



The impact of strategic human resource management on the performance of firms in India

A study of service sector firms

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Abstract

Purpose – The purpose of this paper is to investigate the relationship between strategic human resource management (SHRM) and performance in service sectors firms in India. Also, it has tried to explore whether the three main approaches in the area of SHRM – universalistic, contingency and configurational approaches hold true in an Indian setting.

Design/methodology/approach – Data were collected from 25 organizations, using two sets of questionnaires. Set 1 comprised measures of business strategy ($n = 98$) and key informant approach was used to collect the data. Set 2 had measures of SHRM which consisted of two sections – human resource management (HRM) system orientation and HRM capabilities and organizational effectiveness ($n = 750$). Performance was measured in terms of organizational effectiveness. Regression analysis was carried out at two levels: industry level and overall level.

Findings – Results indicated that there is positive relationship between SHRM and effectiveness, business strategy has an impact on the relationship between SHRM and effectiveness and universalistic theory of SHRM does not work in the Indian service sector.

Practical implications – The results of this study revealed that transport and IT-enabled industries require more strategic HR capability while finance requires more technical HR capability. The SHRM policies need to be dynamic and contingent on the business strategy to attain maximum impact on effectiveness.

Originality/value – This study contributes to the sparse literature on the role of SHRM in the service sector industry where dependence on human resources is more critical as compared to other sectors.

Keywords India, Service sector, Organizational performance, Strategic human resource management, Effectiveness, Business strategy

Paper type Research paper



Introduction

Strategic human resource management (SHRM) is about the relationship between human resource management (HRM) and strategic management in an organization.

SHRM covers broad organizational concerns related to structure, culture, management of change, organizational effectiveness, performance, competence, matching resources to future business requirements and employee development. Technical HRM or traditional HRM are concerned with the regulatory role and functions related with recruitment, selection, performance measurement, training and the administration of compensation and benefits while SHRM involves designing and implementing a set of internally consistent policies and practices which ensure that a firm's human capital contributes to the achievement of its business objectives (Baird and Meshoulam, 1988; Jackson and Schuler, 1995).

There are three dominant modes of theorising SHRM. One stream of researchers have adopted the "universalistic perspective" and identified some practices which are universally valid and yield results and improve performance (Delaney *et al.*, 1989; Terpstra and Rozell, 1993; Huselid, 1993, 1995; Osterman, 1994; Pfeffer, 1994). Meanwhile, the "contingency perspective" theorists attempted to show that many HR practices are consistent with different strategic positions and how these practices relate to firm performance (Balkin and Gomez-Mejia, 1987; Schuler and Jackson, 1987; Gomez-Mejia and Balkin, 1992; Begin, 1993). The third perspective is the "configurational perspective" which argued that in order to be effective, an HR system must be both horizontally and vertically fit, where horizontal fit refers to the internal consistency of the organizational HR policies and practices, and vertical fit refers to the congruence of the HR system with other organizational characteristics namely, firm strategy, etc. The ideal configuration would be one with the highest degree of horizontal fit.

Delery and Doty (1996) have tested the three dominant modes of SHRM theories as mentioned above. Results strongly supported universalistic perspective and showed some support for both the contingency and configurational perspectives. But it should be noted that such researches were conducted in the western context. Its universality is yet to be tested and established in different cultures, including India.

However, some researchers have focused on the Indian context and tried to see the applicability of emerging theories of HRM in India (Balasubramanian, 1995; Budhwar and Sparrow, 1997; Sparrow and Budhwar, 1997; Ramaswamy and Schiphorst, 2000). Budhwar and Khatri (2001) found that a shift is taking place in the pattern of HRM practices in Indian organizations from traditional administrative type to a more strategic and proactive type. In this aspect, the need of evaluating various models and approaches becomes more significant. Even in recent works (Som, 2007; Budhwar and Varma, 2010), it has been suggested that there is a paucity of research in this area.

Theories about linkage between SHRM and performance

The field of SHRM and particularly the stream of research exploring the relationship between human resource management and performance are still confronted with the fundamental challenge of absence of a theory about linkage of SHRM and performance [. . .] (Guest, 2001).

A similar concern is shared by other researchers in this area (Huselid and Becker, 1996). They identified a number of technical challenges in seeking estimates of any link between human resource management and performance.

However, some attempts have been made by a few researchers to explore this link. For example, Richard and Johnson (2001) examined this link using resource-based view (RBV) of the firm. According to RBV, internal firm resources that are rare,

valuable and non-substitutable can provide sources of sustainable competitive advantages (Barney, 1991). Human resource practices that meet these criteria are such a source (Wright and McMahan, 1992; Wright *et al.*, 2001) which enhance organizational performance. Meanwhile, Huselid *et al.* (1997) studied the technical and strategic HR management effectiveness as determinants of firm performance. They found that technical HRM gave better performance but there is a ceiling effect, which constrains the competitive advantage of firms if they do not switch to SHRM.

However, how HRM policy and practice translates into high-performance needs an empirically tested and validated theory. Neither the strategic nor the descriptive models of HRM provide much insight into how HRM is linked with performance (Guest, 1997). Hence, there is need to conduct more empirical research in order to understand this link. Moreover, the existing findings about the linkage between HRM and performance are not conclusive (Paauwe, 2009).

Present study

The primary aim of this study is to test the emergent theories of SHRM, i.e. universalistic, contingency and configurational theory in the Indian context for service sector firms. It is also clear that in order to study and test these emerging theories of SHRM and their impact on the performance of firms, it is necessary that other organizational dimensions and attributes be taken into account. Therefore, relevant factors like business strategy have been considered in this study. In this context, the dimensional approach is an appropriate measure for business strategy where the focus is to understand the relationship with human resource management practices. Moreover, it has been usually observed that the conceptualization and operationalization of performance of firms is a thorny issue in strategy research (Ramanujam and Venkatraman, 1986). One of the commonly used constructs of performance in research is the effectiveness of firms. Effectiveness has been defined in terms of an organization's ability to mobilize its centre of power for action, production and adaptation (Mott, 1972).

The present literature in the SHRM area as reviewed and discussed above shows clear gaps in three respects. First, there are very few studies that have included other attributes of an organization while linking HR practices with organizational performance. Second, there are very few studies that have tested these approaches in the Indian context. Finally, the adoption of SHRM practices is also determined by the differences in characteristics among sectors (Kimberly and Rottman, 1987; Jackson and Schuler, 1995). Moreover, studies are primarily in the manufacturing sector and not much work is available in the wide spectrum of the service sector industry where dependence on human resources is definitely more compared to the manufacturing sector.

From the above stated objective of the study and the gaps identified through the literature review, the following questions have emerged which are essential to be addressed:

- How does strategic HRM affect performance of firms in the service sector?
- Does the extent of impact of SHRM vary amongst the sub-sectors within the service sector?
- What is the relative impact of SHRM vis à vis other critical variables like business strategy on a firm's performance?

- Which of the three theories of SHRM namely, universalistic, contingency and congruence are supported in the Indian context?

Based on the literature review and the research questions proposed to be addressed in this study, the following hypotheses have evolved for testing:

H1. SHRM dimensions will show high positive relationship with effectiveness of the firm.

