An Empirical Assessment of Corporate Social Responsibility in Banking Industry: Construct Development and Validation

Dr. T. Praveen Kumar¹*; Dr. K. Soundarapandiyyan²; Dr. P. Mary Jeyanthi³

¹Assistant Professor, Ramaiah Institute of Management (MSRIM), Bangalore, India.
²Professor, Sri Sai Ram Institute of Management Studies, Sri Sai Ram Engineering College, Chennai, India.
³Associate Professor, Jaipuria Institute of Management, Jaipur, India.

Abstract
Corporate social responsibility (CSR) is one of the responsibility practices for the organization to take care of and maintain a good relationship with its stakeholders. The corporate social responsibility includes the organization's responsibilities towards their various stakeholders like customers, shareholders, employees, environment, and community. In recent years CSR practitioners and academicians put numerous efforts to measure the stakeholder perceive a level of CSR but it remains unclear how the stakeholder perceiving the CSR activities of the organization. The objective of the study is to construct and develop a CSR activities measurement scale for the banking industry. The development of the scale is based on the three-stage technique proposed by Churchill (1979). Through the literature review, the items for the CSR scale were formulated. Using these items survey was conducted in the banking industry. The CFA was done to know the reliability and validity of the scale and it found to be acceptable. The model fit was tested by using the Structural equation modeling (SEM) technique and the result of the model providing strong evidence to support the hypothesis.

Key-words: Corporate Social Responsibility, Banking Industry, Constructs, Structural Equation Modelling.

1. Introduction

In present, a scenario all over the world there is an increasing awareness about Corporate Social Responsibility (CSR), Sustainable Development (SD), and Non-Financial Reporting (NFR) Suman Kalyan Chaudhury, Sanjay Kanti Das, Prasanta Kumar Sahoo (2011). Corporate social responsibility is one of the top prioritized agenda of any business organization. Many business organizations embraced CSR in a benefitting manner and are evident from the number of activities
undertaken by them Pre K. Sangeetha (2011). Indian firms are highly predominant in engaging themselves in socially responsible activities. There are many reasons; for attracting more and more customers; for creating a name for themselves; for differentiating themselves from competitors Sudeepta Pradhan (2011). Institutions that were adapting CSR will be getting benefits like customer loyalty, positive brand positioning, customer trust, positive promotion, and better financial performance. Increased spending on CSR activities would expect to increase customer satisfaction and build a competitive advantage in the market Stephen Muathe, Elijah Maronga (2013).

2. Definition of CSR

A common definition of CSR is impossible as CSR will take on a different meaning for each company depending on the development, awareness, and ambition levels of the organization. Despite a wealth of literature on the subject, CSR remains a broad, complex, and continually evolving concept that encompasses a variety of ideas and practices Van Marrewijk (2003). According to Horrigan (2010), study there is no standard definition of CSR due to the high levels of ambiguity and controversy associated with the topic. Later Schwartz, (2011) study noted that “virtually all definitions of CSR include the term business firms that are corporations having obligations toward society beyond their economic obligations to shareholders. CSR is the additional responsibility of businesses to local and wider communities apart from its core responsibility of profit maximization are defined by Simpson and Taylor (2013).

Nowadays, many Indian scheduled commercial banks have created their brand image by their Corporate Social Responsibility (CSR) in taking various social initiative activities towards the social welfare and community development and has started taking the CSR activity seriously (Fatma and Rahman, 2014). The Reserve bank of India (RBI) insisted all the nationalized banks spend two percent of their net profit on CSR activities. It becomes a need for the banks to measure CSR activities and their impact on the different stakeholders. This study is carried out to develop a CSR measurement scale concerning the bank's stakeholder point of view.

3. Methodology

In measuring the CSR in the banking sector, a survey method using structured questionnaires has been used. The following section describes the questionnaire design, data collection, and analysis.
Corporate Social Responsibility Constructs

According to Churchill (1979), a three-stage step procedure has been carried out for developing the CSR constructs. The three-step procedure was 1) Domain identification 2) Instrument development and 3) Data Collection and analysis.

