DEMATAL - Assessing Obstacles to Corporate Social Responsibility Using a Hierarchical Analytic Framework in the Context of a Textile Case

Khandekar Sambhaji Atmaram
SSt College of Arts and Commerce, Maharashtra, India.
Email : sambhajikhandekar@sstcollege.edu.in

Abstract:
As a result of the textile industry's exposure to CSR challenges, many scholars are now active in the global analysis of Corporate Social Responsibility (CSR) and its linked variables. Some scientists in affluent nations go beyond CSR in the textile sector to apply their theories. When it comes to workforce difficulties, such as the harmony between workers' resources and their job needs, the textile industry stands out among industrial sectors [4]. Researchers and practitioners are actively interested in resolving these social concerns because the textile sector has recently experienced a serious crisis in CSR issues. However, due to yet-to-be-revealed realities, certain developing nations, like India, are still limited to this range. To close this gap, this study, using the suggested approach, identifies the issues impeding CSR implementation in the textile sector. An in-depth case study in South India used to validate the approach. Common hurdles have been identified using a variety of trustworthy methods. Some scholars have looked into these challenges, although their research has mainly focused on the textile industry, which has significant CSR concerns. Because there hasn't been a study looking at how CSR is applied in the Indian textile industry, many Indian businesses have lost their reputation and quality in the global market. When attempting to apply measures aimed to protect against CSR restrictions, Indian textile firms will run into trouble if they do not adhere to the norms of behaviour present in developed nations. The common obstacles are gathered using a variety of trustworthy techniques, and among them, with the help of the case industry manager and employing an analytical hierarchy approach inside a context, the key obstacle is discovered. The findings indicate that a key impediment to CSR implementation in the Indian textile sector is a lack of funding, which is further supported by the managers of the case industry. This study proposes a method that can be expanded in the future following the installation of additional components, points out limitations, and provides social and scientific insights.
Keywords: CSR constraints, Indian textiles, MCDM (DEMATAL) method

Introduction

Aware that depending just on economic advantage would not position them for success in the long run, recent business trends have put pressure on organisations and stakeholders to proactively embrace sustainable solutions. Due to the current globalisation and industrialisation, businesses are more likely to use sustainable practises, such as corporate social responsibility (CSR). Because CSR may encompass all aspects of sustainability, it has gained popularity whereas other sustainability methods may have limitations or fall short [1,2]. Although it is only a widely used strategy, corporate social responsibility lacks a precise definition. Dahlsrud [3] provides 36 definitions of CSR, as an example, and other scholars and professionals have added definitions of their own based on their own studies and experiences. Global businesses like manufacturing, transportation, supply chains, medicines, textiles, and more all benefit from CSR. CSR is one of the most crucial sustainable techniques for dealing with social and performance issues in the organisation [5]. CSR tactics have been effectively applied in industrialised countries' textile industry. However, due to a number of unspoken reasons, such techniques are undoubtedly unsuccessful in emerging nations like South Asia. Determining the obstacles to CSR adoption in the Indian textile industry is the aim of this study. CSR concerns in the Indian textile industries have not yet been thoroughly studied by many researches. For instance, Gupta and Hodges [6] study consumer perceptions of CSR in the Indian textile business, whereas De Neve [7] investigates the adaptation of CSR in a South Indian garment company in the Tirupur region. Dash et al. look at the organisational culture and environmental responsibility in the Indian textile industry. in their study [8]. Bhaskaran et al[9] .'s evaluation of the top suppliers is based on the Indian textile industries' sustainability concerns. Bhaskaran and others [10] Compare the textile and automobile industries in India while evaluating sustainable suppliers. These studies, however, are restricted to generic CSR concerns and tactics in the textile industry; they do not examine particular obstacles that pose the biggest risks to CSR adoption. CSR hurdles have been the subject of certain studies [11–16], although these studies have some drawbacks. Some focus on industries besides the Indian textile industry. Additionally, due of the significant implementation gap, In the Indian context, CSR is still a murky approach, claim Govindan et al. [17]. In order to fill this information vacuum, this study assesses the crucial barriers to successful CSR implementation. Using the common CSR barriers in the Indian textile industry, we determine the most important barrier using multi-criteria decision making (MCDM) techniques, specifically DEMATAL. A number of sources are used to collect common barriers, which are then analysed using a proposed model with the help of a case study. Finally, industry managers' feedback is used to confirm the findings.

