CHAPTER – I

INTRODUCTION

1.1 Introduction

Across the world it is accepted that, the growth and development of any organization is absolutely depends on the utilization of employee proficiency. Even though, the organization is strong enough in technical know-how, financial adequacy etc., it would be difficult to the organizations to administrate its affairs, if the human resources of the organization is neglected.

The development and growth of the Indian economy is increasing after 1991, LPG policy (Liberalization, Privatization, and Globalization). As we know, India is gifted with abundant human resources with low cost. Realizing the significance of human resources in the accounting area has been neglected earlier. But now Indian companies are valuing human resources and presenting in their financial statements by considering human resources as an important factor of production.

Valuation of human resources comes under social accounting, and today’s organizations moving towards the social accounting concepts, in order to assess social impact and organizational development activities E.Patrick et al. (2014)

There are many important social accounting concepts existing, in which Human resource accounting and Value Added are used in the context of the present study. Human resource accounting, Value Added through social accounting has gained significant importance in the present arena. This study emphasis in assessing the performance of an organisation, through Valuation of Human Resource and Value addition there on and subsequently connect to the social performance towards public and shareholders through the development of values and morals.

1.2 Introduction to Human Resource Accounting

Human Resource Accounting (HRA) is the practice of recognising and journalizing the investments made in the Human Resources of an Organisation that are presently not accounted for, in the conservative accounting practices. In simple terms, it is an addition to the accounting principles of corresponding the costs and revenues and of organising data to
communicate relevant information on any organisation. Human Resource Accounting may also be defined as the system of recording of transactions involving to the value of human resource i.e. the cost of acquirement of their knowledge and consumption of the energy for production of goods and services in the most cost-effective manner and thereby reaching the organization goals L. Bassi et al (1997). The quantification of the value of human resources helps the management to survive with the fluctuations in its quantum and quality to achieve equilibrium in between the essential resources and Human Resource Accounting in order to provide important data to the organisation’s management, employees and the financial analysts, who need this data for analyzing the actual situation of the organization S.Abhayawansa & I. Abeysekera (2008)

1.3 Significance of Human Resource Accounting

Human Resource Accounting is a managerial tool, and can be used for effective management of human resources. According to Upasna Joshi & Mehei Reeta (2012), Human resources information is a part of management information system, which helps in making significant choices among various methods of human investments and also in other assets for effective managerial decision making. By assessing the worth of human resources at different points of time, it can be understood by the stake holders (employees, creditors, government, investors etc.,) of the organization whether the management is taking care of human resources or exhausting them with the help of the information generated through Human Resource Accounting. Apart from this, HRA can help the management in framing policies and programmes for the growth of human resources. According to C.Dawson (1994), HRA information is extremely used for making decisions in the following areas:

   a) Planning for human resources
   b) Evaluation of development programmes of human resources
   c) Recognition of needs of training
   d) Effectiveness of cost reduction programmes in analysing their possible effect on human relations.
   e) Study the impact of budgetary control on employee’s motivation and morale.
   f) Facilitate in allocation, conservation and reward of human resources

Thus, Human Resource Accounting is useful to the managerial decision making.
1.4 Introduction to Value Added

In general, the financial position of an organization reveals through the balance sheet, and Income statement, which are the part of traditional accounting statements. The usefulness of these statements is established by their total use over time and cannot be diluted with the development of new methods. The dimensions which these traditional methods fail to address are nothing but the information on the total productivity of the organisation and the share of each team involved in the management of resources viz., shareholders employees and the government. The Value Added statement can provide valuable insight in meeting the lacunae which the traditional accounting system possessed D.Vijayalaxmi & P.Srikanth (2014).

Value Added refers rise in prosperity generated by the productive use of the firm’s resources before its allocation among stake holders such as shareholders, workers and the government. Thus, while the profit is the final return earned by the shareholders, the Value Added refers to the total return earned by the team of workers, capital providers, and the government. G Arangies et al. (2008) Value Added can be resolute by adding pretax profit to employees costs and charges. Another way of computing Value Added is to substract bought-in- costs from sales revenues where these costs represent all costs and expenses incurred in buying goods and services from other firms D. Mohana Rao (2011).