This positive relationship was expected on the basis of previous findings of Huselid (1995), Delery and Doty (1996) and Schuler and Jackson (1999):

H2. The best practices of SHRM will have a positive impact in all the sub-sectors of the service industry.

According to universalistic approach, irrespective of the different industry segments (e.g. information technology, transport and finance as taken in this study) the impact of best practices related to policies of SHRM should be uniform in all contexts:

H3. The relationship of SHRM and performance varies amongst the sub-sectors within the service sector, both in terms of the extent of impact and also in terms of the composition of factors of SHRM which influence performance.

The literature in this area establishes that business environment influences the business strategy of firms. It implies that different segments of industry in India will face different business environments and hence they will exercise different strategic business options to cope up with it. Thus, in different segments, there may be different relationships between SHRM and performance. It may vary in the extent or degree of relationship as well as the components or dimensions of SHRM, which have an impact on the performance of firms:

H4. The horizontal and vertical fit shall lead to better impact on performance. There will be different configurations which will impact effectiveness in different business strategy scenarios.

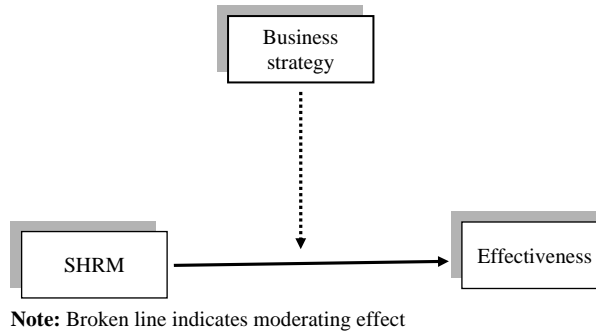
The contingency theory of SHRM posits that fit between business strategy and SHRM will enhance the impact of SHRM on the performance of firms. In other words, the fit or alignment between business strategy and SHRM shall lead to better performance of firms. There have been various studies, which have proved that a particular business strategy requires a specific approach to SHRM. It emerges from the contingency approach that the relationship between SHRM and performance is contingent upon the business strategy. The configurational approach extends the concept to posit that the horizontal fit as well as vertical fit will lead to a high performance of firms. Thus, SHRM, which is consistent from within its sub systems and contingent upon external factors like business strategy shall yield high performance. Thus, different business strategic firms shall have different SHRM dimensions to yield better performance. The relationship among variables has been shown in Figure 1.

Methodology

Sample

The present study was conducted on a sample from 25 organizations ($n = 750$). These organizations were situated in the cities of India (Bangalore, Chennai, Delhi,

Figure 1.
Relationship among
variables



Kolkata and Mumbai). Out of these organizations, 11 were from the transport industry ($n = 309$), five from the finance industry ($n = 161$) and nine from the IT-enabled industry ($n = 280$).

Data were collected through two sets of questionnaires. Set 1 comprises measures of business strategy while Set 2 has two measures namely, SHRM which consists of two sections:

- (1) HRM system orientation.
- (2) HRM capabilities and organizational effectiveness.

Different approaches were followed to collect data through Sets 1 and 2. The “key informant approach” was followed to collect data from the most informed persons through Set 1. This approach has been accepted in organizational and strategic management research. The rationale behind this approach is that top management are most informed of the issues like business strategy, etc. within the organization. Thus, data were collected from the chief executive officer or other top management person through Set 1. In all, 98 valid responses were received from top management belonging to 25 firms. For Set 2, data were collected from respondents belonging to different managerial levels from 25 firms ($n = 750$).

For data collection, HR heads of various companies were approached through phone or email for permission. After obtaining the permission, first the author visited the companies and distributed the questionnaires with the help of HR people and these questionnaires were collected back as per the convenience of respondents. For Set 2, 1,250 questionnaires were distributed and 800 questionnaires were received back. Out of these 800 questionnaires, only 750 questionnaires were valid as remaining questionnaires were not completely answered by the respondents.

Measures

Set 1.

Business strategy. Data were collected through a 15-item instrument designed by Venkatraman (1989) with modifications as suggested by Tan and Litschert (1994). Responses were collected using a seven-point scale (1 = strongly disagree and 7 = strongly agree). In all, 98 valid questionnaire sets were obtained from 25 firms. The factor analysis (varimax rotation) of the data reduced it to three factors, which were labelled as futurity, analysis and proactive (factor loadings and other details are available with the authors). A loading of 0.40 and above was considered for the

inclusion of the item in the factor structure. The alpha coefficient values are – futurity = 0.83, analysis = 0.81 and proactive = 0.78.

Set 2.

Strategic human resource management. SHRM is the key independent variable for this study. It has been operationalised in terms of HR system orientation and HR capability of the organization. In order to measure HR system orientation, the questionnaire used by Delery and Doty (1996) was adopted while that of Huselid *et al.* (1997) was administered to measure HR capability. Responses for both these instruments were obtained from employees of various firms working at different managerial levels within the organization.

The HR system orientation questionnaire had 17 items and responses were collected using a seven-point scale (1 = strongly disagree and 7 = strongly agree). All the items were subjected to factor analysis using varimax rotation and it yielded four factors (factor loadings and other details are available with the authors). Only those items, which had at least a loading of 0.40, were considered in the factor structure. These factors have been labelled as participative decision making, internal orientation, job security and objective performance appraisal. The alpha coefficient values of these factors are participative decision making = 0.80, internal orientation = 0.70, job security = 0.67 and objective performance appraisal = 0.61.

The HR capabilities questionnaire had 25 items and respondents were asked to show their agreement/disagreement with the items on a seven-point scale (1 = strongly disagree and 7 = strongly agree). Factor analysis (varimax rotation) resulted in four factors (factor loadings and other details are available with the authors). Items which had a loading of 0.40 and above were included in the factor structure. These factors have been labelled as strategic HRM, technical HRM, technical HR capability and strategic HR capability. The alpha coefficient values of these dimensions are strategic HRM = 0.91, technical HRM = 0.86, technical HR capability = 0.80 and strategic HR capability = 0.81.

Firm effectiveness. The ultimate impact of SHRM is to be evaluated on the performance of firms. The questionnaire used for measuring firm effectiveness is the one developed by Mott (1972), which consists of eight items and comprises dimensions like quality, quantity, efficiency, flexibility and adaptability. It is very commonly used in strategy and organizational research. Responses were collected using a five-point scale, where high value indicated higher effectiveness. However, some items needed to be reverse scored. Descriptive statistics of effectiveness scale is given in Table I.

Results

The descriptive statistics related to all variables are presented in Table I. It can be seen that there are significant differences amongst the dimensions of SHRM at the industry level. In the case of the dimensions of organizational effectiveness, there were no significant differences at the industry level. Correlation results between SHRM and firm effectiveness have been presented in Table II.