Researchers were forced to experiment with new approaches as CSR concerns in the textile industry started to surface. This led to a rise in the number of research publications, some of which looked at poor countries and others at industrialised countries. For instance, it examined the growth, successes, and difficulties of CSR activities in the Chinese textile and clothing sector. Through managers' opinions of these two phrases, In the Chinese textile and garment business, Cook and He [29] made a connection between the phrases corporate social responsibility and human resource management. [43] analysed responses from 400 fashion firms in Denmark, Norway, Sweden, Finland, and Iceland to examine organisational pressures of CSR in the Nordic fashion industry. According to this study, pressures are not universal to those nations but rather vary depending on the stakeholder group. Through the use of a case study, Goworek [44] investigated social and environmental issues in the garment sector. Gupta and Hodges [6] investigated customer perceptions of CSR in the Indian apparel sector using in-depth interviews with Indian respondents; they came to the conclusion by demonstrating the importance of CSR in decision-making in the Indian apparel industry. Kosar and Connell [45] used information from online surveys, attitudes, knowledge, and purchase patterns in the garment and textile industries to research the connection between social and environmental responsibility. Ha-Brookshire and Noram [46] studied the variables influencing consumers' willingness to pay a premium for socially conscious products like shirts made of US-grown cotton, organic cotton, or sustainable cotton. Their research involved 500 respondents. With the help of 87 members of the International Textile and Apparel Associations, Dixon and Ekman [47] conducted a study on social responsibility from the perspective of clothing and textile professionals (ITAA). Berry and Towers [27] examined how CSR began in small and medium-sized UK companies that produce garments for the fashion sector. It seeks to examine the factors that contribute to and obstruct CSR implementation while keeping these difficulties in mind. Barriers are variables that obstruct and complicate the adoption of CSR inside an enterprise. Relating them to the size of an organisation is one method of spotting such obstacles. Based on a survey of the literature of pertinent papers, Laudal [16] assessed the motivations for and obstacles to CSR and contrasted how these elements varied across small and medium-sized businesses (SMEs) and multinational organisations. Using a literature study and semi-structured interviews, he looked into the potential and constraints of CSR in people with Irish ancestry. He made comparisons between major firms and SMEs in terms of the opportunities and restrictions for CSR. There aren't many studies that specifically look at national hurdles to CSR adoption. For instance, he investigated how Iranians understood the CSR domain and concepts through a thorough analysis of CSR drivers and impediments. His investigation was condensed into seven key areas, including corporate governance, human rights, labour practises, the environment, ethical business conduct, consumer issues, and social involvement and development. He focused his study on the "ISO 26000" code of conduct. A total of 105 answers from Iranian organisations endorsed the study. The definition of managers' perspectives of existing initiatives and impediments to CSR were studied through face-to-face interviews, according to Duarte and Rahman's [40] further discussion of CSR attitudes among Bangladeshi managers. CSR practises in the Indian environment, as well as its techniques, drivers, and restrictions, were examined by Arevalo and Aravind [12]. They identified four categories of CSR approaches: ethical, statist, liberal, and stakeholder based on information gathered from a sample of organisations already involved in CSR.

Material and Methods
Although there has been much discussion about how to better implement CSR, the fact that there is still room for improvement supports the idea that it is neither well understood nor well carried out. Social researchers naturally support a term that is pertinent to their own interests because there are numerous definitions of CSR. The practitioners are unduly under pressure despite the competing characteristics at the core of CSR. Determining the obstacles is a critical initial step because the notion itself is difficult to describe and implement. The evidence-based perspective theory put forth by Wernerfeld in 1984 is used in this study to pinpoint CSR obstacles [32]. A well-defined technique is required to prioritise the conflicting multidimensional elements, even while a clear identification of the factors does indicate a positive outcome given the multidimensionality and competing aspects in CSR as mentioned above. There are numerous methods for examining these opposing elements, and the multi-criteria decision-making (MCDM) model offers a useful method for dealing with the contentious and opposing concepts in CSR. For instance, according to Zavadskas et al. [35], Savage [34], and Von Neumann and Morgenstern [33], MCDM has become a key paradigm to support management decisions, particularly those made to assess multidimensional characteristics and take conflicting social variables into account [35]. A review of MCDM techniques reveals that no particular steps are taken based on the theoretical viewpoint in decision making; rather, each study defines its own ideas in accordance with the field of application, an approach that has been supported by Zavadskas et al [35]. As a result, the MCDM technique is employed in this study to examine the difficult issues related to CSR implementation, especially as it relates to the Indian textile industry. The lives of Indians is still negatively impacted by unresolved CSR issues in areas such as employment, jobs, health, the environment, labour standards, and other areas of concern. There are still problems with the proper application of CSR in the Indian textile business, according to several researches [6, 9]. Financial Restrictions (B1) Company managers discover that implementing CSR does not fit into their budgets due to a lack of financial support; the first investment cost is very high. inadequate training (B2) Managers, staff members, and every individual inside the firm must receive the necessary training in order to establish a strategic implementation plan for CSR. This forces businesses to just think on their bottom line. Stakeholders are uninformed of CSR implementation due to a lack of stakeholder knowledge (B3), improper CSR establishment, and a lack of ethical consciousness in developing nations. Indian buyers are more inclined to prioritise financial gain over quality and other social considerations due to a lack of consumer awareness (B4). Diversity (B5) CSR has a variety of faces that

