

Human Resource Measurement: The Present and the Way Forward

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Abstract

Significance of human resource management in business performance has been widely recognized by academicians, researchers and practitioners for many years. HR's role transition from administrative expert to business/ strategic partner is an indication to this. Yet, HR managers find difficulty in evincing human value and contribution in financial terms. By and large, both conceptual and practical complexity of the function contributed to the quandary. There have been myriad attempts made by accountants, economists and organization experts to capture and reflect HR's value to organization. Human resource accounting, workforce scorecard, HR metrics etc are to name a few. However, still human capital valuation remains as a "black box". This paper attempts to review the present HR measurement models to understand the predicament and propose a new HR measurement framework. While the proposed HR measurement framework is proposed based on the gaps identified in the reviewed literature, much more effort will clearly be required to develop a more comprehensive and practical HR measurement tool.

I. Introduction and Literature Review

Successful organizations are increasingly realizing the value of human element in the business performance. The ever changing business needs coupled with technological advancements, economic and regulatory issues and changing workforce demographics pose new challenges to HR professionals. Hence, strategic human resource management is gaining augmented importance in the business and academic circles. Fundamental to the strategic HRM perspective is an assumption that firm performance is influenced by the set of HRM practices the firms have in place (Huselid, Jackson, & Schuler, 1997). Today's HR professionals are known as employee advocates, functional experts, human capital developer and strategic partner (Ulrich, & Brockbank, 2005). As an employee advocate HR professionals have to listen and respond to individual employee needs. In the role of human capital

developer, HR professionals are supposed to develop the workforce for the present and the future business needs. As functional experts HR professionals are expected to possess skills in creating systematic solutions for routine HR problems, turning HR knowledge into practice, diagnosing problems and creating solutions for it and setting HR policies and direction for HR practice. And finally, as strategic partners HR professionals help the organization in achieving the strategic intent of the organization through human resources (Ulrich, & Brockbank, 2005).

The pioneering studies on human variables and firm performance found negative relationship between the two. For example, an empirical study conducted by Dermer and Siegel found no supporting evidence for the relationship between behavioral variables and task performance (Dermer and Siegel, 1974). Thus, authors argued that proposals to capitalize human resource related expenditures, in HRA models, cannot be justified as they did not improve the condition of the human organization. Later, Ryder (1975) highlighted some methodological issues involved in the said study. Nevertheless, Dermer and Siegel continued to hold the same stand regarding the dysfunctional aspects of human resources accounting (Dermer and Siegel, 1975). However, in a while, significant support was found for the effect of HRA value and cost on managerial decisions (Flamholtz, 1976; Tomassini, 1977). Later, a number of authors presented supporting evidence for the positive association between HR practice or system and organizational performance (Becker and Gerhart, 1996; Boudreau and Ramstad, 1997, 2005a, 2005b; Davison, 2003; Huselid, Jackson and Schuler, 1997; Ulrich, 1997; Yeung and Berman, 1997). A summary of research studies examining HR-firm performance relationship can be found in Yeung and Berman (1997, p. 323-324).

Presenting HR value to the stakeholders has been a long-standing aspiration of HR professionals. Consequently, a number of HR measurement techniques have evolved over time. The economists were the first group to show interest in the area of human resource measurement, followed by the accountants (source: Report of the Committee on Human Resource Accounting, 1973). One such attempt has resulted to the development of a popular measurement method called human resource accounting. Initially, HRA comprised of two separate components namely human asset valuation and human capital accounting. Morse (1973), from an enterprise theory perspective, advocated for the integration of both these concepts to reflect the total value of human resources employed. For many years, human resources accounting and turnover costing were the most widely used methods of HR measurement. Since HRA and turnover costing boundaries were permeable some scholars made effort to integrate them as well (Bassett, 1972). Later, Yeung and Berman (1997) proposed a framework (refer Appendix) to develop business-driven HR measures. In the same year, Ulrich (1997) presented a summary of indicators that

can be used to measure the “employee” aspects of balanced scorecard (refer Appendix). He has also offered a framework to conduct HR audit to track the impact of HR on business results. Fiorelli, Alarcon, Taylor & Woods (1998) presented organizational health report (OHR) as a new HR measure that could flag HR related issues before they deteriorated to the crisis stage. Subsequently, Brown (1999) proposed human capital measurement as a weighted average of four sub-metrics: *years of experience in the field/business, level of job (job-grade/chart level), performance rating, number and variety of assignments held*. While the matrix reflects team strength in terms of human capital, it fails to capture knowledge, competencies, values etc of the people involved in the team. The HC BRidge® decision framework by Boudreau & Ramstad is another famous HR measurement tool found in the literature. Afterwards, authors presented an extended form of the HC BRidge® framework called LAMP- *logic, analysis, measurement and process-model* (Boudreau & Ramstad, 2007). Recently, Beatty, Huselid, & Schneier (2007) presented a modified form of HR scorecard, which they called business scorecard. A detailed review of the HR measurement models are presented in the following section.