For analyzing the relative contribution of independent variables, stepwise multiple regression analysis was carried out considering factors of HR systems (four factors: participative decision making, internal orientation, job security and objective performance appraisal) and HRM capabilities (four factors: strategic HRM, technical

Table I.
Mean, SD and *F*-values of SHRM and organizational effectiveness dimensions at overall, industry level and ownership level

Dimensions	Industry level									
	Overall <i>n</i> = 750		Transport <i>n</i> = 309		Finance <i>n</i> = 161		IT <i>n</i> = 280		<i>F</i>	df
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
1. Strategic HRM	4.80	1.12	5.01	1.05	4.80	1.12	4.57	1.16	12.08**	2,747
2. Technical HRM	4.88	1.12	5.19	1.03	4.94	1.09	4.51	1.13	29.01**	2,747
3. Technical HR capability	4.99	1.00	5.10	1.00	5.01	1.03	4.087	0.97	3.95*	2,747
4. Strategic HR capability	4.81	1.17	5.05	1.12	4.74	1.14	4.60	1.19	11.99**	2,747
5. Participative decision making	4.47	1.25	4.57	1.26	4.28	1.22	4.48	1.25	2.98*	2,747
6. Internal orientation	4.87	1.11	5.04	1.16	4.90	0.98	4.68	1.10	8.08**	2,747
7. Job security	4.87	1.25	5.06	1.13	5.25	1.02	4.44	1.37	29.72**	2,747
8. Objective performance appraisal	4.84	1.16	5.08	1.11	4.69	1.12	4.65	1.19	11.79**	2,747
9. Quantity	3.68	0.77	3.73	0.73	3.59	0.75	3.68	0.83	1.86***	2,747
10. Quality	3.83	0.70	3.85	0.71	3.78	0.70	3.85	0.68	0.73***	2,747
11. Flexibility	3.47	0.78	3.44	0.81	3.45	0.80	3.52	0.73	0.74***	2,747
12. Efficiency	3.29	0.75	3.30	0.72	3.31	0.72	3.28	0.80	0.14***	2,747
13. Adaptability	3.55	0.85	3.53	0.81	3.53	0.84	3.58	0.89	0.29***	2,747

Notes: Significance at: **p* < 0.05 and ***p* < 0.01 levels; ***non significant

HRM, technical HR capability and strategic HR Capability) as independent variable, while dependent variable was organizational effectiveness (five dimensions: quality, quantity, efficiency, flexibility and adaptability).

The impact of SHRM on firm effectiveness

Results indicated that in all the industries within the service sector, SHRM dimensions have a positive relationship with firm effectiveness dimensions, except in the case of job security, which has a negative relationship with effectiveness. However, this particular relationship is only found in the IT industry (effectiveness dimensions: efficiency $\beta = -0.16$, *p* < 0.01; flexibility $\beta = -0.14$, *p* < 0.02; and adaptability $\beta = -0.17$, *p* < 0.01). In the transport industry, the best predictors were internal orientation and strategic HR capability (in both the cases $\beta = 0.26$, *p* < 0.00). In the case of the finance industry, among the dimensions of the independent variable, technical HR capability emerged as the strongest predictor ($\beta = 0.48$, *p* < 0.00). While in the case of IT-enabled industry, strategic HR capability emerged as the strongest predictor ($\beta = 0.27$, *p* < 0.00).

At the overall level, out of eight dimensions of SHRM (taking dimensions of HR system and HR capabilities together) six dimensions have predicted effectiveness. Only two dimensions of HR system did not enter in the equation (participative decision making and objective performance appraisal). In addition, as in the case of industry level analysis, job security had a negative relationship with the firm effectiveness dimensions (effectiveness dimensions: efficiency $\beta = -0.09$, *p* < 0.01; flexibility $\beta = -0.12$, *p* < 0.00 and adaptability $\beta = -0.09$, *p* < 0.01). In short, strategic HR of HR capabilities emerged as the strongest predictor ($\beta = 0.22$, *p* < 0.00).

In general, these results support *H1*, which had predicted a positive relationship between SHRM practices and firm effectiveness. *H2* was related to a positive

		Quantity	Quality	Flexibility	Efficiency	Adaptability
1. Strategic HRM	Overall (n = 750)	0.21**	0.22**	0.23**	0.26**	0.19**
	Transport (n = 309)	0.17**	0.11	0.16**	0.18**	0.12*
	Finance (n = 161)	0.36**	0.44**	0.27**	0.29**	0.27**
	IT (n = 280)	0.16**	0.22**	0.31**	0.33**	0.24**
2. Technical HRM	Overall	0.23**	0.21**	0.21**	0.26**	0.21**
	Transport	0.20**	0.16**	0.12*	0.20**	0.16**
	Finance	0.36**	0.41**	0.28**	0.32**	0.20*
	IT	0.20**	0.18**	0.32**	0.29**	0.30**
3. Technical HR capability	Overall	0.21**	0.21**	0.26**	0.22**	0.23**
	Transport	0.14*	0.09	0.21**	0.10	0.15**
	Finance	0.36**	0.48**	0.36**	0.38**	0.29**
	IT	0.19**	0.19**	0.28**	0.26**	0.28**
4. Strategic HR capability	Overall	0.19**	0.21**	0.27**	0.25**	0.20**
	Transport	0.22**	0.10	0.26**	0.15**	0.24**
	Finance	0.24**	0.40**	0.33**	0.28**	0.21**
	IT	0.12*	0.22**	0.27**	0.34**	0.18**
5. Participative decision making	Overall	0.15**	0.08*	0.17**	0.16**	0.13**
	Transport	0.23**	0.10	0.15**	0.10	0.13*
	Finance	0.09	0.08	0.12	0.15	-0.01
	IT	0.10	0.06	0.22**	0.23**	0.20**
6. Internal orientation	Overall	0.22**	0.16**	0.25**	0.24**	0.26**
	Transport	0.26**	0.18**	0.23**	0.17**	0.33**
	Finance	0.24**	0.18*	0.27**	0.27**	0.12
	IT	0.17**	0.13*	0.28**	0.30**	0.26**
7. Job security	Overall	0.04	0.04	-0.02	-0.01	-0.00
	Transport	0.10	0.07	-0.02	-0.00	0.12*
	Finance	0.11	0.15	0.06	0.05	-0.05
	IT	-0.02	-0.03	-0.02	-0.04	-0.06
8. Objective performance appraisal	Overall	0.15**	0.14**	0.21**	0.15**	0.19**
	Transport	0.28**	0.15**	0.21**	0.10	0.28**
	Finance	0.07	0.18*	0.22**	0.20*	0.15
	IT	0.06	0.10	0.23**	0.16**	0.15*

Note: Significance at: * $p < 0.05$ and ** $p < 0.01$ levels

Table II.
Correlation between
SHRM and firm
effectiveness dimensions

relationship between SHRM and effectiveness across sub-sectors of the service industry and, as the results indicated, that there was negative relationship only between job security and firm effectiveness; therefore, *H2* is partially borne out. *H3* had predicted the relationships in terms of extent and composition of factors with regard to its relationship with effectiveness varying among the sub-sectors, and the results clearly show that *H3* has ample support in this study.

Confirmatory factor analysis-based structural equation modeling analysis for the model
The proposed model of the relationship between SHRM and effectiveness dimensions was tested in the sample using structural equation modeling with EQS

version 6.1 (Bentler, 1989). Examining the replicability of factors by means of confirmatory factor analysis (CFA) can be achieved by two different strategies – single group models and multiple group models. We followed the CFA-based measurement model because both the dimensions of SHRM namely, system orientation and HR capabilities, are first order latent variables and SHRM is second order latent variables. Furthermore, each dimension of effectiveness is also latent variable. Therefore, it would be better to use a measurement-based model to explain the relationship between SHRM and each dimension of effectiveness.