vary depending on the origin, the country, and other factors. Due to this variation, practitioners are unable to apply CSR according to their national origins. Absence of rules and standards (B6) In contrast to the EU and the US, developing countries have less clearly defined norms and legislation, which readily permits the stakeholders to avoid CSR. Inadequate knowledge (B7) CSR procedures are not well understood in many firms due to a lack of training and information, and practitioners' ignorance of CSR causes problems. Company culture (B8) Some businesses cling to their outdated corporate cultures and struggle to adopt modern tactics like CSR.

The DEMATEL method is a particular problem, pin-up binding work through problems and structural modelling techniques contribute to identifying solutions that a hierarchical system can work on, relationships between dependencies and the fundamental idea of situational relationships that identify system components for a reason can influence the impact of factors. Management and emergency response are connected with the DEMATEL system. It is not necessary to decompose the fuzzy numbers in the suggested way before using the DEMATEL algorithm [12]. It use visualisation method analysis to analyse and resolve issues and is based on the fundamental DEMATEL principle. In this organised approach, modelling takes the shape of a motivating diagram, which shows the causal relationship and its importance in illustrating how various components interact. All elements are a causal group and are split into effect groups by looking at the visual relationship of conditions between systematic factors. It offers structure between computer components, a clearer knowledge of the relationship, and the ability to come up with sophisticated solutions to computer issues [13]. The DEMATEL method changes the appropriate method for selecting a management device among many configurations, effectively calculates inter-criteria impacts, divides a set of complex components into a sender organisation and a receiver organisation. The zogp model enables firms to plan the adoption of ideal management systems while making the most of their limited resources [14]. To reduce the impact or affect the constraints, decision-makers must ascertain the limitations of the legal framework and guarantee that it is controlled. As a result, there is considerable consistency between the outcomes of the DEMATEL and ism techniques. The structure of these constraints' interconnections is determined by integrated ism DEMATEL results for e-waste management constraints [15]. The relative weights of decision-makers in the DEMATEL approach, which currently do not take into consideration the incorporation of group decision-making, formed one of the preliminary flaw clusters as a result. Methods based on unstructured comparisons, such DEMATEL [16], are thought to be a substantial factor in the aforementioned disparities. It is common practise to utilise DEMATEL to classify elements into cause and effect categories and examine the overall relationship between components. As a result, each source is taken into account while making decisions in this essay. Based on DEMATEL, it is possible to combine the DEMATEL method with source theory to better manage the importance and level of importance of each source. In this article, corresponding propositions between bodies of evidence are modified in place of the comparison criteria provided by experts in DEMATEL [17]. The DEMATEL technique and integrated multidimensional decision making (MCDM) were used to establish causal links between the evaluation criteria for the outreach workforce initiative. Table 1 given alternative parameters

Results and Discussions

Table 1 Give in parameters criteria

B1	Financial constraints
B2	Lack of training
B3	Lack of stakeholder awareness
B4	Lack of customer awareness
B5	Diversity
B6	Lack of regulations and standards
B7	Lack of knowledge
B8	Company culture

Alternative parameters are given in Table 1. Financial limitations (B1), a lack of education (B2), a lack of awareness of stakeholders (B3), a lack of customer awareness (B4), diversity (B5), a lack of rules and regulations (B6), a lack of information (B7), and company culture (B8)

