



Do Intellectual capital influence return on assets? - Evidence from selected heavy trucks industry in India.

Padma Bhaskar

Prof., Faculty, Department of Management Studies, Christ University.

Stella Mary

Prof., Faculty, Department of Management Studies, Christ University.

ABSTRACT

Intellectual capital as the word rightly signifies relates to the concept of Intellect and capital. Capital relates to the value created by a business covering its human, structural and capital employed. It relates to the aspects that add value to a firm thereby enhancing its market value. The study was conducted with the objective of analyzing the influence of Value added Intellectual capital on Return on assets from selected heavy trucks and commercial vehicle industry in India. The study was conducted to Measure corporate financial performance and value. The analysis is conducted on the Automobile sector of India. The sample consists of 2 automobile companies of S&P BSE Auto. Data for the study was collected from the published annual reports of automobile companies listed under S&P BSE for the period 2011 to 2015. The findings of this study illustrated that the aggregate measure of intellectual capital (VAIC) has a negative effect on ROA. This suggests that focus of the company in increasing VAIC will leads to enhancing the market value. Therefore it is essential for the firm to understand the impact of the intellectual components and utilize it efficiently.

KEYWORDS : Intellectual capital, financial performance, value of a company, human capital, structural capital and capital employed efficiency indicators.

Introduction

Global business has big drivers influencing them and for the heavy truck industry there are several trends in particular which is related to climate protection, competition for resources, social change, and demographic shifts. The study has selected the automobile industry with specific reference to the heavy truck industry. The focus is on the relationship between intellectual capital and financial performance of a firm with specific reference to Return on Asset. Several studies have critically evaluated the need for value added concept for performance analysis and it is an age old history it all started in the year when Sveiby (ed. 1989) states that the difference between the stock market value of a firm and its net book value is explained by three interrelated "families" of capital; Human Capital, Organizational Capital and Customer Capital. The three categories first published in this book in Swedish have become a de facto standard. Ahonen (1998) introduced a management application of HRCA widespread in Finland. The HR profit and loss account divides personnel related costs into three classes for the human resource costs: renewal costs, development costs, and exhaustion costs. 150 listed Finnish companies prepared an HR statement in 1999. 1988 Human Resource Costing & Accounting (HRCA 2 Johansson (1996) calculates the hidden impact of HR related costs which reduce a firm's profits. Adjustments are made to the P&L. Intellectual capital is measured by calculation of the contribution of human assets held by the company divided by capitalized salary expenditures. In the year 1994 Skandia Navigator™ Edvinsson and Malone (1997) had measured

Intellectual capital through the analysis of up to 164 metric measures (91 intellectually based and 73 traditional metrics) that cover five components: (1) financial; (2) customer; (3) process; (4) renewal and development; and (5) human. In the year 1992 Balanced Score Card by Kaplan and Norton (1992) states that 'A company's performance is measured by indicators covering four major focus perspectives: (1) financial perspective; (2) customer perspective; (3) internal process perspective; and (4) learning perspective.' The indicators are based on the strategic objectives of the firm. A study by McCutcheon (2008) Developed by the Intellectual Assets Centre in Scotland as a web-based EVVICA toolkit based on the work of Patrick H. Sullivan (1995/2000). 2007 Dynamic monetary model, Milost (2007) the evaluation of employees is done with analogy from to the evaluation of tangible fixed assets.

Some of the recent research on intellectual capital. (ahangar, 2010) the article shows the impact of IC and organizational success and financial performance as a whole. For this research Value Added

Intellectual Coefficient (VAICTM) method has been used for measuring the value based performance of the company. (branch, 2013) The research paper examines the effect of the aggregate measure of intellectual capital and its components such as human capital efficiency, structural capital efficiency and capital employed efficiency on firm performance that includes market valuation, profitability, productivity from the Technology, Trading and Services, Consumer Products and Hotel sectors listed in the main board of Bursa Malaysia. (biserkakomnenic, 2011) The purpose of this paper was to investigate empirically if intellectual capital (IC) as a strategic asset has an impact on the organizational performance as well as to identify the IC components that are the traditional indicators of a business success. (phusavat, 2011) The purpose of this study is to investigate empirically the effect of intellectual capital (IC) on high IC firm financial performance with moderating role of dynamic capability (DC).

COMPONENTS OF VALUE ADDED INTELLECTUAL CAPITAL

Components of intellectual capital consist of human capital, structural capital and capital employed. Human capital is defined as the knowledge, skills, experience, intuition and attitudes of the workforce. Intellectual capital can be increased by increasing the capacity of each worker. Human capital is the knowledge, skill and capability of individual employees providing solutions to customers. The topic of Human capital is widely researched upon and there are a few elements which constitute this capital. Regarding structural capital, there are many aspects which covers models, patents and concepts. They are evolved by the human resource of the organization or generally taken from other knowledge resources. Based on this it is very significant for top management to take decisions as it is either created within or acquired from external sources..

Return on Assets Methods (ROA).

