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Impact of Human Capital Investment on Firm Financial Performances: An Empirical Study of Companies in Sri Lanka

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Abstract. This study was carried out by the researcher with the objective of investigating the impact of investment in human capital on financial performances of the companies in Sri Lanka. In order to achieve the objective of the study, financial information in financial statements of listed companies under Colombo Stock Exchange for the period of 2 years from 2009 to 2010 was used. Sample of the study was selected as 40 companies listed under Colombo Stock Exchange. Data analysis was carried out with aid of SPSS (Statistical Package of Social Sciences). Findings revealed that there is a significant relationship between investment in human capital and firm financial performances (0.021).

Keywords: Human Capital, Human Capital Investment, Financial Performance, Listed Companies

1. Introduction

A significant movement from traditional "product based organization" to "knowledge intensive organisation" is apparent in the 21st century. With this transition, organizations tend to interpret certain traditions, practices and concepts in different ways. Traditional product based organizations define their "capital" as cash, goods, properties, net worth of the company or other valuables. Instead, knowledge intensive organizations interpret their capital as "intangibles" or "intellectual capital" (Hendricks, 1976). Some prior studies have recognized intangibles and intellectual capital as two concepts. But, they are represent the same object but in different disciplines such as "Intangibles" in accounting and "Intellectual capital" in management (Marr & Moustaghfir, 2005). Regardless of different discipline, all these concepts represent the "hidden value" of the company.

Intellectual capital has defined as "Knowledge, experiences, expertise and associated soft assets rather than their hard physical and financial capital (Klein (1998) as cited in Kym & Moon, 2006, p. 253). It involves three components: Customer Capital (Selvarajan et al.), Structural Capital (SC) and Human Capital (HC) (Kym & Moon, 2006; Schnieders, Vergauwen, & Bollen, 2005). Human capital represents the combined intelligence, skills, experience, education and expertise of organizational employees (Bontis & Fitz-Enz, 2002) . Human capital represents a high value corporate asset and, out of three components, human capital is accepted as a prime in intellectual capital framework. The concept of human capital was fully developed in the 1960s with the emergence of human capital theory formalized by Schultz (1961) and Becker (1962, 1964) (Hendricks, 1976) . The term "human capital" has been identified as a key element in improving a firm assets and employees in order to increase productive as well as sustain competitive advantage which will leads to enhance higher financial performance (Schultz, 1993). This definition expresses the importance of human capital on financial performances of company. Therefore, discussion on impact of investment in human capital on financial performance is not easily ignorable.

2. Purpose of the research

The purpose of this study is to examine the impact of investment in human capital on firm's financial performances of listed companies in Sri Lanka. Within the frame work of this study, the researcher will examine the relationship between ratios relate to financial performances and investment in human capital of companies. In this setting, this research aims to

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A1. Examine the current level of investment in human capital in companies in Sri Lanka

A2. Examine the relationship between investment in human capital and the firm financial performances of companies in Sri Lanka.

Accordingly, this research will answer for two research questions.

RQ1. What is the current level of investment in human capital in companies in Sri Lanka?

RQ2. Does investment in human capital influence on firm financial performances of companies in Sri Lanka?

3. Contribution

Numbers of research have published in the area of human capital and its impact on financial performances. But, a discussion on impact of human capital practices on firm financial performances in Sri Lanka is deficient. Therefore, this research filled that gap in knowledge.

Traditional thinking pattern of the investors was to analyze the financial statement which is included in the annual report of the company before they make strategic decisions. Findings of the study give an insight as to what extent investment in human capital effect on firm performances. This gives an opportunity build a different aspects of analyzing investment opportunities.

Currently, Sri Lankan Government focusing on changing its focus in to the concept of knowledge economy than traditional product based oriented economy. The findings will highlight the current level of human capital investment by Sri Lankan companies and it gives an insight as to how far companies contribute to the transition to new economy.

