

Relationship between business strategy and human resource management practices in private and public limited companies in Malaysia

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Abstract

This study examines the relationship between two business strategies (differentiation and low-cost) and six human resource management (HRM) practices (recruitment and selection, training and development, compensation, performance management, employment security, and work-life balance). Furthermore, an examination was conducted on the differences in such relationship between the Public and Private Limited companies in Malaysia. Structural equation modelling (SEM) was used to investigate the effect of business strategy on HRM practices and to determine the invariance effect of the two businesses ownership in the model. It is found that differentiation strategy stressed on all six HRM practices while low-cost strategy emphasized four HRM practices only. The results also show that the effects of business strategy and HRM practices performed in Public Limited companies are only slightly different from the ones performed in Private Limited companies.

Keywords: Human resource management practices, Business strategy, Organizational performance, Public and private companies, Malaysia, Structural equation modelling

1. Introduction

The influence of human resource management (HRM) practices on the overall performance of organizations has been one of the major research topics in the past decade. The results of this research showed a significant association between HRM practices and organization performance (e.g. Appelbaum, Bailey, Berg & Kalleberg, 2000; Dyer & Reeves, 1995; Guest, 1997; Harel & Tzafir, 1999; Takeuchi, Wakabayashi & Chen, 2003; Tsui & Wu, 2005). However, changes or trends that are emerging today such as globalization, changes in the nature of work, and technology affect human resource management to be more business oriented and strategically focused. Ulrich (1997) mentioned that HR managers should not only have administration skills and expertise but should also be champions of employees, change agents, and strategic partners of an organization. In this context, HRM practices can be a source of competitive advantage

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of the organization, especially when they are aligned with organization's competitive business strategy (Begin, 1991; Cappelli & Singh, 1992; Jackson & Schuler, 1995). Despite the extant empirical evidence that HRM practices could bring positive effects on organizational performance, many organizations still adopt a passive approach to HRM practices (Dennis, Michael & Meredith Blackwell, 2002).

Studies on HRM practices in Malaysian organizations are few (Osman, Ho & Galang, 2011). It has been found that Malaysian firms do not consider the importance of adopting good HRM practices (Chiah-Law, Stanley & Chris, 2003; Hassan, 2010; Rowley & Abdul-Rahman, 2007). Besides, firm size has been found to be an important predictor of HRM practices (Kotey & Slade, 2005; Ng & Maki, 1993; Osman et al., 2011; Wagar, 1998). Authors claimed that most of the HRM practices adopted by large firms were formal and complex. Therefore, it would be imperative to examine business strategy and HRM practices in various settings and how the relationship is moderated by firm size.

Porter (1980)'s generic strategies are used to define business strategies. This study measures the existing HRM practices that are seldom used in other empirical research. By examining variations of HRM practices such as employment security and work-life balance to business level strategies, the alignment between this could discover similarities with Porter (1980)'s generic strategies. This methodology can further provide understanding of any systematic variations of HRM practices to different strategies of business.

2. Theoretical background and hypotheses development

According to Ferris, Hochwarter, Buckley, Harrel-Cook, and Frink (1999), strategic HRM models are divided into three perspectives which are universalistic, contingency and configurational. Universalistic perspective claims that availability of a set of HRM practices when combined effectively perform better than others that do not, therefore, suggesting that all organizations adopt these practices (e.g. Geringer, Frayne & Milliman, 2002; Truss, 2001). The contingency approach tries to link variations of HRM practices to specific organizational strategies (e.g. Hoque, 2000; Khatri, 2000). The configurational perspective refers to patterns of multiple, planned human resource practice deployment and activities are used to achieve the organization's goal. This perspective also argues that HRM practices should look at the system rather than at individuals (Doty, Glick & Huber, 1993; Meyer, Tsui & Hinings, 1993p).

The approach adopted in this study is strategic fit and the right adoption of HRM practices as it is vital in assisting business firms to improve their competitiveness and support managerial efficiency (Wright & Snell, 1998).

2.1 The relationship between business strategy and human resource management practices

A business competitive strategy is drawn mainly from Porter's (1980, 1985) classifications of generic strategies: cost leadership, differentiation, and focus strategies. Miles and Snow (1984), on the other hand, classified business strategies into defender, prospector, and analyzer. They proposed each business strategy with corresponding HRM practices. Unlike Porter's generic strategy, Schuler and Jackson (1987) classified business competitive strategies into cost reduction, innovation, and quality enhancement. Besides, they also designated different types of employee behaviour and HRM practices to suit each business strategy.

An organization could achieve its competitive strategy by implementing effective HRM practices. Dowling and Schuler (1990) classified HRM practices into strategies of utilization, facilitation, and accumulation, which are the three types of business strategy suggested by Schuler and Jackson (1987). Dyer and Holder (1988) categorized the combination of HRM practices and business strategies as inducement, investment, and involvement.

According to contingency theory, HRM strategies should be in alignment with business competitive strategies to increase organizational performance (e.g. Miles & Snow, 1984; Porter, 1985; Schuler & Jackson, 1987). The "fit" concept refers to the interaction of HRM strategies and business strategies in ways that will help to retain and motivate employees.

It is hypothesized that the strategic linkage between business strategy (that is differentiation and low-cost strategy) and HRM practices (that is recruitment and selection, training and development, compensation, performance management, employment security and work-life balance) would be significant. Therefore, it is hypothesized that:

H1. There is a positive relationship between business strategy and HRM practices.