Domain Identification

The intensive literature review and in-depth interviews were carried out with bank managers for determining the domain of the instrument, according to the Sarro et al., 2007; Ruiz et al., 2009; Turker, 2009; Perez et al., 2013; Oberseder, 2013 study the key stakeholder groups were identified in the banking sector: employees, customers, shareholders/investors, society/community, and the environment.

Instrument Development

Through the CSR Reports, CSR Literature, and marketing scale the items were generated. In the end, the authors get 60 items these items capture the community responsibility, customer responsibility, investor responsibility, Employee responsibility, and environmental responsibility on CSR. After the preliminary generation of items, substantive validity for scale purification was done because this construct is a newly proposed with no operationalization (Lawshe, 1975). With the 60 items, the authors had a brainstorming session with the marketing students, professors, NGOs who are involving in CSR implementation and bank managers to ensure the consistency of the instrument (Dubey et al 2015). Based on the brainstorming session output the items were removed and adjusted according to readability nature so that items become very clear and not vague to answer (Dillman, 2007). The substantive validity was done by using the opinion of Brainstorming session participant’s. 5 Point Likert scale has been used in items to capture the knowledge on corporate social responsibility of the firms and based upon the item rating whether it is essential or not essential; the substantive validity coefficient Csv (Anderson and Gerbing 1991, Lawshe 1975) is measured. The substantive validity test ensures that the measurement instrument represents the content of the CSR. The CSV values are range from -1+1; 44 items of the CSR constructs were retained based on their CSV value greater than 0.6 greater Csv value indicates higher substantive validity.
Pilot Testing

The pilot testing was carried out to analyze the content validity of the scale Netemeyer et al., (2003), the pilot test was used to reduce the number of variables of the instrument that do not meet the criteria. By using the convenience sampling technique, the data was collected from 80 bank employees, and they evaluated the 44 variables exploring CSR activities. By conducting the four tests namely Bartlett’s test, KMO test, correlation matrix, and factor reliability to know the data fitness for the factor analysis. From the result of the study 16 variables were deleted due to the cross-loadings (High (>0.3) and weak (<0.3)), then the deleted items confirmed with the experts whether it will not impact the content validity of the measurement scale. The remaining 28 items were taken and it included in the main survey.

Data Collection and Analysis

The study had chosen the target population from banks in India doing their corporate social responsibility activities. The banks chosen for the study is based on their CSR Rating and CSR spending in the last 3 years (NGO Box Report). The primary data was collected from bank employees by using a structured questionnaire through a personal survey. 700 questionnaires were circulated to various positions of employees of the banks. The response rate of 88% was achieved at the end of the survey; by receiving 617 complete questionnaires and it is to be good for empirical work (Dubey et al., 2015). Of our respondents, 64.3% of respondents were female, and remaining were male. Most of the respondent's age category belongs to 30-40 years. Regarding the designation of the respondent's majority of the respondent (47.5%) belongs to assistant manager category, while 21.4% of respondents belong to the senior manager category and 18.5% of respondent belongs to the clerk category remaining 12.6% of respondent belongs to manager category. According to Perez and Bosque, (2013) demographic variables are an important factor in understanding the perception of the respondent, The demographic variable, like gender and age influence more on respondent perception towards the bank CSR activities (Dietz et al., 2002; Burton and Hegarty, 1999). So the study was categorized based on four demographic variables of the employees for their age, gender, Years of experience and designation.
Table 1 - Description of Demographic Variable

| Gender of the employees | Sample | Percent |
|-------------------------|--------|---------|
| Male                    | 220    | 35.7    |
| Female                  | 397    | 64.3    |
| Total                   | 617    | 100.0   |

| The age group of the employees | Sample | Percent |
|--------------------------------|--------|---------|
| 20-30                          | 114    | 18.5    |
| 30-40                          | 293    | 47.5    |
| 40-50                          | 161    | 26.1    |
| Above 50                       | 49     | 7.9     |
| Total                          | 617    | 100.0   |

| Years of experience in the current bank | Sample | Percent |
|----------------------------------------|--------|---------|
| 1-3                                    | 114    | 18.5    |
| 4-6                                    | 293    | 47.5    |
| 7-10                                   | 78     | 12.6    |
| More Than 10                          | 132    | 21.4    |
| Total                                 | 617    | 100.0   |

