

AN EVALUATION OF THE HUMAN CAPITAL BRIDGE™ FRAMEWORK

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ABSTRACT

Orientation: The methodologies employed for achieving two important goals of human resource (HR) measurement, namely to enhance decisions about human capital and to connect HR and business strategy, are rarely empirically investigated.

Research purpose: The aim of the present study was therefore to use the Human Capital (HC) BRIDGE™ framework to compare the views of HR practitioners with those of line management on HC solutions towards achieving strategic business objectives.

Motivation for the study: The motivation for this study was to determine whether the HC BRIDGE™ framework can create a useful platform for leveraging human capital solutions and for demonstrating HR value-add.

Research design: A census-based survey was conducted on a target population of 787 supervisors and managers in specific categories in a mining company, which yielded 202 responses. The measuring instrument used was based on the HC BRIDGE™ framework and on the company's strategic objectives. Item intercorrelations on the subscales were followed by factor analyses and iterative item analyses.

Main findings/results: The self-developed measuring instrument yielded an overall Cronbach alpha coefficient of 0.97. Statistically significant differences were found between line management's and HR practitioners' views in respect of the three strategic business objectives.

Practical/managerial implications: The results suggested that HR management was not yet fully aligned in respect of strategic business objectives and of becoming a strategic business partner.

Contribution/value-add: The study therefore suggested that the HC BRIDGE™ framework can be used as a method to connect human capital processes with business strategy to leverage business results and to demonstrate value-add.

INTRODUCTION

Attempts to demonstrate the contribution by human resources (HR) to business strategy have received both negative and positive feedback from line management in a number of studies (Lawler, 2004, 2005; Lawler & Boudreau, 2009; Lawler & Mohrman, 2003). While HR practitioners believe mostly that their contribution to business success is meaningful, line management's view on HR's value-add is not aligned with this (Lawler, 2005). New methodologies for HR practitioners to demonstrate their contribution to business success are therefore required.

During the era of business downsizing, reengineering and outsourcing, it became apparent that HR practitioners' intuitive belief that the contributions of the HR function are critical to firm success may not be shared by their line colleagues (Wright, McMahan, Snell & Gerhart, 1998). Boudreau and Ramstad (1997) indicated that it is hard to demonstrate HR's contribution when other managers' views must be taken into consideration and it can be deduced that HR's own assessment of its human capital is subjective unless it satisfies the expectations of line management in demonstrating its value-add. This challenge was further highlighted by Wright *et al.* (1998) when they concluded that it is hard to convince line executives that HR management does provide a value-added contribution to the firm in the face of calls for blowing up the HR function (Stewart, 1996). HR executives have therefore become increasingly concerned with being able to demonstrate HR function's value to the firm (Ulrich, 1997).

Considerable progress in numerous approaches to demonstrate that HR practices can indeed contribute to firm performance has been made (Becker & Gerhart, 1996; Becker, Huselid, Pickus, & Spratt 1997; Huselid, 1995) but, as it is not the focus of this article to explain these different approaches in detail, no further elaboration on these approaches are provided here.

Mitsubishi, Park, Wright and Chua (1998) found significant differences between line management's and HR's perception in certain areas of HR, such as training, staffing and communication. Wright *et al.* (1998), for example, uncovered that line executives rate HR's staffing and succession plans as unsatisfactory. Lawler's (2005) also found significant differences in HR's contribution to business objectives. These studies, however, did not focus on demonstrating HR's contribution in managing human capital towards achieving strategic objectives. The present study will therefore indicate how human capital can be used to connect with company-specific strategic business objectives, namely 'operational excellence', 'growing the company' and 'securing the future'.

By way of conclusion, Lawler, Levenson and Boudreau (2004) indicated that, if HR management wants to play a strategic role in organisations, it should develop its ability to measure how human capital decisions affect business and vice versa to demonstrate its value-add to line management.

The key focus of this study is therefore to compare the views of HR and line management on the impact, effectiveness and efficiency of human capital solutions towards achieving the strategic objectives of the firm using the Human Capital (HC) BRidge™ framework by Boudreau and Ramstad (2002). This framework will enable HR management to leverage pivotal connections between human capital in key roles and in key business processes to achieve sustainable business results and to demonstrate HR's value-add.

The next section of this article creates the context of this study through a literature review and by unpacking the research design, which covers the approach and method, followed by the presentation of the results and a discussion. The article concludes with a brief synopsis of the recommendations and suggestions in respect of potential future research.

Literature review

Academics, researchers and consultants are rapidly developing approaches for executives to assess and guide strategic HR alignment to increase organisational effectiveness through human capital management. Among these approaches are the search for correlations between HR practices and business performance (Becker, Huselid & Ulrich, 2001) and the identification of links between human capital practices and shareholder value measures (Pfau & Kay, 2002), which should embrace line executives' views. Line executives' perceptions of the effectiveness and importance of HR practices will help to indicate the potentials that HR departments have in regard to becoming real business partners (Barney & Wright, 1998; Tsui 1987; Ulrich, 1998; Ulrich, Allen, Brockbank, Yonger & Nyman, 2009; Ulrich, Brockbank, Johnson, Sandholtz & Yonger, 2008; Ulrich, Brockbank, Yeung & Lake, 1995).

The rapidly changing business environment and increasing complexity of modern organisations have converged to support the idea that HR management should become a strategic partner and that HR management could demonstrate its value-add through measuring its human capital contribution (Lawler & Mohrman, 2003). The well-known concept of the *strategic partner* (Barney & Wright, 1998; Schuler, 1992; Ulrich, 1998; Ulrich *et al.*, 2008; Ulrich *et al.*, 2009) contends that HR departments should help line managers to resolve business issues and align HR's interests with the achievement of organisational goals.