2.2 Differences between large firms and small firms in business strategy and HRM practices

Most research on HRM practices have focused on large-scale organizations and found that different HRM systems or bundles of practices do contribute to organization's performance such as employee retention, increased productivity, or even improved profitability (Arthur, 1994; Delery & Doty, 1996). However, only a few studies have looked at HRM practices in small medium enterprises (SMEs) and even fewer that focused on the relationship between HRM practices and performance (Heneman,

Tansky & Camp, 2000; Vicki, Ann, Robert & Mary, 2001). There has been a debate on whether the HRM practices of large organizations could be applied to small firms. Such debate provide the basis for theoretical examinations of smaller firms (Chandler & McEvoy, 2000).

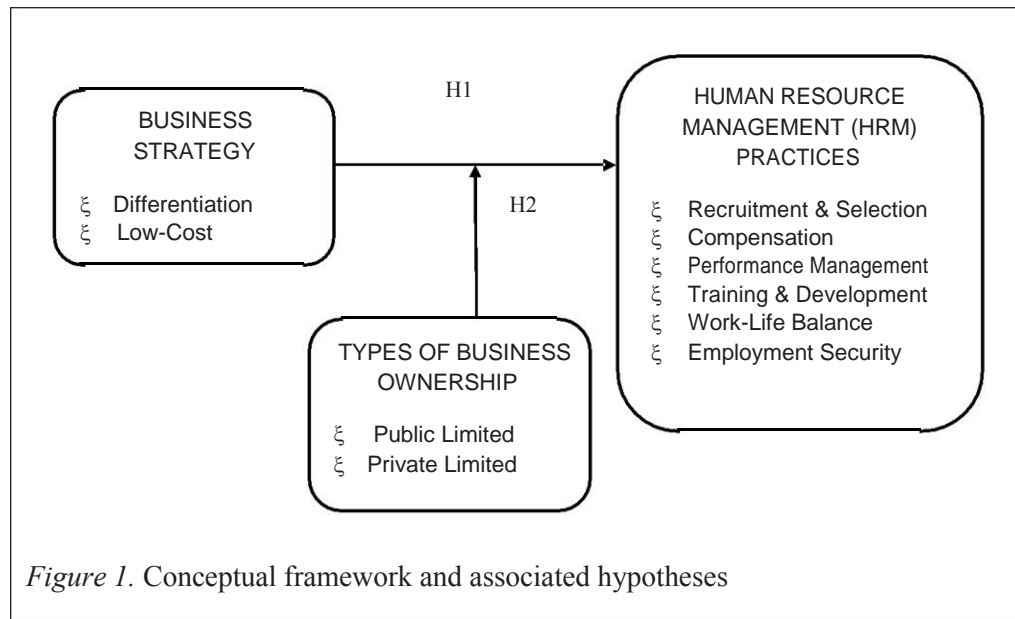
HRM practices in small medium enterprises (SMEs) or small firm are not as developed and are less structured than in large enterprises (Hornsby & Kuratko, 2003; Kerr & McDougall, 1999). Overall, SMEs lack the expertise on HRM methods and techniques. Therefore, it is not clear whether HRM practices will result in good SME performance. This warrants an empirical investigation (Cardon & Stevens, 2004; Hornsby & Kuratko, 2003; Tansky & Heneman, 2003)

Thus far, the theoretical arguments and previous studies seemed to be directed at large organization and thus proposed that large-sized organizations are more likely to adopt good, extensive, and complex HRM practices. Heneman and Berkley (1999) found that a greater percentage of large firms (50-99 employees vs. 20-49 employees) used more formalized and systematic recruitment and selection practices, more formalized compensation practices, and more specialized hiring inducements and hiring bonuses. De Kok & Uhlaner, (2001) study on 16 small Dutch firms (10-41 employees) also found company size to be associated with more formal HRM practices, including greater performance appraisal, and employer-based training. On the other hand, Hornsby and Kuratko (2003) found that HRM practices in SMEs of all sizes have been declining over the past decade, suggesting that there are differences between large firm and SME firms in terms of their HRM practices. The second hypothesis is developed to examine this.

Based on the Department of Statistics survey in 2005, many SMEs in Malaysia are Private Limited Companies. The Malaysian Government defines SMEs as firms with not more than 150 full-time employees or with an annual sales turnover not exceeding RM25 million (SMIDEC, 2009). Large enterprises in Malaysia are recognized as Public Limited Companies because these companies can issue securities through an initial public offering, or raise capital by selling shares. A Public Limited Company is larger than medium-sized enterprises and has more than 150 employees in the manufacturing sector and more than 50 employees in the services sector (SMIDEC, 2009). Therefore, SME firms are categorized as Private Limited Companies and large firms categorized as Public Limited Companies in this study. The two types of business ownership i.e. Private Limited and Public Limited Company are proposed to act as a moderator between business strategy and HRM practices. Therefore, the second hypothesis proposed is as follows:

H2. There is a significant difference in the relationship between business strategy and HRM practices depends on the types of business ownership

Figure 1 proposes the hypothesized structural model for the study. It consists of two independent variables (differentiation strategy and low-cost strategy) and six dependent variables (recruitment and selection, compensation, performance management, training and development, work-life balance, and employment security).



3. Methodology and data analysis

As the unit of analysis in this study was firm, 100 Public Limited and 100 Private Limited companies were selected using convenience sampling. These companies were chosen from The Official Business Directory of SMI Association Malaysia (2009), Malaysian Employer Federation, Federation of Malaysian Manufacturers and Bursa Malaysia. Companies with HR department or Personnel Department were the criteria used to define the population set.