Table 2 Give in data set

	B1	B2	B3	B4	B5	B6	B7	B8	**Sum**
B1	0	8	8	5	4	9	7	3	44
B2	6	0	7	9	2	4	5	8	41
B3	3	5	0	6	7	8	4	2	35
B4	5	4	8	0	4	7	7	8	43
B5	6	2	5	4	0	7	8	7	39
B6	4	3	3	1	5	0	4	7	27
B7	7	5	7	6	8	7	0	5	45
B8	8	6	5	7	5	4	9	0	44

TABLE 1 demonstrates DEMATEL's financial restrictions (B1), lack of training (B2), stakeholder and customer awareness

(B3), diversity (B4), lack of regulations and standards (B6), lack of expertise (B7), and company culture (B4) in its Marine Current Energy Plant (B8). the total of all the parameters with high values. The highest value is seen in table 2, where 44.
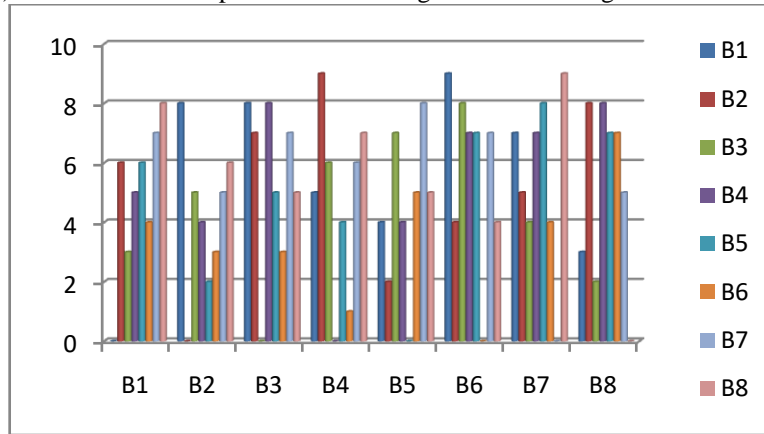

Figure 1: Shows the chart of Marine current energy plant

FIGURE 1 depicts DEMATEL's Marine Current Energy Plant's financial constraints (B1), training deficiencies (B2), stakeholder and customer awareness deficiencies (B3), diversity (B5), rules and standards deficiencies (B6), knowledge deficiencies (B7), and company culture (B7) (B8). It is an assessment and comparison of any two facilities.

Table 3 Normalization of direct relation matrix

	B1	B2	B3	B4	B5	B6	B7	B8
B1	0	0.17778	0.1778	0.11111	0.08889	0.2	0.15556	0.0667
B2	0.13333	0	0.1556	0.2	0.04444	0.08889	0.11111	0.1778
B3	0.06667	0.11111	0	0.13333	0.15556	0.17778	0.08889	0.0444
B4	0.11111	0.08889	0.1778	0	0.08889	0.15556	0.15556	0.1778
B5	0.13333	0.04444	0.1111	0.08889	0	0.15556	0.17778	0.1556
B6	0.08889	0.06667	0.0667	0.02222	0.11111	0	0.08889	0.1556
B7	0.15556	0.11111	0.1556	0.13333	0.17778	0.15556	0	0.1111
B8	0.17778	0.13333	0.1111	0.15556	0.11111	0.08889	0.2	0

Table 3 displays the normalised direct relation matrix for the Marine Current Energy Plant for financial restrictions (B1), training needs (B2), stakeholder and customer awareness (B3), diversity (B5), laws and standards (B6), knowledge (B7), and company culture (B7) (B8). Figure 2 shows that all of the data's diagonal values are zero. Consider the Y Value in Table 3.
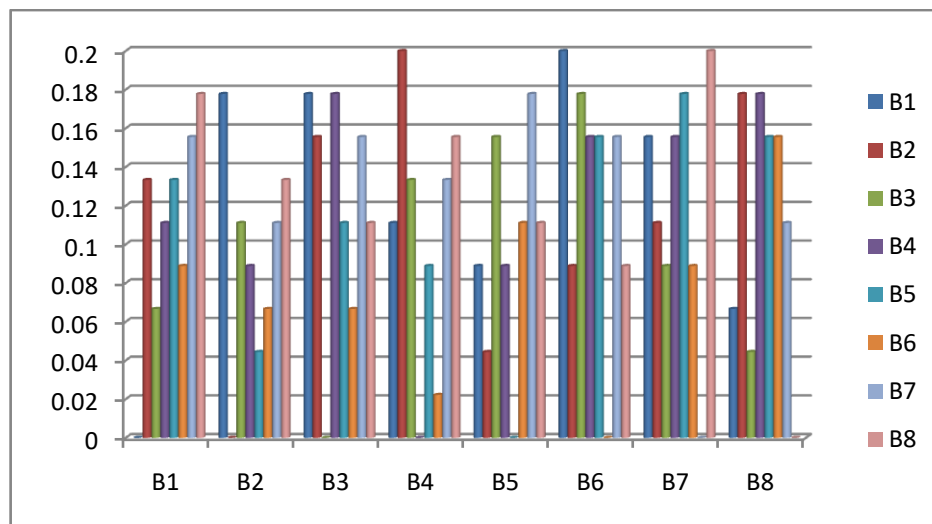

