Environmental Accounting and Firm’s Profitability

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Abstract: The developing countries like India are facing problems of protecting the environment. Therefore the study focuses on the environmental accounting and the firm’s profitability. The entire BSE listed textile manufacturing units were treated as a universe of the study. Among 270 listed textile manufacturing units, the firm has been selected based on the market capitalization. The analysis has made use of trend analysis and profitability. The textile industry needs to focus the pollution free production methods and techniques for improving the production level.

Keywords: Environmental Accounting, Firm’s Profitability, Sustainable Development.

1. Introduction

Environmental or Social Accounting is a method by which a business seeks to place a value on the impact on society of its operations. Social Accounting is an expression of company’s social responsibilities and requirements of general corporate accountability. It is concerned with the development of measurements system to monitor social performances. Social accounting is commonly used in the context of business, or Corporate Social Responsibility (CSR), although any organization, including NGOs, charities, and government agencies may engage in social accounting. Environmental accounting is a subset of accounting proper, its target being to incorporate both economic and environmental information. It can be conducted at the corporate level or at the level of a national economy through the System of Integrated Environmental and Economic Accounting, a satellite system to the National Accounts of Countries (among other things, the National Accounts produce the estimates of Gross Domestic Product otherwise known as GDP).

2. Review of Literature

Mahadevappa et al., (2012), the research paper entitled that “Corporate Social Reporting Practices in India” The objective of the study to develop a conceptual model of corporate social reporting. To construct a corporate social reporting index and test its reliability and validity. The study the determinants and degree of corporate social reporting by ownership of companies. It examines causal relationship between determinants and corporate social reporting. Ramesh (2013), the study identified that “A Study of Environmental Accounting Practices in selected Indian Companies study”. Evaluate the corporate practices relating to measurement, recognition and disclosure of environmental costs and benefits. To make a brief review of accounting regulations and government rules relating to Environmental Accounting. To make an evaluation of environmental accounting practices including disclosure practices of selected Indian
companies to offer suggestions for the improvement of quantification and reporting system. D.M.Makori (2013), the study made an attempt to analyse “Environmental Accounting and Firm Profitability: An Empirical Analysis of Selected Firms Listed in Bombay Stock Exchange, India” The key objective of this study was to establish whether there is any significant relationship between environmental accounting and profitability of selected firms listed in India. The data for the study were collected from annual reports and accounts of 14 randomly selected quoted companies in Bombay Stock Exchange in India. Partap Singh (2013), conducted a study on “Social Accounting: A Helping Tool of Corporate Social Responsibility”. To study theoretical framework of social accounting in India. To make insights to the CSR practices of Maruti industry in India. The concept of social accounting is growing in recognition and sophistication. As it becomes one of the foundations of good practice in Corporate Social Responsibility (CSR), interest is growing within large corporations, consultancies and voluntary organizations identical. The paper examines the corporate social reporting practices and analyses social reporting relating to human resource, Environment and social relations. Savita (2014), the study argued that “Legal Framework for Environmental Accounting in India”. Every business has an intervening accountability to make the fullest possible use of its resources both human and material. An enterprise is a corporate civilian. Like a civilian it is esteemed and judged by its actions in relation to the community of which it is a member as well as by its economic act. As far as Incorporate sector of India is concerned it is sad, but true that it has not been acting as a good civilian that’s why there are so many laws that have been made and further amended from time to time as and when required to bound the corporate sector to full their social responsibility for better development of Indian Economy. Management rarely tries to make proper arrangement to save the environment unless it is mandatory as per law as there is no direct connection between investment and benefits.

Perera (2015), the study made an attempt to analyse “Impact of Environmental Management Accounting Practices on Financial Performance of Listed Manufacturing Companies in Sri Lanka”. The objective of this study is to identify the Environmental Management Accounting (EMA) practices in achieving financial performances of listed manufacturing companies in Colombo Stock Exchange (CSE). This is an exploratory study based on analysing secondary data to answer the research problem of how does the application of EMA relate with financial performance in listed manufacturing companies in Sri Lanka. Vinayagamoorthi et al., (2015), the study examined that “Impact of Firms’ Profitability on Environmental Performance: Evidence from Companies in India” This study makes an attempt to analyse the impact of profitability on environmental performance of the firm. The analysis has made use of descriptive statistics, correlation, and regression analysis. The results found that the profitability variables like ROA, ROE, and ROS create the positive impact on energy intensity (proxy of environmental performance) of the sample firms. At the same time, one profitability variable such as ROCE recorded negative impact on EI. This paper offers useful suggestions to the corporates to reduce the level of energy intensity and to utilize the companies’ capital for sustainable performance.