1.5 Significance of Value Added

The Value Added concept is an important tool for evaluating the performance of an organisation, whose tasks affects the social and economic welfare of complete community. It identifies other sponsors and applicants who have contributed in the process of creating value such as government, creditors, and employees. These stake holders who contribute to the Value Added will get an equivalent share. Organisations may exist for some time without profit but will definitely deplete without generating the value. In absence of the profit also the organisation may still contribute something to the society as profit is considered to be only a fraction of small wealth which an organisation generates during a particular period of time Evraert & Riahi Belkaoui (1998) A sick unit may be considered beneficial so long as it generates adequate value to pay wages and salaries to its employees since its disclosures will create unemployment, which may otherwise result in societal crisis. At the time of preparing plans and targets of the organization, financial manager usually set a profit target, but the Value Added could be a more suitable norm in this matter. Rutherford (1980) judging the viability of the organisation and just not the profit, the business organisations should direct
their efforts towards enhancing value Kraybill(1989)

Formulating Value Added statement is a measure for reporting the wealth produced by a business over a period of time M.F.Morley (1979). The Value Added has been well-defined by the corporate report as the wealth of the organization, that has been able to generate by its own and its employee’s efforts during a period G.K. Meek & S.J. Gray (1988) The Value Added is attained by deducting the value incurred for goods and services purchased from outside, from the total value generated from the output of a firm and also its other income A.K.Basu (1992) The Value Added statement displays the value generated or created and sharing it to interest group like employees, Shareholders, promoters of capital and the government. P.David (1981) it is a statement which illustrate the income of a business as a body and how that is distributed among people who have subsidized to its establishment. The interdependence of manpower and capitalist made more apparent by the Value Added statement. In fact, the Value Added statement is an improved version of the profit and loss account and income is defined to comprise the rewards of a much broader group than just the shareholders R.S.Agarwal (1993). Thus Value Added is a superior measure for assessing the performance and the competency of an organization than the ‘profit figure’ disclosed by conservative profit and Loss account. Value Added statements are useful to outside users of annual reports in making economic decisions and could lead to better estimations of an organization's future earnings. Valued added statement advances an inspiring and positive attitude of the employees towards their organization because it reflects a wider view of the organization's objectives and responsibilities, K.C.Nandi (2005). Value Added Statement has a social importance since the society will judge the utility and efficiency of a business firm from its capacity to create wealth or Value Added. The preparation of Value Added statement is important from the national point of view also as it associates the contribution made by a firm to the wealth of the nation to be measured in terms of Value Added by it, S.K.Chakraborty (1979) Thus it assists macroeconomic measurement and forecasting. The incorporation of Value Added Statement has become a constitutional requisite in UK and also in many other European countries. In India, the incorporation of such a statement is not mandatory under the Companies Act, 1956; it is left to the choice of the organization, whether to prepare or not. However, some of the companies are incorporating Value Added statement as a part of their annual reports G Arangies (2008)
Human resource accounting and Value Added are particularly useful for high lighting employees’ oriented approach which will allow more fertile and objective assessment of business enterprises in terms of productivity and profitability. India in recent times has recorded significant change in the way corporate report and presents their financials.


1.6 Introduction to Visakhapatnam Port Trust

Port is heaven for ships. A port is a place at the shore where ships dock and are protected from storms or to load and unload their carriage. Port links sea traffic, surface and in some circumstances river traffic also with one other. 80% of global trade by volume and 70% by value are carried over sea because the transaction and transportations are cheaper and more convenient than road or air transportation. Through ports, trade and commerce increases, leading to development of cordial relations between trading countries. Ports are usually identified as places of safe shelter with necessary infrastructure for purpose of trade. As major part (75%) of the globe is sheltered with water, though there are bus terminals, airports; but seaports are gateways to the world. Seaport is the major link, in the international maritime transport chain. Seaport plays a very prominent role in a country’s growth. At present over 80% of all international trade goes up by sea. In the case of developing countries like India, the percentage of international trade is in the range 70% - 80%. International trade is the main producer of economic growth; Ports are meant to provide sea borne vessels and berth facilities for the passengers of cargo handling. (www.vizagport.com) ports of India are very important gateway for international trade. Majority of the cargo imports and exports are done through these ports of India.