CFA offers a variety of statistical tests and indices designed to assess the goodness-of-fit of data to a proposed model. Considering the multidimensionality of goodness-of-fit (Tanaka, 1993) in all models, we evaluated the goodness-of-fit to examine the relationship between each dimensions of effectiveness and SHRM by means of the following indices:

- the (χ^2)-test statistic;
- the goodness of fit index (GFI) (Joreskog and Sorbom, 1989);
- the root mean square error of approximation (RMSEA) (Browne and Cudeck, 1993);
- the non normed fit index (NFI) (Bentler and Bonett, 1980);
- the Tucker fit index (TFI) (Tucker and Lewis, 1973); and
- the comparative fit index (CFI) (Bentler, 1989).

RMSEA, NFI and CFI are particularly important in our case, because they have been designed with the goal of evaluating the fit of covariance structure models (Caprara *et al.*, 2000). The table shows the significance tests and goodness-of-fit indices for each dimension of effectiveness. A χ^2 /df-value of 2 or less is generally viewed as a good fit (Church and Burke, 1994). However, researchers have argued χ^2 statistics is affected by sample size, as $\chi^2 = (n - 1)F_{ml}$, where F_{ml} is the maximum likelihood function (Mulaik and Millsap, 2000). Thus, as sample size increases (generally above 200), the χ^2 statistics have a tendency to indicate a significant probability level (Schumacher and Lomex, 2006, p. 100). As for the present study, sample size is 750, therefore, we decided to examine the model fit by evaluating other fit indices. The GFI provides an index of the proportion of variance accounted for by the model (Joreskog and Sorbom, 1989), and values of 0.90 or higher are generally considered to indicate a good fit; the root mean square (RMS) index gives the average correlational discrepancy between the sample and model-produced correlation matrices relating to the observed measures (Joreskog and Sorbom, 1989). Browne and Cudeck (1993) argued that a model shows a close fit if the RMS error of approximation (RMSEA) is less than 0.05 and that “values up to 0.08 represent reasonable errors of approximation in the population”. The CFI, NNFI and NFI values of 0.90 or higher are also generally considered good fit for the model (Mulaik and Millsap, 2000).

Based on their values in Table III, our structural equation modeling analysis indicates that for each dimension of effectiveness, the SHRM model has a significant relationship. These models show that both system orientation and HR capabilities are two first-order factors of SHRM and both of them have higher and significant loadings with SHRM and SHRM as higher order factors have a significant and strong correlation with different dimensions of effectiveness. For example, Figure 2 shows

that SHRM has strong correlation with quantity dimension of effectiveness ($\beta = 0.46, p < 0.001$). The graphical representation of models is presented in Figures 2-6.

The impact of business strategy

In order to study the impact of business strategy on the relationship between SHRM and firm effectiveness, the following method was adopted. For the three dimensions of business strategy – futurity, analysis and proactive strategies – one score for each dimension of business strategy was computed by adding all the items of each dimension (using Set 1 data) and then median was computed for this score ($n = 98$).

Organizations whose median scores (for each organization) were above the overall median score of the particular dimension of business strategy, e.g. futurity, were categorised as “organizations with high score on futurity dimension of business strategy” while those below as “organizations with low score on futurity dimension of business strategy”.

After categorization of organizations on the basis of each dimension of business strategy scores (using Set 1 data), organizations were categorized in a similar manner for Set 2 data separately for the three dimensions of business strategy and then stepwise multiple regression analysis was carried out considering factors of HR systems (four factors: participative decision making, internal orientation, job security and objective performance appraisal) and HR capabilities (four factors: strategic HRM, technical HRM, technical HR capability and strategic HR capability) as independent variables, while the dependent variable was firm effectiveness (instead of using five dimensions of effectiveness, a composite score of effectiveness was used). The results of the analysis that was carried out for all the three dimensions of business strategy are reported below.

Organizations with high score on futurity dimension of business strategy ($n = 396$). Result indicated that only technical HR capability ($\beta = 0.26, p < 0.00$) and internal orientation ($\beta = 0.18, p < 0.00$) were significant predictors of firm effectiveness.

Organizations with low score on futurity dimension of business strategy ($n = 339$). It was observed that technical HRM ($\beta = 0.27, p < 0.00$), job security ($\beta = -0.22, p < 0.00$), internal orientation ($\beta = 0.20, p < 0.00$) and objective performance appraisal ($\beta = 0.13, p < 0.04$) were significant predictors of firm effectiveness.

From the results mentioned above, it has emerged that the impact of dimensions of SHRM on firm effectiveness is more in the case of the group which has a low futurity score of business strategy as compared to the high-score futurity firms. Technical

Structural model	χ^2	Absolute indices			Relative indices			
		df	χ^2/df	GFI	RMS	NNFI	NFI	CFI
Quality dimensions	158.69	20	7.93	0.955	0.082	0.929	0.955	0.960
Quantity dimensions	170.82	28	6.10	0.957	0.071	0.936	0.953	0.960
Flexibility dimensions	172.805	20	8.64	0.952	0.087	0.921	0.951	0.956
Efficiency dimensions	189.88	28	6.78	0.952	0.088	0.928	0.948	0.955
Adapatability dimensions	190.358	28	6.79	0.951	0.076	0.927	0.947	0.955

Notes: $n = 750$; GFI, goodness-of-fit index; RMS, root mean square; TLI, Tucker-Lewis Index; NFI, normed fit index; CFI, normed noncentrality fit index

Table III.
Overall goodness-of-fit indices for confirmatory factor models

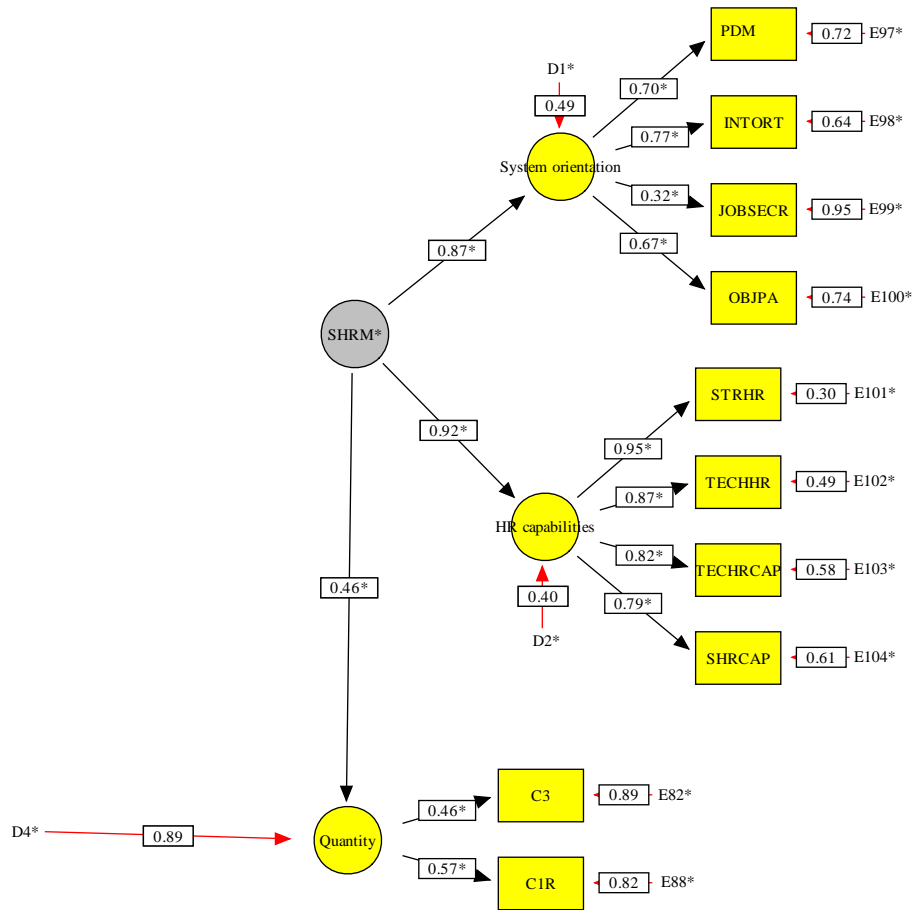


Figure 2.
Relationship between
quantity dimension
and SHRM

HRM in the former case and technical HR capability in the latter case emerged as the most significant predictors.

