HUMAN CAPITAL DEVELOPMENT AND ITS IMPACT ON FIRM PERFORMANCE: EVIDENCE FROM DEVELOPMENTAL ECONOMICS

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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. Thus human capital development is one of the fundamental solutions to enter the international arena. Specifically, firms must invest necessary resources in developing human capital which tend to have a great impact on performance. This paper examines the extent to which human capitals have direct impacts on firm performance from various critical perspectives. Firm performance is viewed in terms of financial and non-financial performance. Finally, this paper develops a model that explains the relationship between human capital and firm performance.

Key Words: Human capital, firm performance and workforce.

Introduction

In current global market, companies are composed by competitors, regardless of industry. 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 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. 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 developmental economics. Therefore, the following research question is used to guide our investigation: To what extent does human capital create impact on firm performance?

While much of the argument in the literature in terms of factors contributing to performance, this paper looks at one of the factors i.e. human capital. Firm performance is a common issue in any organizations

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in Malaysia especially in the new era of globalization, where competitiveness and innovativeness are norms that go with performance.

This literature-based paper begins by defining the concepts of human capital and firm performance. It then explores the human capital theory and connection between human capital and firm performance. In the final section we develop the model and conclude the significance of the human capital as a pillar in future analysis of firm performance.

Definition of Human Capital and Firm Performance

What is human capital? According Schultz (1993), the term “human capital” has been defined as a key element in improving a firm assets and employees in order to increase productive as well as sustain competitive advantage. To sustain competitiveness in the organization human capital becomes an instrument used to increase productivity. Human capitals refer to processes that relate to training, education and other professional initiatives in order to increase the levels of knowledge, skills, abilities, values, and social assets of an employee which will lead to the employee’s satisfaction and performance, and eventually on a firm performance. Rastogi (2000) stated that human capital is an important input for organizations especially for employees’ continuous improvement mainly on knowledge, skills, and abilities. Thus, the definition of human capital is referred to as “the knowledge, skills, competencies, and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being” (Organization for Economic Co-Operation and Development or OECD, 2001: 18).

The constantly changing business environment requires firms to strive for superior competitive advantages via dynamic business plans which incorporate creativity and innovativeness. This is essentially important for their long term sustainability. Undoubtedly, human resource input plays a significant role in enhancing firms’ competitiveness (Barney, 1995). At a glance, substantial studies were carried out on human capital and their implications on firm performance were widely covered and obviously, human capital enhancement will result in greater competitiveness and performance (Agarwala, 2003; Guthrie et al., 2002). Meantime, there is a significant relationship between innovativeness and firm performance under the human capital philosophy (Lumpkin & Dess, 2005).

In relation to this, the definition of firm performance could vary from one and another. Nonetheless, some clear definitions of firm performance in the context of human capital enhancement could be put forward. In some cases, financial performance measures such as percentage of sales resulting from new products, profitability, capital employed and return on assets (ROA) (Selvarajan et al., 2007; Hsu et al., 2007). Besides, return on investment (ROI), earnings per share (EPS) and net income after tax (NIAT) can also be used as measures of financial performance (Grossman, 2000). Interestingly, researchers also tend to benchmark managerial accounting indicators against the financial measures in six dimension; ‘workers compensation’ (workers’ compensation expenses divided by sales); ‘quality’ (number of errors in production); ‘shrinkage’ (e.g. inventory loss, defects, sales return); ‘productivity’ (payroll expenses divided by output); ‘operating expenses’ (total operating expenses divided by sales) (Wright et al., 2005). On the other hand, firm performance can also be measured using ‘perceived performance approach’ (also referred to as subjective performance measure) where Likert-like scaling is used to measure firm performance from the top management perspectives (Selvarajan, 2007).