Many organisations in developed countries are now highly dependent on their human capital for their competitive advantage (Lawler, 2004); the market value of corporations increasingly depending on their intangible assets, such as their knowledge, core competencies and organisational capabilities (Ulrich & Smallwood, 2003). These changes have created a growing consensus that effective human capital management is critical to an organisation's success (Jackson, Hitt & DeNisi, 2003). There is currently no empirical evidence that suggests that this should be different for South African organisations or for organisations in developing country contexts.

The concept of human capital is powerful in that it blends traditional aspects of personnel management (such as employee skills, knowledge and abilities) with the economic principles of capital accumulation, investment, deployment and value creation, which underlie much of strategic management (Dierickx & Cool, 1989).

Within the broad context of intellectual capital, Bontis and Fitz-enz (2002), on the one hand, define human capital as the combination of generic inheritance, education, experience and attitudes about life and business. Chen and Lin (2005), on the other hand, define human capital investment as input made by a company in talents that benefit competitive advantage, which are valuable and unique, and that should be kept out of reach of other companies. Boudreau and Ramstad (2002) defined human

capital as the hidden talent of employees and of potential employees.

These definitions create the context within which people's knowledge and skills are viewed as investments in the company. These investments, however, still cannot be translated into expected returns, as HR management lacks specific methodologies that connect human capital solutions with business-process outcomes to demonstrate HR's value-add. The present study is therefore positioned within this ambit of finding methodological solutions to these challenges.

In order to address these challenges, Boudreau and Ramstad (2002, 2007) developed the HC BRidge™ framework, which applies a metaphor of a bridge to describe the links between investments in HR programmes and sustainable business success. The model focuses not on what HR management is doing but on what the organisation should be doing about human capital or talent. Within this framework, HC refers to human capital and BR to the first letters of the surnames of the two authors, which are Boudreau and Ramstad. The framework suggests strategic talent or human capital connections that can be adapted to different businesses or competitive situations. It is based on the three generic elements of successful existing decision frameworks, namely efficiency, effectiveness and impact. In the HC BRidge™ framework, each of these fundamental anchor points are broken down further into a set of linking elements that can be used to articulate the framework more explicitly. Figure 1 describes the framework proposed to articulate organisational or business unit strategies tangibly enough to connect them to human capital investments.

The HC BRidge™ framework is useful as a planning tool in that it works from sustainable strategic success at the top to derive implications for HR practices and investments at the bottom. The framework is built on the three major *anchor points* and their associated fundamental questions. The three anchor points, as indicated, are efficiency (do we deliver HR programmes and practices through the frugal use of resources, such as time, money and labour?), effectiveness (when we implement HR programmes and practices, do they have an effect on the people to whom we apply them?) and impact (do we apply HR programmes and practices to the talent pools where they have the greatest effect on our strategic and organisational effectiveness?).

The HC BRidge™ framework has implications for many elements of HR. One significant implication is to guide the creation and use of measures to demonstrate HR management's strategic contribution. Research shows that the two important goals of HR measurement, which are to enhance decisions about human capital and to connect HR's strategy, are rarely achieved (Corporate Leadership Council, 2001; Lawler, 2004). A strong case can therefore be made for HR management developing better metrics and analytics if it is ever to become a true strategic partner in most organisations (Lawler, Levenson & Boudreau, 2004).

According to Brown (1999), the problem is that the metrics that these organisations have on the 'people part' of the business do little to tell them about the value-add and performance of human capital. HR management should therefore find other methods to measure the contribution of human capital against organisational performance and thereby demonstrate its value-add to line management. Some approaches have been used to demonstrate the contribution of HR management in managing human capital through theoretical modelling. Wright, McMahan and McWilliams (1994) used the resource-based view of the firm to analyse how HR management can provide HRs that are valuable, rare, inimitable and non-substitutable, thus fulfilling the criteria of a source of sustainable competitive advantage. Another approach was the use of actual HR metrics as a means of showing where the HR function stands in

performing its tasks relative to either other firms or its own past performance in these metrics. Fitz-enz (1980, 1984, 1990) has also done extensive work at the Saratoga Institute in gathering efficiency indicators for a large number of HR activities. One can also assess HR management effectiveness through surveying its customers. Lawler (2004; 2005) and Lawler and Boudreau (2009) used survey techniques to evaluate business executives' and HR professionals' views on the value of HR management. Results of some of these studies are reported below.

Lawler (2004) found that, in most organisations, senior executives recognise the importance of human capital. When asked whether HR issues are critical to strategy, most senior executives report that they are. They also say that they want HR management to make a contribution to strategy and to play a role in supporting its implementation. Despite the logical arguments and support for HR management playing a major role in the development of business strategy, however, this research, according to Lawler, suggested that, in most corporations, it is not a major player in the development and implementation of business strategy.

In a 2004 survey of major corporations, fewer than 40% of HR executives surveyed reported that HR management is a full partner in strategy development. The results were even worse when their counterparts in management were asked: fewer than 25% of senior executives reported that HR management is a full partner in the development and implementation of business strategy.

There are a number of reasons why HR management is not a major player in business strategy development:

- HR executives are rarely on corporate boards.
- HR executives are not members of the senior management team.
- HR management is often mired in administrative data and ends up with a largely administrative role.
- HR executives' careers do not expose them to business and business strategy.
- HR management does not have the kinds of metric and analytic capabilities that finance and marketing have.

Lawler's research on HR management as a strategic partner suggested that there are a number of steps that HR practitioners can – but often do not – take that will lead to them having a major role in business strategy. This article will now look at the major steps that can be taken.