II. Review of Existing HR Measurement Models

Human resource accounting, human resource scorecards, human resource metric system, HC BRidge® framework, LAMP model etc are the most commonly known methods among them.

Human Resource Accounting (HRA)

HRA was pioneered in a joint project between the Graduate School of Business Administration and the Institute for Social Research at the University of Michigan. The model was developed with an objective of recognizing the contribution of behavioral variables in organizational performance. HRA has been defined as “the process of identifying and measuring data about human resources and communicating this information to interested parties” (As cited in the Report of the Committee on Human Resource Accounting, 1973). HRA is developed for the general purpose system of accounting for human resources (i.e. accounting for investments in people) and for the application in specific HR events (e.g. for layoff decisions). The ultimate objective of human resource accounting is to provide valid and reliable measures of the cost and value of people in order to guide decision-making by management and investors (Flamholtz, 1972). HRA was developed with the objective to reduce the limitation of end-result (only) focus of management accounting (Dermer and Siegel, 1974). The basis of HRA was that behavioral variables such as satisfaction, group cohesion etc determines the productive capacity of the organization which in turn determines the end results. While emphasizing the importance of collaborative efforts between behavioral scientists and accountants, the system underlined the need for expressing behavioral variables in a monetary language. The measurement model of HRA is largely dominated by cost-benefit analysis. The two main approaches of HRA are cost approach and economic value approach¹. The following are some of the HRA methods acknowledged in the literature.

- *Historical/acquisition cost method*²: This method was developed by Brummet. It suggests treating employees as assets and capitalizing the firm’s expenditure on them. The historical cost of human resources is the sacrifice that was made to acquire and develop the resource. These include the costs of recruiting, selection, hiring, placement, orientation, and on the job training. While some of the costs like salaries, for instance, are direct costs, other costs like the time spent by the supervisors during induction and training, are indirect costs.
- *Replacement cost method*: This is a measure of the cost of replacing a firm's existing human resources including the cost of rebuilding future HR resources. It is the cost that would have to

¹ <http://www.ignou.ac.in/edusat/mba/MS-23/Block-4/pdf/Unit-18.pdf>

² <http://www.hrfolks.com/articles/intellectual%20capital/valuation%20of%20human%20capital.pdf> , retrieved on 13.08.08

be incurred if present employees are to be replaced. For instance, if an employee were to leave today, several costs of recruiting, selection, hiring, placement, orientation, and on the job training would have to be incurred in order to replace him.

- *Opportunity cost method:* The method envisages computation of monetary value and allocation of people to the most promising activity and thereby assessing the opportunity cost of key employees through competitive bidding among investment centers. Hence its use is restricted to internal reporting and not external reporting.
- *Behavioral model:* The model aims to establish a set of causal variables through psycho-social test. The investments in HR value have been proposed to be amortized over the years in tune with the condition of the human organization.
- *Economic model:* Economic approach to human valuation was proposed by Flamholtz and Lev & Schwartz. The model assumed human resources as wealth and the measurement of the wealth is expressed as the present value of future income streams of the employees.
- *Break-even analysis:* This model was proposed by Boudreau as an alternative to utility analysis. Here, break-even value is considered as a decision rule for acceptance or rejection of an HR program.
- *Competitive Bidding Model:* This model is proposed Hekimian and Jones. In this method, an internal market for labour is developed and the value of the employees is determined by the managers. Managers bid against each other for human resources already available within the organization. The highest bidder wins the resource.

Human resource accounting makes it possible to evaluate investments in HR activities in terms of cost-benefit analysis. For example, Sur and Jafar (2008) showed that NTPC Ltd, a large public sector organization in India, have been successfully following human resource accounting since 1986. The HRA practice of the company provides value of HR and contribution of HR to the total resources. Productivity and performance related HR ratios such as generation per employee (GPE), turnover per employee (TPE), turnover to HR value (THRV), valued added per employee (VAPE), and value added to HR value (VAHR) are also published annually to examine HR contribution to the business. Since the article does not report method of calculation, underlying principles etc related to the HRA practice, and thus it is not possible to draw lessons on HR measurement from NTPC practice. However, all the HRA models have been criticized generally on their narrow approach to human resource valuation. One can find a brief discussion on human resource measurement methods classified under cost, value and non

monetary measurement in the report of the Committee on Human Resource Accounting (1973, p.171-177).

