

# Human Resource Accounting and its Impact on Organisational Performance

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## Abstract

Human capital is getting wider attention with increasing globalization and also the saturation of the job market due to the recent downturn in the various economies of the world. Developed and developing countries put emphases on a more human capital development towards accelerating the economic growth by devoting necessary time and efforts. In attempt to investigate the linkage between human resource accounting and organizational performance in Nigeria. This study made use of cross-sectional data drawn from the Nigerian Stock Exchange fact book (2009). The regression result revealed that human capital and intangible asset had a positive and insignificant impact on organizational performance. However, the paper recommends that other possible variables that might contribute to human resource accounting and organizational performance be included in further empirical studies.

**Keywords:** Human capital, Intangible asset, Organizational performance and workforce.

## 1.1 INTRODUCTION

Human capital has long been recognized as a vital asset and value creator to companies. More recently, Swart (2006) refers to “core competence, knowledge creation and innovation creating value over and above physical and financial resources”. To develop a competitive advantage, it is important that firms truly leverage on the workforce as a competitive weapon. A strategy for improving workforce productivity to drive higher value for the firms has become an important focus. Firms seek to optimize their workforce through comprehensive human capital development programmes not only to achieve business goals but most important is for a long term survival and sustainability. To accomplish this undertaking, firms will need to invest resources to ensure that employees have the knowledge, skills, and competencies they need to work effectively in a rapidly changing and complex environment.

In the current business environment, human capital is regarded as a key source of competitive advantage. With the knowledge agenda, companies view their employees as an important resource and invest heavily in them. But the value of human resources, or human capital, may not be adequately reported to stakeholders partly due to strict recognition criteria for intangible assets that do not allow human resources to be shown as an asset in the balance sheet (Tayles, Pike & Sofian, 2007). Nevertheless, information on human capital and its development is important to financial analysts and fund managers, who need to assess the future direction, potential and values of companies. Ishikawa and Ryan (2002) suggest that it is the stock of human capital that predominantly determines the earnings of individuals. In the opinion of Mayo (2001), the essential difference between HCM and Human Resource Management (HRM) is that the former treats people as assets while the latter treats people as costs.

## 1.2 PROBLEM STATEMENT

Rapid technological change, increasingly sophisticated customers and the importance of innovation has shifted the bases of competition for many business away from traditional physical and financial resources (Cuganesan, 2006). The challenge is to ensure that firms have capability to find, assimilate, compensate and retain human capital in the shape of talented individuals they need who can drive a global organization that is both responsive to its customers and ‘the burgeoning opportunities of technology (Armstrong, 2006)’. In response to the changes, most firms have embraced the notion of human capital has a good competitive advantage that will enhance higher performance. Human capital development becomes a part of an overall effort to achieve cost-effective and firm performance. Hence, firms need to understand human capital that would enhance employee satisfaction and improve performance. In today’s dynamic business environment, firms invest heavily in human immediately expensed in the financial statement or arbitrarily amortized and therefore are not fully reflected in the balance sheet. Consequently, the book values of firms with significant amounts of human capital investments are unrelated to the market values (Lev, 2001; Holland, 2003).

Although there is a broad assumption that human capital has positive effects on firms’ performance, the notion of performance for human capital remains largely untested. Hence, this paper attempts to look into the connection between human capital and firm’s performance in the emerging countries like Nigeria developmental economics. Therefore, the following research question is used to guide our investigation:

- (i) To what extent does human capital create impact on organizational performance?
- (ii) To what extent does intangible asset affect organizational performance?

### **1.3 RESEARCH HYPOTHESES**

In line with the research problems and objectives, the following hypotheses are formulated to be tested:

HO1: There is no significant relationship between human capital and organizational performance.

HO2: There is no significant relationship between intangible assets and organizational performance.