There were two types of respondents. The first type of respondents was employees from non-human resource (HR) departments. They were required to provide information on business strategy and HRM practices in their company. The second group of respondents was individuals identified as the human resource manager. The respondents were expected to have knowledge pertaining to business strategy as well as HRM practices within the organization, and, hence were expected to be able to answer the questions. The data provided by two different types of respondents were used to assess the reliability measurement of business strategy and HRM practices. Researchers have suggested that using multiple respondents to measure organizational level constructs is preferable because these responses can be used as a reliability check for strategy

identification (Schuler & Jackson, 1987; Zajac & Shortell, 1989). Responses from 61.5% of the HR managers (123 responses) and 64.2% (642 responses) of the non-HR employees were collected using mail and hand-in survey method. Mail surveys provide a large geographically dispersed population to be studied at a relatively low-cost and help in testing measurement scales (Davis & Consenza, 1988). Students of Advanced Diploma of Business Studies (majoring in Business Administration) from Tunku Abdul Rahman College gave their assistance in this study by contacting and distributing the questionnaires to the selected respondents.

A questionnaire consisting of 10 business strategy items and 46 HRM practice items adapted from past studies of Dess and Davis (1984) and Guest, Conway, and Dewe (2004) respectively, were used. Both instruments used a six-point Likert format. Reliability and validity of the Dess and Davis (1984) scale have been determined through its application in research (Inhofe, 1992; Lynch, Scott & John, 2000). This study used two generic business strategies: low-cost and differentiation as researchers found competitive strategy tend to depict as a continuum with “pure” cost leadership on one end, and “pure” differentiation on the other (Huang, 2001; Martell, Gupta & Carroll, 1996). In this study, six out of twenty-six HRM practices of Guest et al. (2004) were used to measure the construct of HRM practices. The top four of the general categories selected were training and development, compensation, recruitment and selection, and performance management (including appraisal). These four practices were selected because these might represent the main objectives of most conceptualizations of a strategic HRM program (Batt, 2002). Some of other cited core elements of strategic HRM notably employment security and work-life balance were to be examined as these practices were rather less in empirical research (Boselie, Dietz & Boon, 2005).

All valid responses obtained from the HR managers and non-HR employees were coded into SPSS Version 14 and analyzed using AMOS Version 16.0. During the data cleaning and screening for accuracy for data, outliers, normality and multicollinearity, no HR manager cases were deleted. However, 22 cases from non-HR employees were deleted because they were incomplete. Another 49 cases were deleted because the Mahalanobis distance values were higher than χ^2 value ($\chi^2 = 137.208$; $n=90$, $p<0.001$), leaving 571 cases to be finally analyzed. Then, several statistical tests and analysis were conducted such as reliability test, validity tests using confirmatory factor analysis (CFA) for construct validity, discriminant validity for multicollinearity treatment, descriptive analysis, correlation, and structural equation modeling (SEM) analysis using AMOS 16.0.

4. Findings

Frequency distributions were calculated on the spread of respondents after data cleaning process. These are summarized in Table 1. Types of business ownership divided into two: Private Limited Company and Public Limited Company. More than 50% of non-

human resource respondents were from Private Limited Company (65%) and only 35% of the respondents were from Public Limited Company. As for human resource managers, majority of the respondents were from Private Limited Company (63.9%) and only 36.1% of the respondents were from Public Limited Company.

Table 1

Spread of respondents after data cleaning process

	Non-HR employees		HR managers	
	Total	Percentage	Total	Percentage
<u>Types of business ownership</u>				
Public Limited	200	35.0 (%)	43	36.1 (%)
Private Limited	371	65.0 (%)	76	63.9 (%)
Total	571	100 (%)	119	100 (%)

Source. All usable survey from respondents based on $n=119$ firms.

4.1 Descriptive analysis of variables

The research examined the relationship between two types of business strategy and six dimensions of HRM practices. Nunnally (1978) suggests that reliabilities in the range of 0.50 to 0.60 are acceptable in the early stages of research. The squared multiple correlations for the data revealed that RS2, CR9, PM10, ES3, WLB1, WLB6, WLB7, WLB9, WLB10, and WLB11 were not significant in measuring their respective subscales. Therefore, removal of these items could increase the reliability of these subscales. Table 2 shows the reliability coefficients of major variables after removal of these items. Overall most of the constructs showed Cronbach's alpha readings above 0.60 and these items were within the acceptable range of coefficient, as suggested by Nunnally (1978).

Table 2

Reliability coefficients for major variables

Variable Name	No. of Items remained	Cronbach's Alpha (non-HR dept. employee)	Cronbach's Alpha (HR manager)
Business Strategy			
Differentiation	5	0.815	0.824
Low Cost	5	0.808	0.858

(continued)

Variable Name	No. of Items remained	Cronbach's Alpha (non-HR dept. employee)	Cronbach's Alpha (HR manager)
HRM Practices			
Recruitment & Selection	4	0.553	0.650
Compensation	8	0.742	0.708
Performance Management	9	0.719	0.776
Training & Development	5	0.770	0.820
Work-Life Balance	5	0.625	0.744
Employment Security	5	0.651	0.670

4.2 Confirmatory factor analysis (CFA) results

CFA is used to determine the relationship between the observed variables and latent variables (Byrne, , 2001). As the survey instrument in this study consisted of items from existing scales, using CFA may reduce data dimensionality and, therefore, create appropriate dimensions for the hypothesized model. From the CFA result in Table 3, the factor loadings of all observed variables or items were adequate and conformed the construct validity test with exceptions of RS2 (0.159), CR9 (-0.053), PM10 (-0.145), ES3 (-0.080), WLB1 (0.217), WLB6 (-0.027), WLB 7 (0.210), WLB9 (0.189), WLB10 (-0.168) and WLB11 (0.067). The factor loadings or regression estimates of latent to observed variable should be above 0.30 (Byrne, 2001; Hair, Black, J., Anderson & Tatham, 2006). Items with factor loading less than 0.30 were excluded from the analysis because of low squared multiple correlations. The result of modification indices showed that TD5, ES4, CR7, TD3, CR6, CR8, PM8, PM3, PM9, RS5, CR2 and CR5 had a high degree of overlap in content and, therefore, deleted from the data.