The Visakhapatnam Port Trust is an earliest Port city which had trade relations with the Middle East and Rome. Ships were anchored at open roads and loaded with cargo from Visakhapatnam shore by means of small boats. The constructions of harbour at Visakhapatnam were thought after the transfer of power from East India Company to the Crown (1858).

Visakhapatnam Port Trust is one of the foremost major ports of India which has been playing an energetic role in nurturing the country’s foreign trade and economic development. Formerly considered as outlet for manganese ore exports in 1933, the Port has grown from asset to asset, adopting itself to the needs of fast changing sea transportation system.
The port sector was thrown open to private participation to improve competence, efficiency and quality of services, and to carry competitiveness in port services. This is in connection with the liberalization and globalization initiated, i.e. after 1991 L.N.Dash (2008)

1.6.1 Important logistics under Visakhapatnam Port Trust (VPT)

1. Inner harbour
2. Outer harbour
3. Ore Handling Complex
4. Fishing harbour

**Inner Harbour**

The inner harbour with about 100 hectares of navigable water ways contains an entrance channel of 1.6 kms turning basin and three navigable arms. These three arms are called northern, western and eastern arms.

**Outer Harbour**

In addition to the inner harbour, another harbour, namely outer harbour was constructed to serve the ever increasing cargo traffic at VPT. The outer harbour with a tranquil water basin of about 200 hectares was formed by erecting of three brake waters in the open sea. The outer harbour was commissioned in December 1976.

**Ore Handling Complex**

Ore Handling complex is a facility where the mechanized iron ore handling facility is provided. The iron ore received from mines by Railway wagons is tipped by a mechanism named Wagon Tippler and being stacked on stacks. The ore thus stacked is again loaded into the ships berthed at figure type jetty with the help of ship Loader. The ore is transmitted by overhead conveyor system. To enable the entire process there are machines available, they are ship loader, stackers, overhead conveyor and many other mechanisms that are used.
**Fishing Harbour**

Along the side of the port, Visakhapatnam fishing harbour occupies a significant place in marine exports. This up-to-date fishing harbour was constructed in an area of 24 hectares with a draught of 7.5 meters was commissioned during April 1975. Initially it was designed for berthing of 15 fishing trawlers and 160 mechanized boats. At present it can accommodate about 56 trawlers and 300 mechanized boats.

The port grips a wide choice of bulk, liquid-bulk, and brake bulk and container cargoes with higher productivity rate. The existence of the port has not only helped industries in the state including steel plants at Rourkela, Bhilai and Visakhapatnam but also for the export of product from various industries today .(Administrative Reports Of VPT)

### 1.7 Awards and Achievements

The only Indian port to have three international certifications:

- Quality Management System - ISO 9001
- Environmental Management System - ISO 14001
- Occupational Health and Safety Management System- OHSAS 18001

Complemented by the Ministry of Shipping; Government of India as the BRIGHTEST JEWEL among all the major ports of India.


It has also achieved much Genentech safety awards for environmental management.

### 1.8 Administration of Port

Visakhapatnam port trust has transferred to Major Port trusts (MPT) Act 1963, before that, it had gone through different Ministries and departments of the Indian Government:

<table>
<thead>
<tr>
<th>Table – 1.1: Administration of Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years</td>
</tr>
</tbody>
</table>
1.9 Operational Performance

The cargo traffic of Visakhapatnam port trust was categorized into exports, imports and transhipment. The total cargo traffic divided into dry bulk, break bulk and liquid bulk. The following table shows the break-up of traffic during the study period.

