_6) &= \text{MinV}(F_6 \geq F_1 F_2 F_3 F_4 F_5 F_7 F_8 F_9 F_{10}) = \text{Min}(0.50, 0.46, 0.50, 1, 0.83, 1, 0.83, 0.75, 0.67) = 0.46 \\
d(f_7) &= \text{MinV}(F_7 \geq F_1 F_2 F_3 F_4 F_5 F_6 F_8 F_9 F_{10}) = \text{Min}(0.27, 0.20, 0.27, 0.86, 0.67, 0.86, 0.67, 0.56, 0.44) = 0.2 \\
d(f_8) &= \text{MinV}(F_8 \geq F_1 F_2 F_3 F_4 F_5 F_6 F_7 F_9 F_{10}) = \text{Min}(0.58, 0.55, 0.58, 1, 1, 1, 0.90, 0.80) = 0.55 \\
d(f_9) &= \text{MinV}(F_9 \geq F_1 F_2 F_3 F_4 F_5 F_6 F_7 F_8 F_{10}) = \text{Min}(0.71, 0.69, 0.71, 1, 1, 1, 1, 0.92) = 0.69 \\
d(f_{10}) &= \text{MinV}(F_{10} \geq F_1 F_2 F_3 F_4 F_5 F_6 F_7 F_8 F_9) = \text{Min}(0.80, 0.79, 0.80, 1, 1, 1, 1, 1) = 0.79
\end{aligned}$$

$$\begin{aligned}
W' &= (d(f_1) \ d(f_2) \ d(f_3) \ d(f_4) \ d(f_5) \ d(f_6) \ d(f_7) \ d(f_8) \ d(f_9) \ d(f_{10}))^T \\
&= (1, 1, 1, 0.42, 0.62, 0.46, 0.20, 0.55, 0.69, 0.79)^T \\
&= (0.15, 0.15, 0.15, 0.06, 0.09, 0.07, 0.03, 0.08, 0.10, 0.12)
\end{aligned}$$

The above analysis provides the weights of the various CSR implementation barriers faced by the company (in the case study) belonging to the Indian service industry. These values are shown in [Table no. 5](#). In our model, the most important and significant barriers were selected to make the model more comprehensive. The above analysis shows that lack of top management commitment, lack of significant benefits from CSR, and financial

constraints ranked the highest among the barriers and carried an equal weight of 0.15. Most of the commutative weight has been allocated to these three barriers (0.45).

Table no. 5 – Weights of CSR barriers

S. N.	Global weight	Normalized weight	CSR barriers
1	1.00	0.15	Lack of top management commitment
2	1.00	0.15	Lack of significant benefits from CSR
3	1.00	0.15	Financial constraints
4	0.42	0.06	Lack of requisite skills
5	0.62	0.09	Lack of employee participation and training
6	0.46	0.07	Lack of knowledge about CSR
7	0.20	0.03	Time consuming process of CSR
8	0.55	0.08	Complexity of CSR issues
9	0.69	0.10	Lack of effective strategic planning
10	0.79	0.12	Consumer's passive attitude towards CSR

5. RESULTS AND DISCUSSION

This study presented a list of barriers extracted from the existing literature and then prioritized them from the perspective of the Indian service sector, based on the case study of the company. The results of the present study show that lack of top management commitment, lack of significant benefits from CSR, and financial constraints are ranked the highest among the existing barriers and have an equal weight of 0.15 each. Effective CSR implementation is an issue which concerns the top management of the organization, and needs proper attention from the policy makers in the organization. Lack of commitment from the top management would lead to failure of the entire CSR initiative of the organization. In spite of having funds for CSR, companies are not focused enough to develop a plan to implement their social responsibilities. This lack of commitment has been considered to be an important barrier which may hinder the overall success of the CSR program (Faisal, 2010). The lack of adequate top management involvement may also lead to certain other activities like training on CSR issues, performance measurement on non-financial aspects and so on, not being initiated (Szekely and Knirsch, 2005), which in turn, will create an unfavorable chain reaction against CSR implementation.