4. Method

4.1. Conceptual Model

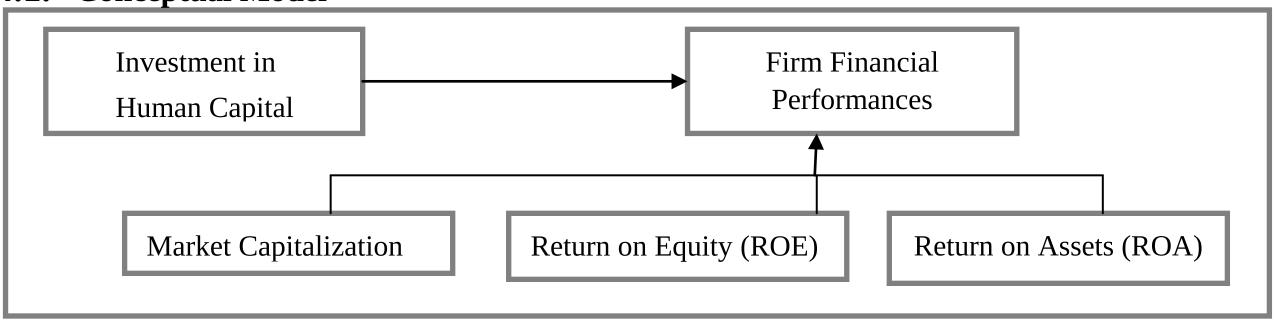

Fig. 4. 1 : Conceptual Framework

4.2. Measurement of the Variables

The measurement of the dependent variable (firm financial performances) and independent variable (investment in human capital) is detailed below.

Firm financial performances: Return on assets (ROA), Return on Equity (ROE), Revenue Growth (RG), and Employee Productivity were used as proxies for firm financial performance by previous studies. (Firer & Williams, 2003; Chen et al., 2005; Shiu, 2006a, 2006b; Chan, 2009a, 2009b; Ting & Lean, 2009 as cited in Clarke et al., 2010, p. 11). Further, Value Added Intellectual Coefficient (VAIC) was used as a measurement of human capital of the firms by Murale, Jayaraj & Ali (2010). Here, VAIC includes human capital efficiency and it measured through Return on Capital Employed (ROCE), Return on Assets (ROA) , Earning per Share (EPS) and Market Value to Book Value (MB). Concurrently, ROA, Market Capitalization (MC) and Operating Cash (OCASH) also were used for market valuation (Wang, 2010). Accordingly, this study operationalizes the firm financial performances as Return on Assets, Return on Equity and Market Capitalization. These three variables were defined as:

Return on Assets (ROA) = Profit Before Tax / Average Total Assets

Return on Equity (ROE) = Profit Before Tax / Average Common Stock

Market Capitalization (MC) = Share price times number of outstanding common shares

Investment in human capital

Investment incurred on training and development, skills, education, and knowledge were considered as proxy variables for investment in human capital by prior studies (Marimuthu et al., 2009; Ukenna, Ijeoma, Anionwu, & Olise, 2010). This study also used the above variables to measure investment in human capital.

4.3. Hypotheses

This research includes testing of two hypotheses.

H1: Investment in human capital influence on firm return on assets, return on equity and market capitalization in Listed Companies in Sri Lanka

H2: Companies in Sri Lanka invest in human capital rather than paying salary

4.4. Sample of the Study and Data Collection

The population of this study is listed companies in Sri Lanka. Currently, there are 284 companies representing 20 business sectors. This study selected two companies from each sector and finally the sample counted as 40 companies. For the selection of companies, this research used random sampling.

5. Findings of the Study

H1: Investment in human capital influence on firm return on assets, return on equity and market capitalization in Listed Companies in Sri Lanka

5.1. Correlation of Data

Table 5. 1 : Correlation between variables

	AROA	AROE	ATMC	AIHC
AROA	1			
AROE	.628**	1		
ATMC	.428*	.515*	1	
AIHC	.718**	.891**	.316*	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

As shown in the Table 5. 1 above, all the variables: return on assets, return on equity, market capitalization and investment in human capital positively correlate with each other. Out of these relationships, there is strong positive correlation between two variables: return on equity and investment in human capital (.891). Following the similar pattern, the relationship between return on asset and investment in human capital indicate a positive correlation of .718.