Organizations with high score on analysis dimension of business strategy (n = 407). It may be noted that two organizations had exactly the same median as the overall median and these organizations were dropped from the analysis. Results revealed that technical HRM ($\beta = 0.19, p < 0.00$), internal orientation ($\beta = 0.21, p < 0.00$), technical HR capability ($\beta = 0.16, p < 0.01$) and participative decision making ($\beta = -0.13, p < 0.02$) were significant predictors of firm effectiveness.

Organizations with low score on analysis dimension of business strategy (n = 264). It was observed that internal orientation ($\beta = 0.30, p < 0.00$), job security ($\beta = -0.22, p < 0.00$) and technical HRM ($\beta = 0.25, p < 0.00$) were significant predictors of firm effectiveness.

It is observed from the above results that technical HRM has again emerged as the strongest predictor for firms with high scores on analysis strategy while it was internal orientation in the case of organizations with low score on analysis strategy.

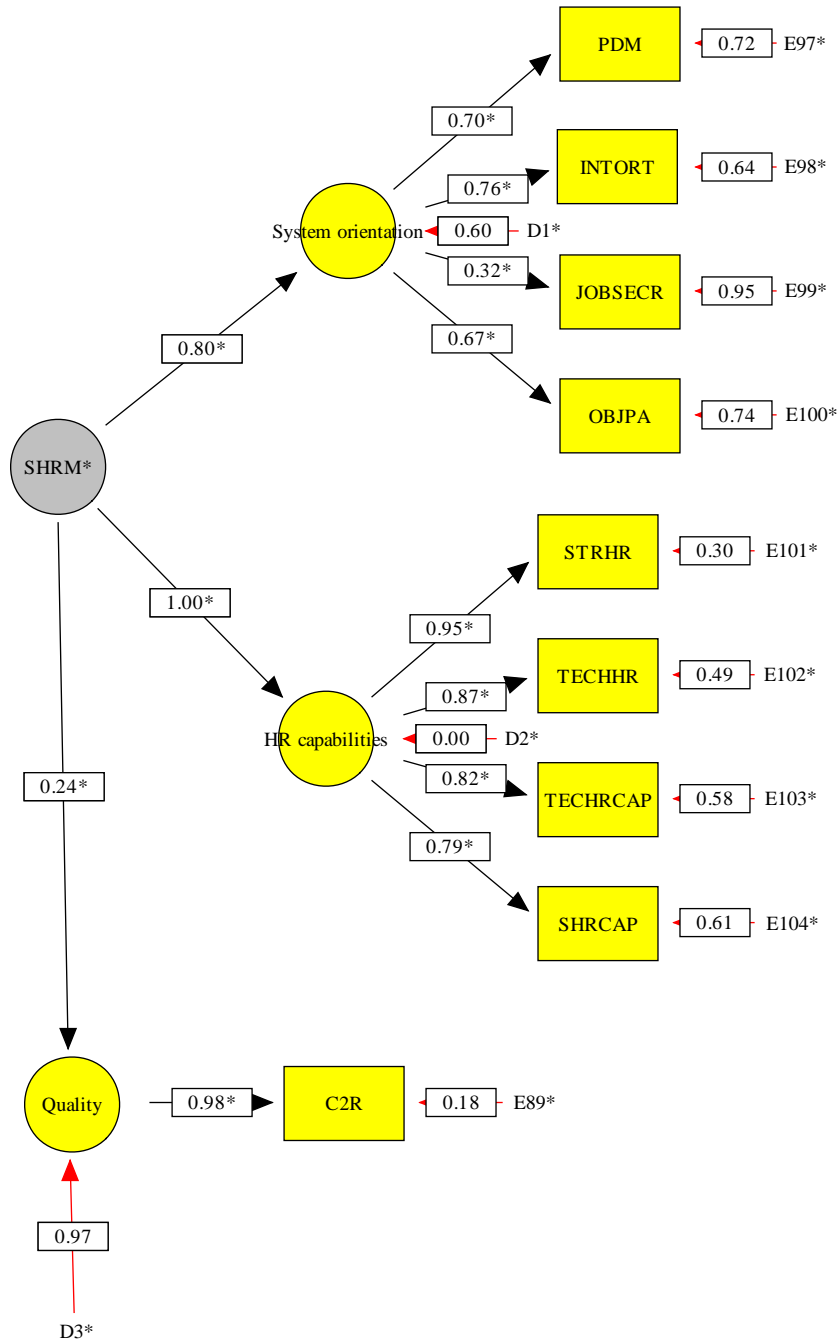


Figure 3. Relationship between quality dimension and SHRM

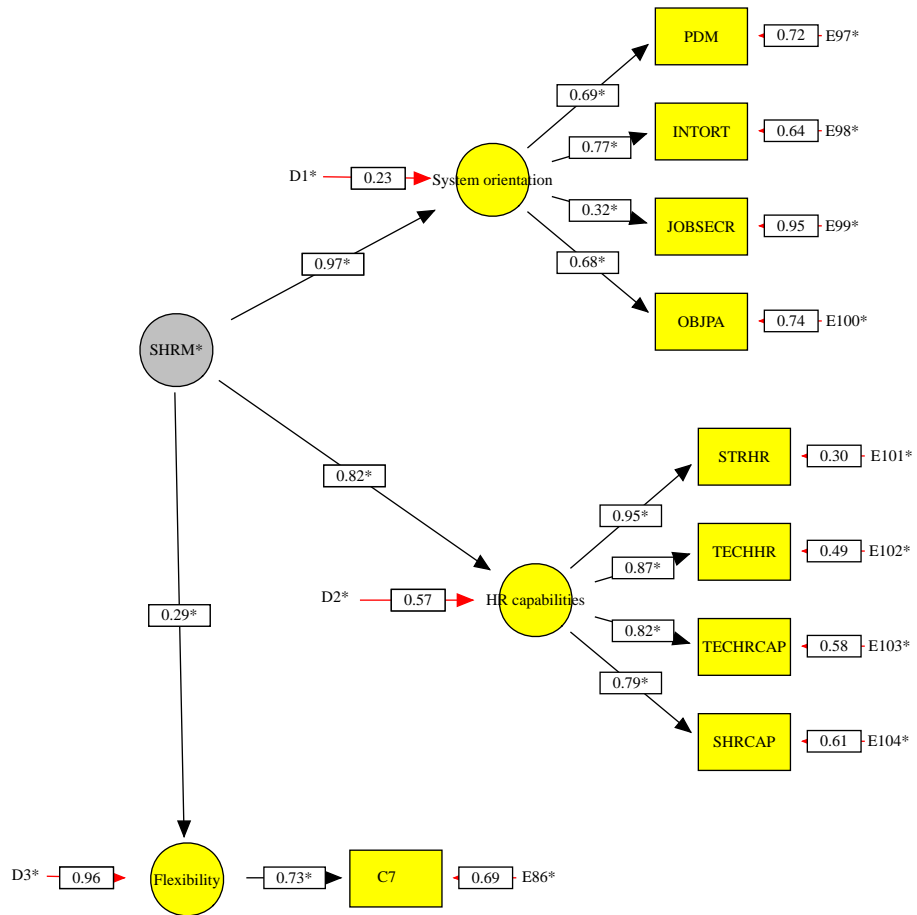


Figure 4.
Relationship between
flexibility dimension
and SHRM

Organizations with high score on proactive dimension of business strategy (n = 286). It may be noted that three organizations had exactly the same median as the overall median and these organizations were dropped from the analysis. Results indicated that technical HR capability ($\beta = 0.27, p < 0.00$), internal orientation ($\beta = 0.20, p < 0.00$) and job security ($\beta = -0.16, p < 0.00$) were significant predictors of firm effectiveness.