| Designation of the employees          | Sample | Percent |
|---------------------------------------|--------|---------|
| Clerk                                 | 114    | 18.5    |
| Assistant Manager                     | 293    | 47.5    |
| Manager                               | 78     | 12.6    |
| Senior Manager                        | 132    | 21.4    |
| Total                                 | 617    | 100.0   |

| Income level of employees             | Sample | Percent |
|---------------------------------------|--------|---------|
| 10000-15000                           | 113    | 18.3    |
| 15001-30000                           | 235    | 38.1    |
| 30001-45000                           | 137    | 22.2    |
| more than 45000                       | 132    | 21.4    |
| Total                                 | 617    | 100.0   |

Scale Refinement

By using the SPSS software, the initial analysis was conducted. The EFA (Exploratory factor analysis) with varimax rotation option was chosen and tested to meet out the scale validation of CSR Measurement variables. Based on their lower Cronbach’s alpha value or higher cross factor loadings value 7 items in the measurement scale was removed. So totally the number of variables in the measurement scale dropped from 28 to 21. Those 21 variables were used for further scale validation process.
Reliability Test

For measuring the scale consistency, the reliability test was carried out to obtain the Cronbach’s alpha value. Cronbach’s alpha value is used to measure the internal consistency of the measurement variables. The obtained Cronbach’s alpha value is given in table 2. From the obtained Cronbach's alpha values of the CSR construct it was found that all the values were greater than 0.7 it is acceptable (Nunnally, 1978). Then CFA (confirmatory factor analysis) was done to ensure the convergence and unidimensionality of the factors.

Table 2 - Reliability Test Using Cronbach Alpha

| Construct                | Cronbach alpha |
|--------------------------|----------------|
| Community responsibility | 0.85           |
| Environment responsibility| 0.92           |
| Employee responsibility  | 0.91           |
| Investor responsibility  | 0.89           |
| Customer responsibility  | 0.90           |

Unidimensionality

According to (Gerbing & Anderson, 1988) unidimensionality used to determine whether the set of indicators reflects as one or as opposed to more than one related factor. Hair et al.,1988; Philips & Bagozzi, 1986 proposed the condition for unidimensionality, first, the items must be associated with the construct significant, this conditioned attained by suppressing the factor loading below 0.5. Then the item should associate with only one construct that conditioned is confirmed by discriminant validity. The measure should satisfy the above condition become unidimensional.

Construct Validity

Construct validity is used to evaluate the intensity to which the variables measure the construct. Testing of the construct validity concentrates on the factor loadings of the separate items which are greater than 0.5, and also validates that no items in the scale are discriminant to other constructs.
Convergent Validity

Convergent validity used to measure the convergence of each item loading on the latent construct, here the author used CFA (Confirmatory factor analysis) to assess the convergent validity. To ensure the convergent validity CR (composite reliability) value should more than AVE (average variance extracted) value and all the constructs should have their CR value more than 0.7 and AVE value more than 0.5 (Fornell & Larcker, 1981).

Discriminant Validity

Discriminant validity measures the distinct of each item loading and does not measure the other constructs. Discriminant validity is estimated by comparing the square root of the average variance extracted (AVE) with the correlation values of the study construct (Straub, Boudreau, Gefen, 2004). And is confirmed that the square root of AVE value is greater than the construct correlation values of five dimensions. The value of all the five constructs of CSR results support the discriminate validity, hence conclude that our construct possessed the discriminant validity.

| Construct                  | Indicators | Factor loading | AVE | CR  |
|----------------------------|------------|----------------|-----|-----|
| Community responsibility    | CR1        | 0.748          | 0.51| 0.80|
|                            | CR2        | 0.744          |     |     |
|                            | CR3        | 0.886          |     |     |
|                            | CR4        | 0.855          |     |     |
| Environmental Responsibility| ER1        | 0.777          | 0.61| 0.90|
|                            | ER2        | 0.812          |     |     |
|                            | ER3        | 0.765          |     |     |
|                            | ER4        | 0.766          |     |     |
| Employee Responsibility    | EMR1       | 0.723          | 0.57| 0.82|
|                            | EMR2       | 0.763          |     |     |
|                            | EMR3       | 0.878          |     |     |
|                            | EMR4       | 0.904          |     |     |
|                            | EMR5       | 0.880          |     |     |
| Investor responsibility    | IR1        | 0.779          | 0.61| 0.73|
|                            | IR2        | 0.868          |     |     |
|                            | IR3        | 0.812          |     |     |
|                            | IR4        | 0.818          |     |     |
| Customer responsibility    | CUR1       | 0.900          | 0.58| 0.80|
|                            | CUR2       | 0.932          |     |     |
|                            | CUR3       | 0.804          |     |     |
|                            | CUR4       | 0.892          |     |     |
Table 4 - Discriminant Validity