The emerging consensus in HR literature is that the most effective HR departments are those that add value by playing a business partnership role (Lawler & Mohrman, 2003). Lawler and Boudreau (2009) found that, for several decades, the HR function in corporations has indeed been encouraged to become a strategic partner. Findings from their longitudinal study of large corporations, however, suggested that HR management is not a strategic partner yet and that little or no movement towards it becoming one has occurred. In their analysis of what HR practitioners can do to become a strategic partner, they therefore showed some clear actions that HR practitioners can take:

- Develop talent in HR management.
- Create corporate centres of excellence.
- Develop the right metrics and analytics.
- Perhaps most importantly, understand how human capital management impacts business results.

The results of the study by Lawler and Boudreau (2009) also showed that there are a number of strategy activities that HR practitioners can be involved in and that, to some degree, different factors influence how much HR practitioner are involved in each of these.

The study by Wright *et al.* (1998) examined the importance of HR management from the viewpoints of both top level

line and HR executives in respect of HR roles, effectiveness and contributions. It demonstrated significant differences between line executives and HR executives, as line executives gave average importance ratings as opposed to their HR counterparts, who gave relatively high ratings. It did indicate, however, that line executives increasingly believe that the attraction, selection, retention and motivation of employees, particularly those with managerial talent, are critical to their firm's future success and that the effective delivery of services provided by HR management is integral to the firm's competitive advantage. The results also indicated that both line and HR executives recognise the potential importance of HR activities in the firm's competitive advantage and that both groups agree on HR management's strengths and weaknesses in delivering the relevant services. The results also, however, pointed to the fact that line executives do not give marks that are nearly as high as HR executives do when it comes to evaluating HR management's effectiveness.

Mitsuhashi *et al.* (1998) investigated the perceptions of line and HR executives on HR effectiveness in firms in the People's Republic of China. The major finding of this study was that, while there are no significant differences between HR executives' and line executives' perceptions of the importance of each functional area in HR management, there are significant differences between their perceptions of the effectiveness of these areas. These differences imply that line executives are more dissatisfied with current HR capabilities than are HR managers. The results of this study were congruent with the findings of previous studies related to HR management in the People's Republic of China (Goodall & Warner, 1997; Tsang, 1994; Verburg, 1996; Wright *et al.*, 1998).

While these studies attempted to demonstrate HR management's contribution to organisational performance using different approaches, as articulated, less attention was paid on finding connections between human capital as a component of HR management and strategic business processes. A significant issue in HR management strategy is that of integration with overall business strategy, which, in practice, is difficult to achieve (Roos, Fernstrom & Pike, 2004). A systematic approach should be adopted to overcome this problem. The HC BRidge™ framework (Boudreau & Ramstad, 2002, 2007) was therefore considered in the present study, as it attempts systematically to identify connections between human capital investments and strategic business objectives. The latter are long-term objectives formulated to support the attainment of company business strategy. This study looked at three strategic business objectives: (1) operational excellence; (2) growing the company; and (3) securing the future. The effectiveness, efficiency and impact of HR activities within each of these strategic business objectives were consequently assessed in terms of the HC BRidge™ framework.

The aim of the present study is to use the HC BRidge™ framework to assess, on a comparative basis, the views of HR and line management towards achieving company-specific strategic business objectives. Different studies (Lawler, 2004; Lawler & Boudreau, 2009; Lawler & Mohrman, 2003; Mitsuhashi *et al.*, 1998; Wright *et al.*, 1998) suggested that it appears as if HR departments do not meet the relatively high expectations of line executives. In view of the above-mentioned research findings and the fundamental nature of the HC BRidge™ framework anchor points, the following three research hypotheses are formulated to test HR's and line managers' views on achieving company-specific strategic business objectives:

H1: There are statistically significant differences between line management's and HR professionals' views on the effectiveness, efficiency and impact of human capital on strategic objective 1, 'operational excellence'.

H2: There are statistically significant differences between line management's and HR professionals' views on the effectiveness, efficiency and impact of human capital on strategic objective 2, growing the company.

H3: There are statistically significant differences between line management's and HR professionals' views on the effectiveness, efficiency and impact of human capital on strategic objective 3, 'securing the future'.

RESEARCH DESIGN

The research design is discussed under the following two headings: research approach and research method.

Research approach

The research approach followed in the present study is from the quantitative tradition, a cross-sectional field survey was therefore conducted and an *ex post facto* approach in the correlational data analysis was followed. This approach was deemed most appropriate to address the research objectives of this study, as such a survey would yield primary data suitable for conducting the comparative analyses.

Research method

The research method is described under the following four headings:

Participants

The research was conducted at one of South Africa's mining companies at its Free State and Gauteng regional operations. A census-based survey was conducted (meaning that the entire target population had an equal chance to participate) within a specific supervisory and management target population ($N = 787$), with the researchers focusing more on potential participants exposed to the company's performance management system. A response rate of 202 (26%) was obtained. In terms of the demographic profile, about 20% of the participants represented the human capital function ($n = 41$) and 93% represented line management ($n = 147$), while 14 responses were received from other departments.

The information gathered from the sample was used to describe the population at that time (Kerlinger & Lee, 2000), as indicated in Table 1.

TABLE 1
Sample description in terms of biographical variables

	Frequency	%	Valid %	Cumulative %
Group				
HR	41	20.3	20.3	20.3
Line	147	72.8	72.8	93.1
Other	14	6.9	6.9	100
Total	202	100	100	
Average age				
20 – 29	31	15.3	15.3	15.3
30 – 39	71	35.1	35.1	50.5
40 – 49	77	38.1	38.1	88.6
50 – 59	23	11.4	11.4	100
Total	202	100	100	
Gender				
Male	168	83.2	84.8	84.8
Female	30	14.9	15.2	100
Total	198	98	100	
Missing System	4	2		
Total	202	100		
Educational level				
Senior High School	113	55.9	56.8	56.8
Tertiary	86	42.6	43.2	100
Total	199	98.5	100	
Missing System	3	1.5		
Total	202	100		

From Table 1, it is clear that the age of the respondents ranged from 20 to 60 years and that the majority of the participants were males, representing 85% of the sample. With regard to academic qualifications, 57% of the sample had a senior high-school qualification and 43% had a tertiary qualification. This reflected the educational profile of the supervisors and managers within both line management and the HR professional categories.