Human Capital Theory

The theory of human capital is rooted from the field of macroeconomic development theory (Schultz, 1993). Becker’s (1993) classic book, *Human Capital: A Theoretical and Empirical Analysis* with special reference to education, illustrates this domain. Becker argues that there are different kinds of capitals that include schooling, a computer training course, expenditures on medical care. And in fact, lectures on the virtues of punctuality and honesty are capital too. In the true sense, they improve health, raise earnings, or add to a person’s appreciation of literature over a lifetime. Consequently, it is fully in keeping with the capital concept as traditionally defined to say that expenditures on education, training, and medical care, etc., are investment in capital. These are not simply costs but investment with valuable returns that can be calculated.

From the perspective of Classical Economic Theory, human capital considers labour as a commodity that can be traded in terms of purchase and sale. This classical theory very much focuses on the exploitation of labour by capital. However, unlike the meaning traditionally associated with the term labour, human capital refers to the knowledge, expertise, and skill one accumulates through education and training. Emphasizing the social and economic importance of human capital theory, Becker (1993) noted the most valuable of all capital is that investment in human being. Becker distinguishes firm-specific human capitals from general-purpose human capital. Examples of firm-specific human capital include expertise obtained through education and training in management information systems, accounting procedures, or other expertise specific to a particular firm. General-purpose human capital is knowledge gained through education and training in areas of value to a variety of firms such as generic skills in human resource development. Regardless of the application, Becker considers education and training to be the most important investment in human capital.

Figure 1. presents the key relations in human capital theory and the assumptions underlying these relationships.

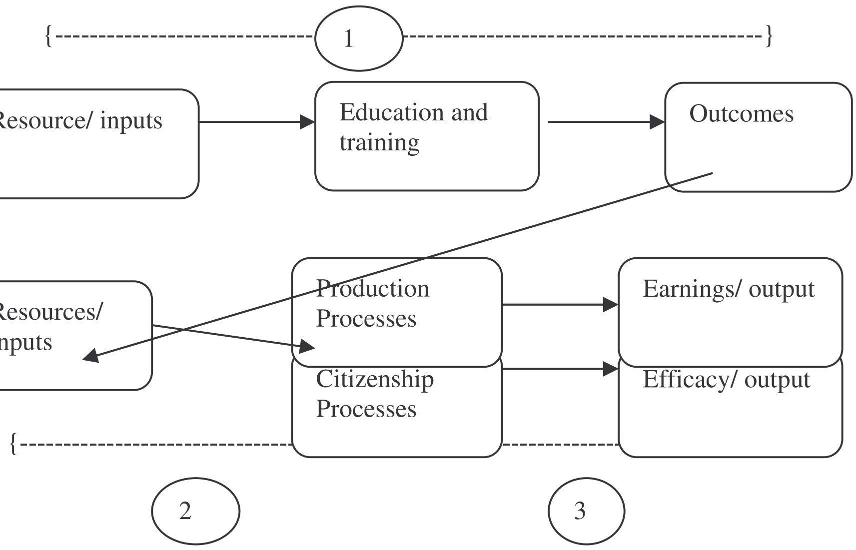

Figure 1: A Model of Human Capital Theory (Swanson, 2001: 110)

Relationship 1 represents the concept of production functions as applied to education and training. The key assumption underlying this relationship is that investment in education and training results in increased learning.

Relationship 2 represents the human capital relationship between learning and increased productivity. The key assumption underlying this relation is that increased learning does, in fact, result in increased productivity.

Relationship 3 represents the human capital relationship between increased productivity and increased wages and business earnings. The key assumption underlying this relationship is that greater productivity does, in fact, result in higher wages for individuals and earnings for businesses. As per conclusion, human capital does contribute to the organizational advantages and profits.

The entire human capital continuum represented is assessed using return-on-investment analysis or cost-benefit analysis. The human capital theory is an important agent for boosting firm performance. Thus, this study has capitalized on this theory for arguing that human capital becomes an element in firm performance.