| Construct | Mean | S.D  | No of items | CR    | ER    | EMR | IR | CUR |
|-----------|------|------|-------------|-------|-------|-----|----|-----|
| CR        | 3.97 | 0.62 | 4           | 0.71  |       |     |    |     |
| ER        | 4.01 | 0.72 | 4           | 0.33  | 0.78  |     |    |     |
| EMR       | 4.12 | 0.78 | 5           | 0.31  | 0.50  | 0.75 |    |     |
| IR        | 4.07 | 0.68 | 4           | 0.08  | 0.72  | 0.43 | 0.78 |     |
| CUR       | 3.56 | 0.84 | 4           | 0.13  | 0.07  | 0.05 | 0.06 | 0.76 |

The square root of AVE

4. Testing Model Fit

To evaluate the model fit researcher used the (SEM) structural equation modeling using (AMOS) analysis of moment structure. According to Hair, Black, Babin, and Anderson (2009) propagated that Structural equation modeling is an addition of the multiple regression and path analysis that allow us to test the set of the regression equation and measurement error simultaneously.

Table 5 - CSR Measurement Model- Goodness of Fit Test

| Goodness – of – fit measures | $X^2$ | $X^2/df$ | CFI | NFI | GFI | AGFI | RMSEA | RMR |
|------------------------------|-------|----------|-----|-----|-----|------|-------|-----|
| Recommended value            | >0.05 | ≤3.00    | >0.96 | >0.95 | >0.95 | >0.95 | <0.06 | <0.09 |
| CSR Measurement model        | 0.605 | 0.267    | 1.000 | 1.000 | 1.000 | 0.997 | 0.000 | 0.03 |

Using confirmatory factor analysis we performed a series of analyses. The result of the CFA indicates that the model has a valid fit, CMIN/df with a value less than 3.00 (Kline, 2005) indicating a good fit. The GFI and AGFI values are more than 0.95(Hair et al 1998) indicating a marginal fit. The obtained RMSEA Value less than 0.06 and RMR value less than 0.09 (Hu and Bentler's Two index Presentation strategy, 1999) indicating a good model. The CFI Value and NFI value greater than 0.96 and 0.95((Hu and Bentler's Two index Presentation strategy, 1999) show that the model is fit.

5. Result and Discussion

Decker (2004) study revealed that Measuring the CSR activities varies from Industry, so the CSR measurement dimension should be accustomed according to the industry needs, There is no standard measurement scale for CSR activities, The aim of the study is to develop the scale to measure the CSR activities in Banking industry, Based on the previous research work and outcomes with bank employees and experts, five CSR domain of community responsibility, customer responsibility, investor responsibility, Employee responsibility and environmental responsibility of
each one was identified. These responsibilities are taken from the stakeholder theory. This study contributes to CSR literature reviews through the sensible application of stakeholder theory in the banking industry. The investor's responsibility and environmental responsibility are least rated because these are the part of the organization not in the CSR. The awareness level of environmental responsibility is very poor which shows the disengagement of banks in environmental performance reporting. Several ways of measuring the CSR is available; this study contributes to the literature and measures CSR in the Banking Industry. The bank employee’s perspective towards the responsibilities of different stakeholder groups was captured through this scale.