## **LITERATURE REVIEW**

### **2.1 CONCEPT OF ORGANIZATIONAL PERFORMANCE**

Intellectual capital resources (including human capital) are increasingly important factors on the successful achievement of organizational objectives (Guthrie & Petty, 2000). For stakeholders to fully understand an organization and the effectiveness of its managers, it is therefore important that corporate reports adequately reflect all resources used and developed to further the organization's achievement. According to Divenney, Richard, Yip and Johnson (2008) firm performance encompasses these specific areas of firms outcomes: (a) financial (profits, return on assets, return on investments); (b) market performance (sales, market share); and (c) shareholder return (total shareholder return, economic value added) Academically, firm performance is the ultimate dependent variable of interest for those concerned with just about any area of management: accounting is concerned with measuring performance; marketing with customer satisfaction and market share; operations management with productivity and cost of operations, organizational behaviour with employee satisfaction and structural efficiency; and finance with capital market response to all the above, management journal, the academy of management journal and administrative science quarterly included some measures of firm performance. Performance is so common in organizational research that it is rarely explicitly considered or justified; instead it is treated as a seemingly unquestionable assumption (Devinney et al., 2008). The multidimensionality of performance covers the many ways in which organizations can be successful; domain of which is arguably as large as the many ways in which organizations operate and interact with their environment.

### **2.2 HUMAN CAPITAL AND ORGANIZATIONAL PERFORMANCE**

It has been recognized that human capital is not only individualistic but that some skills and knowledge are formed in an organizational context and embodied only in a team of employees (Chillemi & Gui, 2001). Two kinds of human capital can be discerned in any organization – generic and firm-specific human capital. The former refers to an explicit form of knowledge, developed outside the firm and paid for by individuals, and is highly transferable (mobile). Swart (2006) found that the most frequently used measures for generic human capital include: level of formal education, years of work experience and level and number of years of managerial experience. Firm-specific human capital refers to the knowledge and skills unique to a firm that cannot be easily transferred to other companies. The cost of its development is incurred by the firm as part of a strategy to retain key knowledge workers by setting mobility barriers (Swart, Kinney & Purcell, 2003). Measures for firm-specific human capital include: length of firms' experience, number of unique projects, team-based solutions, and unique operating procedures (Swart, 2006). Besides nurturing the generic human capital, firms must also pay attention to firm-specific human capital to gain competitive advantage and to recruit and retain core value creators. Since relevant human capital information is an important ingredient in decision makers' assessment of the future potential of companies, it is in the interest of companies to supply more of such information to increase their market value. Human Resources to generate future revenues, and therefore human resource should be considered when valuing a company by capitalizing instead of expensing them in the current period. Human resources is largely seen as an integral part of the firm's value – creating processes (Guthrie et al 2000, Holland, 2003) as well as creating and maintaining competitive advantage (Holland, 2006). In today's dynamic business environment, firms invest heavily in human capital assets. The problem however, is that these investments are either immediately expensed in the financial statement or arbitrarily amortized and therefore are not fully reflected in the balance sheet. Consequently, the book values of firms with significant amounts of human capital investments are unrelated to the market values (Lev, 2001; Holland, 2003).

### **2.3 INTANGIBLE ASSETS AND ORGANIZATIONAL PERFORMANCE**

Intangible assets consist of the stock of immaterial resources that enters the production process and are necessary to the creation and sale of new or improved products and processes. They include both internally produced assets – e.g. designs, blueprints, brand equity, in-house software, and construction projects – and assets acquired through external market – e.g. technology licenses, patents and copyrights, and the economic competences acquired through purchases of management and consulting services (Corrado, Sichel & Huiten, 2006). In addition to the quantitative dimension of intangible assets, various works have also stressed link between intangible assets and firm performance. Marrocu, Paci and Pontis (2009), and O'Mahony and Vecchi (2009), for example, find a positive contribution of intangible assets to both firm and industry productivity. Hall et al. (2005) show intangible assets to significantly contribute to company values in financial market. Delgado-Gómez and Ramírez-Alesón (2004) provide evidence for a positive relationship between firms' intangible assets and internationalization.

Prior research points to the importance of intangible assets on firm value (see for example, Aaker 2001; Chan, Lakonishok & Sougiannis 2001) It is natural to expect that firms with greater intangible assets operate more efficiently *ceteris paribus* and thus have better operating performance. Little is known however about the effect of intangible assets specifically on insurers. Insurer intangible assets (or franchise value) would include brand name, personnel, renewable business, and expertise in claim service and underwriting. Given the importance of brand loyalty and word-of mouth reputational effects for a financial security product like insurance we would expect that insurers with greater franchise value would have a competitive edge. The purpose of the paper is to provide the first systematic examination of the effect of intangible assets on insurer operating and stock performance. In addition we introduce new measures of insurer intangible assets based on publicly-available ratings and employ a large data set across a 20 year period to measure intangible asset effects on insurer value. Despite the importance of intangible assets on firm value these assets are rarely recognized in financial statements. Lev and Zarowin (1999) and others argue that quantifying intangibles is where the current accounting system fails most seriously in reflecting enterprise value and performance.