H.N.Hartikayanti et al., (2016), this study aims to determine the “Effect of Corporate Characteristics on Environmental Disclosure”. The population of this research is all companies listed in Indonesia Stock Exchange in 2014, which expose and report their Corporate Social Responsibility activities. The sample consists of 17 companies selected by purposive sampling technique. The research subjects were 17 participant companies of Indonesia Sustainability Reporting Awards (ISRA) year 2014. The measurement of the disclosure is using Corporate Social Responsibility Rating System from Global Reporting Initiatives (GRI) G4. The analytical tool used to test the hypothesis of this study is multiple linear regressions. The study found that the corporate characteristics significantly influence the company's environmental disclosure.
Karthikeyani (2016), the study contended that “Corporate Social Reporting Practice in India”. The study demonstrated that the primary purpose of corporate social reporting is to communicate to all the relevant stakeholder groups who might be affected by organizational activities irrespective of their power. Annual report of a company usually includes the Chairman’s Report, Directors’ Report, financial statements and Auditors’ report, as well as relevant notes to the accounts. Reporting of the social activities of the company should always be in the form of a social report, included in the annual report. The top 100 companies based on market capitalization, from the list BSE 200 companies, has been chosen as the sample. Data required have been sourced from the annual reports of these companies, for a period of five years from 2007-08 to 2011-2012. The study found that Corporate Social Reporting has been gaining momentum in India and many companies willingly come forward to explain their standing on various aspects ranging from environment to employee-specific issues. Das (2017), the study entitled that an “Introduction to the Concept of Environmental Accounting and Reporting - Indian Scenario” the argued that how the concept of environmental accounting and corporate reporting practices was relevant and beneficial to the society. The study also focuses on the emerging environmental accounting and reporting practices being undertaken by Indian corporate sectors and the reasons behind the poor disclosure practices in environmental issues in India.

3. Importance of the Study

Environmental Accounting needs to work as a tool to measure the economic efficiency of environmental conservation activities and the environmental efficiency of business activities of companies as a whole. Management seldom tries to make proper arrangement to save the environment unless it is required by law as there is no direct relationship between investment and benefits. In many contexts, environmental accounting is taken to mean the identification and reporting of accounting for any costs and benefits that arise from the change to a firm's products and processes where the change also involves environmental impact.

4. Need for the Study

Indian companies have faced strong international competition over the past few decades, especially after the opening of the Indian economy in the early 1990s as international competitors tried to establish their footholds in India. These international firms are disclosing non-financial information including corporate social responsibility information leading to an enhanced expectation from Indian companies to act responsibly towards the society at large and be accountable to the society beyond the traditional role of providing a financial account to the stakeholders. Hence, to improve corporate image concerning socially responsible behavior, an increasing number of Indian companies have been reporting their environmental and social performance in their annual reports, websites etc. There is need to study the current corporate social reporting practices of Indian companies to suggest a suitable framework of corporate social reporting.

5. Statement of the Problem

Economic development without environmental considerations causes environmental crises. The ecological role played by corporate sectors responsible for their business activities on the environment is becoming particularly explicit in the global market, especially in India. Management of both environmental and natural resources in a country like India has become more urgent. In India, there is no compulsory filing of the environment report. Hence there is a need for strict regulation to maintain the contribution by the corporates towards environment protection. Pradip Kumar. (2016).
6. Objectives of the Study

[2] To assess the profitability position of Bombay Dyeing and Manufacturing Company Ltd.
[3] To offer the valuable suggestion and recommendation for further improvement of firm’s profitability.

7. Research Methodology

Research methodology makes the most important contribution towards the enrichment of any research which covers the selection of a sample from the study unit, collecting relevant data, applying appropriate tools and techniques, analysis and interpretation of the same for scientific investigation of the research problem.

7.1 Research Design

The research design is logical and systematic planning and directing a piece of research. Research methodology is a way to solve the research problem systematically. A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. The research type used in this study is analytical in nature. The analytical approach is one of the most popular approaches prescribed by scholars of social science. In this approach a problem is analyzed by the researcher and the way of arriving solution is analyzed in detail. The study adopts the research design as follows:

7.2 Sample Design

The entire BSE listed textile manufacturing units were treated as a universe of the study. Among 270 listed textile manufacturing units, the Bombay Dyeing and Manufacturing Company Limited have been selected based on the market capitalization.

7.3 Sources and Collection of Data

The present study mainly depends on the secondary data. The required data were collected from the annual financial statements of the Bombay Dyeing and Manufacturing Company Ltd. The other relevant data for this study were collected from various books, journals, magazines, websites etc.