6. Managerial Implication

Many research works develop the scale for measuring CSR in developed countries, but none of the studies focused on Scale development for measuring CSR in India. The primary focus of this study is to build up reliable and valid Instrument for measuring CSR in the banking industry. This research instrument proves to be valid and reliable for measuring perceptions of CSR across a different demographic group of stakeholders. The constructs familiar with CSR perceptions are proved consistent and valid, this study is important for the banks to measure their perceived level CSR activities carried out by them. A practical contribution is to know the CSR awareness level in the banking industry. This study is to encourage paying more attention to the dimension of the CSR that may help in understanding the CSR activities of the bank. This study for the CSR policymakers and CSR project implementers is clearly about the significance of CSR activities to be carried out by the Banks and communicated to the stakeholders. The results of this study indicate that all the constructs are connected to CSR activities and it will help the banks in their CSR reporting and designing effective social marketing strategies. Further research should be done to validate this instrument for other industries. Currently, the instrument is validated for Banks only. So the research can be carried out in other industries also.

7. Conclusion

The outcome of the survey results mainly focused on CSR initiatives of banks in India. The study primarily focuses to identify the Five dimensions to assess the perceived level CSR activities of a bank; we have also adopted the questionnaire for assessing the CSR in the banking industry. Based upon the empirical results we have concluded that all the dimension is taken in the model influencing
the CSR, and employees are less aware of investor and environmental responsibility activities of the bank. It is noted that CSR plays an important role in the Indian Banking sector because of the Nonfinancial reporting (NFR) insisted on by the RBI. Strategic planners and policymakers took the study results to designed and effectively implement the CSR activities to build a better nation.

Limitation and Future Recommendation

The present study has several limitations which give the way for future research, the source of the data was gathered from the stakeholders of the banks. Further, the reliability and validity of the instrument are needed for the other country and Industry. In this study not all the stakeholders of the banks are not included additional stakeholders like suppliers; Government (Turker 2009) may include in future research. The information collected may be biased because the study reflects the stakeholder’s perception towards CSR it may change over the period. In the future, the study can be expanded to other sectors.

References

Abbott, W.F., & Monsen, R.J. (1979). On the measurement of corporate social responsibility: Self-reported disclosures as a method of measuring corporate social involvement. *Academy of management journal, 22*(3), 501-515.

Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411.

Anderson, J.C., & Gerbing, D.W. (1991). Predicting the performance of measures in confirmatory factor analysis with a pretest assessment of their substantive validities. *Journal of Applied Psychology, 76*(5), 732.

Aupperle, K.E. (1984). An empirical measure of corporate social orientation. *Research in corporate social performance and policy, 6*, 27-54.

Baucus, M.S., & Baucus, D.A. (1997). Paying the piper: An empirical examination of the longer-term financial consequences of illegal corporate behavior. *Academy of Management Journal, 40*(1), 129-151.

Bravo, R., Buil, I., de Chernatony, L., & Martínez, E. (2017). Brand Identity Management and Corporate Social Responsibility: an analysis from employees’ perspective in the banking sector. *Journal of Business Economics and Management, 18*(2), 241-257.

Burton, B.K., & Hegarty, W.H. (1999). Some determinants of student corporate social responsibility orientation. *Business & Society, 38*(2), 188-205.

Carroll, A.B. (1979). A three-dimensional conceptual model of corporate performance. *Academy of management review, 4*(4), 497-505.
Carroll, A.B. (2000). Ethical challenges for business in the new millennium: corporate social responsibility and models of management morality. *Business Ethics Quarterly, 10*(01), 33-42.

Chaudhury, S.K., Das, S.K., & Sahoo, P.K. (2012). Practices of corporate social responsibility (CSR) in the banking sector in India: an assessment. *Research Journal of Economics, Business and ICT, 4*.

Churchill Jr, G.A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research, 64*-73.

Cornett, M.M., Erhemjamts, O., & Tehranian, H. (2016). Greed or good deeds: An examination of the relationship between corporate social responsibility and the financial performance of US commercial banks around the financial crisis. *Journal of Banking & Finance, 70*, 137-159.

Davidson, W.N., & Worrell, D.L. (1990). A comparison and test of the use of accounting and stock market data relating to corporate social responsibility and financial performance. *Akron Business and economic review, 21*(3), 7.

Dillman, D.A. (2011). *Mail and Internet surveys: The tailored design method--2007 Update with the new Internet, visual, and mixed-mode guide*. John Wiley & Sons.

Douglas, A., Doris, J., and Johnson, B. (2004). "Corporate social reporting in Irish financial institutions", *The TQM Magazine, 16*(6), 387-395.