Financial constraints, evaluated with weight of 0.15, act as another important barrier which impedes implementation of CSR. Numerous studies have been conducted to evaluate the association between CSR performance and its impact on a firm's profitability. The debate, however, is still inconclusive (Goyal *et al.*, 2013). Although the majority of studies have attributed that there is a positive relationship between CSR performance and a firm's profitability, yet there still remains a lot of ambiguity and controversy about this concept and the kind of impact it has on an organization. This discourages organizations from implementing CSR initiatives because they still consider such initiatives as cost to the organization. Financial constraints are evaluated as a high weight barrier because optimization of funds is one of the most important factors that drives organizations. Lack of a common consensus on the relationship between CSR and a firm's financial performance, often leaves the manager with no choice but to utilize the limited amount of funds available

to them in some productive sector in order to maximize gains (Cramer *et al.*, 2006). The service sector is growing rapidly and contributing the maximum revenue to the GDP of emerging economies. However, lack of a clear correlation between social responsibilities and financial gains inhibits CSR implementation in organizations.

The consumer's passive attitude towards CSR (at weight 0.12) is the second important barrier which interferes with the effective implementation of CSR. In the contemporary world, an organization's strategies take into consideration the customer's expectations from the firm. Studies show that especially in the context of developing economies, the customer continues to be passive towards CSR initiatives. The price of a product is still the single most important criterion that influences the consumer's purchase behavior. Thus, as the main thrust of organizations in emerging economies is cost reduction of their offerings, firms are often unable to come up with effective CSR strategies.

The next barrier which is considered important from the perspective of CSR implementation in organizations belonging to the service industry is lack of effective strategic planning. Strategic planning is based "*Solely on experience and intuition for planning ahead*" (McKiernan and Morris, 1994, p. S37). Thus, CSR can only be implemented only if it is considered to be an issue of strategic importance. According to Hahn (2013) "*Formal strategic planning is positively linked to corporate social responsibility and is increasingly important in achieving competitive advantage.*". Thus, for effective CSR implementation, it is important to keep CSR at the core of strategy formulation at all levels of the organization. Lack of effective strategic planning may lead to the failure of the entire CSR program at all levels of the organization.

Lack of employee participation and training (at weight 0.9), and the complexity of CSR issues are also moderately important barriers that need to be handled by companies. As Denton (1999) clearly states, "*any management initiative without employee involvement is useless.*" Employee participation is an important driver for cultural change in the organization (Enander and Pannullo, 1990). Hence, the effective implementation of CSR programs requires appropriate training programs for employees (Graafland and Zhang, 2014). CSR training also proves to be helpful in developing awareness about the effect of CSR initiatives on the individual and society (Maon *et al.*, 2008).

Analysis of the expert's survey revealed that the weight given to the complexity of CSR issues was 0.08, which affects the effectiveness of CSR implementation in a moderate way. The relationship between society and business is very complex in nature (Jamali and Abdallah, 2015). CSR is multidimensional in nature and focuses on various activities of organizations, even as it touches the various facets of society (Goyal and Kumar, 2017; Bhardwaj, 2016; Polonsky and Jevons, 2009; Muller, 2006), because it incorporates various issues focusing on different stakeholders (Kleine and von Hauff, 2009). Maon *et al.* (2008) mentioned, "*CSR-related questions and the resulting potential corporate responsibilities vary by industrial sector, type of business activities, and corporation size, such that they span a wide array of complex concerns related to economic, social, and environmental aspects of business processes and practices.*" Therefore, companies need to be very cautious while dealing with this issue.

The next important barrier to restrict effective CSR implementation is lack of knowledge (weight 0.07) about the concept of CSR. The ambiguous nature of CSR and frequent use of other similar terms like corporate citizenship, business ethics, corporate governance often result in lack of appropriate understanding of the issue (Goyal *et al.*, 2013).

It is defined as “a discretionary allocation of corporate resources toward improving social welfare that serves as a means of enhancing relationships with key stakeholders” (Barnett, 2007, p. 801). It has certain sub-themes under its large umbrella. According to various studies, it is an ethical concept which requires more accountability from the side of the organization (Faisal, 2010). Several studies argue that CSR can be used interchangeably with various concepts like human rights, environmental safety, and sustainable development, among many others (Montiel, 2008; Carter and Jennings, 2004). In emerging economies like India, there still exists a gap in the systematic and universal understanding of CSR and its implementation (Shirodkar *et al.*, 2016; de Oliveira and Jabbour, 2015; Goyal *et al.*, 2013).

Lack of necessary skills, evaluated at 0.06 weight, acts as another barrier in effective CSR implementation. In the existing literature on CSR, learning of skills is emphasized to ensure effective implementation of CSR. This is validated by Tang *et al.* (2012), who assert that implementing CSR in an organization is a difficult job and requires appropriate skills. Firms need to develop a dedicated department where experts in this field can formulate and implement the firm’s CSR related plans (Jenkins, 2009), and thus, be able to help organizations in achieving the objectives with better efficiency (IpKin and Hong Gao, 2014). Therefore, getting people skilled in the field of CSR is an important concern (Nair and Sodhi, 2012).