Organizations with low score on proactive dimension of business strategy (n = 386). It was observed that technical HRM ($\beta = 0.35, p < 0.00$), internal orientation ($\beta = 0.23, p < 0.00$) and job security ($\beta = -0.10, p < 0.00$) were significant predictors of firm effectiveness.

It has been observed that in the case of organizations with high and low scores on proactive strategy, technical HR capability and technical HRM were the significant predictors, respectively.

From the above results, it is clear that the impact of dimensions of SHRM on the performance of firms is contingent upon strategy. This result supports *H4* which had

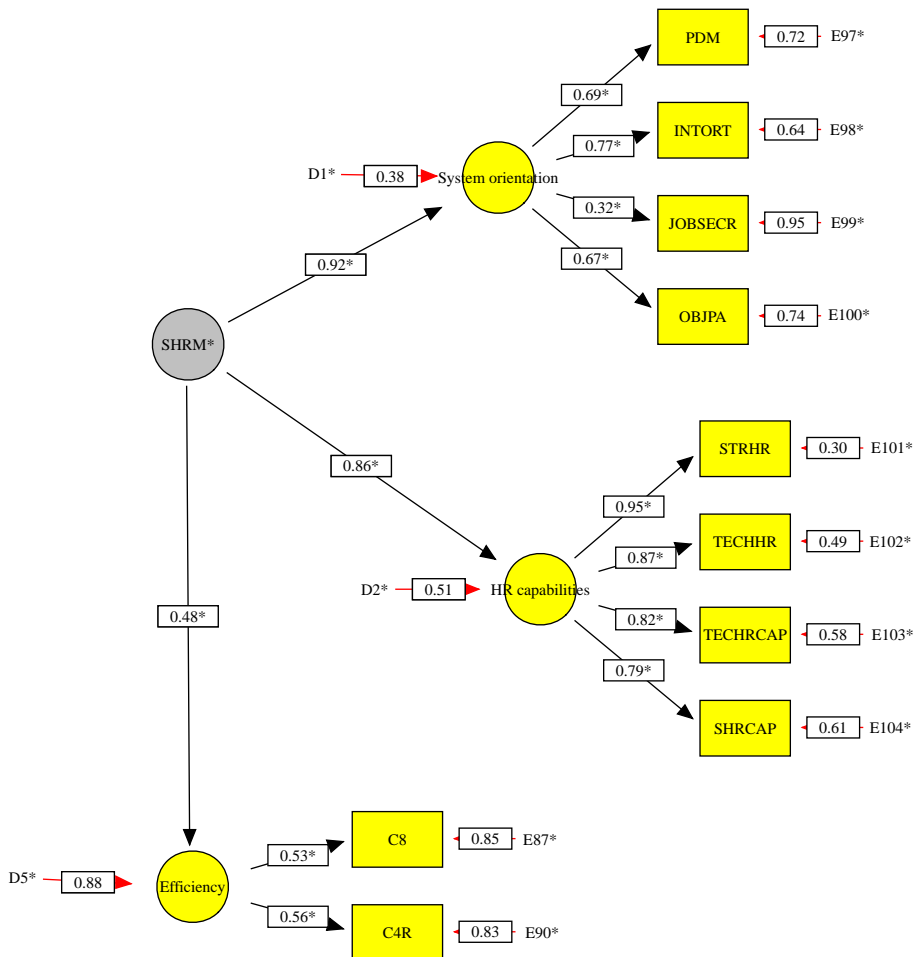


Figure 5. Relationship between efficiency dimension and SHRM

predicted that there will be different configurations of dimensions of SHRM, which will impact firm effectiveness in different business strategy scenarios.

Discussion

It was observed from the results reported above that the job security dimension in this study had a negative relationship with performance in all situations whereas in previous studies (Delery and Doty, 1996), employment security has been seen as one of the “best practices” yielding results in terms of performance in all situations. In the case of the three segments of industry in the present study, job security only showed significant impact, though negative, in the IT industry; in both the transport and finance industries, it showed no significant impact. It is clear from these results that job security has not emerged as a universally applicable practice, though studies in the past have proved otherwise in western contexts. The argument could be that its applicability has been