Human Resource Metrics

HR metrics comprise of accounting like measures to quantify HR activities. It may include human capital management measures, HR sub function measures etc. The traditional HR measurement system, to gain similar status of other functions, aimed at developing better metrics. Hence, a large number of HR metrics are available in the HR measurement literature. HR scorecard emphasizes on developing right HR metrics to measure the efficiency of HR function. HR metrics are developed to measure efficiency and effectiveness of HR system (Lawler III, Levenson & Boudreau, 2004)

HR Scorecards

Beatty, Huselid, & Schneier proposed a business scorecard for HR, based on the renowned balanced scorecard framework of Kaplan & Norton. They have replaced the “*learning and growth*” quadrant of the original balanced scorecard to “*workforce success*”. The workforce success comprises of HR deliverables like workforce mindset, competencies and behavior. To produce the required HR deliverables HR system must be assessed on the basis of required competencies of the workforce, HR practices required to produce the deliverables, and HR system integration and alignment with the strategy of the business. The major purpose of the HR scorecard is to develop HR dashboards that capture HR contribution. Boeing, General Electric, South-Corp Ltd., United Distillers & Vintners, Verizon etc are some firms which are using HR scorecard to develop metrics to monitor HR processes and deliverables (Beatty, Huselid, & Schneier, 2007). A model of HR scorecard presented by Beatty, Huselid, & Schneier is reproduced below:

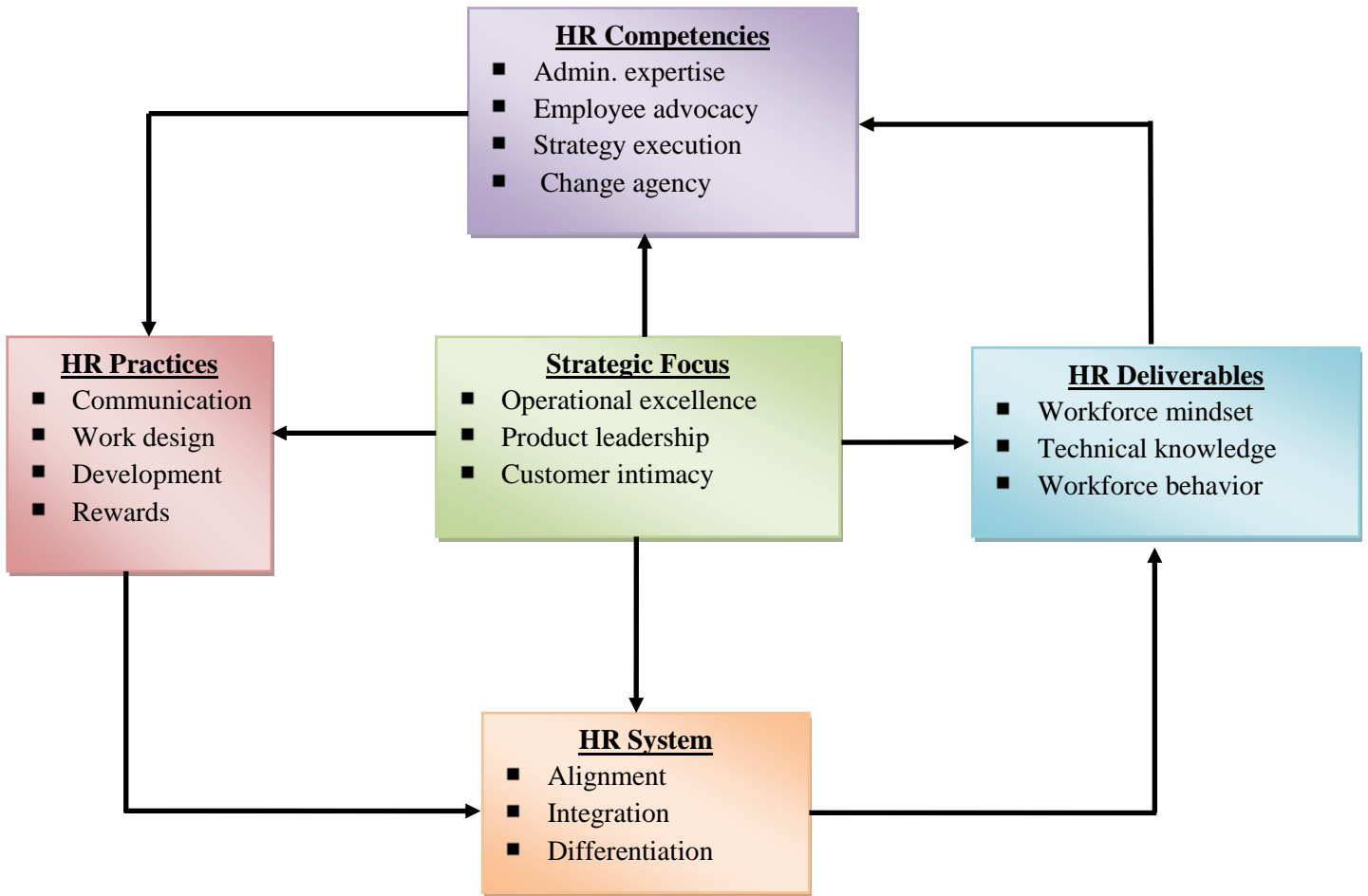


Figure1: Business Scorecard

The HC BRidge® Framework is developed by Boudreau and Ramstad. The purpose of the model is to provide a framework to articulate the logical connections between investments, changes in the nature or deployment of workforce talents, and sustainable strategic success. One significant implication of the model is to guide the creation and use of HR measures. The model focuses not on what HR is doing, but what the organization should be doing about talent. The model is based on three anchor points- *efficiency, effectiveness and impact*- that could be used for measuring HR practices. The anchor points are a set of linking elements representing deeper logic and analysis. [More information about the model is available at <http://www.hcbridge.com>.

LAMP is another HR measurement model developed by Boudreau and Ramstad. The model identifies four-critical components- *logic, analysis, measurement and process*- of measurement system that drives strategic change and organizational change (Boudreau & Ramstad, 2007). This is an extended model of the earlier HC BRidge® model.

III. Contrasting HR Measures with Financial Measures

Before, we begin to compare and contrast HR measures with financial measures; it shall be interesting to note the following comments by some noted scholars.

- ✿ *“Compared to financial, marketing and production measures, existing human resources are less systematic, less accepted and less likely to guide key decisions”.* (Boudreau and Ramstad, 1997)
- ✿ *“...HR leaders would believe that problem was that HR measures couldn't compete with...measures from accounting and finance...the fundamental power of these measures develop not just from their measures...but the logic on which they are developed and presented.”* Boudreau and Ramstad (1997)
- ✿ *“One of the most common weaknesses of HR professionals is fear of quantitative, measurable results. Such fears may come from lack of knowledge or experience with empirical assessments of HR work. It is clearly time to replace fear with resolve. HR measurement is complex, difficult, and at times confusing, but it can and must be done. When HR professionals start with a clear understanding of business goals (often measured in financial terms), they can turn those business goals into measurable HR practices. Such efforts focus attention on what HR practices, professionals, and departments must deliver to the business. Conceptualizing, defining, and operationalizing these deliverables are critical steps toward HR measurement”.* Ulrich (1997)
- ✿ *“Management of human capital is distinctive from managing physical assets and therefore an entirely different skill set is required”* (Provo, 2000).
- ✿ *There is a clear distinction between accounting (the professional practice) and finance (the decision science). Accounting is vital for management reporting and external requirements yet very different from the financial tools used to decide about appropriate debt structure, internal rate-of-return thresholds, etc.* (Boudreau and Ramstad, 2005a)
- ✿ *“Significant improvements in HR decisions will be revealed not by applying finance and accounting formulas to HR services, programs, and processes, but rather by learning how fields like marketing and finance evolved into the powerful, decision-supporting functions they are today”.* Boudreau and Ramstad (2005a)

- ✿ *“HR, like finance and marketing, helps the firm operate within a critical market—in this case, the market for talent. Organizations cannot succeed without effective decisions and professional practices for operating in the financial and customer markets, and they also increasingly require effective decisions aligned with professional practices in the talent market. Organizational decision processes and tools employed in the talent market are far less mature and refined than those used in finance or marketing”* (Boudreau and Ramstad, 2005a).
- ✿ *“HR measurement systems typically strive to show the return on investments in HR programs, or apply scorecards and six-sigma techniques to HR processes”* Boudreau and Ramstad (2005a)

Financial assets, physical assets, market assets, operational assets and human assets are the five major categories of assets or capital that organizations can leverage to aid in performance and add value to the corporations. Of these asset categories, financial assets are the easiest and human assets are the most difficult to quantify (Mello, 2006). The large number of HR metrics are devised for driving strategic change was not successful as expected (Boudreau and Ramstad, 1997) and have little impact on human capital management (Boudreau and Ramstad, 2004). Furthermore, accounting measures express value of physical and financial assets in dollar terms. The expression of accounting measures in the same unit of organization’s bottom-line (i.e., dollars) have helped them gain supremacy over operational measures (Becker, Huselid and Ulrich, 2001). However, increasing strategic importance of HRM requires HR professionals and scholars to develop HR measurement system that reflects the true value of HR to the business strategy (Boudreau and Ramstad, 2004; Provo, 2000). Therefore, valuation of human assets is at the forefront of human resource management research. High performance work systems, HR value chain approach etc are some successful yet incomplete attempts towards this direction.