Table 3

Parameter estimates for hypothesized and modified measurement models of CFA types of business strategy and HRM practices

Code	Attributes	Factor Loading	
		Hypothesized	Modified
Business Strategy			
D1	Products (services) in this organization are innovative and continually changing.	.735	.738
D2	This organization aggressively entering new markets with new types of products (services).	.793	.794

(continued)

Code	Attributes	Factor Loading	
		Hypothesized	Modified
D3	This organization consistently develops new product and new markets.	.762	.757
D4	This organization often changing the characteristics of products (or services) to satisfy customers' various tastes.	.606	.623
D5	This organization emphasizes on strong coordination among departments.	.491	.491
LC1	Products (services) in this organization are stable and consistently defined throughout the market.	.639	.639
LC2	This organization analyze costs and revenues carefully by keeping costs under control and selectively produce new products and enter new markets	.732	.726
LC3	This organization carefully analyze emerging trends and adopt those which have proven potential only	.684	.687
LC4	This organization maintains a secure financial position through cost and quality control	.712	.715
LC5	This organization maintains standard operating procedures to keep system efficient	.620	.620
<u>HRM Practices</u>			
RS1	Employee selection process for a given job is extensive in this organization (for example, Use of tests, work sample, aptitude test.	.570	.533
RS2	External hiring is preferred than promoting internal employees already working in this organization.	.159	*
RS3	This organization hires employees who have the desired skills and abilities.	.570	.568
RS4	This organization used interview panels during the recruitment and selection process.	.542	.561
RS5	This organization does <i>not</i> need to pay more attention to the way it recruits people. (R)	.303	**
TD1	This organization provides employees many opportunities of education and development.	.722	.702
TD2	Many different kinds of training programs are available for employee to attend.	.641	.646
TD3	The training program in this organization is formal and systematically structured.	.563	**
TD4	This organization has provided employees with training opportunities enabling them to extend the range of skills and abilities.	.776	.800

(continued)

Code	Attributes	Factor Loading	
		Hypothesized	Modified
TD5	Training is <i>not</i> seen as critical in this organization. (R).	.475	**
CR1	On average, pay level of employees in this organization is much higher than others firms for this industry	.531	.533
CR2	This organization instils employee commitment through higher pays	.572	**
CR3	Performance-based incentives are available to employees in this organization	.642	.646
CR4	Employees in this organization are rewarded when they produce at a high-level	.604	.636
CR5	This organization focuses on providing rewards to employee who works long-term in the organization	.386	**
CR6	This organization has seniority-based rewards practices for employees	.382	**
CR7	Employees in this organization are offered standard package of salary and benefits	.441	**
CR8	This organization uses group incentives to encourage cooperation among workers	.545	**
CR9	This organization offers lower base salaries compared to other firms from the same industry. (R)	-.053	*
PM1	Performance standards in this organization are clear and fixed for employees	.527	.547
PM2	Pay raises and promotions are closely tied to performance outcome of employees	.619	.633
PM3	There is employee involvement in our firm during appraisal process.	.519	**
PM4	Performance appraisal in this organization focuses on separating high and low performers.	.430	.420
PM5	This organization emphasized cooperation and teamwork than high individual performance.	.465	.459
PM6	This organization prefers internal promoting of employee rather external promoting	.310	.371
PM7	Employee will likely to be placed in a different position within the organization when he or she is not performing well in a particular job	.421	.392
PM8	This organization emphasis on performance development for the employee when performance appraisal is discussed	.585	**
PM9	This organization places most emphasis on career planning for employee	.562	**

(continued)

Code	Attributes	Factor Loading	
		Hypothesized	Modified
PM10	This organization removes low-performing employees quickly. (R)	-.145	*
ES1	This organization provides employee assistance program during work “downsizing”	.592	.616
ES2	This organization treats employees who leave with respect and dignity	.604	.633
ES3	This organization conducts exit interview for employees who decided to leave	-.080	*
ES4	This organization provides employment security for employee.	.481	**
ES5	This organization ensures long-term employment from the employee	.544	.558
ES6	This organization <i>often</i> practicing layoff or retrenchment compared to others firms in this industry. (R)	.418	.379
WLB1	This organization has minimum status differentials between management and employee (for example, Common parking, toilet, cafeteria).	.217	*
WLB2	The climate of this organization is cooperative and trustful	.564	.570
WLB3	Working conditions in this organization are good	.542	.554
WLB4	This organization supports employees with balancing work and family responsibilities	.408	.397
WLB5	This organization spends enough money on health and safety-related matters	.527	.513
WLB6	My health has suffered because of working for this organization. (R)	-.027	*
WLB7	Employees in this organization have freedom and opportunity to innovate and create unique outputs.	.210	*
WLB8	This organization wants jobholder to do many different things at work, using various skills and talents.	.491	.490
WLB9	Tasks for employees in this organization are complex	.189	*
WLB10	Rules and procedures for performing work in this organization are rare	-.168	*
WLB11	This organization wants employees to follow prescribed method of completing works. (R)	.067	*

Note:

* Excluded from the analysis because of low squared multiple correlation (SMC)

** Excluded from the analysis due to high degree of overlap content

CFAs were conducted on every construct of measurement models and structural model (see Table 4). All CFAs of constructs after modification produced a good fit as indicated by the goodness-of-fit indices such as CMIN/df ratio (2 to 5); Goodness of Fit Index (GFI) of $>.90$; and root mean square error of approximation (RMSEA) of values less than $.08$ ($<.08$), comparative fit index (CFI) of $>.90$ and Tucker-Lewis index (TLI) of $>.90$.