7.4 Scope of the Study

The scope of the study is restricted to the assessment of the determinants of profitability of Bombay Dyeing and manufacturing company limited in India and that have 10 years data (2007-08 to 2016-17). The scope of the study also covers the environmental amounting and its relation to firm’s profitability.

7.5 Period of Study

For the purpose of collecting required data, the present study covered a period of 10 years from 1st April 2007 to 31st March 2017.
8. Profile of the Company

Bombay Dyeing and Manufacturing Company Limited (Bombay Dyeing) established on 23rd August 1879 is the flagship company of the Wadia Group engaged primarily in the business of Real Estate Polyester Staple Fibre and Retail Textiles. One Hundred and Thirty-Eight years ago Mr. Nowrosjee Wadia nurtured an overarching vision. The vision to create an enterprise which can stand the test of timescale new frontiers of excellence and constantly re-invent itself to suit the changing needs of customers. Bombay Dyeing today is the testimony to the strength of that vision. Bombay Dyeing is the embodiment of that vision. Respected trusted and one of India's most endeared brands. Bombay Dyeing is one of the earliest of the Wadia Group Companies to have been listed on the Bombay Stock Exchange. The Company has extended its presence in Real Estate, Polyester Staple Fibre, and Retail Textile to cater to the evolving aspirations of its customers and enhancing their quality of life. The company has its registered office located in Maharashtra.

9. Framework Analysis

Trend Analysis

Trend analysis is aimed at projecting both current and future movement of events through use of time series data analysis which involves comparison of data over a sequential period of time to spot a pattern or trend.

Production

Production is the activity of making tangible goods. In the economic sense, production means both making goods and rendering services that add value to a product even though no physical change has taken place. It covers all the activities of procurement, all action, and utilization of resources such as materials, labor, energy, machinery, etc. production is one of the most important areas of performance.

Power and Fuel expenses

Power and Fuel expenses in the Bombay Dyeing & Manufacturing Company limited to play a vital role. For the purpose of analysis, any expenses related to power and fuels have been considered as an environmental cost under this study.

Sales

‘Sales’ is the value of output supplied to the customers. It is the lifeblood of a business enterprise without which the business cannot survive. Further, ‘Sales’ is the indicator of the operational efficiency of management in how efficiently the management has used the assets of the business. The trend of sales indicates the direction in which a concern is going and on the basis of which forecast can be made. The trend analysis of sales helps to understand the growth of a business enterprise.

Profit

Profit in the accounting sense of the excess of revenue over cost is the sum of two components: normal profit and economic profit. Normal profit is the profit that is necessary to just cover the opportunity costs of the owner-manager or of the firm's investors. In the absence of this much profit, these parties would withdraw their time and funds from the firm and use them to better advantage elsewhere. In contrast, economic profit, sometimes called excess profit, is profit in excess of what is required to cover the opportunity costs.
Table 1. Actual and Trend Value of Production, Power & Fuel, Sales and Profit

<table>
<thead>
<tr>
<th>Year</th>
<th>Value of Production (Rs. In Crores)</th>
<th>Trend Value of Production</th>
<th>Value of Power &amp; Fuel (Rs. In Crores)</th>
<th>Trend Value of Power and fuel</th>
<th>Value of Sales (Rs. In Crores)</th>
<th>Trend of Sales</th>
<th>Value of Profit (Rs. In Crores)</th>
<th>Trend of Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-2008</td>
<td>562.53</td>
<td>816.65</td>
<td>58.34</td>
<td>81.60</td>
<td>700.91</td>
<td>1109.31</td>
<td>18.01</td>
<td>26.71</td>
</tr>
<tr>
<td>2008-2009</td>
<td>772.08</td>
<td>859.24</td>
<td>91.08</td>
<td>84.94</td>
<td>1052.33</td>
<td>1255.46</td>
<td>-193.60</td>
<td>18.55</td>
</tr>
<tr>
<td>2009-2010</td>
<td>776.5</td>
<td>901.82</td>
<td>79.25</td>
<td>88.27</td>
<td>1,091.86</td>
<td>1401.61</td>
<td>22.19</td>
<td>-10.40</td>
</tr>
<tr>
<td>2010-2011</td>
<td>1,082.16</td>
<td>944.40</td>
<td>81.68</td>
<td>91.61</td>
<td>1,673.21</td>
<td>1547.76</td>
<td>26.37</td>
<td>-2.25</td>
</tr>
<tr>
<td>2011-2012</td>
<td>1,263.72</td>
<td>986.99</td>
<td>100.79</td>
<td>94.95</td>
<td>2,230.81</td>
<td>1693.91</td>
<td>74.85</td>
<td>5.90</td>
</tr>
<tr>
<td>2012-2013</td>
<td>1,194.25</td>
<td>1,029.57</td>
<td>131.34</td>
<td>98.29</td>
<td>2,330.81</td>
<td>1840.06</td>
<td>97.81</td>
<td>14.05</td>
</tr>
<tr>
<td>2013-2014</td>
<td>1,391.65</td>
<td>1,072.15</td>
<td>144.29</td>
<td>101.62</td>
<td>2,656.23</td>
<td>1986.21</td>
<td>33.14</td>
<td>22.20</td>
</tr>
<tr>
<td>2014-2015</td>
<td>1,270.59</td>
<td>1,114.73</td>
<td>112.63</td>
<td>104.96</td>
<td>2,378.27</td>
<td>2132.36</td>
<td>34.94</td>
<td>30.35</td>
</tr>
<tr>
<td>2015-2016</td>
<td>879.96</td>
<td>1,157.32</td>
<td>84.08</td>
<td>108.30</td>
<td>1,845.01</td>
<td>2278.51</td>
<td>-85.24</td>
<td>38.30</td>
</tr>
<tr>
<td>2016-2017</td>
<td>889.38</td>
<td>1,199.90</td>
<td>82.39</td>
<td>111.64</td>
<td>1,710.29</td>
<td>2424.66</td>
<td>71.28</td>
<td>46.66</td>
</tr>
</tbody>
</table>