The Relationship between Human Capital and Firm Performance

The human capital focuses two main components which is individuals and organizations. This concept have further been described by Garavan et al., (2001) that human capitals have four key attributes as follows: (1) flexibility and adaptability (2) enhancement of individual competencies (3) the development of organizational competencies and (4) individual employability. It shows that these attributes in turn generate add values to individual and organizational outcomes. There are various findings that incorporate human capital with higher performance and sustainable competitive advantage (Noudhaug, 1998); higher organizational commitment (Iles et al., 1990); and enhanced organizational retention (Robertson et al., 1991). Hence, all this debates fundamentally focuses on individual and organizational performance.

From the individual level, Collis and Montgomery (1995) point out that the importance of human capital depends on the degree to which it contributes to the creation of a competitive advantage. From an economic point of view, transaction-costs indicate that firm gains a competitive advantage when they own firm-specific resources that can not be copied by rivals. Thus, as the uniqueness of human capital increases, firm have incentives to invest resources into its management and the aim to reduce risks and capitalize on productive potentials. Hence, individuals need to enhance their competency skills in order to be competitive in their organizations.

The human capital theory has undergone a rapid development. Within its development, greater attention has been paid to training related aspects. This is much related to the individual perspective. Human capital investment is any activity which improves the quality (productivity) of the worker. Therefore, training is an important component of human capital investment. This refers to the knowledge and training required and undergone by a person that increases his or her capabilities in performing activities of economic values.

Some recent literature shows the importance of training. In any case, it is fitting to point out that the workforce's lack of training is related to low competitiveness (Green, 1993). In turn, a greater human capital stock is associated with greater productivity and higher salaries (Mincer, 1997). Likewise, training is linked to the longevity of companies (Bates, 1990) and greater tendency to business and economic growth (Goetz and Hu, 1996). In addition, Doucouliagos (1997) has noted human capital as a source not only to motivate workers and boost up their commitment but also to create expenditure in R&D and eventually pave a way for the generation of new knowledge for the economy and society in general. Also, for small businesses it is a valuable asset, which is positively associated with business performance. Finally, investment in training is desirable form both a personal and social perspective.

From the organizational level, human capital plays an important role in the strategic planning on how to create competitive advantages. Following the work of Snell et al., (1999) it stated that a firm's human capital has two dimensions which are value and uniqueness. Firm indicates that resources are valuable when they allow improving effectiveness, capitalizing on opportunities and neutralizing threats. In the context of effective management, value focuses on increasing profits in comparison with the associated costs. In this sense, firm's human capital can add value if it contributes to lower costs, provide increased performances.

Another study by 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 HC ROI. 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.

A causal model using a set of cross-sectional data developed by Selvarajan et al. (2007) indicates that human capital enhancement paves a way for greater innovativeness and this in turn offers positive implications on firm performance. In the meantime, firm performance and human capital could also be viewed in the context of high performance work systems (Hsu et al., 2007). It is argued that the formation and emphasis on the human capital enhancement will result in high performance or rather high performance work systems.

Admittedly, human capital development and enhancement in organizations tend to create a significant contribution on organizational competencies and this in turn becomes a great boost for further enhancing innovativeness and the current literature to a large extent supports the fact that firm performance is positively impacted by the presence of human capital practices (Noe et al., 2003; Youndt et al., 2004). Some even endorsed that human capital development is a prerequisite to good financial performance (Delaney & Huselid, 1996) and in addition, the importance of organizational human capital with regard to firm performance was further supported by Hsu et al. (2007). In addition, evidence shows that the relevance of human capital to firm performance has also become prevalent among the technology-based new ventures, and it seems that the use of human capital tool (emphasizing quality of employees) per say in small technology-based new ventures tends to have a great impact on the firms' success (Shrader & Siegel, 2007).