The barrier that affects CSR implementation the least is the fact that the CSR implementation process is a time consuming process. It is ranked low, at weight 0.03. According to Graafland and Zhang (2014) and Deborah (2002), communicating CSR issues at all levels of management and non-managerial employees is a time consuming process. Since CSR implementation is often a long drawn out process, it results in the consumption of extra funds. Additionally, stakeholders, on their part, may take more time in understanding the importance of CSR activities and the significant long term benefits that accrue to both sides (Wang and Bansal, 2012; Arora and Dharwadkar, 2011).

Table no. 4 clearly shows that lack of top management commitment has the maximum weight and needs the most attention. If the top management of a company is committed to CSR implementation, then all other barriers can be resolved easily. Commitment from the top management will ensure that CSR is deeply anchored at the core of corporate strategy, and help them to develop a culture of CSR at all levels of management. Out of three top weighted barriers, the top management commitment or lack of it affects the other barriers the most. Lack of significant benefits from CSR also scored a similar weight. Research studies on the relationship between CSR and a firm’s bottom line are still inconclusive in nature. This ambiguity hinders the effective implementation of CSR in organizations. Due to limited resources, managers want to divert funds into productive activities which translate to a visible and positive impact on the firm’s revenue. The fourth important barrier that impedes CSR implementation is the consumer’s passive attitude towards CSR. Especially in developing countries like India, the functional benefit of the product and its cost effectiveness are of paramount importance to price sensitive consumers.

6. CONCLUSION AND MANAGERIAL INSIGHTS

This study has been used to prioritize the barriers of CSR implementation in the context of the Indian service industry by analyzing the findings of the case study. Various ranking and weighing methodologies available in current literature can be used for the ranking and weighing of CSR barriers. In this study, however, a hybrid methodology using Fuzzy logic

with AHP has been used to handle the probable vagueness of expert responses. The main contribution of this research is identification of the barriers of CSR implementation and ranking these barriers, based on their importance, in CSR implementation.

The case of a firm in the Indian service industry has been considered to illustrate the rankings of CSR barriers. The author(s) have presented the following conclusions, based on the results obtained from data analysis. For effective CSR implementation, it is crucial to understand the various barriers across the different levels of the organization, such as employees, consumers, top management, and so on. This paper is an attempt to ease the problem of managers by providing them with a framework by which to identify the barriers of CSR implementation. In the literature review, the author(s) have identified the 10 most important barriers that interfere with CSR implementation. In real time situations, it is not easy to eradicate all the barriers at the same time. This makes it necessary to first identify the major obstacle and then work on it. The study also provides the ranking of CSR implementation barriers in order that respective strategies may be developed and the organization is able to circumvent the obstacles. The fuzzy set theory has been integrated with AHP to deal with the vagueness and fuzziness of the responses from the experts. The fuzzy AHP result clearly shows that lack of top management commitment, lack of significant, immediate benefits from CSR, and financial constraints are the most important barriers in CSR implementation. Hence, it may be concluded that companies should start CSR implementation by first formulating policies at the top management level. Also, companies need to create awareness about the various benefits of implementing CSR and should provide adequate finance that is especially earmarked for CSR implementation. These rankings will, in turn, help managers to formulate solutions for overcoming CSR implementation issues. The main contribution of this study is the proposed framework which gives a clearer picture about CSR implementation barriers.

7. LIMITATIONS OF THE STUDY

The present study also has certain limitations. This study provides ten barriers to implement CSR in Indian service industry; other barriers may be identified. Next, this study is based on single case study which restricts its generalization across the industry. Although, there are various studies followed similar approach in literature in similar situation (Kumar and Garg, 2017; Kumar and Rahman, 2017; Venkatesh *et al.*, 2018; Govindan *et al.*, 2017). For the purpose of generalization, the proposed priority ranking can be assessed from multiple case studies.