Source: Computed from Annual Report

The trends in the Production, Power & Fuel, Sales and Profit of the Bombay Dyeing & Manufacturing Company Limited (BDMCL) for the periods from 2007-2008 to 2016-2017 has been presented in Table 9.1. The cost of production of the BDMCL has marked an increasing trend value throughout the period is up to 2014-2015. In the year 2007-2008, the actual value of environmental cost was Rs.58.34 crores which increased to 144.29 crores and yet again decreased to 82.39 marking an increase in the year 2016-17. The actual sales of the BDMCL have marked an increasing trend throughout the period except for the last two years. In the year 2007-2008, the sales were Rs.700.91 crores which increased to Rs.1710.29 crores in the year 2016-2017. The highest actual value Rs.97.81 crores found in the year 2012-2013 and the lowest actual value Rs.-193.60 crores found in the year 2008-2009.
9.2 Profitability Ratio

Profitability of an enterprise or an industry can be measured for a short term and as well as for a long term. Profitability in relation to sales is the best short-term indication of successful growth. But in the long run, it may prove a deceptive guide post if there is not a proper return on the capital necessary to support the sales. On the other hand, profitability in relation to investment is the measurement of the soundness of strength of a company’s long-run growth, comparatively. It is vital; the long run profitability is the foremost measurement of company’s performance. The following ratios were taken in order to review the profitability position of the selected study unit. (i) Return on Capital Employed (ROEC), (ii) Return on Equity (ROE), (iii) Return on Assets (ROA), (iv) Gross Profit Ratio (GPR), (v) Operating Profit Ratio (OPR) (vi)Net profit Ratio (NPR).

Table 2. Profitability Ratios

<table>
<thead>
<tr>
<th>Year</th>
<th>ROCE</th>
<th>ROE</th>
<th>ROA</th>
<th>GPR</th>
<th>OPR</th>
<th>NPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-2008</td>
<td>1.04</td>
<td>4.09</td>
<td>0.99</td>
<td>19.74</td>
<td>13.64</td>
<td>2.38</td>
</tr>
<tr>
<td>2008-2009</td>
<td>-9.53</td>
<td>-52.54</td>
<td>-7.97</td>
<td>26.63</td>
<td>5.69</td>
<td>18.49</td>
</tr>
<tr>
<td>2009-2010</td>
<td>1.14</td>
<td>8.76</td>
<td>0.96</td>
<td>28.88</td>
<td>26.46</td>
<td>1.69</td>
</tr>
<tr>
<td>2010-2011</td>
<td>1.13</td>
<td>3.82</td>
<td>0.97</td>
<td>35.32</td>
<td>15.54</td>
<td>1.28</td>
</tr>
<tr>
<td>2011-2012</td>
<td>3.25</td>
<td>3.31</td>
<td>2.09</td>
<td>43.35</td>
<td>13.78</td>
<td>2.66</td>
</tr>
<tr>
<td>2012-2013</td>
<td>4.33</td>
<td>4.49</td>
<td>2.59</td>
<td>48.73</td>
<td>14.31</td>
<td>3.25</td>
</tr>
<tr>
<td>2013-2014</td>
<td>1.62</td>
<td>1.66</td>
<td>0.88</td>
<td>47.61</td>
<td>9.78</td>
<td>0.92</td>
</tr>
<tr>
<td>2014-2015</td>
<td>1.42</td>
<td>1.58</td>
<td>0.88</td>
<td>46.76</td>
<td>12.72</td>
<td>1.03</td>
</tr>
<tr>
<td>2015-2016</td>
<td>-3.31</td>
<td>-6.63</td>
<td>-1.94</td>
<td>51.33</td>
<td>10.52</td>
<td>4.62</td>
</tr>
<tr>
<td>2016-2017</td>
<td>3.08</td>
<td>3.41</td>
<td>1.52</td>
<td>48.00</td>
<td>18.39</td>
<td>2.44</td>
</tr>
</tbody>
</table>