Table 4

Goodness of fit analysis-confirmatory factor analysis (CFA) of models (N=571)

Final Models	Measurement Models (Business Strategy)		Measurement Models (HRM Practices)		Hypothesized Full Model	Modified Full Model
	Hypothesized	Modified	Hypothesized	Modified		
Items remain	10 items	10 items	46 items	24 items	34 items	23 items
CMIN	147.831	119.292	3586.666	482.518	1542.983	411.077
df	34	33	974	232	508	208
CMIN/df	4.348	3.615	3.682	2.080	3.037	1.976
RMSEA	0.077	0.068	0.069	0.044	0.060	0.041
GFI	0.949	0.958	0.748	0.934	0.851	0.943
CFI	0.938	0.953	0.639	0.925	0.823	0.928
TLI	0.918	0.936	0.616	0.910	0.805	0.912

4.3 Hypotheses results

Table 4 shows the goodness-of-fit indices of hypothesized and modified full models. The models after modified had a good fit as the indices were within the range. Figure 2 presents the structural model of the modified full model.

Table 5 shows that the result partially supported hypothesis H1 which stated that there is a positive relationship between business strategy and HRM practices. However, low cost strategy did not have a significant relationship with compensation (C.R.= $-0.706 < 1.96$; $p=0.480 > 0.05$) and work-life balance (C.R.= $1.928 < 1.96$; $p=0.054 > 0.05$).

Table 5

Direct impact of modified full model: Standardized regression weights

Relationships between Exogenous and Endogenous	Standard Estimate	Standard Error	Critical Ratio	p-value
Differentiation → RS	1.019	.123	8.258	***
Differentiation → TD	1.335	.140	9.561	***

(continued)

Relationships between Exogenous and Endogenous	Standard Estimate	Standard Error	Critical Ratio	p-value
Differentiation → CR	.899	.102	8.835	***
Differentiation → PM	.732	.098	7.493	***
Differentiation → ES	.896	.105	8.560	***
Differentiation → WLB	.812	.088	9.190	***
Low Cost → RS	-.227	0.081	-2.817	**
Low Cost → TD	-.309	.100	-3.097	**
Low Cost → CR	-0.044	.063	-.706	.480
Low Cost → PM	.299	.071	4.191	***
Low Cost → ES	.355	.089	3.994	***
Low Cost → WLB	.104	.054	1.928	.054