Table – 1.2: Port of Visakhapatnam handled 46.00 and 67.42 million tones of traffic during the period 2002-12

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports</th>
<th>Imports</th>
<th>Transhipment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-03</td>
<td>20.28</td>
<td>18.54</td>
<td>7018</td>
<td>46.00</td>
</tr>
<tr>
<td>2003-04</td>
<td>21.37</td>
<td>19.31</td>
<td>7.06</td>
<td>47.74</td>
</tr>
<tr>
<td>2004-05</td>
<td>24.92</td>
<td>21.29</td>
<td>3.94</td>
<td>50.15</td>
</tr>
<tr>
<td>2005-06</td>
<td>25.15</td>
<td>25.49</td>
<td>5.16</td>
<td>55.80</td>
</tr>
<tr>
<td>2006-07</td>
<td>23.83</td>
<td>27.93</td>
<td>4.63</td>
<td>56.39</td>
</tr>
<tr>
<td>2007-08</td>
<td>28.92</td>
<td>30.87</td>
<td>4.81</td>
<td>64.60</td>
</tr>
<tr>
<td>2008-09</td>
<td>28.25</td>
<td>30.36</td>
<td>5.30</td>
<td>63.91</td>
</tr>
<tr>
<td>2009-10</td>
<td>28.07</td>
<td>33.53</td>
<td>3.90</td>
<td>65.50</td>
</tr>
<tr>
<td>2010-11</td>
<td>29.13</td>
<td>33.34</td>
<td>5.57</td>
<td>68.04</td>
</tr>
<tr>
<td>2011-12</td>
<td>26.57</td>
<td>36.53</td>
<td>4.32</td>
<td>67.42</td>
</tr>
</tbody>
</table>

Source: VPT Administrative Reports
The major overseas partners for exports are Iran, Malaysia, China, Sri Lanka, Singapore, and South Korea etc., whereas, coming to Imports, the major partners are Australia, Indonesia, Iran, Iraq, Russia, Ukraine, Oman, USA, Thailand etc., the highest contribution of exports by China and in imports it was Australia.

**Shipping: Ship movement from the port during the period, 2002-03 to 2011-12.**

**Table – 1.3: Details of Ship Called (entered) and Sailed (foreign/coastal) during under the study period 2002-12**

<table>
<thead>
<tr>
<th>Year</th>
<th>Ships entered</th>
<th>Ships sailed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foreign</td>
<td>Coastal</td>
</tr>
<tr>
<td>2002-03</td>
<td>1075</td>
<td>582</td>
</tr>
<tr>
<td>2003-04</td>
<td>1139</td>
<td>566</td>
</tr>
<tr>
<td>2004-05</td>
<td>1314</td>
<td>524</td>
</tr>
<tr>
<td>2005-06</td>
<td>1510</td>
<td>606</td>
</tr>
<tr>
<td>2006-07</td>
<td>1493</td>
<td>602</td>
</tr>
<tr>
<td>2007-08</td>
<td>1709</td>
<td>695</td>
</tr>
<tr>
<td>2008-09</td>
<td>1630</td>
<td>760</td>
</tr>
<tr>
<td>2009-10</td>
<td>1690</td>
<td>742</td>
</tr>
<tr>
<td>2010-11</td>
<td>1703</td>
<td>810</td>
</tr>
<tr>
<td>2011-12</td>
<td>1658</td>
<td>811</td>
</tr>
</tbody>
</table>

Source: VPT Administrative Reports
### Table – 1.4: Ship movement during the year under the study 2002-12

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrived</td>
<td>1799</td>
<td>1705</td>
<td>1838</td>
<td>2116</td>
<td>2095</td>
<td>2404</td>
<td>2380</td>
<td>2432</td>
<td>2513</td>
<td>2469</td>
</tr>
<tr>
<td>Departure</td>
<td>1758</td>
<td>1704</td>
<td>1843</td>
<td>2109</td>
<td>2099</td>
<td>2397</td>
<td>2385</td>
<td>2435</td>
<td>2507</td>
<td>2470</td>
</tr>
<tr>
<td>Shifting</td>
<td>570</td>
<td>343</td>
<td>359</td>
<td>591</td>
<td>454</td>
<td>514</td>
<td>560</td>
<td>660</td>
<td>605</td>
<td>538</td>
</tr>
<tr>
<td>Total</td>
<td>4127</td>
<td>3752</td>
<td>4040</td>
<td>4816</td>
<td>4648</td>
<td>5315</td>
<td>5325</td>
<td>5527</td>
<td>5625</td>
<td>5477</td>
</tr>
</tbody>
</table>

