



Human Resources Performance Measurement Approaches Compared to Measures Used in Master's Theses in Applied Science University

Saeed Hameed Aldulaimi^{1*}, Mohammad Abdul Qadir Obeidat²

¹College of Administrative Sciences, Applied Science University, Manama, Kingdom of Bahrain, ²College of Commerce and Business, Administration Dhofar University, Sultanate of Oman. *Email: Saeed.aldulaimi@asu.edu.bh

ABSTRACT

The purpose of this paper is to identify the required factors that can be considered necessary in conceptualizing the features of human resource (HR) performance measurement system appropriate in the modern organizational setting. This study raises this question: What is the reality of current research in measuring HR performance in Applied Science University (ASU) compared to the measures used in literature of HR studies? The paper uses a systematic approach in reviewing and examining existing HR measures used in Master's theses in ASU in comparison with the measures developed in literature, consequently tracing process has been made to the researches that focused on the HR performance from 2011 to 2015. Furthermore, citation analysis was used to gather the well-known models in measuring HR performance, and summarize the variables or dimensions utilized for this purpose. The outcomes of this review contribute to and update existing literature on HR measures in two ways: Identification of gaps in terms of practical usefulness and academic research, suggestions of solutions in the form of a conceptual framework to improve measurement and HR performance measurement using the correct variables, and recommendation of a direction for future research with regard to using the right variables based on research theory and purpose. This study targeted one university to discover the use of methods to measure HR performance. This study has several implications: It underscores the critical academic role in enhancing HR performance measures in research and professional. HR performance measurement should be aligned with valid theories and practices. To assist researchers to look at most of the models related to HR performance measurement tools gathered in one study and choose the applicable one which lead to achieve the research objectives. This is a seminar paper that defines the measuring attributes of HR performance for the conceptualization of a workable framework of the features of HR.

Keywords: Human Resource, Human Resource Performance, Measurement

JEL Classifications: J25, O15

1. INTRODUCTION

Discovering the appropriate performance metrics and indicators are the significant mission in today's business by providing exact results that guide each employee in achieving their roles that contribute to the organizational success. Businesses are highly competitive environments nowadays, and leaders, therefore, need accurate data to lead organizations in light of a clear vision. However, "the advantage of performance measures is to reveal that an organization is performing well or poorly, but they don't necessarily reveal why" (Behn, 2003; Neely et al., 2002). Therefore, the concern for measuring human resource (HR) contribution as a main component of organizations is gradually increasing.

Reviewing literature shows that several models have been developed to measure HRs performance over time. The evolved (evolving?) models of HR include financial and non-financial measures. Henri (2004) argued that "financial measures are more meaningful when combined with other performance measures to address multiple aspects of performance."

In addition, four types of measures are commonly used: Output, outcome, efficiency, and effectiveness. Outputs and outcomes attempt to quantify results either by workload statistics (output) or activity/goal measurement (outcome). Efficiency is closely related to outputs, essentially assigning a cost to an output. According to Society for HR Management (HRM) and International Public

Management Association-HR, performance measurement and benchmarking provides useful information to public managers for managing resources. Fitz-Enz (1995), stated that "Measuring HR makes good economic sense to an HR programme's worth by providing convincing evidence, it shows that the proof of results and the results encourage the HR staff to focus on the important activities which can lead to additional resources." Recent studies has evident that there is strong relationship between HRM and organizational performance. Pfeffer (1998) explained that "HR improvements are the best ways to improve organizational efficiency in the ever increasing competitive and cost effective environment of present business operations of organizations. Companies would build profits by putting people first." This thought was the motive behind many studies in literature to investigate what are the significant variables can control HRM in modern organizations.

Researches in HR is needed continually, therefore it is necessary to choose the right measures which lead to the implementation of the research objectives. In addition, researchers get confused when they come to choose an appropriate method to measure HR performance because they get lost as what to measure and how?

Some studies refer to HR functions and some treat HR contributions while some focus on HR productivity. To measure HR components, it is necessary to utilize valid metrics because the principles of validity and reliability are fundamental cornerstones of the scientific research method. Validity of measures means how well the construct explains the variables under the construct (Hair et al., 2010). An old business maxim suggests, "You cannot manage what you cannot measure."