References

- Arevalo, J. A., and Aravind, D., 2011. Corporate social responsibility practices in India: approach, drivers, and barriers. *Corporate Governance: The international journal of business in society*, 11(4), 399-414. <http://dx.doi.org/10.1108/14720701111159244>
- Arora, P., and Dharwadkar, R., 2011. Corporate governance and corporate social responsibility (CSR): The moderating roles of attainment discrepancy and organization slack. *Corporate Governance*, 19(2), 136-152. <http://dx.doi.org/10.1111/j.1467-8683.2010.00843.x>

- Arvidsson, S., 2010. Communication of Corporate Social Responsibility: A Study of the Views of Management Teams in Large Companies. *Journal of Business Ethics*, 96(3), 339-354. <http://dx.doi.org/10.1007/s10551-010-0469-2>
- Barkemeyer, R., 2009. Beyond compliance - below expectations? CSR in the context of international development. *Business Ethics (Oxford, England)*, 18(3), 273-289. <http://dx.doi.org/10.1111/j.1467-8608.2009.01563.x>
- Barnett, M., 2007. Stakeholder Influence Capacity and the Variability of Financial Returns to Corporate Social Responsibility. *Academy of Management Review*, 32(3), 794-816. <http://dx.doi.org/10.5465/amr.2007.25275520>
- Bhardwaj, B. R., 2016. Role of green policy on sustainable supply chain management: A model for implementing corporate social responsibility (CSR). *Benchmarking*, 23(Issue: 2), 456-468. <http://dx.doi.org/10.1108/BIJ-08-2013-0077>
- Bhattacharya, C. B., and Sen, S., 2004. Doing better at doing good: When, why, and how consumers respond to corporate social initiatives. *California Management Review*, 47(1), 9-24. <http://dx.doi.org/10.2307/41166284>
- Bozbura, F. T., Beskese, A., and Kahraman, C., 2007. Prioritization of human capital measurement indicators using fuzzy AHP. *Expert Systems with Applications*, 32(4), 1100-1112. <http://dx.doi.org/10.1016/j.eswa.2006.02.006>
- Carroll, A. B., 1999. Corporate social responsibility. Evolution of definitional construct. *Business & Society*, 38(3), 268-295. <http://dx.doi.org/10.1177/000765039903800303>
- Carter, C. R., and Jennings, M. M., 2004. The role of purchasing in corporate social responsibility: A structural equation analysis. *Journal of Business Logistics*, 25(1), 145-186. <http://dx.doi.org/10.1002/j.2158-1592.2004.tb00173.x>
- Chan, F. T. S., and Kumar, N., 2007. Global supplier development considering risk factors using fuzzy extended AHP based approach. *Omega*, 35(4), 417-431.
- Chang, D. Y., 1996. Applications of the extent analysis method on fuzzy AHP. *European Journal of Operational Research*, 95(3), 649-655. [http://dx.doi.org/10.1016/0377-2217\(95\)00300-2](http://dx.doi.org/10.1016/0377-2217(95)00300-2)
- Cheng, C. H., 1999. Evaluating weapon systems using ranking fuzzy numbers. *Fuzzy Sets and Systems*, 107(1), 25-35. [http://dx.doi.org/10.1016/S0165-0114\(97\)00348-5](http://dx.doi.org/10.1016/S0165-0114(97)00348-5)
- Cramer, J., 2005. Applying International Standards and Guidelines on Corporate Social Responsibility: An Action Plan. *Environmental Quality Management*, 14(3), 71-77. <http://dx.doi.org/10.1002/tqem.20048>
- Cramer, J., Jonker, J., and van der Heijden, A., 2004. 'Making sense of corporate social responsibility'. *Journal of Business Ethics*, 55(2), 215-222. <http://dx.doi.org/10.1007/s10551-004-1903-0>
- Cramer, J., van der Heijden, A., and Jonker, J., 2006. Corporate Social Responsibility: Making Sense Through Thinking and Acting. *Business Ethics (Oxford, England)*, 15(4), 380-389. <http://dx.doi.org/10.1111/j.1467-8608.2006.00459.x>
- Daily, B. F., and Huang, S. C., 2001. Achieving sustainability through attention to human resource factors in environmental management. *International Journal of Operations & Production Management*, 21(12), 1539-1552. <http://dx.doi.org/10.1108/01443570110410892>
- de Oliveira, J. A. P., and Jabbour, C. J. C., 2015. Environmental management, climate change, CSR, and governance in clusters of small firms in developing countries toward an integrated analytical framework. *Business & Society*, 56(1), 1-22.
- Deborah, J. B., 2002. Change communication: Using strategic employee communication to facilitate major change. *Corporate Communications*, 7(4), 219-231. <http://dx.doi.org/10.1108/13563280210449804>
- Denton, D. K., 1999. Employee involvement, pollution control and pieces to the puzzle. *Environmental Management and Health*, 10(2), 105-111. <http://dx.doi.org/10.1108/09566169910259769>
- Duarte, F. P., and Rahman, S., 2010. Perceptions of Corporate Social Responsibility by Bangladeshi Managers: An Exploratory Study. 6(5), 119-136.