Measuring instrument

Every form of survey relies on the use of a questionnaire, comprising a set of questions designed to generate the data necessary for accomplishing the objectives of the research project (McDaniel & Gates, 1996). As an existing questionnaire for the present study was not available, the researchers developed a 27-item questionnaire based on the company's strategic themes and on the HC BRidge™ framework.

The three subsections of the questionnaire represented the company's strategic themes, namely 'operational excellence', 'growing the company' and 'securing the future'. The subsections were linked to the three dimensions of the HC BRidge™ framework, namely effectiveness, efficiency and impact. Some of the following items were used in these three categories:

Effectiveness: 'Performance management system enables work performance and competency development'; 'HR contributes in creating an enabling environment where talent in pivotal roles operates.'

Efficiency: 'Critical skills are attracted within reasonable costs and efficient HR solutions'; 'HR expedites decision making about talent pools through quantifiable measures.'

Impact: 'HR influences growth through performance management in talent pools'; 'HR is an integral part of business planning.'

Kraut (1996) concluded that the most commonly used response scale was a 5-point scale. A 5-point categorical response scale, where all categories were anchored, was therefore used to record the responses of the respondents to each item. The scale ranged from 1 ('strongly disagree') to 5 ('strongly agree'). The questionnaire consisted of five items in respect of the three dimensions of the first strategic objective (operational excellence). Fifteen items were used to measure 'operational excellence', 6 to measure 'growing the company' and 6 to measure 'securing the future', which gives a total of 27 items. With each strategic objective subscale, an equal number of items was used to measure the effectiveness, efficiency and impact dimensions.

The researchers adhered to the guidelines developed for structuring questions, namely that questions should be purposeful, unambiguous, complete and factual, that questions that are double-barrelled, sensitive, leading, negative and bias should be avoided, that questions should be relevant and kept short, that respondents should be able to answer all questions, that wording has an important impact on responses and that abbreviations, technical terminology, value judgments and hidden assumptions should be avoided (Babbie & Mouton, 2001; Church & Waclawski, 1998; Devellis, 1991; Fife-Schaw, 2000; Kraut, 1996; McDaniel & Gates, 2001; Rubin & Babbie, 1997; Sarantakos, 1998; Smith, 2003; Struwig & Stead, 2001; Welman & Kruger, 2001).

Research procedure

A covering letter explaining the purpose of the present study was attached to the questionnaire, assuring the confidentiality of the responses, as were general instructions on how to complete the questions (Boon & Arumugam, 2005). The study followed this approach because the covering letter also included a demographic section.

TABLE 2
Item intercorrelation (15 x 15) matrix of operational excellence

	OE_1.1	OE_1.2	OE_1.3	OE_1.4	OE_1.5	OE_2.1	OE_2.2	OE_2.3	OE_2.4	OE_2.5	OE_3.1	OE_3.2	OE_3.3	OE_3.4	OE_3.5
OE_1.1	1	0.697	0.658	0.527	0.589	0.546	0.465	0.487	0.384	0.53	0.622	0.609	0.46	0.47	0.581
OE_1.2	0.697	1	0.642	0.592	0.568	0.467	0.513	0.526	0.422	0.493	0.488	0.525	0.464	0.531	0.488
OE_1.3	0.658	0.642	1	0.707	0.615	0.581	0.566	0.586	0.442	0.484	0.432	0.441	0.452	0.49	0.508
OE_1.4	0.527	0.592	0.707	1	0.62	0.485	0.574	0.606	0.581	0.479	0.448	0.514	0.457	0.635	0.524
OE_1.5	0.589	0.568	0.615	0.62	1	0.523	0.572	0.651	0.516	0.603	0.496	0.515	0.48	0.537	0.482
OE_2.1	0.546	0.467	0.581	0.485	0.523	1	0.715	0.583	0.539	0.598	0.444	0.408	0.532	0.484	0.469
OE_2.2	0.465	0.513	0.566	0.574	0.572	0.715	1	0.732	0.707	0.628	0.457	0.526	0.59	0.618	0.536
OE_2.3	0.487	0.526	0.586	0.606	0.651	0.583	0.732	1	0.686	0.647	0.471	0.556	0.561	0.581	0.578
OE_2.4	0.384	0.422	0.442	0.581	0.516	0.539	0.707	0.686	1	0.611	0.439	0.473	0.571	0.652	0.451
OE_2.5	0.53	0.493	0.484	0.479	0.603	0.598	0.628	0.647	0.611	1	0.425	0.468	0.512	0.591	0.512
OE_3.1	0.622	0.488	0.432	0.448	0.496	0.444	0.457	0.471	0.439	0.425	1	0.811	0.633	0.58	0.737
OE_3.2	0.609	0.525	0.441	0.514	0.515	0.408	0.526	0.556	0.473	0.468	0.811	1	0.648	0.626	0.685
OE_3.3	0.46	0.464	0.452	0.457	0.48	0.532	0.59	0.561	0.571	0.512	0.633	0.648	1	0.789	0.633
OE_3.4	0.47	0.531	0.49	0.635	0.537	0.484	0.618	0.581	0.652	0.591	0.58	0.626	0.789	1	0.592
OE_3.5	0.581	0.488	0.508	0.524	0.482	0.469	0.536	0.578	0.451	0.512	0.737	0.685	0.633	0.592	1