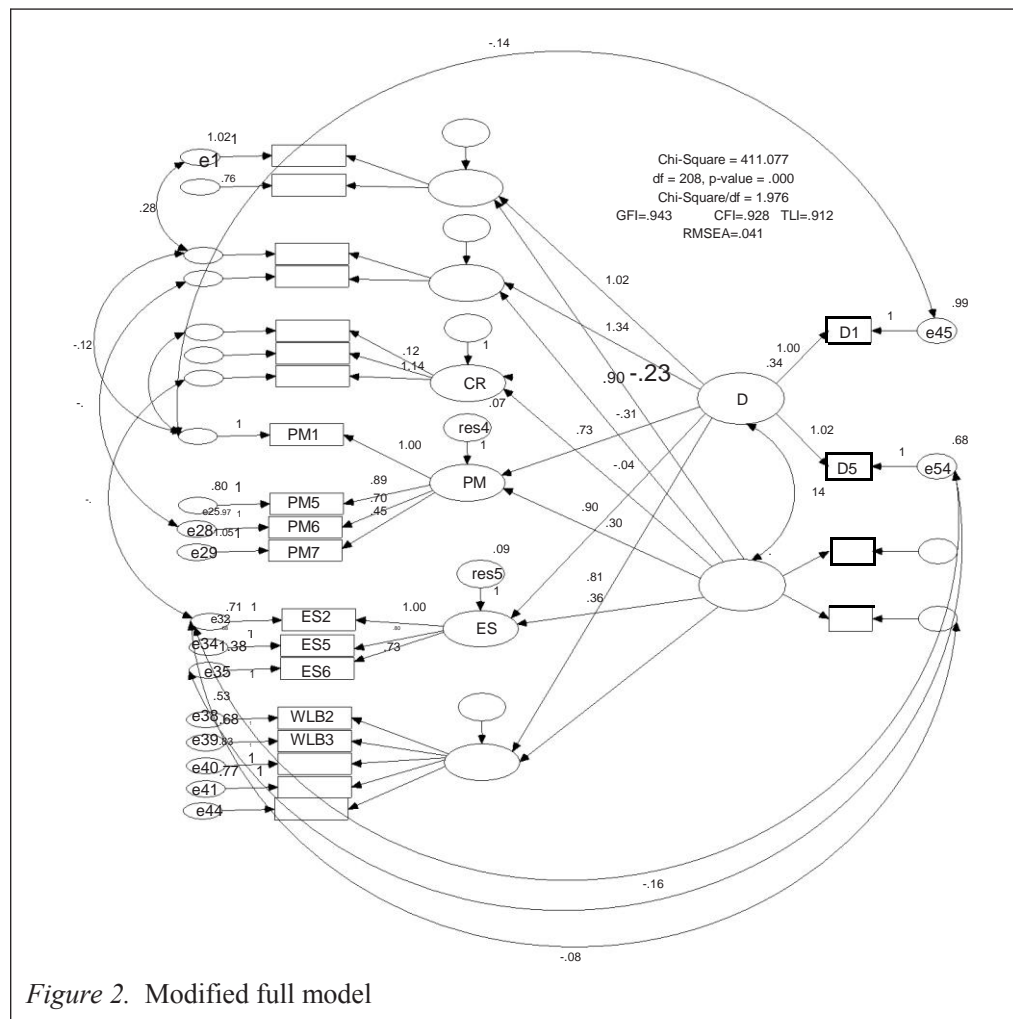


Figure 2. Modified full model

4.4 Testing for invariant results

Multiple group analysis was used to analyze the difference between the two groups, Public Limited and Private Limited companies, to see whether type of business ownership influences the relationships between the variables specified in the model tested. First, the equal factor structures across two groups were examined. The results showed that there fit was marginally better for both datasets with TLI=0.870, GFI=0.904 and CFI=0.892. After modification was made, the goodness-of-fit indices for revised model, GFI, TLI and CFI were 0.920, 0.925, and 0.905, respectively. All indexes were above the threshold of 0.90, indicating that the hypothesized model of business strategy and HRM practices structure fit well across the two business ownerships. After having established the good fit of the model, the first logical step was to test for the equivalence of the factor loadings pattern across the two groups. The findings revealed that all factor loadings were equivalent across Public Limited and Private Limited companies, as reflected in the χ^2 differences between the models tested. But Model 1 was not statistically significant. Next, testing for the equality of the structural parameter was carried out by focusing on the regression paths across groups.

Table 6 reveals that the differentiation strategy paths to HRM practices were not-significant while the low cost strategy paths to HRM practices was significant ($p < 0.05$). Thus, this result rejected the invariance hypothesis testing. As for low-cost strategy path to HRM practices, only one observed variable i.e. employment security was found to perform not equivalently for both Public Limited and Private Limited companies. Majority of the HRM practices had invariant to low-cost structural regression paths. As a result, those chi-square values led to rejection of hypotheses of invariance across two groups in assessment of measurement weight and structural regression paths. Therefore, hypothesis 2 that stated that there is significant difference in types of business ownership in the relationship between business strategy and HRM practices was partially supported.

Table 6

Goodness-of-fit statistics for tests of invariance

Model Description	Comparative Model	χ^2	df	$\Delta \chi^2$	Δ df	Statistical Significance
1. Revised Hypothesized Model (Model 1)		530.653	332	-	-	-
2. Factor loadings, regression paths variances & co-variances constrained equal	Model 1	578.918	360	48.265	28	$p < 0.01$

(continued)

Model Description	Comparative Model	χ^2	df	$\Delta \chi^2$	Δ df	Statistical Significance
Factor loadings constrained equal	Model 1	544.629	345	13.976	13	NS
3. Factor loadings and regression paths constrained equal	Model 1	571.325	357	40.672	25	p<0.05
4. Factor loadings and only differentiation regression paths constrained equal-Model 1(a)	Model 1	557.297	351	26.644	19	NS
5. Factor loadings and only low-cost regression paths constrained equal	Model 1	561.310	351	30.657	19	p<0.05
6. Model 1 (a) with LC→RS constrained equal	Model 1	557.886	352	27.233	20	NS
7. Model 1 (a) with LC→RS and LC→TD constrained equal	Model 1	557.968	353	27.315	21	NS
8. Model 1 (a) with LC→RS, LC→TD and LC→CR constrained equal	Model 1	559.963	354	29.310	22	NS
9. Model 1 (a) with LC→RS, LC→TD, LC→CR and LC→PM constrained equal	Model 1	560.080	355	29.427	23	NS
10. Model 1 (a) with LC→RS, LC→TD, LC→CR, LC→PM and LC→ES constrained equal	Model 1	569.147	356	38.494	24	p<0.05
11. Model 1 (a) with LC→RS, LC→TD, LC→CR, LC→PM and LC→WLB constrained equal	Model 1	560.426	356	29.773	24	NS

5. Discussion

This study examined the goodness-of-fit of the hypothesized structural model by integrating business strategy and HRM practices. The hypothesized model did not achieve a model fit as the CFI, GFI, and TLI values were less than threshold of 0.90. However, the modified model performed model fit and supported some direct effects between the dimensions of business strategy and HRM practices. First, the results showed that differentiation strategy had a direct positive relationship with all the six HRM practices. This finding is consistent with the results of Chang and Chen (2002). They claimed that because differentiation strategy focuses on new product,

process, development and improvement, training and development, and performance management were important to be aligned with the strategy. In a similar vein, Stewart and Brown (2009) argue that human resource strategic framework should be based on committed expert strategy. This strategy stresses on the need to develop committed employees with a focus on producing unique goods and services. The primary objective of this strategy is to hire and retain employees who specialize in performing certain tasks. Organization using this strategy will design their work so that employees have much freedom to innovate and to improve methods of completing tasks. Organization that employs committed expert HR strategy would focus most attention on developing employees for long careers.