- Enander, R. T., and Pannullo, D., 1990. Employee involvement and pollution prevention. *The Journal for Quality and Participation*, 1(3), 50-53.
- Faisal, M. N., 2010. "Analysing the barriers to corporate social responsibility in supply chains: an interpretive structural modelling approach", *International Journal of Logistics Research and Applications: A Leading. The Journal of Supply Chain Management*, 13(3), 179-195.
- Fassin, Y., 2008. SMEs and the fallacy of formalising CSR. *Business Ethics (Oxford, England)*, 17(4), 364-378. <http://dx.doi.org/10.1111/j.1467-8608.2008.00540.x>
- Frederick, W. C., 1986. Towards CSR3: Why Ethical Analysis is Indispensable and Unavoidable in Corporate Affairs. *California Management Review*, 28(2), 126-141. <http://dx.doi.org/10.2307/41165190>
- Frynas, J. G., 2005. The false developmental promise of Corporate Social Responsibility: Evidence from multinational oil companies. *International Affairs*, 81(3), 581-598. <http://dx.doi.org/10.1111/j.1468-2346.2005.00470.x>
- Galbreath, J., and Benjamin, K., 2010. "An action-based approach for linking CSR with strategy": framework and cases. In C. Louche, S. O. Idowu and W. L. Filho (Eds.), *Innovative Corporate Social Responsibility: From Risk Management to Value Creation*: Greenleaf Publishing. http://dx.doi.org/10.9774/GLEAF.978-1-907643-26-2_3
- Govindan, K., Mangla, S. K., and Luthra, S., 2017. Prioritising indicators in improving supply chain performance using fuzzy AHP: Insights from the case example of four Indian manufacturing companies. *Production Planning and Control*, 28(6-8), 552-573. <http://dx.doi.org/10.1080/09537287.2017.1309716>
- Goyal, P., and Kumar, D., 2017. Modeling the CSR barriers in manufacturing industries. *Benchmarking*, 24(7), 1871-1890. <http://dx.doi.org/10.1108/BIJ-09-2015-0088>
- Goyal, P., and Rahman, Z., 2014a. Corporate sustainability performance and firm performance association: A literature review. 4(4), 287-308. <http://dx.doi.org/10.1504/IJSSM.2014.070843>
- Goyal, P., and Rahman, Z., 2014b. Corporate sustainability performance assessment: An analytical hierarchy process approach, *Int. J.* 4(1), 1-14. <http://dx.doi.org/10.1504/IJIM.2014.065285>
- Goyal, P., Rahman, Z., and Kazmi, A. A., 2013. Corporate sustainability performance and firm performance research: Literature review and future research agenda. *Management Decision*, 51(2), 361-379. <http://dx.doi.org/10.1108/00251741311301867>
- Graafland, J., and Zhang, L., 2014. Corporate social responsibility in China: Implementation and challenges. *Business Ethics (Oxford, England)*, 23(1), 34-49. <http://dx.doi.org/10.1111/beer.12036>
- Hahn, R., 2013. ISO 26000 and the Standardization of Strategic Management Processes for Sustainability and Corporate Social Responsibility. *Business Strategy and the Environment*, 22(7), 442-455. <http://dx.doi.org/10.1002/bse.1751>
- Harila, H., and Petrini, K., 2003. *Incorporating Corporate Social Responsibility Case Study of Four MNCs*. Lulea University of Technology.
- Harjoto, M., and Laksmana, I., 2016. The Impact of Corporate Social Responsibility on Risk Taking and Firm Value. *Journal of Business Ethics*, 1-21. <http://dx.doi.org/10.1007/s10551-016-3202-y>
- Hopkins, M., 2003. The business case for CSR: Where are we? , 5(2-3), 125-140. <http://dx.doi.org/10.1504/IJBPM.2003.003261>
- Husted, B. W., 2003. Governance Choices for Corporate Social Responsibility: To Contribute, Collaborate or Internalize? *Long Range Planning*, 36(5), 481-498. [http://dx.doi.org/10.1016/S0024-6301\(03\)00115-8](http://dx.doi.org/10.1016/S0024-6301(03)00115-8)
- IpKin, A. W., and Hong Gao, J., 2014. Exploring the direct and indirect effects of CSR on organizational commitment: The mediating role of corporate culture. *International Journal of Contemporary Hospitality Management*, 26(4), 500-525. <http://dx.doi.org/10.1108/IJCHM-05-2013-0225>
- Jamali, D., and Abdallah, H., 2015. Mainstreaming Corporate Social Responsibility at the Core of the Business School Curriculum *Handbook of Research on Business Ethics and Corporate*