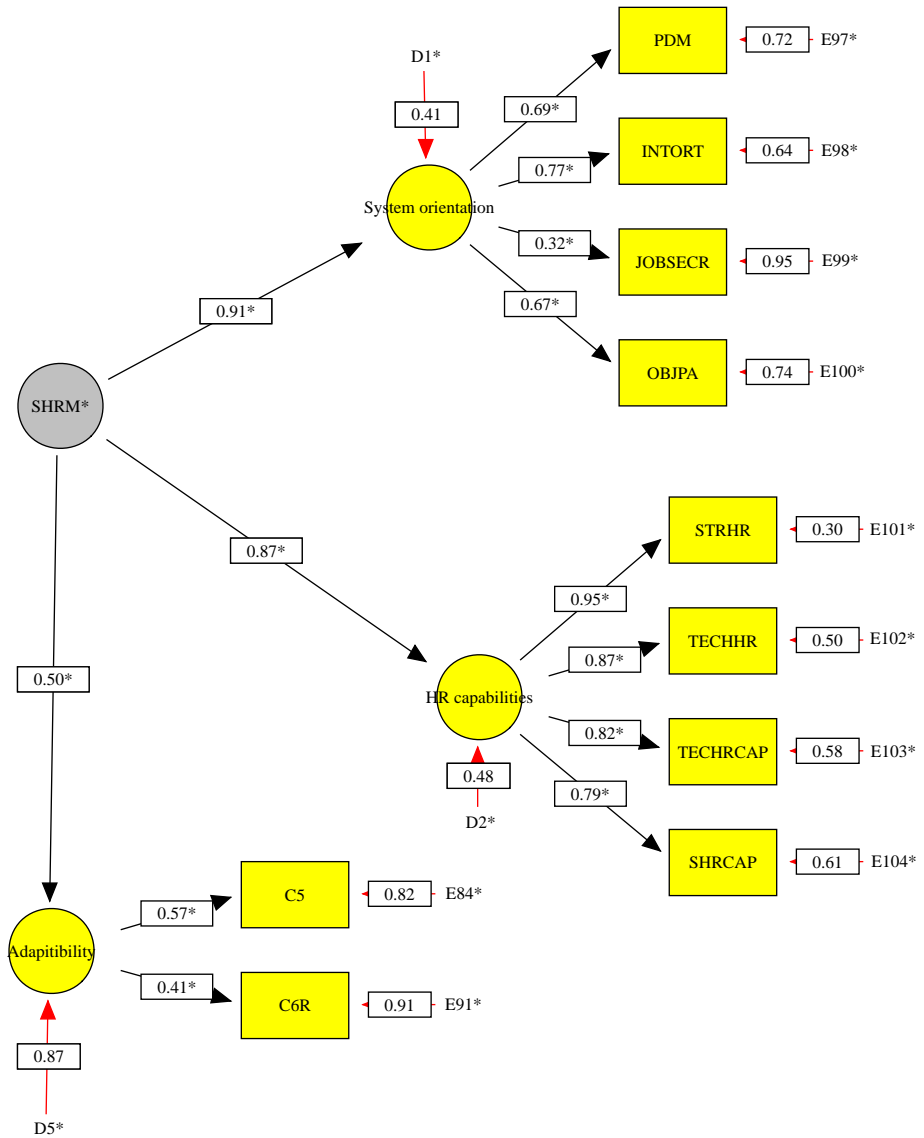


Figure 6.
Relationship between
adaptability dimension
and SHRM

tested earlier primarily in the manufacturing sector and in western countries based on which the theory of universalistic approach has been propounded. Possibly, it does not hold true in Indian settings and the service sector, as well.

Moreover, the characteristics of the sub-sectors of the service industry also play an important role. In the case of the IT sector, if job security is high, it would not yield enough pressure on individuals to acquire new skills/capabilities which is very important in the fast-changing software industry. It is bound to have a negative impact

on performance. Higher job security will also adversely affect the motivation level of employees to learn fast in the changing environment. Thus, job security did not prove to be one of the best practices in this case. It has a different relationship in different sectors.

Amongst sub-sectors of the service industry, objective performance appraisal recorded a positive impact on only one dimension of effectiveness. Similarly, participative decision making was not a significant predictor of firm effectiveness in any of the sub-sectors of the service industry.

These results, as reported above, prove that some of the dimensions of SHRM are not universally applicable in all the three sub-sectors of the service industry. Moreover, the impact of dimensions of HR system and HR capabilities on firm effectiveness is very different in different sub-sectors of the service industry. The extent of impact is highest in the finance sector followed by IT-enabled firms and the least in case of transport sector firms. This further establishes that universalistic theory is not substantiated by this study.

The contingency approach argues that in order to be effective, HR policies must be consistent with other aspects of the firm, such as the strategy being implemented (Miles and Snow, 1978; Schuler and Jackson, 1987; Delery and Doty, 1996). In other words, the performance will be improved when there is consistency or fit between strategy and HR policies.

From the above results, it is clear that the type of business strategy adopted by an organization influences the impact of the dimensions of HR on the performance of firms. The strongest predictors vary depending upon the type of strategy firms follow and also impact varies depending upon the intensity of the particular business strategy followed by the firms. In other words, the relationship of dimensions of SHRM and performance is contingent upon the type and intensity of business strategy followed by the firm. The theory of contingency approach is, therefore, supported by this study.

The various results reported above also indicate that there are different configurations of dimensions of SHRM which impact effectiveness in different business strategy options namely, futurity, analysis and proactive scenarios. Thus, the configuration of HR systems and HR capabilities dimensions will determine the extent of the impact of SHRM on effectiveness. These factors are very different and their impact also varies so much in different scenarios that configuration has emerged as an important factor. The combination of various factors in a given strategic option of the firms shall determine the extent of impact and combination of HR strategy. The present study, therefore, supports the configurational theory of SHRM.

Conclusion and implications

Emerging theories of SHRM have shown three broad approaches namely, universalistic, contingency and configurational approach. Recent studies in this area have substantiated the universalistic approach. However, in the present study the results do not substantiate this approach. The sub-systems of HRM, which have been found to be universally applicable in earlier studies were not so, in the three sub-sectors of service industry taken up in the present study.

The contingency theory of SHRM has, however, been found to be substantiated in the present study. In other words, the impact of SHRM is contingent upon business strategy. The impact of SHRM was also found to be contingent upon the intensity of

business strategy. For organizations which have highly focussed business strategy, technical HR capability is more significant while in the case of the low-score business strategy firms, where the intensity of business strategy is diffused, internal orientation is the strongest predictor. In the present study, it has also been established that the impact of SHRM on different business strategy firms varies according to different configurations of the dimensions of SHRM. This implies that these configurations are also contingent upon the business strategy of firms.

In addition to the above conclusions, there are some practical implications of the present work. Different segments of industry need different approaches to HRM policies and practices. For example, from this study, it was found that transport and IT-enabled industries require more strategic HR capability while finance requires more technical HR capability. The job security dimension of HR system orientation has a negative relationship in all situations wherever it is significant. Therefore, the extent of job security and the HR strategic choice requires to be formulated according to the type of industry, availability of skill sets in the market and internal development of manpower.

The above findings are highly relevant to the industry as the extent of SHRM and the subsystems which would lead to higher performance vary from industry to industry and based on the type of strategy firms follow. The SHRM policies need to be dynamic and contingent on business strategy to attain maximum impact on effectiveness and higher competitiveness. However, since the data for the present study has been collected only from three sub-sectors of the service sector, one needs to be careful before generalising the findings. Future research may focus on the configurational systems of SHRM, which are relevant to other segments of industry, beyond the segments discussed in this study.

References

- Baird, L. and Meshoulam, I. (1988), "Managing two fits of strategic human resource management", *Academy of Management Review*, Vol. 13, pp. 116-28.
- Balasubramanian, A.G. (1995), "Evolution of personnel functions in India: a re-examination – part II", *Management & Labour Studies*, Vol. 20 No. 1, pp. 5-14.
- Balkin, D. and Gomez-Mejia, L. (1987), "Toward a contingency theory of compensation strategy", *Strategic Management Journal*, Vol. 8, pp. 169-82.
- Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17, pp. 99-120.
- Begin, J.P. (1993), "Identifying patterns in HRM systems: lessons learned from organizational theory", in Shaw, J., Kirkbride, P. and Rowland, K. (Eds), *Research in Personnel and Human Resource Management*, JAI Press, Greenwich, CT, pp. 3-20.
- Bentler, P.M. (1989), *EQS: A Structural Equations Program Manual*, BMDP Statistical Software, Los Angeles, CA.
- Bentler, P.M. and Bonett, D.G. (1980), "Significance tests and goodness of fit in the analysis of co-variance structures", *Psychological Bulletin*, Vol. 88, pp. 588-606.
- Browne, M.W. and Cudeck, R. (1993), "Alternative ways of assessing model fit", in Bollen, K.A. and Long, J.S. (Eds), *Testing Structural Equation Models*, Sage, Beverly Hills, CA, pp. 136-62.
- Budhwar, C. and Khatri, N. (2001), "A comparative study of HR practice in Britain and India", *International Journal of Human Resource Management*, Vol. 12 No. 5, pp. 800-26.