Selecting the right measures of HR performance will strength the organizational effectiveness by numerous features: First, optimizing the decision-making process to support objective implementation in the organization. Second, performance evaluation assists articulate strategy by categorizing and giving consideration to the vital capabilities existed in HR, thus can be used to shape a competitive advantage. Third, it also improves the assessment of strategy implementation. Fourth, it can help to explore the human talents and articulate them in suitable positions which enhance organization effectiveness. Fifth, specify the actual training needs. Finally, it be able to help in formative managers' compensation through in corporating non-financial standards connected to HR (Marr et al., 2003). As Tootell et al. (2009) stated, "...since 1980s there has been an increasing emphasis on the importance of HR measurement. Yeung and Berman (1997) declared that "HR measures should be test the impact rather than activity orientated, forward looking than backward looking, and should focus on the entire HR system not just on individual practices." Toulson and Dawe (2004) identified three obstacles in measuring HR "lack of HR experience, precision, and difficulties in measurement." However, performance measurement refers to "the regular collection and reporting of information about the efficiency, quality, and effectiveness of human service programs" (Martin and Kettner, 1996. p. 3).

The main objective of this research is to review the history of HR measurement; summarize how HR measurement should

be done for professionals, practices, and functions; and offers specific guidelines for improving HR measures. Furthermore, the research seeks to address the problem of using the specific dimensions to define and measure HR performance. The study focuses on the master Master's theses done between 2011 and 2015 in Applied Science University (ASU) in Bahrain, dedicated to study HR in variant organizations. The motivation of this study is the tremendous studies done in ASU were devoted to dealing with HR from different angles such as HR performance, HR effectiveness, and HR efficiency. The researcher surveyed around 30 Master's theses done in ASU University by HR Master's program students who measured HR performance using a variety of variables as shown in the Table 1. The studies considered the HR as one dimension phenomenon and they didn't use constructs which enable them to define HR precisely. In addition, researchers didn't identify their idea about how they look at HR as a main asset in organization. This study raises the question: What is the reality of current research in measuring HR performance in ASU compared to the measures used in literature of HR studies?

To determine the suitable constructs is an art. So that selecting the proper factors to measure HR performance depend heavily on the theoretical foundation of the study. Therefore, it is very necessary to constitute the study theory which explain the main purpose and objectives of the study which lead eventually to implement research objectives. Academically, a good quality of research can clearly identify theory, constructs and variables. Broadly speaking, constructs are the building blocks of theories, helping to explain how and why certain phenomena behave the way that they do. However, there are numerous valid methodologies and approaches accessible in literature to test the contributions of HR constructs for HR performance measurement. Therefore, the next section will explain the significant models recognized in literature and to the most attention is paid by researches.

2. HR MEASUREMENT METHODS AND APPROACHES

Generally, since 1960s there is growing number of researches led to formulate a numerous of HR measurement methods and used to prove the effectiveness of HR functions. Grounded on the existing literature, this study organized to follow and explore numerous approaches that used to assess the HR performance such as survey approach, HR reputation approach, HR accounting, HR auditing, HR case studies, HR cost monitoring, competitive benchmarking, key indicators, HR effectiveness index, HRM by objectives, HR profit centers, and return on investment. Table 2 summarizes the main variables used in famous models developed to measure HR performance.

To achieve objectives, this study depend on the systematic approach in reviewing and observing available HR measures used in Master's theses in ASU and compares it with the measures developed in literature. It also traces the researches in ASU that focused on the HR performance from 2011 to 2015. Furthermore,

Table 1: Master's theses done in ASU University by HR Master's program students

Titles and scope	Constructs	Number of studies
HRM and performance development	Quality	4
	Effectiveness	
	Communication	
HR performance and organizational development	Decision making	4
	Individual capabilities	
HR performance measurement	Improvement	4
	Training courses	
	Flexibility	
HRM and technology	Quality of work	3
	Decision making support	
	Financial and managerial affairs	
	Development	
HR performance and environment	Implementation of objectives	2
	Effectiveness	
	Communication	
HR performance management	Involvement	2
HRM and investment human capital	Non	
HR productivity	Individual capabilities	1
	Training	
HR performance and Training needs	Productivity	1
HR strategy and human employment	Training	1
	Training	1
HRM functions and loyalty	Promotion	1
	Non	
HR retention and employee commitment	Non	1
HR performance and career development	non	1
Intellectual capital and innovation	Skills	1
	Innovation	
HR efficiency and controlling	Non	1
HR performance and TQM	Quality of work	1
HR rewards system	Financial system	1
Total		30

HR: Human resource, TQM: Total quality management, HRM: Human resource management

citation analysis was used to gather the well-known models in measuring HR performance, and summarize the variables or dimensions utilized for this purpose.