- Responsibilities* (pp. 276-300). Hershey, PA, USA: IGI Global. <http://dx.doi.org/10.4018/978-1-4666-7476-9.ch013>
- Jenkins, H., 2004. A critique of conventional CSR theory: An SME perspective. *Journal of General Management*, 29(4), 37-57. <http://dx.doi.org/10.1177/030630700402900403>
- Jenkins, H., 2009. A 'business opportunity' model of corporate social responsibility for small- and medium-sized enterprises. *Business Ethics (Oxford, England)*, 18(1), 21-36. <http://dx.doi.org/10.1111/j.1467-8608.2009.01546.x>
- Kleine, A., and von Hauff, M., 2009. Sustainability-driven implementation of corporate social responsibility: Application of the integrative sustainability triangle. *Journal of Business Ethics*, 85(S3), 517-533. <http://dx.doi.org/10.1007/s10551-009-0212-z>
- Klir, G. J., and Yuan, B., 1995. *Fuzzy sets and fuzzy logic: theory and applications*. NJ: Prentice-Hall Englewood Cliffs.
- Knox, S., and Maklan, S., 2004. Corporate Social Responsibility: Moving Beyond Investment Towards Measuring Outcomes. *European Management Journal*, 22(5), 508-516. <http://dx.doi.org/10.1016/j.emj.2004.09.009>
- Kolk, A., 2016. The social responsibility of international business: From ethics and the environment to CSR and sustainable development. *Journal of World Business*, 51(1), 23-34. <http://dx.doi.org/10.1016/j.jwb.2015.08.010>
- Ku, C. Y., Chang, C. T., and Ho, H. P., 2010. Global supplier selection using fuzzy analytic hierarchy process and fuzzy goal programming. *Quality & Quantity*, 44(4), 623-640. <http://dx.doi.org/10.1007/s11135-009-9223-1>
- Kumar, D., and Garg, C. P., 2017. Evaluating sustainable supply chain indicators using fuzzy AHP: Case of Indian automotive industry. *Benchmarking*, 24(6), 1742-1766. <http://dx.doi.org/10.1108/BIJ-11-2015-0111>
- Kumar, D., and Rahman, Z., 2017. Analyzing enablers of sustainable supply chain: ISM and fuzzy AHP approach. *Journal of Modelling in Management*, 12(3), 498-524. <http://dx.doi.org/10.1108/JM2-02-2016-0013>
- Kumar, D., Rahman, Z., and Chan, F. T., 2016. A fuzzy AHP and fuzzy multi-objective linear programming model for order allocation in a sustainable supply chain: A case study. *International Journal of Computer Integrated Manufacturing*, 1-17.
- Kuo, T. C., Kremer, G. E. O., Phuong, N. T., and Hsu, C. W., 2016. Motivations and barriers for corporate social responsibility reporting: Evidence from the airline industry. *Journal of Air Transport Management*, 57, 184-195. <http://dx.doi.org/10.1016/j.jairtraman.2016.08.003>
- Lantos, G. P., 2001. The boundaries of strategic corporate social responsibility. *Journal of Consumer Marketing*, 18(7), 595-632. <http://dx.doi.org/10.1108/07363760110410281>
- Laudal, T., 2011. Drivers and barriers of CSR and the size and internationalization of firms. 7(2), 234-256. <http://dx.doi.org/10.1108/1747111111111141512>
- Lee, A. H. I., 2009. A fuzzy supplier selection model with the consideration of benefits, opportunities, costs and risks. *Expert Systems with Applications*, 36(2, Part 2), 2879-2893. <http://dx.doi.org/10.1016/j.eswa.2008.01.045>
- Lee, A. H. I., Kang, H.-Y., and Wang, W.-P., 2006. Analysis of priority mix planning for the fabrication of semiconductors under uncertainty. *International Journal of Advanced Manufacturing Technology*, 28(3-4), 351-361. <http://dx.doi.org/10.1007/s00170-004-2369-z>
- Lee, K., and Kim, J., 2009. Current status of CSR in the realm of supply management: The case of the Korean electronics industry. *Supply Chain Management*, 14(2), 138-148. <http://dx.doi.org/10.1108/13598540910942000>
- Lenßen, G., Bevan, D., and Fontrodona, J., 2010. Corporate responsibility and governance: The responsible corporation in a global economy. *Corporate Governance*, 10(4), 340-346.
- Lincoln, A., 2017. *Corporate Social Responsibility in Nigeria: Drivers and Barriers Experienced by Female Entrepreneurs When Undertaking CSR* Stages of Corporate Social Responsibility Springer International Publishing.