Figure 2 Normalization of direct relation matrix

Table 4 I= Identity matrix

1	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0
0	0	1	0	0	0	0	0
0	0	0	1	0	0	0	0
0	0	0	0	1	0	0	0

0	0	0	0	0	1	0	0
0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	1

Table 4 given that the Identity matrix the matrix diagonal line got values one other values is zero.

Table 5 shows in I-Y value

B1	1	-0.17778	-0.17778	-0.11111	-0.08889	-0.2	-0.15556	-0.06667
B2	-0.13333	1	-0.15556	-0.2	-0.04444	-0.08889	-0.11111	-0.17778
B3	-0.06667	-0.11111	1	-0.13333	-0.15556	-0.17778	-0.08889	-0.04444
B4	-0.11111	-0.08889	-0.17778	1	-0.08889	-0.15556	-0.15556	-0.17778
B5	-0.13333	-0.04444	-0.11111	-0.08889	1	-0.15556	-0.17778	-0.15556
B6	-0.08889	-0.06667	-0.06667	-0.02222	-0.11111	1	-0.08889	-0.15556
B7	-0.15556	-0.11111	-0.15556	-0.13333	-0.17778	-0.15556	1	-0.11111
B8	-0.17778	-0.13333	-0.11111	-0.15556	-0.11111	-0.0889	-0.2	1

Table 6 calculated the I-Y value. All values are negative but diagonal line values are positive values.

Table 6 shows in (I-Y)-1value

B1	1.8407	0.8853	1.0703	0.9136	0.8720	1.1628	1.0653	0.9250
B2	0.9446	1.7220	1.0387	0.9742	0.8171	1.0521	1.0194	0.9925
B3	0.7441	0.6848	1.7387	0.7695	0.7737	0.9556	0.8381	0.7475
B4	0.9434	0.8145	1.0673	1.8122	0.8745	1.1249	1.0709	1.0073
B5	0.8961	0.7197	0.9406	0.8249	1.7308	1.0480	1.0164	0.9213
B6	0.6484	0.5519	0.6713	0.5690	0.6261	1.6573	0.7103	0.7064
B7	1.0087	0.8569	1.0851	0.9572	0.9716	1.1655	1.9717	0.9895
B8	1.0415	0.8902	1.0692	0.9934	0.9282	1.1250	1.1554	1.8996

Table 6calculated the (I-Y)-1 value. All values are negative but diagonal line values are positive values.

Table 7

B1	0.840705	0.885347	1.070283	0.913585	0.872036	1.162816	1.065343	0.924996
B2	0.944552	0.721972	1.038733	0.974151	0.817059	1.052062	1.019391	0.992465
B3	0.744073	0.68475	0.738691	0.769482	0.773666	0.955641	0.838068	0.747532
B4	0.943359	0.814532	1.06725	0.812231	0.874453	1.124863	1.070924	1.0073
B5	0.896145	0.719713	0.94057	0.824898	0.730785	1.04797	1.016406	0.921329
B6	0.64841	0.551853	0.671291	0.568988	0.626061	0.65725	0.710256	0.706422
B7	1.008714	0.856873	1.085099	0.957213	0.971596	1.165517	0.971701	0.989496
B8	1.041547	0.890176	1.069173	0.993377	0.928237	1.125014	1.155428	0.899585

Table 7 shows the total correlation matrix, the direct correlation matrix, Multiplied by the inverse of the direct correlation matrix value subtracted from the identity matrix.