TABLE 3
Item intercorrelation (6 x 6) matrix of growing the company

	GGF_1.1	GGF_1.2	GGF_2.1	GGF_2.2	GGF_3.1	GGF_3.2
GGF_1.1	1	0.743	0.686	0.658	0.615	0.645
GGF_1.2	0.743	1	0.751	0.686	0.671	0.619
GGF_2.1	0.686	0.751	1	0.769	0.607	0.6
GGF_2.2	0.658	0.686	0.769	1	0.637	0.673
GGF_3.1	0.615	0.671	0.607	0.637	1	0.869
GGF_3.2	0.645	0.619	0.6	0.673	0.869	1

TABLE 4
Item intercorrelation (6 x 6) matrix of securing the future

	SOF_1.1	SOF_1.2	SOF_2.1	SOF_2.2	SOF_3.1	SOF_3.2
SOF_1.1	1	0.844	0.544	0.557	0.632	0.492
SOF_1.2	0.844	1	0.586	0.587	0.642	0.566
SOF_2.1	0.544	0.586	1	0.808	0.735	0.679
SOF_2.2	0.557	0.587	0.808	1	0.757	0.693
SOF_3.1	0.632	0.642	0.735	0.757	1	0.746
SOF_3.2	0.492	0.566	0.679	0.693	0.746	1

The questionnaire was initially tested with the executive committee team of the company's Free State operation before it was circulated for data collection to the target population. This process was consistent with the suggestion that sensitive questions be identified during a pilot study by McClendon and O'Brien (1988), McDaniel and Gates (2001) and Rust and Golombok (1999).

The survey questionnaire of the present study was distributed to the HR departments to assist in coordinating the data-collection process. This procedure was supported by Boon and Arumugam (2005), who used the survey questionnaire as the main form of data collection. Boon and Arumugam (2005) distributed their questionnaire to all the employees from the different job levels and functions within an organisation through an officer or coordinator from either the HR or the administration department of the organisation.

Statistical analysis

The data from the questionnaire were collated and the results were analysed by the Statistical Consultation Service of the University of Johannesburg. Firstly, item intercorrelations for the three subsections were conducted, followed by factor analyses and iterative-item reliability analyses. Lastly, to test the stated hypotheses, group comparisons were provided to indicate statistically significant differences between line management and HR in all three subsections of the scale.

RESULTS

The first phase of the data analysis included the item intercorrelations of the three subsections of the questionnaire,

followed by factor analysis and iterative-item reliability statistics. In the second phase, group comparisons were provided to indicate statistically significant differences between HR and line management in all three subsections of the scale.

First phase of the data analysis

This phase consists of the two levels of factor analyses, discussed under the following subheadings:

First-level factor analysis

Owing to the relatively small sample size (fewer than 10 respondents per item), an adjusted procedure for the first-level factor analysis was used. This procedure entailed the parcelling of items in the theoretical dimensions (in other words, the three subsections of the scale representing the three strategic objectives). Tables 2, 3 and 4 provide the item intercorrelation matrices on subsections of the scale, namely for 'operational excellence', 'growing the company' and 'securing the future'. Acceptable measures of sampling adequacy (> 0.80) were also obtained in the anti-image correlation matrices (not displayed here owing to limited space), indicating that all the items were significantly related to the measured construct and could be retained for the factor analyses.

The tests developed by Kaiser-Meyer-Olkin (KMO) and Bartlett yielded acceptable results on the three-item intercorrelation matrices. The results of the KMO tests were 0.92, 0.85 and 0.85 for 'operational excellence', 'growing the company' and 'securing the future', respectively. The obtained chi-square values of Bartlett's test were, respectively, 2 161.29, 974.97 and 985.25 (all statistically significant; $p \leq 0.000$), with the corresponding degrees of freedom of 105, 15 and 15 for 'operational excellence', 'growing the company' and 'securing the future'. These obtained values indicated that these matrices were suitable for further factor analysis.

Single factors were extracted on each item intercorrelation matrix for each subsection of the scale. The Cronbach alpha reliabilities (Cronbach, 1951) for the different theoretical subsections were 0.95 for 'operational excellence', 0.93 for 'growing the company' and 0.92 for 'securing the future', confirming the single-factor structures for the theoretical

TABLE 5
Intercorrelation matrix of the three sub-sections of the scale

	Factor1	Factor2	Factor3
Factor1	1	0.762	0.739
Factor2	0.762	1	0.754
Factor3	0.739	0.754	1

TABLE 6
Eigenvalues of the unreduced 3 x 3 intercorrelation matrix

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.503	83.433	83.433	2.254	75.149	75.149
2	0.262	8.736	92.169			
3	0.235	7.831	100			

Extraction Method: Principal Axis Factoring.

TABLE 7
Factor loadings and communalities

Factor Matrix(a)	Factor 1	Extracted communalities
Factor3	0.873	0.747
Factor2	0.87	0.757
Factor1	0.864	0.763

Extraction Method: Principal Axis Factoring.
a 1 factors extracted. 6 iterations required.

dimensions of the scale and providing a sound basis for testing the hypotheses.

Second-level factor analysis

In the second-level factor analysis, the subscores for the three subsections were intercorrelated; the results are portrayed in Table 5. Subsections 1, 2 and 3 were positively intercorrelated with each other, as illustrated in the 3 x 3 matrix presented in Table 5.

The KMO and Bartlett's tests on this matrix yielded the acceptable results of 0.75 and 370.59 ($df = 3; p \leq 0.000$), respectively, indicating that the matrix was suitable for further factor analysis. Eigenvalues were calculated and a single factor was postulated based on the criterion of roots greater than unity by Kaiser (1961). These eigenvalues are provided in Table 6.