In the meantime, human capital enhancement can also be viewed in the context of top management team (TMT). Heterogeneity or sometimes is called diversity in TMT will tend to lead to greater performance because the argument is heterogeneity promotes various characteristics to be absorbed into the workforce team; this includes people of different age groups, functional backgrounds, education backgrounds, tenure and gender. These characteristics have a positive impact on firm performance as argued under the upper echelon theory (Hambrick & Mason, 1984). Studies reveal that heterogeneity cultivates greater knowledge, creativity and innovation among the team members (Watson et al., 1993; Maimunah & Lawrence, 2008). Heterogeneity is positively linked to better problem solving and offering creative solutions (Michel & Hambrick, 1992). Hence, diversity is positively related to performance. Even in the context of an organization, the implementation of certain management approaches or philosophies also deals with the infusion of human capital (e.g quality circles, team of employee's experts) especially when faced with problems (Kanji, 1997). Again, in a very broad discussion, especially in the context of total quality management (TQM), firms can be assessed using financial and non-financial performance. The financial performance includes employee productivity, defect rates and market share and non-financial performance that include workflow improvement, innovation, customer satisfaction and skills development (Kaplan & Norton, 1994).

Besides this, diversity is able to attract and retain the best talent available; reduced costs due to lower turnover and fewer lawsuits, enhanced market understanding and marketing ability, better problem solving, greater organizational flexibility and better overall performance and improvement in decision making at strategic level (Bantel, 1993). Heterogeneity is positively linked to better problem solving and offering creating solutions (Michel & Hambrick, 1992). A recent study in the related area also provides some insightful information about the heterogeneity effect on firm performance (Maran, 2008).

Undoubtedly, heterogeneity (in the form of human capital) can be a significantly important input to human capital development and enhancement as it makes organizations to be more creative and innovative for long term survival in their international and global markets (Grossman, 2000). In light of this, the competency of TMT is supported by the input-based international human capital, transformational human capital and output-based international human capital (Huang et al., 2002; Wu et al., 2002). However, some even argue that the relationship between innovative human resource practices (though human capital practices are not directly involved) and organizational performance could be described as 'non-linear' (Becker & Barry, 1996; Chadwick, 2007).

Conceptual Model

The purpose of this study is to develop a model to show the relationship between human capital and firm performance. As argued in the earlier discussions, the general human capital investment includes training, education, knowledge and skills that will enhance human capital effectiveness. Based on the literature reviews, it is therefore postulated that human capital leads to greater firm performance. Firm performance can be viewed in two different perspectives; financial performance and non-financial performance. Financial performance includes productivity, market share and profitability, whereas, non-financial performance includes customer satisfaction, innovation, workflow improvement and skills development. The details are given in Figure 2.

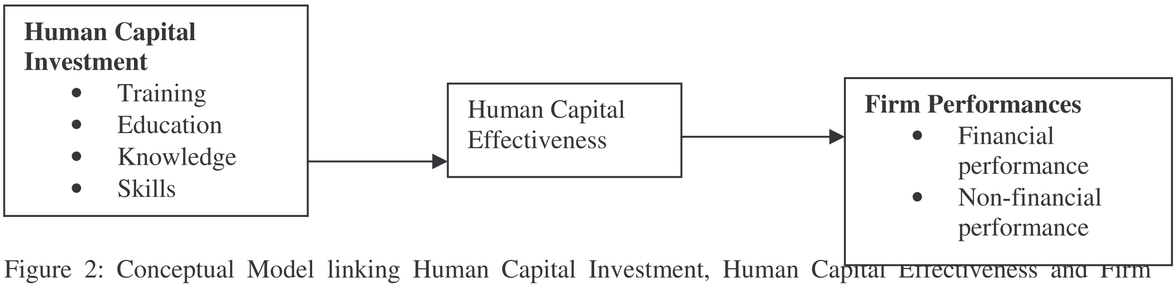

Figure 2: Conceptual Model linking Human Capital Investment, Human Capital Effectiveness and Firm performances

Conclusion

This paper explored the current literature on human capital and its impact on firm 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 firm performance. Studies also clearly substantiate the fact that financial performance is positively impacted through the consideration of human capitals.

In light of this, the understanding of firm 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 achievements via innovativeness and creativity. Hence, companies should therefore, come up with some effective plans especially in investing the various aspects of human capital as not only does it direct firms to attain greater performance but also it ensures firms to remain competitive for their long term survival.

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