The above table 9.2 shows the profitability ratios of the Bombay Dyeing & Manufacturing Company Limited during the study period 2007-2008 to 2016-2017. The ROCE found a fluctuating trend during the study period. The ROCE was fluctuating between 4.33 per cent and -9.53 per cent. The ROE was fluctuating between -52.54 per cent and -6.63 per cent. The ROA was fluctuating between 1.52 per cent and 0.99 per cent. The GPR was 48.73 per cent increase in the year 2013. Afterward, the ratio was
48.00 per cent and 47.61 per cent fluctuating during the year 2014-2017. The OPR was fluctuating between 10.52 per cent and 9.78 per cent. The higher ratio was 26.46 per cent during the year 2009-2010. The lower ratio was found 5.69 per cent during the year 2008-2009. The NPR was 2.38 per cent in 2007-2008 and it was a decrease severely was -18.49 per cent in the year 2008-2009. The NPR trend increase slowly was 1.69 to 3.25 in 2009-2010 to 2012-2013. All over again it decreased by 0.92 to -4.62 per cent in the year 2013-2014 to 2015-2016. Afterward, the ratio was increasing 2.44 per cent in the year 2016-2017.

10. Findings

[1] The cost of production has marked an increasing trend value throughout the period is up to 2014-2015. In the year 2007-2008, the actual value of power and fuel expenses were Rs.58.34 crores which increased to 144.29 crores and yet again decreased to 82.39 marking an increase in the year 2016-17. The actual sales have marked an increasing trend throughout the period except for the last two years. In the year 2007-2008, the sales were Rs.700.91 crores which increased to Rs.1710.29 crores in the year 2016-2017. The highest actual value Rs.97.81 crores found in the year 2012-2013 and the lowest actual value Rs.-193.60 crores found in the year 2008-2009.

[2] The ROCE was fluctuating between 4.33 per cent and -9.53 per cent. The ROE was fluctuating between -52.54 per cent and -6.63 per cent. The GPR was 48.00 per cent and 47.61 per cent fluctuating during the year 2014-2017. The OPR was fluctuating between 10.52 per cent and 9.78 per cent. The NPR was fluctuating between 1.69 to 3.25 in 2009-2010 to 2012-2013. All over again it decreased 0.92 to -4.62 per cent in the year 2013-2014 to 2015-2016. Afterwards, the ratio was increasing 2.44 per cent in the year 2016-2017.

11. Suggestions and Conclusion

Textile Industry in India is growing at a very fast rate. New upcoming technologies and products are to be absorbed by the industry. The varieties of modern textiles, synthetic dyes and textile finishes entering the market air and water pollution are bound to go on increasing unless strictures are implemented and positive steps are taken. The problem of the undesirable effects of a large number of chemicals and dyestuffs used in the textile industry is indeed grave as their effects on the environment and on the public do not show immediately. If the management of the company addresses the suggestions given in this project that will enrich the performance, better in the future. Hence to conclude the study it may be said that BDMCL has improved the overall performance in the management of profitability analysis during the study period. It is a common knowledge that the function of fixed assets is to create capacity and that of current assets to meet the utilization of capacity possible. So, the management with regular intervals makes some analysis about their financial strength and weakness. The textile industry needs to focus the pollution free production methods and techniques for improving the production level. Improve the continuous sales than only get a satisfactory profit. The reinvested capital is employed again at a higher rate of return, which helps to produce higher earnings-per-share growth; it results in a sign of a successful growth company. Because of use eco-friendly chemicals and auxiliaries in the textile process for reducing the pollution load in the effluent. Reverse Osmosis (R.O.) method may be effectively applied by the textile industry for serving the dual purposes of water conservation and pollution abatement.

12. References