- Lindgreen, A., and Swaen, V., 2010. Corporate Social Responsibility. *12*(1), 1-7.
- Luke, B., 2017. Statement of Social Performance: Opportunities and Barriers to Adoption. *Social and Environmental Accountability Journal*, 1-19.
- Luo, X., and Bhattacharya, C. B., 2006. Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing*, *70*(4), 1-18. <http://dx.doi.org/10.1509/jmkg.70.4.001>
- Madsen, H., and Ulhoi, J. P., 1996. *Corporate environmental and resource management: overview of results from a survey of the present greening situation in Danish companies*. Working Paper. Aarhus School of Business. Aarhus.
- Mamic, I., 2005. Managing Global Supply Chain: The Sports Footwear, Apparel and Retail Sectors. *Journal of Business Ethics*, *59*(1-2), 81-100. <http://dx.doi.org/10.1007/s10551-005-3415-y>
- Maon, F., Lindgreen, A., and Swaen, V., 2008. Designing and Implementing Corporate Social Responsibility: An Integrative Framework Grounded in Theory and Practice. *Journal of Business Ethics*, *87*(1), 71-89.
- McAlister, D. T., and Ferrell, L., 2002. The role of strategic philanthropy in marketing strategy. *European Journal of Marketing*, *36*(5/6), 689-705. <http://dx.doi.org/10.1108/03090560210422952>
- McGuire, J., 1963. *Business and Society*. New York, NY: McGraw-Hill.
- McKiernan, P., and Morris, C., 1994. Strategic planning and financial performance in UK SMEs: Does formality matter? *British Journal of Management*, *5*(S31), 31-41. <http://dx.doi.org/10.1111/j.1467-8551.1994.tb00128.x>
- McWilliams, A., Siegel, D. S., and Wright, P. M., 2006. Corporate Social Responsibility: Strategic Implications. *Journal of Management Studies*, *43*(1), 1-18. <http://dx.doi.org/10.1111/j.1467-6486.2006.00580.x>
- Montiel, I., 2008. Corporate social responsibility and corporate sustainability: Separate pasts, common futures. *Organization & Environment*, *21*(3), 245-269. <http://dx.doi.org/10.1177/1086026608321329>
- Muller, A., 2006. Global versus local CSR strategies. *24*(2/3), 189-198. <http://dx.doi.org/10.1016/j.emj.2006.03.008>
- Nair, N., and Sodhi, J., 2012. CSR practices by SMEs in India: Lessons from five case studies. *Indian Journal of Industrial Relations*, *47*(4), 583-597.
- Nwoke, U., 2017. Corporations and development: The barriers to effective corporate social responsibility (CSR) in a neoliberal age. *59*(1), 122-146. <http://dx.doi.org/10.1108/IJLMA-07-2015-0042>
- Polonsky, M., and Jevons, C., 2009. Global branding and strategic CSR: An overview of three types of complexity. *International Marketing Review*, *26*(3), 327-347. <http://dx.doi.org/10.1108/02651330910960816>
- Shaw, K., Shankar, R., Yadav, S. S., and Thakur, L. S., 2012. Supplier selection using fuzzy AHP and fuzzy multi-objective linear programming for developing low carbon supply chain. *Expert Systems with Applications*, *39*(9), 8182-8192. <http://dx.doi.org/10.1016/j.eswa.2012.01.149>
- Shirodkar, V., Beddewela, E., and Richter, U. H., 2016. Firm-level determinants of political CSR in emerging economies: Evidence from India. *Journal of Business Ethics*, *000*, 1-16.
- Snider, J., Hill, R. P., and Martin, D., 2003. Corporate social responsibility in the 21st century: A view from the world's most successful firms. *Journal of Business Ethics*, *48*(2), 175-187. <http://dx.doi.org/10.1023/B:BUSI.0000004606.29523.db>
- Sweeney, L., 2007. Corporate social responsibility in Ireland: barriers and opportunities experienced by SMEs when undertaking CSR. *Corporate Governance: The international journal of business in society*, *7*(4), 516-523. <http://dx.doi.org/10.1108/14720700710820597>
- Szekely, F., and Knirsch, M., 2005. Responsible leadership and corporate social responsibility: Metrics for sustainable performance. *European Management Journal*, *23*(6), 628-647. <http://dx.doi.org/10.1016/j.emj.2005.10.009>