The return of a corporate entity is calculated through various financial measures and one such measure is the return calculated on the basis of the assets invested in the company. The percentage of profit of a company in relation to its overall resources is calculated in terms of ROA.

Heavy truck automobile company and IC.

The BSE Auto index which has around 15 automobile companies falling under its umbrella has been selected for the study, out of which 2 major companies Ashok Leyland and Eicher motors has been identified for the study which caters to the heavy truck industry. The selected companies have got good ranking and strong

fundamentals. The value of the stock of both the company is accentuating over the years and hence selected for the study.

1.1. TABLE SHOWING RETURN ON ASSETS OF ASHOK LEYLAND (amt in crores)

YEAR	NET INCOME	TOTAL ASSETS	ROA= TA/NI
2015	334.81	6688.21	19.97
2014	293.38	7157.87	24.40
2013	433.71	6663.27	15.36
2012	565.98	5289.92	9.35
2011	631.30	5004.82	7.93

The above table indicates that ROA is 7.935 in the year 2011 and it has increased to 19.97% in the year 2015. But however in the year 2014 there has been an increase of ROA to 24.40%.

1.2. TABLE SHOWING VALUE ADDED INTELLECTUAL CO EFFICIENT OF ASHOKLEYLAND

YEAR	ICE	CEE	VAIC=ICE+CEE
2015	0.61	67.62	68.23
2014	1.28	47.96	49.24
2013	1.14	97.64	98.78
2012	1.12	100.0	101.12
2011	1.17	52.52	53.69

With respect to the efficiency indicators of Ashok Leyland it shows that HCE is 1.09 in the year 2011 and it has decreased to 0.82 in the year 2015. But SCE is showing 0.082 in the year 2011 and it is decreased to 0.21 in the year 2015. The CEE and VAIC shows a gradual increase from 2011 to 2015.

1.3. TABLE SHOWING CORRELATION OF VAIC AND ROA OF ASHOKLEYLAND

	VAIC	ROA
VAIC	1	
ROA	-0.38385	1

From the above statistics it can be inferred that there is negative correlation between the return on assets and intellectual components that is human capital, structural capital and capital employed.

1.4. TABLE SHOWING REGRESSION ANALYSIS OF ROA OF ASHOK LEYLAND

	MULTIPLE R	R SQUARE	ADJUSTED R SQUARE	STANDARD ERROR
ROA	0.383853	0.1473	-0.1368	26.16

From the above statistics it can be inferred that the regression model constructed is not a good fit since the R square value is 14% only. This defines that the any changes in the independent variable do not explain the changes in the dependent variable return on assets.

2.1. TABLE SHOWING RETURN ON ASSETS OF EICHER MOTORS (amt in crores)

YEAR	NET INCOME	TOTAL ASSETS	ROA= TA/NI
2015	558.92	1233.66	2.20
2014	278.62	825.34	2.96
2013	144.76	649.06	4.48
2012	124.55	554.29	4.45
2011	75.44	474.14	6.28

The above table indicates that ROA was 6.28 in the year 2011 and it has decreased to 2.20 in the year 2015.

2.2. TABLE SHOWING VALUE ADDED INTELLECTUAL CO EFFICIENT OF EICHER MOTORS

YEAR	VAIC=ICE+CEE
2015	-12.41

2014	5.17
2013	5.44
2012	-11.82
2011	-9.28

With respect to the efficiency indicators it shows that HCE is -8.99 in the year 2011 and it has decreased to -9.98 in the year 2015. But SCE remains same. The CEE and VAIC shows a decrease from 2011 to 2015.

2.3 TABLE SHOWING CORRELATION OF EICHER MOTORS

	VAIC	ROA
VAIC	1	
ROA	-0.09087	1

2.3. TABLE SHOWING REGRESSION ANALYSIS OF EICHER MOTORS

	MULTIPLE R	R SQUARE	ADJUSTED R SQUARE	STANDARD ERROR
ROA	0.090865	0.008256	-0.32232	10.46493

From the above statistics it can be inferred that the regression model constructed is not a good fit since the R square value is 32%. This defines that the any changes in the independent variable explains the changes in the dependent variable return on assets only by 32%.

Suggestion & Conclusion.

The use of value added measures enable firms to budget accurately and effectively. It helps in anticipating necessary cash flow needs and gives immediate solutions when the estimated tax payments are made. High value indicates the credibility with third parties which rely upon their financial information. It also helps the firm's personnel to be informed and able to speak intelligently as it relates to business finances. With reference to the top level management the value additive enables them to take decisions when face with critical choices. Many studies confirm that Intellectual capital has a direct effect on the value of the firm as referred by the study stating that ROA has a significant effect on the value of the firm, thereby this study also recommends the need to address the concept of intellectual capital in an intense manner as it serves to be one of the most important efficiency indicator influencing the financial performance of a company specifically with reference to the heavy truck industry. However, the results vary across sectors such as Information technology, banking, pharmaceutical and financial services etc., but the study conducted in the automobile sector showing a negative figure explains the fact that companies needs to improve upon investing more on intellectual capital.

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