Earlier research on human resource measurement attempted to develop monetary measures for human value on the similar lines of accounting measures. Hence, human resource accounting (HRA) models developed by Flamholtz, Lev & Schwartz, Morse, Ogan etc was focused on showing human resources as assets. The concept of an individual's value to an organization was derived from the generic concept of human value. However, no attempt had been made to understand or explain the nature and determinants of a person's value to a formal organization. Most accounting measures reflect inputs or activity levels rather than effectiveness. Indisputably, human asset accounting by reporting investments in people qualifies as an input measure. However, these accounting based measures can be used to measure administrative efficiency but not the strategic contribution of the function (Beatty, Huselid & Schneier,

2007). Unlike accounting discipline, human asset accounting lacks conceptual and methodological background and hence they are not triumphant in reflecting HR effectiveness. Some researchers extended financial concepts like return-on-assets and return-on-investments with a view to avoid the criticism of input-only approach of HR measures. Those approaches as well failed to distinguish between individual and group effects which produce variability in output. Various HR measurement approaches like HRA (Dermer and Siegel, 1974; cost accounting (Cascio, 1991; Mirvis and Macy, 1976), utility analysis (Boudreau, 1983, 1984) and valuation approaches like return on investment (Phillips, 2005; Boudreau and Ramstad, 2006), return on people model³ (Boudreau and Ramstad, 1997), net present value of services, total value approach⁴, human capital valuation (Morse, 1973) etc have been criticized on several grounds. Lack of predictive capacity of HR measures was identified as the major reason for its ineptness (Boudreau and Ramstad, 1997). Therefore, HR measurement systems should focus beyond simple descriptions of past activities, similar to traditional accounting, and adopt a predictive perspective similar to the finance function (Boudreau and Ramstad, 1983, 1997). Moreover, the success of HR measures depends on the ability to capture the link between HR performance and financial performance of the firm.

While human resource accounting proposes a similar measure of human assets like accounting measures; various HR metrics (for example, recruitment efficiency, return on investment in training & develop) are developed based on financial principles, still HR measures fail to substantiate HR contribution to the business. The major and the most convincing reason for this immature status of HR measures is the lack of a *decision science* to support these measures (Boudreau and Ramstad, 1997, 2004, 2005a, 2005b, 2006, 2007). While accounting is the professional discipline, finance is the decision science that supplies logic to the accounting measures. However, HR measures are capable of reflecting efficiency HR activities; there is no fully grown decision science available in the domain that offers logic to how to interpret these measures in terms of business performance. Hence, HR measures are mostly inward looking than outward focused. A distinction between HR and finance function is made in the below given table:

3 Refer appendix for the model

4 the total (gross) value of the human resources employed in an organization is equal to the sum of the value of these resources to the organization and the value of these re- sources to the employees of the organization

HR	Finance
Professional service; not yet developed as a decision science	Decision science; accounting is the professional service to the function
Human value is defined as the present worth of their expected future services.	Asset value is defined as the present worth of their expected future services.
Human resources are not owned by organizations	Physical and financial assets are owned by organization
Valuation becomes difficult when the probability of realizing an individual's service is uncertain	Probability of realizing a physical asset service can be calculated with more or less certainty (based on previous experience, market information etc.)
HR variables are complex and therefore difficult to arrive at one method of calculation; there is no generally accepted accounting principles in human resource measurement	No such problems; consistent application of accounting rules producing comparable information across organizations
Do not provide concrete information that aids human resource decisions	Providing information to assist top managers in managing capital
Nature of assets (human capital, learning etc) is mostly intangible in nature	Nature of assets (machinery, land etc) is tangible in nature; financial models for intangible valuation is not well-developed
Lack of models to support measures	Models to support measures

Table 1: HR-Finance functions comparison

Boudreau and Ramstad (1997, 2005a) observed every business function should have both professional practice and decision science. While the former is related with the measurement and reporting aspects of the function, the latter offers logic to interpret the former and helps in decision-making. Using the same lens of Boudreau and Ramstad, we can conclude that accounting is a professional practice that report internal activities related to the function using accounting measures and finance is the decision science that offers logic to interpret them. However, HR metrics, HRA etc perform the role of professional practice to a small extent; the decision science is underdeveloped to interpret them in financial and

business performance terms. The deliverables were never articulated, so the doables dominated thinking (Ulrich, 1997). The direct application of accounting to HR lead to the development of a measurement system that provided insight on the efficiency of HR by measuring cost per employee hired or turnover rates, but does not provide insight into the impact that HR practices have on the competitive positioning of an organization. “HR measurement systems should focus beyond simple descriptions of past activities, similar to traditional accounting. They should not be satisfied with measurement systems that merely satisfy regulatory requirements. Instead, HR measurement should adopt a predictive perspective, similar to finance” Boudreau and Ramstad (1997). Accounting is an ancient discipline developed over five hundred years. Management of the talent resources is at a similar inflection point today. The next step in the evolution of HR is a new paradigm, based on a decision science for talent (Boudreau & Ramstad, 1997, 2005a, 2007).