5.2. Regression Analysis

Table 5.2: Regression analysis

Hypotheses	R	R^2	Adjusted R^2	Standard error of the estimate	F Value	Significance
IHC & ROA	.419	.176	.152	.497	7.472	.010
IHC & ROE	.628	.394	. 377	. 42621	22.760	.000
IHC & TMC	.357	.127	. 103	. 68533	5.115	.044
IHC & FP	.274	.075	.049	.70552	2.851	.021

According to theTable 5. 2 above, 7.6%, 39.4% and 12.7% of the variation in investment in human capital was explained by associate variable of ROA, ROE and MC respectively. At the same time only a small margin of errors, e = .497, .426 and .685 are involved in the regression lines. Further, *F*-test revealed a relative magnitude of the regression (explained by the regression) and the residual (unexplained by the regression), 7.472, 22.76 and 5.115. Table 5. 2 above reveals that there is a significance relationship between (1) IHC & ROA (.010), (2) IHC & ROE (.000), (3) IHC & TMC (0.044) and, (4) IHC & FP (0.021).

Accordingly, it can conclude that investment in human capital significantly influences on financial performance of companies in Sri Lanka.

5.3. Examination of Current Level of Investment in HC

H2: Companies in Sri Lanka invest in human capital rather than paying salary

As per data analysis, all the companies in sample disclose similar components in relate to investment in human capital as (1) salaries and wages, (2) contribution to gratuity and (3) contribution to employee provident fund and employee trust fund. Total average expenses incurred in 2010 and 2011 for staff cost (excluding contribution to gratuity, EPF & ETF) were 308 million and 421 million respectively. It is only a 5.23% of total assets of the company. The problem is whether this staff cost include all the items relevant to enhance human skills, education, expertise and knowledge other than salaries and wages. But, there is no sufficient information can be drawn from financial statements on this regard.

6. Discussion

This study was carried out to answer the questions of '"Does investment in human capital influence on firm financial performances of companies in Sri Lanka? and What is the current level of investment in human capital in companies in Sri Lanka? This study considered one underline independent variable i.e. investment in human capital and a dependent variable i.e. firm financial performance.

According to the hypotheses tested, there is significant relationship among the investment in human capital and firm performance at a significant level of 0.05 (sig. 0.021). Therefore, findings of the study revealed that investment in human capital influences the performance of the companies in Sri Lanka. These findings go in line with the findings of the Clarke M., et al in 2010 and Segal G., et al in 2009.

Clarke (2010), investigated a direct relationship between HC and firm performance. The findings supported the relationship and suggested that human capital efficiency is a particularly important element of IC. Therefore, firms do benefit from investing in their employees' skills and knowledge. Further, the study suggested that HC has strongest influence over firm financial performance.

According to the study done by Segal, et al(2009), investment in human capital was positively effect on firm financial performance. As per the findings, both education and industry managerial experience were needed to enhance firm financial performance and would be more likely to arise from years of managerial experience in the same industry than from level of education.

In relation second research question of "what is the current level of investment in human capital in companies in Sri Lanka, findings suggested that the investment on human capital represent only a few percentage on companies total assets. The importance given to the investment of HC by companies is not considerable and at the same time reporting of investment in HC also not sufficient. In terms of Sri Lanka, accounting framework still not address the issues of HC. But, Sri Lanka Accounting Standards does not prevents disclosing HC information in the financial statements of companies. Data analysis of the study revealed that how far companies in Sri Lanka disclose investment in human capital in their annual reports.

As per the literature, HC represent skills, knowledge, education, experience and expertise of organizational employees (as cited in N. Bontis & J. Fitz-enz, 2002, p. 225). Hence, Investment in HC should include all the expenses incurred on enhancing knowledge, education, expertise and skills of employees. This may involve salaries and wages, training and development, payments for conventions and conferences, dues and subscriptions etc.

No further explanation has been found on other expenses of training and development, subscriptions etc. through financial statements. This does not mean that companies not incurring expenses on enhancing the skills, expertise, knowledge and education of organizational employees rather than paying salary and wages. It can assume that all these expenses may include in "staff cost". Finally it can conclude that it is not possible to exemplify the composition of investment in Human capital by only looking at annual reports of companies.

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