- Tang, Z., Hull, C. E., and Rothenberg, S., 2012. How corporate social responsibility engagement strategy moderates the CSR-financial performance relationship. *Journal of Management Studies*, 49(7), 1274-1303. <http://dx.doi.org/10.1111/j.1467-6486.2012.01068.x>
- Valmohammadi, C., 2011. Investigating corporate social responsibility practices in Iranian organizations: An ISO 26000 perspective. *Business Strategy Series*, 12(5), 257-263. <http://dx.doi.org/10.1108/17515631111166898>
- Valor, C., 2007. A global strategic plan for corporate philanthropy. *Corporate Communications*, 12(3), 280-297. <http://dx.doi.org/10.1108/13563280710776879>
- Venkatesh, V. G., Zhang, A., Deakins, E., Luthra, S., and Mangla, S., 2018. A fuzzy AHP-TOPSIS approach to supply partner selection in continuous aid humanitarian supply chains. *Annals of Operations Research*, 000, 1-34. <http://dx.doi.org/10.1007/s10479-018-2981-1>
- Waddock, S., 2004. Parallel universes: Companies, academics and the progress of corporate citizenship. *Business and Society Review*, 109(1), 5-42. <http://dx.doi.org/10.1111/j.0045-3609.2004.00002.x>
- Waddock, S. A., Bodwell, C., and Graves, S. B., 2002. Responsibility: The new business imperative. *The Academy of Management Executive*, 16(2), 132-147.
- Wang, H., Tong, L., Takeuchi, R., and George, G., 2016. Corporate social responsibility: An overview and new research directions. *Academy of Management Journal*, 59(2), 534-544. <http://dx.doi.org/10.5465/amj.2016.5001>
- Wang, T., and Bansal, P., 2012. Social responsibility in new ventures: Profiting from a long-term orientation. *Strategic Management Journal*, 33(10), 1135-1153. <http://dx.doi.org/10.1002/smj.1962>
- Warhurst, A., and Mitchell, P., 2000. Corporate social responsibility and the case of Summitville mine. *Resources Policy*, 26(2), 91-102. [http://dx.doi.org/10.1016/S0301-4207\(00\)00019-2](http://dx.doi.org/10.1016/S0301-4207(00)00019-2)
- Welford, R., and Frost, S., 2006. Corporate social responsibility in Asian supply chains. *Corporate Social Responsibility and Environmental Management*, 13(3), 166-176. <http://dx.doi.org/10.1002/csr.121>
- Werther, W. B., and Chandler, D., 2005. Strategic corporate social responsibility as a global brand insurance. *Business Horizons*, 48(4), 317-324. <http://dx.doi.org/10.1016/j.bushor.2004.11.009>
- Wickert, C., Scherer, A. G., and Spence, L. J., 2016. Walking and talking corporate social responsibility: Implications of firm size and organizational cost. *Journal of Management Studies*, 53(7), 1169-1196. <http://dx.doi.org/10.1111/joms.12209>
- Yu, C. S., 2002. A GP-AHP method for solving group decision-making fuzzy AHP problems. *Computers & Operations Research*, 29(14), 1969-2001. [http://dx.doi.org/10.1016/S0305-0548\(01\)00068-5](http://dx.doi.org/10.1016/S0305-0548(01)00068-5)
- Yu, Y., and Choi, Y., 2016. Stakeholder pressure and CSR adoption: The mediating role of organizational culture for Chinese companies. *The Social Science Journal*, 53(2), 226-235. <http://dx.doi.org/10.1016/j.soscij.2014.07.006>
- Yuen, K. F., and Lim, J. M., 2016. Barriers to the Implementation of Strategic Corporate Social Responsibility in Shipping. 32(1), 49-57. <http://dx.doi.org/10.1016/j.ajsl.2016.03.006>
- Zadeh, L. A., 1965. Fuzzy sets. *Information and Control*, 8(3), 338-353. [http://dx.doi.org/10.1016/S0019-9958\(65\)90241-X](http://dx.doi.org/10.1016/S0019-9958(65)90241-X)

Copyright



This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.