Source: VPT Administrative Reports

### Table – 1.5: Port Railways moved the following tonnage of cargo during the year under the study 2002-12

(Million tons)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inward iron ore</td>
<td>10.03</td>
<td>12.72</td>
<td>15.42</td>
<td>13.58</td>
<td>9.92</td>
<td>12.88</td>
<td>11.59</td>
<td>12.66</td>
<td>15.06</td>
<td>9.48</td>
</tr>
<tr>
<td>Inward general</td>
<td>6.86</td>
<td>6.50</td>
<td>5.40</td>
<td>5.15</td>
<td>2.31</td>
<td>5.21</td>
<td>5.39</td>
<td>5.40</td>
<td>5.53</td>
<td>5.61</td>
</tr>
<tr>
<td>Outward general</td>
<td>10.63</td>
<td>11.30</td>
<td>12.08</td>
<td>14.72</td>
<td>15.58</td>
<td>17.37</td>
<td>16.96</td>
<td>17.50</td>
<td>17.29</td>
<td>19.66</td>
</tr>
<tr>
<td>Total</td>
<td>27.52</td>
<td>30.51</td>
<td>32.90</td>
<td>33.45</td>
<td>29.81</td>
<td>35.46</td>
<td>33.94</td>
<td>37.56</td>
<td>37.88</td>
<td>34.75</td>
</tr>
</tbody>
</table>

Source: VPT Administrative Reports
### 1.10 Financial performance

Table – 1.6: Summary of Revenue Account from during the study period 2002-12

(Rs.in lakhs)

<table>
<thead>
<tr>
<th>Year</th>
<th>INCOME</th>
<th>EXPENDITURE</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Operating</td>
<td>Finance &amp; Misc</td>
<td>Transfer from reserves</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>02-03</td>
<td>42756.45</td>
<td>1404.54</td>
<td>0.00</td>
</tr>
<tr>
<td>03-04</td>
<td>45428.69</td>
<td>1112.03</td>
<td>0.00</td>
</tr>
<tr>
<td>04-05</td>
<td>50187.65</td>
<td>1464.23</td>
<td>0.00</td>
</tr>
<tr>
<td>05-06</td>
<td>52845.78</td>
<td>1443.42</td>
<td>0.00</td>
</tr>
<tr>
<td>06-07</td>
<td>53372.61</td>
<td>2093.00</td>
<td>0.00</td>
</tr>
<tr>
<td>07-08</td>
<td>56542.43</td>
<td>2548.16</td>
<td>0.00</td>
</tr>
<tr>
<td>08-09</td>
<td>34987.29</td>
<td>13600.71</td>
<td>0.00</td>
</tr>
<tr>
<td>09-10</td>
<td>46470.90</td>
<td>20920.86</td>
<td>0.00</td>
</tr>
<tr>
<td>10-11</td>
<td>73862.63</td>
<td>7766.27</td>
<td>0.00</td>
</tr>
<tr>
<td>11-12</td>
<td>72642.25</td>
<td>45091.17</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: VPT Administrative Reports

### 1.11 Human Resources at Visakhapatnam Port Trust

**Job Classification of employees at Visakhapatnam Port Trust**

Jobs are congregated on the basis of qualification and nature of work. The classification is taken as it is done in the organisation. In Visakhapatnam Port Trust, job classification of
posts as Class – 1, Class – 2, Class – 3, and Class – 4 is done basing on the pay structure thus the same classification is being used.