## 2.4 EMPIRICAL STUDIES

Seleim, Ashour, and Bontis (2007) analysed on the relationship between human capital and organizational performance of software companies. They found that the human capital indicators had a positive association on organizational performances. These indicators such as training attended and team-work practices, tended to result in superstar performers where more productivity could be translated to organizational performances. This was also supported by Dooley (2000) who found a significant positive correlation between the quality of developers and volume of market shares. Based on the above arguments we can conclude that human capital indicators enhanced the firm performance directly or indirectly.

A study by Bontis and Fitzenz (2002) found that the consequences of human capital management and they established the relationship between human capital management and economic and business outcomes. In this study, a total of 25 firms in the financial services companies were selected. The study measured human capital effectiveness with four metrics; revenue factor, expense factor, income factor and human capital on return on investment. The fundamental aspects of any organization are to generate more revenue and income per employee. Human capital has a direct impact on the intellectual capital assets that will yield higher financial results per employee. The development of human capital is positively influenced by the educational level of employees and their overall satisfaction. Therefore, development human capital has a direct impact on ROI of firms. Chan, Lakonishok and Sougiannis (2001) find that the research and development expenditures (i.e., a measure of intangible assets for industrial firms) positively predict future stock performance.

## 3. METHODOLOGY

This study investigates human resource accounting and its impact on organizational performance among listed companies in Nigeria. A cross-sectional data has been selected for this study. A sample of thirty (30) companies listed in the Nigeria stock exchange for the period 2009 has been selected with the aid of simple random sampling technique. The data for the selected companies will be sourced from the Nigeria Stock Exchange Fact books and annual reports of the sampled companies.

### MODEL SPECIFICATION

In light of the above methodology and theoretical framework employed to capture human resource accounting and its impact on organizational performance. A causal model using a set of cross-sectional data developed by Selvarajan (2007) was adapted for the model. The functional form of the model is;

$$ROE = f(HUCAP, INTASSET,)$$

The multiple regressions with an error term are stated below;

$$ROE = \alpha + \beta_1 HUCAP + \beta_2 INTASSET + \mu$$

### OPERATIONALIZATION OF VARIABLES

$\beta_1 - \beta_2$  = Coefficients of explanatory variables

$\mu$  = Error term over cross-section and time

#### Dependent variable

ROE = Organizational Performance: In this study, we will use Return on capital employed to proxy organizational performance.

#### Independent variables

HUCAP = Human capital proxy by total number of employees

INTASSET = Intangible asset proxy by the total value of intangible asset reported in the balance sheet.

The cross-sectional data collected for the study will be analyzed by using multiple regression techniques to capture human resource accounting and its impact on organizational performance.

## DISCUSSION OF RESULTS

To examine the relationship between the dependent variable and independent variables and to test our formulated hypotheses one (1), we used cross-sectional data. The regression result obtained is presented in table 1.

Table 1 OLS REGRESSION RESULTS

DEPENDENT VARIABLE	INDEPENDENT VARIABLE	COEFFICIENT	T-TEST	PROB VALUE
	CONSTANT	0.238245	0.318434	0.7525
ROE	HUCAP	4.99E-05	0.203224	0.8404

$R^2 = 0.001474$ , F-Statistic = 0.041300  
 DW = 1.878096 Prob( f-statistic) = 0.840429

From table 1 above, it would be observed from the coefficient of determination ( $R^2 = 0.001474$ ) that about 1% of the systematic in firm performance across the sampled firms are jointly explained by the independent variable. This means that the model is not good fit since almost 99% of systematic variation in sampled firms over the periods is not explained. The F- statistic value of 0.041300 and its associated p-value 0.84029 show that the model on overall is not statistically significant. This means that the coefficient of the independent variable is not statistically different from zero.

Following the empirical findings, it would be observed that human capital (HUCAP) has a positive and insignificant on organizational performance. The insignificant impact of human capital is because the variable failed the t-test at more than 10% level of significance. The Durbin Watson value of 1.878096 revealed the absence of serial correlation in the result but it is irrelevant due to the nature of the data employed. The low value of the R-squared implies that the null hypothesis is accepted that, there is no significant relationship between human capital and organizational performance and reject the alternative hypothesis.