The obtained factor matrix was rotated to a simple structure by means of a Varimax rotation with Kaiser normalisation. The obtained factor loadings and corresponding communalities of the single extracted factor are displayed in Table 7. They exceed minimum requirements.

Table 8 depicts descriptive-item statistics for the three subsections of the scale as well as the reliability statistics of these subsections.

The iterative-item analysis yielded an overall Cronbach alpha reliability (Cronbach, 1951) coefficient of above 0.97 for the scale as a whole. This indicated that the human capital

TABLE 8
Item means and standard deviations for the overall scale and item reliability, the statistics are grouped according to scale sub-sections ($N = 178$)

Sub-section items	Brief item description i.t.o. dimensions	Item means	Item s.d.	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1.1	Effect. Attraction of critical skills	3.52	1.08	0.714	0.945
1.2	Effect. Training facilitates skills acquisition	3.56	1.03	0.695	0.945
1.3	Effect. Enable succession planning	3.5	1.026	0.715	0.945
1.4	Effect. PM enables work performance	3.45	1.105	0.726	0.945
1.5	Effect. PM enables talent retention	3.37	1.103	0.727	0.945
1.6	Effic. Critical skills attracted	3.37	0.967	0.687	0.945
1.7	Effic. Training generates ROI	3.39	0.998	0.767	0.944
1.8	Effic. Talent pipelines enable talent allocation	3.41	0.886	0.775	0.944
1.9	Effic. PM facilitates performance feedback	3.4	1.016	0.693	0.945
1.1	Effic. Competency development facilitates retention	3.27	0.972	0.707	0.945
1.11	Impact. Skills in pivotal roles	3.67	1	0.695	0.945
1.12	Impact. Training results in capacity building	3.58	0.931	0.728	0.945
1.13	Impact. Opportunity to contribute towards productivity	3.51	0.922	0.722	0.945
1.14	Impact. PM leverages productivity	3.42	0.919	0.764	0.944
1.15	Impact. Skills retention facilitates achieving production targets	3.68	1.005	0.724	0.945
2.1	Effect. HR creates enabling environment	3.5	1.091	0.773	0.917
2.2	Effect. HR prepares competency profiles	3.43	1.013	0.808	0.911
2.3	Effic. HR expedites decision making	3.27	1	0.79	0.914
2.4	Effic. HR prepares solutions	3.28	0.939	0.793	0.914
2.5	Impact. HR influences growth through capacity building	3.39	0.993	0.787	0.914
2.6	Impact. HR influences growth through PM	3.31	1.037	0.787	0.914
3.1	Effect. HR prepares for knowledge and skills acquisition	3.37	0.979	0.708	0.914
3.2	Effect. HR planning provides required competencies	3.34	0.979	0.751	0.908
3.3	Effic. HR enables efficient implementation	3.45	0.997	0.792	0.903
3.4	Effic. HR measures generate ROI of solutions	3.37	1.04	0.804	0.901
3.5	Impact. HR prepares for performance solutions	3.44	1.002	0.836	0.897
3.6	Impact. HR is an integral part of business planning	3.75	1.062	0.742	0.91

s.d. = standard deviation

TABLE 9
Mean differences, mean ranks and tests of significance of the scale sub-sections

Dimension	Group	N	Mean	s.d.	s.e. mean	Mean Rank	Σ of Ranks	Mann-Whitney U	Wilcoxon W	Z	Asymp.Sig. (2-tailed)
1 Operational Excellence	HR	41	3.735	0.627	0.098	115.99	4755.5	2132.5	13010.5	-2.862	0.004
	Line	147	3.373	0.792	0.065	88.51	13010.5				
2 Grow the Company	HR	41	3.656	0.821	0.128	113.28	4644.5	2243.5	13121.5	-2.511	0.012
	Line	147	3.287	0.875	0.072	89.26	13121.5				
3 Secure the Future	HR	41	3.740	0.710	0.111	108.99	4468.5	2419.5	13297.5	-1.946	0.052
	Line	147	3.39	0.872	0.072	90.46	13297.5				

s.d. = standard deviation
s.e. = standard error

solutions towards achieving the company’s three strategic objectives were reliably measured. To allow for the testing of the formulated hypotheses, comparisons between HR’s and line managers’ views were conducted on a strategic objective level and not on the overall scale.

Second phase of the data analysis

The scores on the subsections of the scale were subjected to non-parametric tests of significant differences for a comparative evaluation of the views on HR management’s contribution towards achieving strategic objectives through human capital. Non-parametric tests were selected specifically because measurement data were generated on an ordinal-measurement level. In the ‘box and whisker’ plots in Figures 2, 3 and 4, comparative views on significant differences between HR’s and line management’s views on human capital’s contribution towards achieving ‘operational excellence’, ‘growing the company’ and ‘securing the company’s future are presented’.

These graphs indicated significant mean differences between the views of line and HR managers. The effect sizes of these mean differences were probably small, based on the degree of overlap (> 80%) between the response distributions (Howell, 1997). Table 9 presents the mean scores, mean ranks and statistical-significance tests of differences between HR and line management in respect of the three strategic objectives.

The mean ranks in Table 9 revealed statistically significant differences between HR and line management mean scores in respect of the three subsections of the scale. The differences were statistically significant for strategic objectives 1 and 2, but at a slightly lower level for strategic objective 3 in the Mann-Whitney U-tests and Wilcoxon W-tests. On these grounds, all three null hypotheses were rejected. These significant differences provided support for the acceptance of all three alternative hypotheses (H1₁, H1₂ and H1₃), albeit hypothesis H1₃ being statistically significant at a slightly lower level (p = 0.06).