The employees are divided into 4 classes/ cadres

Class-1: Senior management
Class-2: Middle and lower management
Class-3: Clerical, office staff and supervisory
Class-4: Semi-skilled and Unskilled (www.vizagport.com)

Table No: 1.7: Class wise total Employment at Visakhapatnam Port Trust

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>264</td>
<td>269</td>
<td>264</td>
<td>247</td>
<td>239</td>
<td>222</td>
<td>221</td>
<td>223</td>
<td>218</td>
<td>200</td>
</tr>
<tr>
<td>Class II</td>
<td>275</td>
<td>270</td>
<td>253</td>
<td>226</td>
<td>207</td>
<td>196</td>
<td>184</td>
<td>182</td>
<td>176</td>
<td>163</td>
</tr>
<tr>
<td>Class III</td>
<td>3948</td>
<td>3933</td>
<td>3777</td>
<td>3574</td>
<td>3505</td>
<td>3395</td>
<td>3331</td>
<td>3285</td>
<td>3219</td>
<td>3071</td>
</tr>
<tr>
<td>Class IV</td>
<td>1381</td>
<td>1364</td>
<td>1261</td>
<td>1246</td>
<td>1281</td>
<td>1284</td>
<td>1289</td>
<td>1300</td>
<td>1273</td>
<td>1239</td>
</tr>
<tr>
<td>Total</td>
<td>5868</td>
<td>5836</td>
<td>5555</td>
<td>5293</td>
<td>5232</td>
<td>5097</td>
<td>5025</td>
<td>4990</td>
<td>4886</td>
<td>4673</td>
</tr>
</tbody>
</table>

The major portion of Visakhapatnam port trust employment comes under class III followed by class IV. The portion of class I & II are very less. It has an excellent and efficient workforce. Visakhapatnam Port Trust was being developed as a landlord port as per the maritime agenda of the Indian government, according to them Rs.10, 000 cores was to be spent on many projects at VPT between 2010 and 2020.

Visakhapatnam Port Trust is the backbone of Indian Railways in terms of freight revenue and is excellently connected; it has a vast developing hinterland with steel plants and iron ore mines close by. VPT has a great advantage of being the most inexpensive port as it charges 40% less than the neighbouring ports.
1.12 Scope and Rationale of the Study

Management of human resources in any organizations is very much important from accounting point of view. Valuation of human resources, recording the valuation in accounts and fair disclosure of such information in financial statements are the demand of the stakeholders to enhance managerial performance and employees' productivity. Investment in developing human resources is not revenue expenditure. Its impact on developing the capability of employees provides benefits for a long period. There is a genuine need for reliable and complete information that can be used in improving and evaluating human resource management. HRA is actually a part of social accounting in which accountants need to apply their specialized abilities to help find solutions to our social problems. We know that accounting is a science of measurement, analysis and communication. The designing of proper accounting system for providing information to the stakeholders is also a difficult task. The information concerning human assets is more relevant to a great variety of decisions made by external and internal users. Accounting for human asset constitutes an explicit recognition of the premise that people are valuable organizational resources and an integral part of a mix of resources. This study will be helpful for the different users of accounting information for their day to day decision making. This study, therefore, will help to presents a critical assessment of the concept of HRA thereby presentation of its strengths and weaknesses. The study also presents the likely impact that reporting human resource as assets and its relationship with value added statements.