In summary, HR metrics and measures are developed along the line of accounting but not financial measures. While accounting measures are meant for internal reporting, financial measures and principles are developed to support the business in decision making. Accounting is a professional/ administrative service provider to the finance function. However, there is no such role distinction exists in the human resource field. HR serves as both administrative and strategic function; yet the existing HR measures are mostly of administrative in nature. Nevertheless, the rising strategic importance of HR requires HR professional to develop strategic measures that link HR with business strategy.

IV. Business Case for HR and HR measurement

“As business competition escalates and corporate resources shrink, all staff functions (e.g., management information systems, finance, human resources, and research and development) are being pressured to demonstrate their value added and to refocus their resources for higher business leverage”.

-Arthur K. Yeung and Bob Berman (1997)

In an increasingly competitive and cost-conscious world, there is pressure on all staff functions and, indeed, on every aspect of organizations to justify their use of resources (Pfeffer, 1997). The HR function creates tangible value in organizations by focusing primarily on delivery of HR practices (staffing, development, compensation, labor relations, etc.) based on professional and often research-based principles (Boudreau and Ramstad, 2005a). The studies measuring impact of HR practices on firm performance, found sufficient evidence for HR practices' impact on business results, both on financial results and the market value of firms. Likewise, the strategic impact of HRM has been shared among many HR and strategy researchers (Boudreau and Ramstad, 2005a & 2005b; Davison, 2003; Huselid, Jackson and Schuler, 1997). Yet HR struggles to define what it means to be strategic (Boudreau and Ramstad, 2005a & 2005b; Huselid, Jackson and Schuler, 1997). Conflicting theories, contradictory messages (Skinner; 1981), and absence of a decision science (Boudreau & Ramstad, 1997; Boudreau, & Ramstad, 2004; Boudreau & Ramstad, 2005a, 2005b; Boudreau & Ramstad, 2006; Boudreau & Ramstad, 2007; Yeung and Berman, 1997) are identified as the major reasons for the deprived state of HRM for many years.

The intensifying strategic importance of human resources management (Ulrich, 1997) exerts pressure on HR department to prove strategic value of HR practices to the organization. Additionally, changing profile of the workforce, changing business trends etc have brought new challenges to the function. Consequently, a multitude of HR measures have been developed to measure efficiency of HR functions. In the initial years, HR measurement was considered to be a part of accountant's function. For example, Flamholtz (1972) observed: *“It may be necessary for the accounting information system to provide not only monetary measurements of human resource value but also nonmonetary measurements”*. A major problem faced accounting researchers, in the initial years, was the need to establish the behavioral effects of various HRA measurements in relevant decision-making contexts (Tomassini, 1977). Phillips (1996)⁵ observed three levels of measurement of HR initiatives viz., *measures of effectiveness, measures*

5 Phillips, J. J. (1996). Accountability in human resource management Houston: Gulf Publishing Company.

of performance and measures of return on investment (as cited in Provo, 2000). Wright (2001) presented a summary of the evolution and major features of a successful HR measurement system. Furthermore, Phillips (2005) has devoted a chapter, in his book titled *“Investing in Your Company's Human Capital”*, on human capital measures. [Refer Appendix for the list of measures]. However, Provo (2000) noted that for many years evaluation of HR initiatives was focused on measuring, majorly training initiatives, and reflecting employee satisfaction. Similarly, Boudreau and Ramstad (2007) note *“HR measurement system largely reflects the question of efficiency, though there is some attention to effectiveness as well, through such things as turnover, attitudes, and bench strength. Rarely do organizations consider impact (defined as the relative effect of different talent pools on organizational effectiveness)”*. The downside of efficiency measures is that it reinforces the view of HR as only an administrative expert and whose cost should be reduced, thereby leading often to outsourcing. If HR practices impact business success through building up organizational capabilities, improving employee satisfaction, and shaping customer satisfaction, HR measures should be developed to measure HR's contribution to business performance (Yeung and Berman, 1997). Hence, strategic HR measurement system should facilitate value creation process and develop construct-valid measures (Becker, Huselid and Ulrich, 2001). Similarly Davison (2003) observed: whatever the process and measures are, it must reflect the link to company's business strategy.