Second, low-cost strategy was found to have a significant positive relationship with performance management, and employment security, but a significant negative relationship with recruitment and selection, and training and development. The low-cost strategy was found to have no significant relationship with compensation, and work-life balance. These findings are consistent with previous research where authors found that organizations employing low-cost strategy tended to use relatively fixed and stable job descriptions. The career paths of low-cost strategy encourage specialization, result-oriented performance appraisal system, compensation at par with market levels, and minimum levels of employee training and development. Their main objectives stress on reducing cost and focus less on work systems that encourage innovation (Hannah & Iverson, 2004; Jackson & Schuler, 1995; Stewart & Brown, 2009). According to the results of invariance tests using multiple group analysis, the results showed no significant results which mean there was invariance or no difference of factor loadings between the two types of business ownership. However, the results from path analysis revealed differences in the regression coefficients and error variances between the two groups. This study found differentiation path to be invariant but low cost path found to be different across the two groups ($p < 0.05$). This study revealed that regression path of low-cost to employment security ($p < 0.05$) to be significantly variant across groups. Large organizations in this case that is Public Limited companies were more likely to develop HRM practices that are approved and favourably assessed by society (Cohen & Pfeffer, 1986; Shaw, Tang, Fisher & Kirkbride, 1993). In general, it was found that large organizations are likely to focus on employment security while small organizations are less likely to be exposed to community view and bring lesser influence to the environment.

6. Conclusion

The study has conceptual and methodological implications. The fundamental purpose of this study was to develop a practical as well as theoretically sound model, explaining a link between business strategies and HRM practices. This would help academicians and practitioners understand the extent of the difference in the interrelationship between business strategy and HRM practices.

A reliable and valid measurement model for business strategy, covering two domains (differentiation and low-cost) and HRM practices covering six domains (recruitment and selection, training and development, compensation, work-life balance, employment security, and performance management), was developed and tested by CFA. Although this measurement model did not include every HRM practice adopted and implemented by companies, it has taken into account the majority representative domains of HRM practices suggested by HRM researchers (e.g. Guest, 1997). Further, SEM is able to reveal the relationship between each business strategy domain and HRM practice domain.

The analytical approach to comparing between types of business ownership has implications for academicians and practitioners. For instance, it was assumed that all organizations implement the same business strategies. The findings of this study showed that this assumption was slightly false. The effects of low cost strategy on HRM practices of Public Limited companies were different from those on HRM practices of Private Limited companies with employment security. This study showed not all business strategies and HRM practices are likely to have the same impact for various types of business ownerships.

The use of SEM enabled specification and estimation of a complex model of relationship between business strategies and HRM practices. Most other multivariate procedures are descriptive by nature that stresses on exploratory factor analysis. This makes hypothesis testing difficult although not impossible. By contrast, SEM takes a confirmatory factor to analyze. Traditional multivariate procedures are also incapable of either assessing or correcting for measurement error. SEM provides explicit estimate of these error variance parameters (Byrne, 2001). In addition, the use of SEM made it possible to estimate the construct validity of the constructs of the model. This method also facilitated the comparison of these complex relationships for Public Limited and Private Limited Companies. SEM provides a method to understand the antecedents and effects of the business strategy and HRM practices, and can contribute to more sophisticated theoretical explanations of the two variables in a different business ownership context.

Understanding the interaction between HRM practices and business strategy is important. Previous empirical studies have shown that the right combination of HRM strategies and organizational strategy is the best way to achieve companies' business objectives (Pan, 2007) such as gaining better economic results with productivity and return over equity than their main competitors (Echeverria & Andres, 2001), and hence competitive advantage.

Future research should examine the relationship between business strategy and HRM practices in other sectors such as primary agricultural, manufacturing and services sector. Measurement of HRM practices may also need to be redefined by modifying the

HRM practices to reflect different settings and countries. In addition, testing the model within an experimental design would enable researchers to use the model to explain causal structures. In addition, time series data would allow a better test of causal order.

References

- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. L. (2000). *Manufacturing advantage: Why high-performance work systems pay off*. Cornell University.
- Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *The Academy of Management Journal*, 37(3), 670-687.
- Batt, R. (2002). Managing customer services: Human resource practices, quit rates, and sales growth. *Academy of Management Journal*, 45, 587-597.
- Begin, J. P. (1991). *Strategic employment policy: An organizational systems perspective*. Englewood Cliffs, NJ: Prentice-Hall.
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal*, 15(3), 67-94.
- Byrne, B. M. (2001). *Structural equation modelling with AMOS: Basic concepts, applications, and programming*. London: Lawrence Erlbaum Associates.
- Cappelli, P., & Singh, H. (1992). Integrating strategic human resources and strategic management. In D. Lewin, O.S. Mitchell & P. D. Sherer (Eds.), *Research Frontiers in Industrial Relations and Human Resources* (pp. 165-192): Madison, WI: Industrial Relations Research Association.
- Cardon, M. S., & Stevens, C. E. (2004). Managing human resources in small organizations: What do we know. *Human Resource Management Review*, 14(3), 295-323.
- Chandler, G. N., & McEvoy, G. M. (2000). Human resource management, TQM, and firm performance in small and medium-size enterprises. *Entrepreneurship Theory and Practice*, 25(1), 43-57.
- Chang, P.L., Chen, W.L. (2002), The effect of human resource management practices on firm performance: Empirical evidence from Taiwan's high-tech firms, *International Journal of Management*, Vol. 19 No.4, pp.622-31.
- Chiah-Law, G., Stanley, P., & Chris, S. (2003). The role of human resource management in Australian-Malaysian joint ventures. *Journal of European Industrial Training*, 27(5), 244-262.