1.13 Significance or Importance of the Present Study

Financial reporting plays a vital role in the development and growth of an economy. Financial reporting has undergone significant changes, resulting in newer challenges and opportunities. Organization is considered as a socio economic entity having financial and social objectives. The focus of financial reporting is on the commercial and economic accountability of the companies, but social responsibility disclosures deal with social impacts of corporate actions. Thus investors should be provided with additional and improved information enabling them to measure the performance of companies in an improved way. Voluntary disclosures regarding Value Added, Human Resource Accounting are very much urged and welcomed in annual reports in this new approach of financial reporting. Additional corporate disclosures to incorporate new dimensions in the business and economy are also
With the above discussion it has been identified that Value-added information and Human Resource Accounting provides economic and social information by identifying the portion of output, e.g. labour, taxes, etc. that goes to each participant in the process of an organization, say its stakeholders. Thus, value-added measure and human resource values plays a crucial role for the parties who are interested in it. In the light of the above importance, the present research is designed primarily to measure human resource value and value-added contribution of the Visakhapatnam Port Trust (VPT) for a period of 10 years. The Lev and Schwartz model is used to measure the human resource value and the Serge Evraet model was used to measure value-added performance of the Port. Data considered for the period 2002-03 to 2011-2012 which is collected from different sources of the Visakhapatnam Port Trust for the analysis. Multiple regression models were applied to test the relationship between human resource value and valued-added performance of the Visakhapatnam Port Trust. Therefore, the following objectives are constructed for the present study.

The study period for the study was from 2002-03 to 2011-12, the reason for choosing this period was considered, has VPT had introduced special voluntary retirement scheme twice during this period, which is in the year 2003 for the first time and 2011 the second time. Due to the VR Scheme there was a decrease in the number of employees. Keeping this fact under consideration a ten year period was considered for the study.

The study was carried out with the following objectives which will go a long way in adopting Human Resource Accounting and strengthening the human resources accounting practices and value -added performance if possible in the organization.

1.14 Objectives of the Study

1. To understand the need and significance of Human Resource Accounting practices and Value Added performance within an organizations.

2. To examine the data relating to human resources of Visakhapatnam Port Trust and thereby calculate human resources value and Value Added performance with special references to Vishakhapatnam Port trust.

3. To Establish the relationship between human resources value and Value Added
performance with special reference to Vishakhapatnam port trust by using, ordinary least squares technique. Based on which the following hypothesis are formulated to test the relationship between Human Resource Accounting and Value Added performance

4. $H_1$: There is a positive relationship between Value Added and its influencing factors

5. $H_2$: There is positive relationship between Value Added and Total Revenue generated.

6. $H_3$: There is a statistical significant relationship between age groups of human resources and Value Added Performance

7. $H_4$: There is a statistical significant relation between designation / class of human resources value and Value Added performance

8. The study intends to benefit the organisation by identifying the relationship between human resource accounting practices and value addition to ensure optimum utilisation of human resources and increase the profitability.

1.15 Research Methodology

This research explored the relationship between human resource accounting and the valued-added contribution of the Visakhapatnam Port Trust (VPT) by analyzing the association between a relevant measure of value of human resources and various heads of valued-added contribution of the Port.

1.15.1 Sources of Data

This research is based on the 10 years financial performance of the Visakhapatnam Port Trust which is one of the major ports in India. The data taken for the analysis, from the period 2002-03 year to 2011-12 year was taken from the secondary sources of Visakhapatnam Port Trust Annual Reports.

After the collection of data, various mathematical and statistical methods are used in order to analyse and interpret the raw data. Data analysed according to the objectives of the study using descriptive and inferential statistics and are presented in the form of graphs, tables and diagrams.
Descriptive statistics and Inferential Analysis were going to use to examine characteristics of the variables.

DESCRIPTIVE STATISTICS

- Frequency distribution, percentage distribution and cross tabulation would be made by using SPSS to describe the relationship between dependent and independent variable.

INFERENTIAL STATISTICS

- Statistical tools which are used for present study is OLS (Ordinary Least Squares) is a technique for estimating the unknown.
- Multiple Regressions are used to find the relation between human resources and Value Added Performance.

1.15.2 Data analysis and interpretation procedure

For the analysis of relation between human resource value and Value Added performance, data was analyzed in a following ways:

*Step 1: Valuation of human resources:*

Many models have been created to value human resource value. Some methods are based on input measures like paid salaries and expenses incurred on training etc., and others on output measures like output and efficiency. Some are based on historical costs while some are based on future earnings.

Few methods are based on opportunity costs and few methods are based on behavioural patterns of human resources. Human Resource Accounting itself is a way of communicating to the people of an organization and their role is considered valuable that would evaluate their performance. Each model has its own limitations and no model has proved to be more valid than another, although the Lev and Schwartz model has been the most widely used model for reasons of ease of use and convenience. Lev and Schwartz model was selected for measuring the value of human resources.