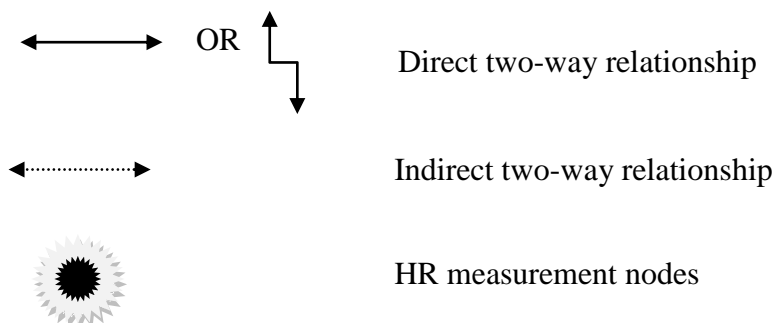
V. An HR Measurement Framework

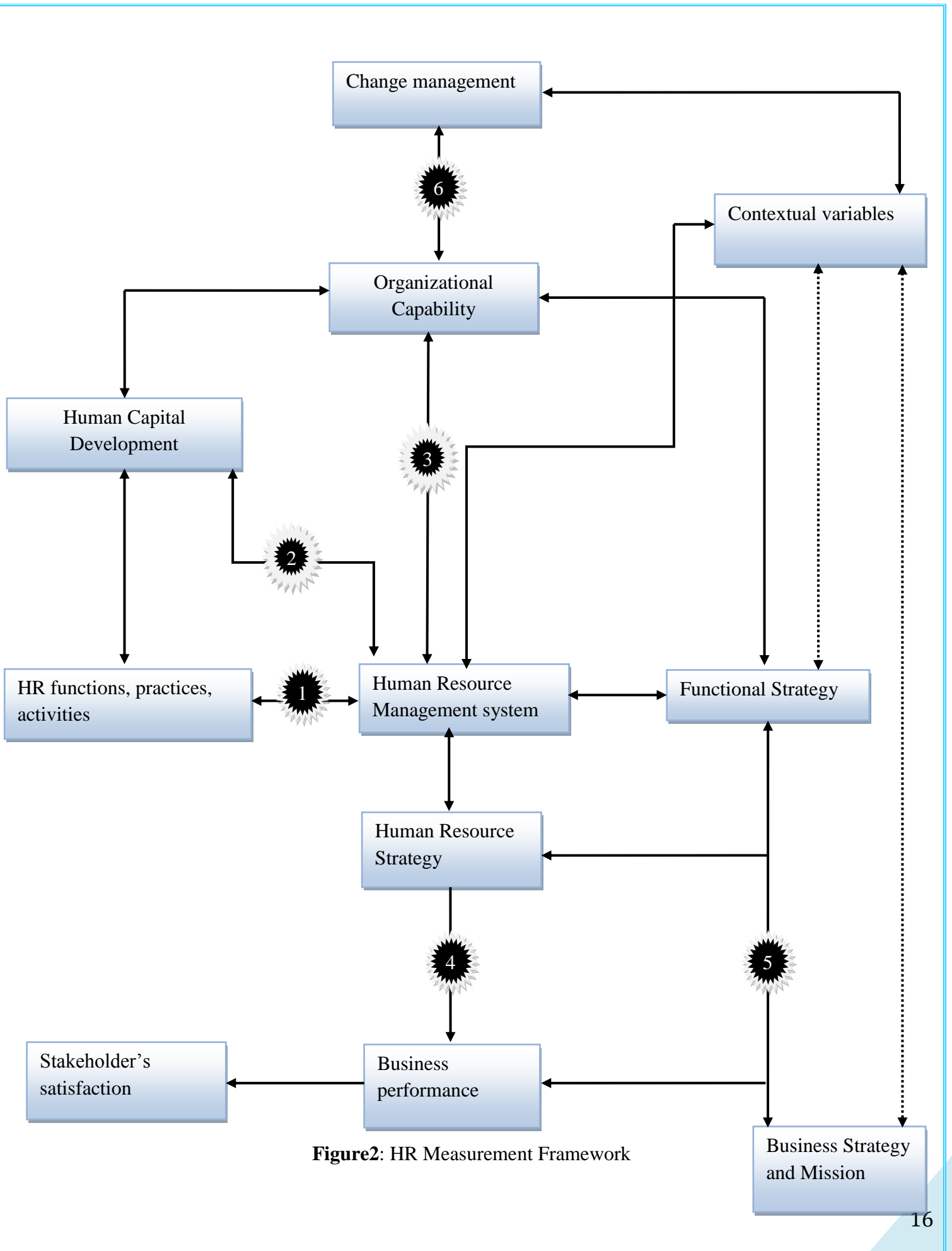
Some of the gaps identified in the HR measurement literature are summarized below:

- ✿ HR measurement models have been largely focused on quantification of HR activities
- ✿ The problem is not lack of measures but the abundance of measures of efficiency
- ✿ Debate on whether HR is an asset or not is still not concluded.
- ✿ Human Resource Accounting model, developed more than three decades ago, still could not attain the acceptance of business leaders
- ✿ Most of the HR measures are efficiency-based, aimed at internal reporting
- ✿ Different measures have been developed for different purposes. Therefore, there is no generally accepted framework on HR measurement.
- ✿ HR professionals and researchers make little effort to comprehend the strategic importance of the function. Hence the administrative paradigm still dominates in the discipline
- ✿ There is no mature decision science or logic to explain and analyze the underlying aspects of HR measurement models. Therefore, the developed measures remain as standalone numbers.