Table 8 positive value (Ri) and negative values (Ci)

	Ri	Ci
B1	**7.735111**	7.067504
B2	**4.496467**	4.176539
B3	**3.710661**	4.240701
B4	**4.511826**	4.538175
B5	**4.112112**	10.66232
B6	**3.066603**	9.766176
B7	**4.879495**	9.117765
B8	**4.92251**	8.109052

Table 10 shows the positive values and negative values. All values are negative values seen in figure 3.
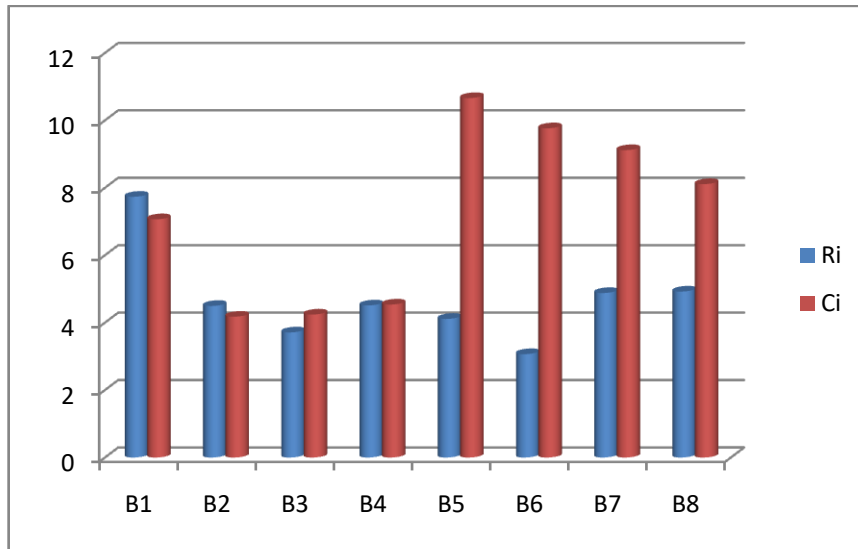
Figure 3 graph shows in positive values and negative values

Table 9 Calculation of Ri+Ci and Ri-Ci

Ri+Ci	Ri-Ci
14.80262	0.667606
8.673006	0.319927
7.951362	-0.53004
9.050001	-0.02635
14.77443	-6.55021
12.83278	-6.69957
13.99726	-4.23827
13.03156	-3.18654
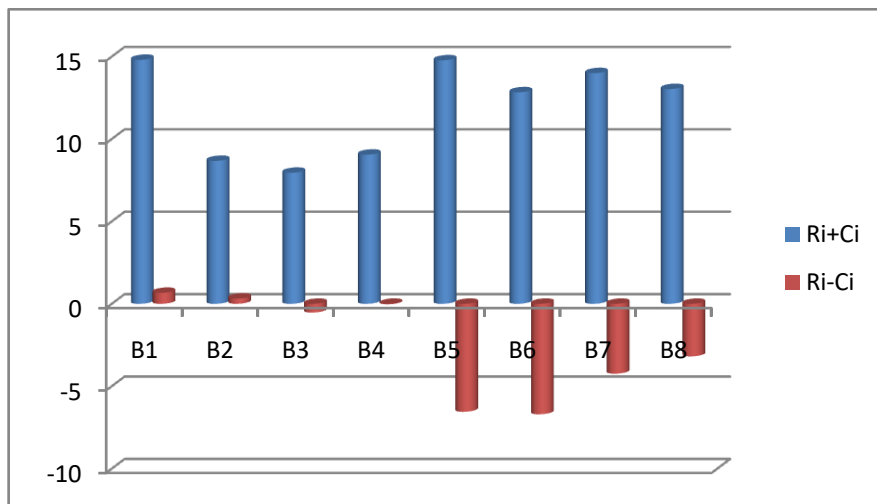
Figure 4 graph is shows in Ri+Ci values and Ri-Ci values

Table 10 ranking

B1	Financial constraints	1
B2	Lack of training	7
B3	Lack of stakeholder awareness	8
B4	Lack of customer awareness	6
B5	Diversity	2
B6	Lack of regulations and standards	5
B7	Lack of knowledge	3
B8	Company culture	4