DISCUSSION

The primary aim of the present study was to compare the views of HR and line management on achieving strategic business objectives by using the HC BRidge™ framework. This was the first South African study using the HC BRidge™ framework as a method to do a quantitative assessment of whether HR and line managers share the same views on HR management’s service delivery. The value-add of the study specifically resided in demonstrating the suitability of the HC BRidge™ framework in identifying those aspects in respect of which HR and line managers differed and for the future improvement of human capital services.

Summary of the results

Three hypotheses were formulated in the study, namely to test whether line managers’ and HR’s views were similar in respect of how human capital contributes towards the achievement of three strategic objectives, (1) operational excellence, (2) growing the company and (3) securing the future. The results provided

support for the acceptance of all alternative hypotheses (H1₁, H1₂ and H1₃), albeit hypothesis H1₃ being statistically significant at a slightly lower level (p = 0.06). Line management indicated that human capital interventions in respect of effectiveness, efficiency and impact were relatively less connected to three of the company’s strategic objectives. By contrast, the HR practitioners believed that these interventions added significantly more business value. The statistically significant differences in respect of the three strategic objectives found in this study implied that the line managers (as the recipients of HR management’s services) were not satisfied with the current human capital solutions provided by HR management with reference to supporting the company’s strategic objectives. The HC BRidge™ framework provided a suitable framework for making these comparisons.

When linked back to the research literature, these results were consistent with the findings of several studies (Lawler, 2004; Lawler & Boudreau, 2009; Lawler & Mohrman, 2003; Mitsuhashi *et al.*, 1998; Wright *et al.*, 1998), in which significant differences between line management’s and HR practitioners’ perceptions of the effectiveness of HR activities were discovered. In the Mitsuhashi *et al.* study, the differences were found to be statistically significant, particularly in respect of HR’s contribution to the bottom line, building human capital, becoming a business partner and supporting the business plan. The Wright *et al.* (1998) study also reported significant differences between line executives and management on HR’s services, roles and contribution. The results furthermore supported the studies by Lawler (2004, 2005), in which significant differences between line managers’ and HR’s views were found in respect of a range of HR services.