To test hypothesis two (2) , we used cross-sectional data . The regression result obtained is presented in table 2 .

Table 2 OLS REGRESSION RESULTS

DEPENDENT VARIABLE	INDEPENDENT VARIABLE	COEFFICIENT	T-TEST	PROB VALUE
	CONSTANT	0.285033	0.425738	0.6736
ROE	INTASSET	2.82E-05	0.155260	0.8777

$R^2 = 0.000860$ , F-Statistic = 0.024106  
 DW = 1.832918 Prob( f-statistic) = 0.877730

From the empirical findings, it would be observed from the coefficient of determination ( $R^2 = 0.000860$ ) that about 1% of the systematic in firm performance across the sampled firms are jointly explained by the independent variable. This means that the model is not good fit since almost 99% of systematic variation in sampled firms over the periods is not explained. The F- statistic value of 0.024106 and its associated p-value 0.877730 show that the model on overall is not statistically significant. This means that the coefficient of the independent variable is not statistically different from zero.

Following the empirical findings, it would be observed that intangible asset (INTASSET) has a positive and insignificant on organizational performance (ROE). The insignificant impact of human capital is because the variable failed the t-test at more than 10% level of significance. The Durbin Watson value of 1.832918 revealed the absence of serial correlation in the result but it is irrelevant due to the nature of the data employed. The low value of the R-squared implies that the null hypothesis is accepted that, there is no significant relationship between intangible asset and organizational performance and reject the alternative hypothesis.

## CONCLUSION AND RECOMMENDATIONS

Human capital is getting wider attention with increasing globalization and also the saturation of the job market due to the recent downturn in the various economies of the world. Developed and developing countries put emphases on a more human capital development towards accelerating the economic growth by devoting necessary time and efforts. Thus human capital development is one of the fundamental solutions to enter the international arena. Specifically, organizations must invest necessary resources in developing human capital which tend to have a great impact on organizational performance.

The conceptualization of human capitals is closely linked to some fundamentals of economics and firm performance. The literature reviews show that there are reasonably strong evidences to show that the infusion of 'human capital enhancement' in organizations promotes innovativeness and greater organizational performance. Studies also clearly substantiate the fact that human capital and intangible asset had a positive and insignificant

impact on organizational performance. In light of this, the understanding of organizational performance in relation to human capitals should not be regarded as a phenomenon that only adds ‘more zeros’ in a firm’s profits; it is rather transforming the entire workforce as the most ‘valuable assets’ in order for the organization to pave ways for greater performance but also it ensures firms to remain competitive for their long term survival. The study recommends that other possible variables that might contribute to human resource accounting and organizational performance be included in further empirical study.

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APPENDIX

Dependent Variable: ROE  
 Method: Least Squares  
 Date: 06/30/13 Time: 15:21  
 Sample: 1 30  
 Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.285033	0.669503	0.425738	0.6736
INTASSET	2.82E-05	0.000182	0.155260	0.8777
R-squared	0.000860	Mean dependent var		0.320633
Adjusted R-squared	-0.034823	S.D. dependent var		3.386787
S.E. of regression	3.445252	Akaike info criterion		5.376212
Sum squared resid	332.3533	Schwarz criterion		5.469625
Log likelihood	-78.64317	Hannan-Quinn criter.		5.406095
F-statistic	0.024106	Durbin-Watson stat		1.832918
Prob(F-statistic)	0.877730			

Dependent Variable: ROE  
 Method: Least Squares  
 Date: 06/30/13 Time: 15:24  
 Sample: 1 30  
 Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.238245	0.748177	0.318434	0.7525
HUCAP	4.99E-05	0.000246	0.203224	0.8404
R-squared	0.001473	Mean dependent var		0.320633
Adjusted R-squared	-0.034189	S.D. dependent var		3.386787
S.E. of regression	3.444195	Akaike info criterion		5.375598
Sum squared resid	332.1495	Schwarz criterion		5.469011
Log likelihood	-78.63397	Hannan-Quinn criter.		5.405482
F-statistic	0.041300	Durbin-Watson stat		1.878096
Prob(F-statistic)	0.840429			

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