A new model of human resource management is proposed to bridge the gaps mentioned above. The proposed model is heavily drawn from the concepts of HC BRidge model and LAMP framework by Boudreau & Ramstad and HR scorecard. The four major roles of HR professionals, mentioned by Ulrich, are also considered while developing the model. The framework of the model is presented below.

Explanation of the Symbols Used in the Model





The proposed model links business strategy and human resource management strategy. The underlying logic of the model is “HR- strategy fit”. All functional strategies are derived from business strategy and mission, HRM is no exception to this. HR strategy is formulated from business strategy and other functional strategies. HR is expected to identify, develop and supply the required skills to various line functions in order to help them achieve the strategic intent. HR strategy is translated into HR measurement system comprised of HR functions, practices and activities. Major HR functions include recruitment, selection, training and development, performance management, reward management etc. All these functions are aimed at supporting line functions to achieve the functional strategy which sequentially contribute to organization strategy. Contextual variables such as strategy, culture, organizational policies, practices etc. have both direct and indirect effect on strategy formulation and implementation.

The model explains how human resource management system should be linked to business strategy. To capture the effectiveness HRM system at least six major links (as highlighted) in the model) should be measured. They are functional/administrative efficiency (node 1), developmental activities effectiveness (node 2), human capital valuation (node 3), HR- business performance relationship (node 4), HR contribution to strategy (node 5) and effectiveness of contingency management (node 6). Administrative efficiency is nothing but the responsiveness of HR functions, practices and activities. A large of administrative metrics is already available in the HR measurement literature. The effectiveness of development programs should be measured to understand if the function adds value to the firm or not. The valuation or cost-benefit analysis models proposed in the HRA methods can be used for the same. Human capital developed over a period of time is expected to increase organizational capability in terms of human capital. Method of human capital valuation is also present in the HR measurement literature. Change management efficiency of the HR function can be assessed by evaluating the success of change initiatives. Strategic impact of HR function could be assessed in terms employee value added. This can be done by examining the contribution of operational, developmental and human capital measures in the short run. However, in the long-run it is difficult to isolate the employee value added to the strategy is from the economic value added and customer value added aspects. However, qualitative measures such as line managers’ satisfaction with HR quality, human capital index, internal employee efficiency benchmarking, employee satisfaction etc can be used to understand. All internal operational measures and strategic measure should be guided by strategic orientation. The proposed model offers a framework showing how HR-business strategy linkages can be developed and how these linkages can be periodically assessed.

Rationale for the Model

The role HR professionals have to play in business ranges from operational activities to strategic processes. Therefore, any HR measurement system, to be thriving, should measure both operational and strategic aspects of human resource activities. For the measurement of operational process HR should develop HR metrics which reflect the true value of HR operations. Similarly to capture the strategic process, HR should develop appropriate strategy measurement tools. The logic of both the measures should be anchored in the contribution of HR to business performance.

Hence, effectiveness of the proposed HR measurement model depends on the following **parameters**.

- Logic of the underlying model
- Efficiency of the measures in reflecting the HR functions competence
- Data availability and utility
- Operationalization of the HR measures
- Ability to drive business performance towards strategic direction

The research gap in the HR measurement literature exists, not because of the lack of HR measures, mainly due to the lack of an underlying logic to connect the measures Hence, the objective of the proposed model is to serve as a framework for linking HR roles to business strategy rather than developing any new individual HR measure.

Future Research

- Contextual variables of human resource effectiveness need to further researched
- Development of strategic measures that reflects HR-strategy link can be explored further
- Methods to capture intrinsic value of HR function need to be developed

Limitations

Proposed model is developed completely based on the reviewed literature, thus the model might have overlooked the practical implications and operationalization aspects. Assessing the validity of HR metrics, developing alternate human capital measurement and strategic impact measurement models etc is beyond the scope of the paper and therefore these aspects are not attempted. Also, impact of external variables on business strategy is not considered as part of the model.

Conclusion

A number of HR measures have been developed with an objective of reflecting and reporting the value of HR to organizations. Given the competitive pressures and drive for cost reduction, human resources often winds up using measures produced by the organization's normal financial accounting systems. Most, although not all, human resource measures focus on the expenditure of resources, with a view to justify investments in human resources. The excessive emphasis on efficiency may lead to unintended consequences like reduction in manpower and investment in human resources. Being small or consuming few resources by itself does not necessarily indicate efficiency (Pfeffer, 1997). Hence, the efficiency measures should be derived from business strategy and strategic HR measures. A careful analysis of the issues discussed above sections lead us to the conclusion that development of human resource measures has proceeded in an atheoretical way. The inconsistencies and ambiguities noted in the HR measurement literature supports this contention. The lack of an overarching theoretical framework to support the measures represents critical barrier to the development of strategic measures. Therefore, development of a decision science or logic linking HR activities to business strategy is the first and foremost aspect in producing indisputable evidence that HR departments, practices, and measures matter.