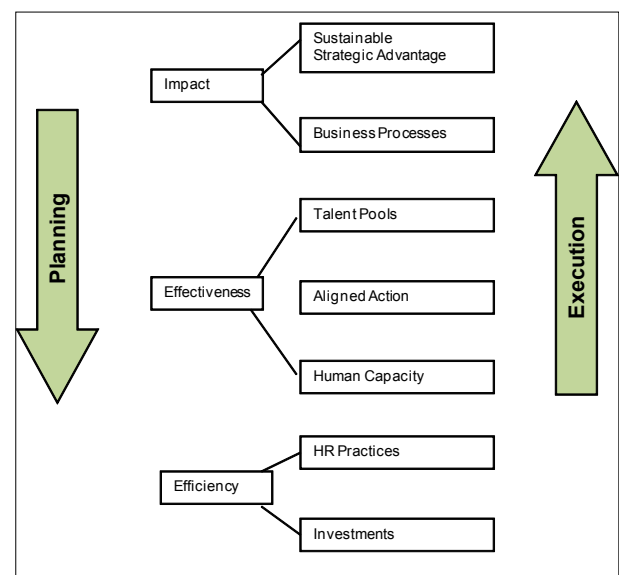


FIGURE 1
HC BRidge™ Framework

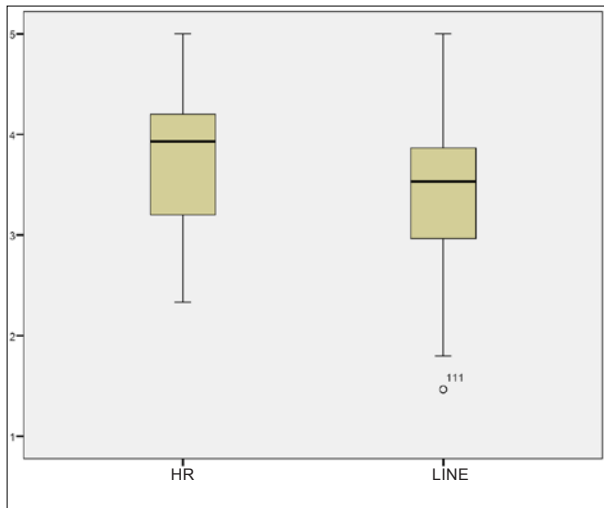


FIGURE 2
Group comparisons between HR and line on operational excellence

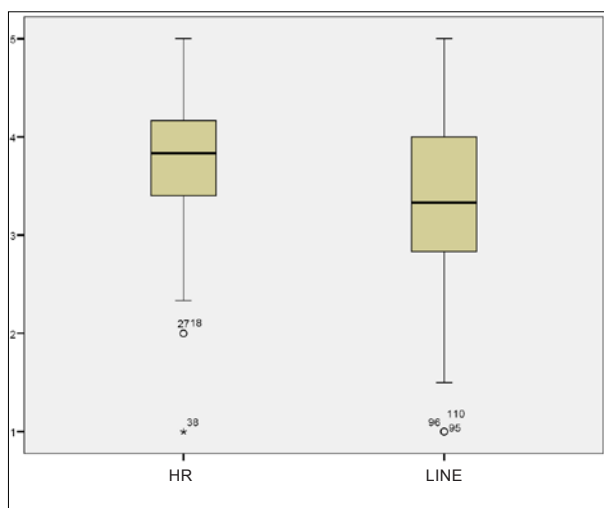


FIGURE 3
Group comparisons between HR and line on growing the company

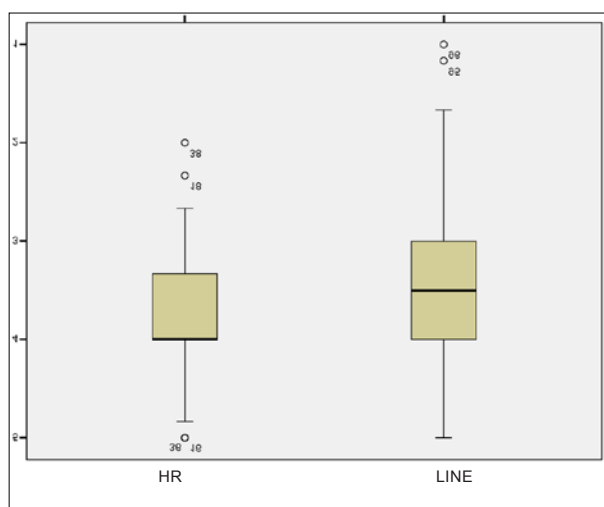


FIGURE 4
Group comparisons between HR and line on securing the future

Managerial implications

HR and line management are still likely to have different views on how they perceive the contribution of HR management in managing human capital due to their diversified interests within a business. The resource-dependence theory (Jacobs, 1974; Pfeffer & Salancik, 1978) holds that organisations consist of various social actors with different and incongruent interests, thereby suggesting that one may expect differences in opinion among such actors.

In the present study, the HR practitioners' view was, more specifically, that they provided human capital solutions that added value to the business and that this was not recognised as such by line management. Line management held a different view to that of the HR managers in that HR solutions added significantly less value in respect of pivotal effectiveness, efficiency and impact aspects. The underlying concern from line management was that there were significantly fewer connections between human capital and business strategy in respect of pivotal roles and key business processes. Examples of such mismatches in respect of all three strategic business objectives were apparent in the demonstration of value-add in the pivotal aspects of effectiveness, efficiency and impact:

- Attracting and retaining critical skills and talent for achieving targets.
- Training and development interventions to facilitate skills and knowledge acquisition in talent pools.
- Managing talent pipelines to enable succession planning.
- Establishing and managing performance management systems.

As a result, human capital was not being used optimally to contribute towards achieving strategic objectives. This should be considered as an opportunity for HR to improve on its value-add to business in these areas. Mitsuhashi *et al.* (1998) indicated that line management's evaluations of HR activities, such as human capital management, should be taken seriously to construct a strong connection between HR activities and organisational performance.

The HR practitioners' concerns stemmed from line management's failure to implement human capital solutions and from being disempowered to make meaningful decisions towards the success of the business. Mitsuhashi *et al.* (1998) concluded that HR departments may not have the power to act strategically, although power does often reside in expert knowledge and in someone being perceived to be an expert by line managers.

Establishing expert knowledge and, ultimately, expert power is a necessary condition for the achievement of business goals and sustained competitive advantage through the supply of valuable, rare, non-imitable and non-substitutable human capital solutions (Wright *et al.*, 1994). Less-empowered HR departments are less likely and less able to act strategically. The development of HR management expertise is therefore imperative.

A company's human capital should be deployed in areas where it can have the greatest impact in the realisation of return on investment and the assurance of the company's competitive advantage. The HC BRidge™ framework is aimed at articulating the connections between human capital investment and the strategic success of an organisation (Boudreau & Ramstad, 2004) and could assist in the management of the differences between HR and line management.

While HR expects line management to implement human capital solutions properly, line management expects HR practitioners to provide optimal human capital solutions to

make the biggest difference through activities that blend with business processes for value creation. These differences are still likely to prevail unless HR managers demonstrate that their human capital solutions add significant value to a business. The results of this study suggested that there should be a systematic connection between human capital investments and the strategic objectives of a firm, to which HR managers should pay attention.

Possible limitations of the study and directions for future research

From a methodological point of view, a possible limitation of this study stems from the small sample size of the HR participants, which reduces statistical power. Related to this aspect is the fact that the study was conducted only in a single organisation, which makes it difficult to generalise the findings beyond this sample. Considering the general level of HR development in South Africa, however, the findings of the present study suggest that the trends shown in this study are likely to apply to HR management in South Africa in general.

The HC BRidge™ framework was not applied to its fullest extent in the sense that it was not used to guide measurement solutions to assist both HR and line managers to measure the contribution of human capital towards strategic objectives. Boudreau and Ramstad (2007) concluded that the significant implication of the HC BRidge™ framework is that it can be used to guide the creation and use of measures that demonstrate HR management's strategic value-add. In the same way, HR measurement needs to extend its traditional focus on the HR function and increase its capability to support key decisions about human capital that drive organisational effectiveness (Boudreau, 2006). HR management therefore needs to develop much better metrics and analytics if it ever wants to become a true strategic partner in most organisations (Lawler *et al.*, 2004). Lawler and Mohrman (2003) identified the use of metrics as one of the four characteristics that lead to HR management being a strategic partner. The application of the HC BRidge™ framework, however, can be used to guide the development of human capital metrics, thereby meeting line managers' prerequisite for HR management to be a strategic partner.

The present study also did not demonstrate how human capital can be used as a source of competitive advantage as per the resource-based model of Barney (1991). Further research should therefore build on this research and select other methodologies to measure the contribution of human capital and to demonstrate how human capital can support the sustainable competitiveness of a firm.

CONCLUSION

The objective of the present study was to determine the suitability of the HC BRidge™ framework to compare the views of HR and line management on achieving strategic business objectives. Statistically significant differences between HR and line managers were found in respect of all the strategic objectives, hence the rejection of null hypotheses H_{01} , H_{02} and H_{03} . The research objective of this study to determine whether the HC BRidge™ framework is suitable as a methodology was therefore achieved. The results raise a concern in that HR management is still not being viewed as adding value by the recipients of HR services. HR management should therefore first develop human capital metrics and analytics before it can become and be recognised as a full strategic business partner.

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