Table 10 given ranking Financial constraints (B1) for a first rank , Lack of training (B2) for a seventh rank, Lack of

stakeholder awareness (B3) for a eighth rank, Lack of customer awareness (B4) for a sixth rank, Diversity (B5) for a second rank, Lack of regulations and standards (B6) for a fifth rank, Lack of knowledge (B7) for a third rank and Company culture for a fourth rank (B8) seen in figure 5.
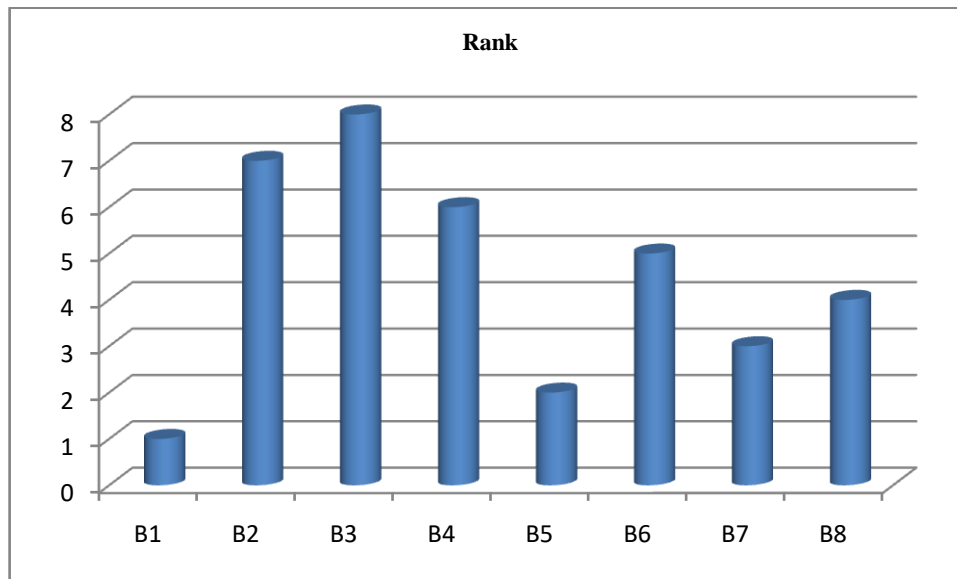

Figure 5 graph is shows in ranking

Conclusions

Given the significance of CSR, this study uses the suggested framework to evaluate the primary obstacle to CSR implementation in the Indian textile industries. With the aid of a case study in the southern region of India, this strategy was further clarified and confirmed. Barriers are variables that hinder and complicate the adoption of CSR within an organization. One method of identifying such constraints is to relate them to the size of a firm. To examine the crucial constraint of CSR under DEMATAL, MCDM has been modified as a solution approach. Its goal is to eliminate ambiguity and uncertainties in the outcomes. The findings show that among other typical hurdles to CSR adoption in the Indian textile industries, financial restrictions (B1) are the most significant one. With the assistance of business executives and criticism from the body of prior literature, explanations for these findings are investigated. There is also a strong association between the company's financial situation and its CSR implementation, according to various researches [13, 61]. In this regard, effective funding and CSR investments positively boost CSR implementation, and our analysis reveals the same pattern. As a result, the aforementioned factors confirm the study's findings. Along with cost, other factors that affect CSR adoption include lack of stakeholder awareness (B3), absence of norms and standards (B6), and customer awareness (B4). Due to their financial and ethical concerns, developing nations are more likely to experience all three of the aforementioned impediments. The other common barriers are arranged according to their weight after these barriers. Despite the fact that Indian businesses encounter numerous obstacles in their efforts to implement CSR, the study concludes that all Indian businesses—regardless of the application area—need to travel more in order to do so successfully. To address this issue, the report makes the following preliminary recommendations to derive new barriers to CSR adoption in the Indian textile industry.

References:

1. Shen, Lixin, Kannan Govindan, and Madan Shankar. "Evaluation of barriers of corporate social responsibility using an analytical hierarchy process under a fuzzy environment—A textile case." *Sustainability* 7, no. 3 (2015): 3493-3514.
2. Xu, Lei, D. Thresh Kumar, K. Madan Shankar, Devika Kannan, and Gang Chen. "Analyzing criteria and sub-criteria for the corporate social responsibility-based supplier selection process using AHP." *The International Journal of Advanced Manufacturing Technology* 68, no. 1 (2013): 907-916.
3. Tsai, Wen-Hsien, Jui-Ling Hsu, Chia-Hsin Chen, Wan-Rung Lin, and Shu-Ping Chen. "An integrated approach for selecting corporate social responsibility programs and costs evaluation in the international tourist hotel." *International Journal of Hospitality Management* 29, no. 3 (2010): 385-396.
4. Cordeiro, James J., Ambra Galeazzo, Tara Shankar Shaw, Rajaram Veliyath, and M. K. Nandakumar. "Ownership influences on corporate social responsibility in the Indian context." *Asia Pacific Journal of Management* 35, no. 4 (2018): 1107-1136.
5. Adeneye, Yusuf Babatunde, and Maryam Ahmed. "Corporate social responsibility and company performance." *Journal of Business Studies Quarterly* 7, no. 1 (2015): 151.
6. Idemudia, Uwafiokun. "Rethinking the role of corporate social responsibility in the Nigerian oil conflict: The limits of CSR." *Journal of International Development* 22, no. 7 (2010): 833-845.