3. DISCUSSION AND CONCLUSION

Applying performance measures is an effective way to increase the competitiveness and profitability of organizations as well as to support and boost productivity improvements. Appropriate HR performance measures can ensure that managers adopt a long-term perspective and allocate the organization's resources to the most effective improvement activities. There are numerous HR performance measures to select from, which in turn fulfill different purposes and it is important that the right ones are chosen. Certainly, HR measurement is a vital task in organizations and in order to report precise performance, there is a critical need to choose the right measures. This study have essential contribution by gather the most influential models of measuring HR performance in literature have been experienced and improved its validity. To measure HR performance in any organization, it is not necessary to adopt a whole model. Rather, it is possible to select specific parameters from different models, since there is theoretical justification for this mixing methodology.

Frankly, observers can notice that after 1990 there were a rich of studies dealt with HR practices or even theories and they become work hardly to find the determinants of high-level performance management. A rational decision should be made for every researchers in HR, which is to determine what perspective and strategy used to evaluate HR performance. Based on the results of this study, selecting the right measurement model and choosing applicable indicators of investigating HR, weather using financial or non-financial approach, is an art in the academic field. In order to get valid findings, researchers must, first, define the theory which defines the purpose of the study and main objectives; second, identify the approach weather it is financial or non-financial to use a specific indicator based on this. Third, the more information that researcher has about organization the better opportunity to implement a significant study aligned with its objectives. For the good of his dissertation, the researcher, is advised to spend quite enough time in the organization targeted in his study.

The findings of this study reveal how the researchers conducted their studies in HR area in ASU are theoretical in general. Despite their attempt to collect data from a real population, there is still a gap between theory and practice. Clearly, it is not totally wrong to measure HR using a questionnaire consisting of a number of questions that reflect the nature of HR functions, processes, or

Table 2: The main variables used in famous models developed to measure HR performance

Study and model	Measurement variables	Design
Flamholtz (1985) has proposed HR accounting system HRA to measure HR contribution	HRA as involving the measurement of economic value of people to organizations. Measuring the cost incurred by business firms and other organizations to recruit, select, hire, train and develop human asset. Value is to be calculated systematically by following the steps mentioned hereunder: (a) Define the mutually exclusive set of "states" an individual may occupy in the system (organization); (b) determine the value of each state to the organization; (c) estimate a person's expected tenure in an organization; and (d) find the probability that a person will occupy each possible state at specified future times	Financial
HR functions HR audit Weisbord (1978 [Six Box Model])	Selection, recruitment, retention, rewards The six-box model is comprised of the following components (boxes): Purposes: What "businesses" are we in? Structure: How do we divide up the work? Relationships: How do we manage conflict (coordinate) among people? With our technologies? Rewards: Is there an incentive for doing all that needs doing? Leadership: Is someone keeping the boxes in balance? Helpful mechanisms: Have we adequate coordinating technologies?	Financial non-financial financial
Nadler and Tushman (1977) model	Specifying inputs, throughputs, and outputs, which is consistent with open systems theory. Congruence model include such factors as the environment, resources, history (i.e., patterns of past behavior), and organizational strategies. Nadler and Tushman are explicit in their conceptualization of each of the factors. For example, they describe the resources available to the organization as HRs, technology, capital, information, and other less tangible resources. While strategy is an input in the model, it is the single most important input to the organization and is depicted by the arrow from the input box to the organization	Financial and non-financial
Harrison (1987) has devised a model for diagnosing individual and group behavior	The organizational level of performance appears to represent a more abstract level of performance, which is a function of the outputs associated with individual performance, group performance, and QWL outcomes	Non-financial
Sacht (2001) based on Ulrich's four key principles of HR (line management friendly systems, line management legal compliance, implementing HR strategy to increase workforce value, and effective procedures) is still internally focused on the HR environment, auditing	The functional role: Systems, HRM and provision of information The service role: Customer service and responsiveness Compliance: Legal Strategic: Workforce development and increasing value Practices: Efficiency, effectiveness, and best practice Management of HR function/professionalism Organizational alignment/contribution Job descriptions Training evaluation/validation Efficiency and cost	Financial and non-financial
Measures of HRM practices developed by Arthur (1994), Delaney and Huselid, 1996; Hitt et al., 2001; Huselid, 1995; Huselid et al., 1997; Youndt et al., 1996 Tsui (1987)	"Recommended multiple constituency approach to assess the effectiveness of HR"	Financial Non-financial
McConnell (1989)	McConnel recognized 16 categories to be measured in HR auditing	Financial