*Step 2: Preparation of Value Added statements:*

For the purpose of calculating the amount of value-added, the Value-added Statement (Value Added Statement) is prepared. The main concern of this statement lies in deriving a measure
of wealth (i.e. value), the entity has contributed to the society through the collective efforts of the various stakeholders which is prepared and published voluntarily.

This study used the value-added accounting developed and adopted by Serge Evraet and Ahmed Riahi Belkaoui. They applied this model to find out value-added reporting of US firms in 1998. The present study also applied the same model in calculating value-added performance of Visakhapatnam Port Trust for a period of 10 years,

*Step 3: Analyse the relation between human resource value, age, class / designation of human resources to the firm’s Value Added performance.*

To analyse the above calculations multiple regressions were used

To analyse if there was any relation between human resource value, age, class/designation of human resources to the firm’s Value Added performance, for this purpose the variables were taken as dependent and independent. To Measure dependent variables, in the present study, net value-added was taken into consideration, keeping in mind that the net value-added is more accurate because it is this net value-added is used for distribution to the stakeholders. In the case of measuring independent variables, the following three variables, namely age, class and earnings of all employees were taken into account.

Statistical tools which are used for present study is OLS (Ordinary Least Squares) is a technique for estimating the unknown. This method minimizes the sum of squared distances between the observed responses in a set of and the fitted responses from the regression model. The computational technique provides simple expressions for the estimated parameters in an OLS analysis and hence for associated statistical values such as their parameters. G.D.Hutcheson& L. Moutinho (2008)

1.16 Need for the study

Countries which are Sovereign in population or workforce are having high labour quality and dominant in technology. Human resource is the real investment into business ventures that should only catch and stick the success waves. As a result of workforce performance, Countries like china and japan are the harbingers for technology advancements. Human Resource is a term which refers to the set of individuals who make up the workforce of an
organization or a business entity. Hence it is started treating as an important branch. The need for accounting the human resources are,

1. All expenses on human resources are to be treated as investments, since the benefits are accrued over a period of time.
2. Human resources are vital and without them financial and physical resources cannot be operationally effective.
3. The productivity and profitability of a firm largely depends on the contribution of human assets.
4. The value of human resources is not duly reported in profit and loss account and balance sheet,
5. Expenses on recruitment, training for human resources, etc., are to be treated as investments, since the benefits are accrued over a period of time.

1.17 Limitations of the Study

1. There are many factors, which influence the organizational performance like., environment, technology, government related factors etc., keeping all these factors constant is the main limitation of the study.
2. The data for the research was collected from 2002-03 to the year 2011-12 in the year 2013, the data for the later year was not available and was not considered

1.18 Organisation of the Thesis

The study is divided into six chapters. The first chapter is ‘Introduction’ where the conceptual clarity of Human Resource Accounting and Value Added has been presented. In this chapter significance of the study, objectives, research methodology is presented. A brief history of the VPT, its latest developments and current human resource practices are discussed.

Second chapter is ‘Literature Review’. In this chapter the earlier studies relating to various factors of human resource accounting and Value Added performance are reviewed and the abstracts discussed. At the end of this chapter the need for the study is presented.

The third chapter is ‘Human Resource Accounting with special reference to Visakhapatnam Port Trust’, where LEV and Schwartz model is used for valuation of human resources, where the tables derived from the data processing are presented and discussed.

The fourth chapter is ‘Preparation of Value Added Statement with special reference to Visakhapatnam Port Trust’. Where the Value Added Statements are analysed and discussed.
The relation between human resource accounting and Value Added performance with reference to Visakhapatnam Port Trust is presented and discussed in fifth chapter. In this chapter the regression analysis and correlation matrix and student t-test are used to analyse the above.

The last and the sixth chapter consist of the findings derived from the analysis of the study, Summary conclusion and the scope of future research.

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