Etheredge, J.M. (1999). The perceived role of ethics and social responsibility: An alternative scale structure. *Journal of Business Ethics, 18*(1), 51-64.

Fatma, M., Rahman, Z., & Khan, I. (2014). Multi-item stakeholder-based scale to measure CSR in the banking industry. *International Strategic Management Review, 2*(1), 9-20.

Fischer, J. (2004). Social responsibility and ethics: clarifying the concepts, *Journal of Business Ethics, 52*(4), 391-400.

Forcadell, F.J., & Aracil, E. (2017). European Banks' Reputation for Corporate Social Responsibility. *Corporate Social Responsibility and Environmental Management, 24*(1), 1-14.

Fornell, C., & Larcker, D.F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research, 382*-388.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2009). *Analyze multivariate de dados*. Bookman Editorial.

Hamid, F.Z.A. (2004), “Corporate social disclosure by banks and finance companies: Malaysian evidence”, *Corporate Ownership and Control, Vol. 1 No. 4*, 118-130.

Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modeling: Guidelines for determining model fit. *Articles, 2*.

Horrigan, B. (2010). *Corporate social responsibility in the 21st Century: Debates, models, and practices across government, law, and business*. Edward Elgar Publishing.

Hu, L.T., & Bentler, P.M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal, 6*(1), 1-55.

Jeyanthi, P.M. (2019). An Empirical Study of Fraudulent and Bankruptcy in Indian Banking Sectors. *The Empirical Economics Letters, 18*(3).

Jeyanthi, P.M., Mansurali, A., Harish, V., & Krishnaveni, V.D. (2020). Conceptual Framework of Customer Value Management (CVM) in Indian Banking Sector. *Webology, 17*(2), 971-980.
Jeyanthi, P. M., Mansurali, A., Harish, V., & Krishnaveni, V. D. (2019). Significance of Fraud Analytics in Indian Banking Sectors. *Journal of Critical Reviews*, 7(4), 2020.

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28(4), 563-575.

Maignan, I., & Ferrell, O. C. (2000). Measuring corporate citizenship in two countries: The case of the United States and France. *Journal of Business Ethics*, 23(3), 283-297.

Maignan, I., & Ferrell, O. C. (2004). Corporate social responsibility and marketing: An integrative framework. *Journal of the Academy of Marketing Science*, 32(1), 3-19.

Muathe, S. M. A., Ronoh, P. K., Ochoti, G. N., Maronga, E., & Ochoti, F. O. (2013). *Corporate social responsibility, client satisfaction, and competitive advantage in retail banking institutions in Kenya.*

Narwal, M. (2007). CSR initiatives of the Indian banking industry. *Social Responsibility Journal*, 3(4), 49-60.

Netemeyer, R. G., Bearden, W. O., & Sharma, S. (2003). *Scaling procedures: Issues and applications.* Sage Publications.

Nunnally, J. (1978). *Psychometric methods.*

Öberseder, M., Schlegelmilch, B. B., & Gruber, V. (2017). "Why don't you care about CSR? – A Qualitative Study Exploring the Limited Role of CSR in Consumption Decisions. In The Customer is NOT Always Right? *Marketing Orientations in a Dynamic Business World*, 301-301. Springer, Cham.

Perez, A., Garcia de Los Salmones, M. M., & Rodriguez del Bosque, I. (2013). The effect of the corporate association on consumer behaviour. *European Journal of Marketing*, 47, 218-238.

Pérez, A., Martínez, P., & Del Bosque, I. R. (2013). The development of a stakeholder-based scale for measuring corporate social responsibility in the banking industry. *Service Business*, 7(3), 459-481.

Phillips, L. W., & Bagozzi, R. P. (1986). On measuring organizational properties of distribution channels: methodological issues in the use of key informants. *Research in Marketing*, 8(1), 313-369.

Polychronidou, P., Ioannidou, E., Kipouros, A., Tsourgiannis, L., & Simet, G. F. (2014). Corporate social responsibility in the Greek banking sector—empirical research. *Procedia Economics and Finance*, 9, 193-199.

Pradhan, S. (2011). CSR inclusion in firms: a study of Indian banks. *Insights to a Changing World Journal*, (6), 4-16.