(Contd...)

Table 2: (Continued)

Study and model	Measurement variables	Design
Ulrich (1997) and Ulrich and Brockbank (2005) has showed how HR practices relate to BSC through productivity, people and process indicators	Appended that strategic contribution accounts for almost half of HR's total influence on business performance. Customer, internal process, financial, learning, and growth	Financial
Myers and Flower's five dimensional models: "Framework for Measuring Human Assets"	The five dimensions listed out by them include: a. Knowledge b. Skills c. Health d. Availability, and e. Attitudes.	Non-financial
Phillips (1999) has explained seven trends that have important influence on an organization's bottom-line results and the HR function's role in the process	Phillips (1999) has suggested a result-based approach to HRM that has 20 characteristics. To deal with HR functions input, return on investment, cost of absenteeism, turnover	Financial and non-financial
Fitz-Enz (2000a)	Proposed a return of investment methodology for measuring the bottom-line effect of employee performance	Financial
Fuzzy cognitive maps	IC was divided into three components including human capital, structural capital and customer capital. Later, customer capital was replaced by relational capital because of its more general definition	Non-financial
Cascio and Boundrenau (2008)	Economic consequences of employees' behaviour such as absenteeism, turnover, employee attitudes, work life programmes and employee training	Financial
Human capital (Barney, 1991; Barney and Wright, 1998; Quinn et al., 1996). Beatty et al. (2003)	Employee satisfaction, turnover, or labor costs. turnover, transfers. Knowledge, competencies, experience, and creativity of the workforce as well as their attitudes and motivation. Innovation.	Non-financial
Boudreau and Ramstad (2003) proposed three categories of HCM	Efficiency measures focus on cost and report the financial efficiency of HR operations; Effectiveness measures reflect the effectiveness of HR programs on the competence, motivation, and attitude of the workforce; and Impact indicators measure the impact of HR programs and processes on the business performance.	Financial and non-financial
The European Human Capital Index (Ederer et al., 2007)	Measures four elements relating to human capital to account for countries abilities to improve the quality and quantity of its human capital	Non-financial
Cohen and Soto (2007)	Though level of education/years of schooling and training have long been considered good proxies	Non-financial

HRA: Human resource accounting, QWL: Quality of work life

even human capital in general. However, it is more professional to identify the study view to HR to make the study more specific and relevant to the research purpose. Moreover, the studies revealed that no valid measurement process can be achieved based on a single dimension and, therefore, it is recommended to assign a multi-dimensional method including financial and non-financial parameters.

However, as with many studies, this one has limitations. It depends on one university to discover the use of methods to measure HR performance. The critical academic role in enhancing HR performance measures research. Regardless of these limitations, this research reaches to numerous contributions. First, it highlights the significant approaches used in literature to measure HR performance. Second, it shows that HR performance

measurements should be aligned with theory and highlights the importance of "fit" between theory and practice. Third, it encourages researchers to look at most of the models related to HR performance measurement tools gathered in one study, choose the applicable one and lead to implement the research objectives.

While this study acknowledges the researches depend on valid measures to assess HR performance, also it strongly recommends the use of valid dimensions that are experienced in previous studies to extend the value of research when built on latest literature instead of viewing HR as one dimension. It also recommends that different dimensions should be considered to reflect on the reality of HR to come up with recommendations that enrich the results aiming to enhance HR functions and eventually organizational performance. Future research can extend the study to survey more

researches in HR measurement and compare the advantages with the disadvantages of these studies in this field.

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