7. Rahman, Shafiqur. "Evaluation of definitions: ten dimensions of corporate social responsibility." *World review of business research* 1, no. 1 (2011): 166-176.
8. Portney, Paul R. "The (not so) new corporate social responsibility: An empirical perspective." (2008).
9. Scherer, Andreas Georg, and Guido Palazzo. "Globalization and corporate social responsibility." (2008): 413-431.
10. Mohammed, Jawed A. "Corporate social responsibility in Islam." PhD diss., Auckland University of Technology, 2007.
11. Steurer, Reinhard. "The role of governments in corporate social responsibility: Characterising public policies on CSR in Europe." *Policy sciences* 43, no. 1 (2010): 49-72.
12. Lantos, Geoffrey P. "The boundaries of strategic corporate social responsibility." *Journal of consumer marketing* (2001).
13. Carroll, Archie B. "Corporate social responsibility: Evolution of a definitional construct." *Business & society* 38, no. 3 (1999): 268-295.
14. Hopkins, Michael. "Measurement of corporate social responsibility." *International journal of management and decision making* 6, no. 3-4 (2005): 213-231.
15. Kitzmueller, Markus, and Jay Shimshack. "Economic perspectives on corporate social responsibility." *Journal of economic literature* 50, no. 1 (2012): 51-84.
16. Chapple, Wendy, and Jeremy Moon. "Corporate social responsibility (CSR) in Asia: A seven-country study of CSR web site reporting." *Business & society* 44, no. 4 (2005): 415-441.
17. Visser, Wayne. "Corporate social responsibility in developing countries." (2008).
18. Lougee, Barbara, and James Wallace. "The corporate social responsibility (CSR) trend." *Journal of Applied Corporate Finance* 20, no. 1 (2008): 96-108.
19. Jamali, Dima, and Ramez Mirshak. "Corporate social responsibility (CSR): Theory and practice in a developing country context." *Journal of business ethics* 72, no. 3 (2007): 243-262.
20. Du, Shuili, Chitrabhan B. Bhattacharya, and Sankar Sen. "Maximizing business returns to corporate social responsibility (CSR): The role of CSR communication." *International journal of management reviews* 12, no. 1 (2010): 8-19.
21. Lock, Irina, and Peter Seele. "The credibility of CSR (corporate social responsibility) reports in Europe. Evidence from a quantitative content analysis in 11 countries." *Journal of Cleaner Production* 122 (2016): 186-200.
22. Chou, Ying-Chyi, Chia-Chi Sun, and Hsin-Yi Yen. "Evaluating the criteria for human resource for science and technology (HRST) based on an integrated fuzzy AHP and fuzzy DEMATEL approach." *Applied Soft Computing* 12, no. 1 (2012): 64-71.
23. Tsao, Chung-Chen, and Wei-Wen Wu. "Evaluation of design conditions for compound special-core drilling composite materials using the fuzzy DEMATEL method." *International Journal of Computer Integrated Manufacturing* 27, no. 11 (2014): 979-985.
24. Gholamnia, Reza, Mobin Ebrahimian, Saeid Bahramzadeh Gendeshmin, Reza Saeedi, and Sina Firooznia. "Effective factors on the occurrence of falling from height accidents in construction projects by using DEMATEL method." In *Congress of the International Ergonomics Association*, pp. 293-305. Springer, Cham, 2018.
25. Ding, Xue-Feng, and Hu-Chen Liu. "A 2-dimension uncertain linguistic DEMATEL method for identifying critical success factors in emergency management." *Applied Soft Computing* 71 (2018): 386-395.
26. Sekhar, Chandra, Manoj Patwardhan, and Vishal Vyas. "Study of intellectual capital dimensions in IT industry using DEMATEL method." *Journal of information & knowledge management* 16, no. 03 (2017): 1750022.