Prem, M. J., & Karnan, M. (2013). Business intelligence: optimization techniques for decision making. *International Journal of Engineering*, 2(8), 1081-1092.

Prem, M. J., & Karnan, M. (2014). Business Intelligence–Hybrid Metaheuristics Techniques. *International Journal of Business Intelligence Research (IJBIR)*, 5(1), 64-70.

Quazi, A. M., & O'brien, D. (2000). An empirical test of a cross-national model of corporate social responsibility. *Journal of business ethics*, 25(1), 33-51.

Ruf, B. M., Muralidhar, K., & Paul, K. (1998). The development of a systematic, aggregate measure of corporate social performance. *Journal of Management*, 24(1), 119-133.

Ruiz, M., de losRios, A., & Tiarado, P. (2009). Social responsibility and the economic crisis. Do Spanish financial institutions respond to interest groups? *CIRIEC-Espana, Revista de Economía Publica, Socially Cooperative*, 65, 35-58.
Sallyanne Decker, O. (2004). Corporate social responsibility and structural change in financial services. *Managerial Auditing Journal, 19*(6), 712-728.

Sangeetha, K., & Pria, S. (2012). Resources Affecting Banks' CSR in Sultanate of Oman: A Stakeholders' Perspective. *EJBO: Electronic Journal of Business Ethics and Organizational Studies*.

Sarro, M.M., Cuesta, P., & Penelas, A. (2007). *Corporate social responsibility (CSR): An emerging orientation in the management of Spanish banking entities*. In J.C. Ayala (Ed.), Knowledge, Innovation and entrepreneurs: Road to the future. Argentina: University of La Rioja.

Scholtens, B. (2009). Corporate social responsibility in the international banking industry, *Journal of Business Ethics, 86*, 159-175.

Schwartz, M. (2011). *Corporate social responsibility: an ethical approach*. London: Broadview Press

Shen, C.H., Wu, M.W., Chen, T.H., & Fang, H. (2016). To engage or not to engage in corporate social responsibility: Empirical evidence from the global banking sector. *Economic Modeling, 55*, 207-225.

Shrivastava, S., Jeyanthi, P.M., & Singh, S. (2020). Failure prediction of Indian Banks using SMOTE, Lasso regression, bagging and boosting. *Cogent Economics & Finance, 8*(1), 1729569.

Simpson, J., & Taylor, J.R. (2013). *Corporate governance ethics and CSR*. Kogan Page Publishers.

Singh, R., & Agarwal, S. (2011). *CSR orientation of Indian banks and stakeholder relationship Marketing orientation: An empirical investigation*. Working Paper Series, IIM Calcutta.

Singhapakdi, A., Vitell, S.J., Rallapalli, K.C., & Kraft, K.L. (1996). The perceived role of ethics and social responsibility: A scale development. *Journal of Business Ethics, 15*(11), 1131-1140.

Straub, D., Boudreau, M.C., & Gefen, D. (2004). Validation guidelines for IS positivist research. *The Communications of the Association for Information Systems, 13*(1), 63.

Thompson, P., & Cowton, C. (2004). Bringing the environment into bank lending: implications for environmental reporting, *The British Accounting Review, 36*, 197-218.

Turker, D. (2009). Measuring corporate social responsibility: A scale development study. *Journal of business ethics, 85*(4), 411-427.

Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of business ethics,44*(2), 95-105.

Ventura, E.C.F., & Vieira, M.M.F. (2007). Social responsibility as a displacement of capitalism: Evidence from banks in Brazil. *Electronical Journal of Business Ethics and Organisational Studies, 12*(1), 35-47.

Williamson, D., Lynch-Wood, G., & Ramsay, J. (2006). Drivers of environmental behavior in manufacturing SMEs and the implications for CSR. *Journal of Business Ethics, 67*(3), 317-330.

Zappi, G. (2007). Corporate responsibility in the Italian banking industry: creating value through listening to stakeholders. *Corporate Governance: the international journal of business in society, 7*(4), 471-475.

Zentes, J., Morschett, D., & Schramm-Klein, H. (2017). *Corporate social responsibility*. In *Strategic Retail Management*, 207-226. Springer Fachmedien Wiesbaden.