- Budhwar, C. and Sparrow, P. (1997), "Evaluating levels of strategic integration and development of human resource management in India", *The International Journal of Human Resource Management*, Vol. 8 No. 4, pp. 476-94.
- Budhwar, P. and Varma, A. (2010), "Emerging patterns of HRM in the new Indian economic environment", *Human Resource Management*, Vol. 49 No. 3, pp. 345-51.
- Caprara, G.V., Barbaranelli, C., Bermez, J., Maslach, C. and Ruch, W. (2000), "Multivariate methods for the comparison of factor structures in cross-cultural research: an illustration with the big five questionnaire", *Journal of Cross-cultural Psychology*, Vol. 31, pp. 437-64.
- Church, A.T. and Burke, P.J. (1994), "Exploratory and confirmatory tests of the big five and tellegen's three- and four-dimensional models", *Journal of Personality and Social Psychology*, Vol. 66, pp. 93-114.
- Delaney, J.E., Lewin, D. and Inchniowski, C. (1989), *Human Resource Policies and Practices in American Firms*, US Government Printing Office, Washington, DC.
- Delery, J.E. and Doty, D.H. (1996), "Modes of theorizing in strategic human resource management: tests of universalistic, contingency and configurational performance prediction", *Academy of Management Journal*, Vol. 39 No. 4, pp. 802-35.
- Gomez-Mejia, L.R. and Balkin, D.B. (1992), *Compensation, Organizational Strategy and Firm Performance*, South-Western, Cincinnati, OH.
- Guest, D.E. (1997), "Human resource management and performance: a review and research agenda", *International Journal of Human Resource Management*, Vol. 8 No. 3, pp. 263-76.
- Guest, D.E. (2001), "Human resource management: when research confronts theory", *International Journal of Human Resource Management*, Vol. 12, pp. 1092-106.
- Huselid, M.A. (1993), "Estimates of the impact of human resource management practices on turnover and productivity", paper presented at the Annual Meeting of the Academy of Management, Atlanta, GA.
- Huselid, M.A. (1995), "The impact of human resource management practices on turnover, productivity, and corporate financial performance", *Academy of Management Journal*, Vol. 38, pp. 635-72.
- Huselid, M.A. and Becker, B.E. (1996), "Methodological issues in cross-sectional and panel estimates of the human resource-firm performance link", *Industrial Relations*, Vol. 35, pp. 400-22.
- Huselid, M.A., Jackson, S.E. and Schuler, R.S. (1997), "Technical and strategic human resource management effectiveness as determinants of firm performance", *Academy of Management Journal*, Vol. 40 No. 1, pp. 171-88.
- Jackson, S.E. and Schuler, R.S. (1995), "Understanding human resource management in the context of organizations and their environments", in Rosenzweig, M.R. and Porter, L.W. (Eds), *Annual Review of Psychology*, Vol. 46, Annual Reviews, Palo Alto, CA, pp. 237-64.
- Joreskog, K.G. and Sorbom, D. (1989), *LISREL 7: User's Reference Guide*, Scientific Software, Mooresville, IN.
- Kimberly, J.R. and Rottman, D.B. (1987), "Environment, organization and effectiveness: a biographical approach", *Journal of Management Studies*, Vol. 24 No. 6, pp. 595-620.
- Miles, R. and Snow, C. (1978), *Organizational Strategy, Structure and Process*, McGraw-Hill, New York, NY.
- Mott, P.E. (1972), *The Characteristics of Effective Organisation*, Harper & Row, New York, NY.
- Mulaik, S.A. and Millsap, R.E. (2000), "Doing the four-step right", *Structural Equation Modeling*, Vol. 7, pp. 36-73.

- Osterman, P. (1994), "How common is workplace transformation and who adopts it?", *Industrial and Labour Relations Review*, Vol. 47, pp. 173-88.
- Paauwe, J. (2009), "HRM and performance: achievements, methodological issues and prospects", *Journal of Management Studies*, Vol. 46 No. 1, pp. 129-42.
- Pfeffer, J. (1994), *Competitive Advantage Through People*, Harvard Business School Press, Boston, MA.
- Ramanujam, V. and Venkatraman, N. (1986), "An inventory and critique of strategy research using PIMs database", *Academy of Management Review*, Vol. 6, pp. 609-20.
- Ramaswamy, E. and Schiphorst, F. (2000), "Human resource management trade unions and empowerment: two cases from India", *The International Journal of Human Resource Management*, Vol. 11 No. 4, pp. 664-80.
- Richard, O.C. and Johnson, N.B. (2001), "Strategic human resource management effectiveness and firm performance", *International Journal of Human Resource Management*, Vol. 12 No. 2, pp. 299-310.
- Schuler, R.S. and Jackson, S.E. (1987), "Organizational strategy and organizational levels as determinants of human resource management practices", *Human Resource Planning*, Vol. 10 No. 3, pp. 125-41.
- Schuler, R.S. and Jackson, S.E. (Eds) (1999), *Strategic Human Resource Management: A Reader*, Blackwell, London.
- Schumacher, R.E. and Lomax, R.G. (2006), *A Beginner's Guide to Structural Equation Modeling*, Routledge, London.
- Som, A. (2007), "What drives adoption of innovative SHRM practices in Indian organizations?", *International Journal of Human Resource Management*, Vol. 18 No. 5, pp. 808-28.
- Sparrow, P.R. and Budhwar, P. (1997), "Competition and change: mapping the Indian HRM recipe against world wide patterns", *Journal of World Business*, Vol. 32, pp. 224-42.
- Tan, J.J. and Litschert, R.J. (1994), "Environment-strategy relationship and its performance implications: an empirical study of the Chinese electronics industry", *Strategic Management Journal*, Vol. 15 No. 1, pp. 1-20.
- Tanaka, J.S. (1993), "Multifaceted conceptions of fit in structural equation models", in Bollen, K.A. and Long, J.S. (Eds), *Testing Structural Equation Models*, Sage, Los Angeles, CA, pp. 10-39.
- Terpstra, D.E. and Rozell, E.J. (1993), "The relationship of staffing practices to organizational level measures of performance", *Personnel Psychology*, Vol. 46, pp. 27-48.
- Tucker, L.R. and Lewis, C. (1973), "A reliability coefficient for maximum likelihood factor analysis", *Psychometrika*, Vol. 38, pp. 1-10.
- Venkatraman, C.S. (1989), "The concept of fit in strategy research: toward a verbal and statistical correspondence", *Academy of Management Review*, Vol. 14, pp. 423-44.
- Wright, P.M. and McMahan, G.C. (1992), "Theoretical perspectives for strategic human resource management", *Journal of Management*, Vol. 18 No. 2, pp. 295-320.
- Wright, P.M., Dunford, B.B. and Snell, S.A. (2001), "Human resources and the resource based view of the firm", *Journal of Management*, Vol. 27, pp. 701-21.

Further reading

- Miller, D. and Friesen, P.H. (1984), *Organizations: A Quantum View*, Prentice-Hall, Englewood Cliffs, NJ.

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