- Cohen, Y., & Pfeffer, J. (1986). Organizational hiring standards. *Administrative Science Quarterly*, 31, 1-24.
- Davis, D., & Consenza, R. M. (1988). Business research for decision making (2nd ed.): PWS-Kent Publishing Company, Boston, MA.
- De Kok, J. M. P., & Uhlaner, L. M. (2001). Organizational context and human resource management in the small firm. *Small Business Economics*, 17, 273-291.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic HRM: Test of universalistic, contingency and configurational performance predictions. *Academy of Management Journal*, 39, 802-835.
- Dennis, D., Michael, L. V., & Meredith Blackwell, W. (2002). Strategic human resource management: Perceptions among North Carolina county social service professionals. *Public Personnel Management*, 31(3), 359.
- Dess, G. G., & Davis, P. S. (1984). Porter's generic strategies as determinants of strategic group membership and performance. *Academy of Management Journal*, 26(3), 467-488.
- Doty, D. H., Glick, W. H., & Huber, G. P. (1993). Fit, equifinality, and organizational effectiveness: A test of two configurational theories. *Academy of Management Journal*, 36, 1196-1250.
- Dowling, P., & Schuler, R. (1990). Human resource management. In R. Blanpian (Ed.), *Comparative Labor Law and Industrial Relations in Industrialized Market Economies* (pp. 125-149). Deventer: Boston Kluwer Law and Taxation Publishers.
- Dyer, L., & Holder, G. W. (1988). A strategic perspective of human resource management. In L. Dyer (Ed.), *Human Resource Management: Evolving Roles and Responsibilities*. Washington, DC: BNA.
- Dyer, L., & Reeves, T. (1995). Human resource strategies and firm performance: what do we know and where do we need to go? *International Journal of HRM*, 6(3), 656-671.
- Echeverria, P., & Andres, C. (2001). A systemic approach towards the study of the impact of human resource management on firm performance: Theoretical analysis and empirical research. Spain: Universidad de Navarra.

- Geringer, J. M., Frayne, C. A., & Milliman, J. F. (2002). In search of “best practices” in international human resource management: Research design and methodology. *Human Resource Management, 41*(1), 5-30.
- Guest, D. (1997). Human resource management and performance: A review and research agenda. *International Journal of Human Resource Management, 8*(3), 263-276.
- Guest, D. E., Conway, N., & Dewe, P. (2004). Using sequential tree analysis to search for “bundles” of HR practices. *Human Resource Management Journal, 14*, 79-96.
- Hair, J. F., Black, W. C., J., B. B., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6 ed.). Upper Saddle River: Pearson-Prentice Hall.
- Hannah, D. R., & Iverson, R. D. (2004). Employment relationships in context: Implications for policy and practice. In J. A-M. Coyle-Shapiro, L.M. Shore, M. S. Taylor & L. E. Tetrick (Eds.), *The Employment Relationship: Examining the Psychological and Contextual Perspectives* (pp. 332-350). Oxford: Oxford University Press.
- Harel, G. H., & Tzafrir, S. S. (1999). The effect of human resource management practices on the perceptions of organizational and market performance of the firm. *Human Resource Management Journal, 38*, 185-200.
- Hassan, A. (2010). Linking quality assurance to human resource management: A study of SMEs in Malaysia. *International Journal of Quality & Reliability Management, 27*(6), 641-657.
- Heneman, H. G., & Berkley, R. A. (1999). Applicant attraction practices and outcomes among small businesses. *Journal of Small Business Management, 37*, 53-74.
- Heneman, R. L., Tansky, J. W., & Camp, S. M. (2000). Human resources management practices in small and medium-sized enterprises: Unanswered questions and future research perspectives. *Entrepreneurship Theory and Practice, 25*(1), 11-26.
- Hoque, K. (2000). *Human resource management in the hotel industry: Strategy, innovation, and performance*. London: Routledge.
- Hornsby, J., & Kuratko, D. (2003). Human resource management in US small business: A replication and extension. *Journal of Developmental Entrepreneurship, 8*(1), 73-92.
- Huang, T. C. (2001). The effects of linkage between business and human resource management strategies. *Personnel Review, 30*(2), 132-140.

- Inhofe, M. M. (1992). Consequences of organizational communication: The role of the marketing function in the health care industry. University of Memphis.
- Jackson, S. E., & Schuler, R. S. (1995). Understanding human resource management in the context of organizational and their environment (Vol. 46). *Palo Alto, CA: Annual Reviews*.
- Kerr, A., & McDougall, M. (1999). The small business of developing people. *International Small Business Journal*, 17(2), 65-74.
- Khatri, N. (2000). Managing human resource for competitive advantage: A study of companies in Singapore. *International Journal of Human Resource Management*, 11, 336-365.
- Kotey, B., & Slade, P. (2005). Formal human resource management practices in small growing firms. *Journal of Small Business Management*, 43(1), 16-40.
- Lynch, D. F., Scott, B. K., & John, O. (2000). The effects of logistics capabilities and strategy on firm performance. *Journal of Business Logistics*, 21(2), 47-68.
- Martell, K., Gupta, A., & Carroll, S. J. (1996). Human resource management practices, business strategies, and firm performance: A test of strategy implementation theory. *Irish Business and Administrative Research*, 17(1), 18-35.
- Meyer, A. D., Tsui, A. S., & Hinings, C. R. (1993). Guest co-editors introduction. Configurational approaches to organizational analysis. *Academy of Management Journal* 36, 1175-1195.
- Miles, R., & Snow, C. (1984). Designing strategic human resource systems. *Organizational Dynamics*, Summer, 36-52.
- Ng, I., & Maki, D. (1993). Human resource management in the Canadian manufacturing sector. *International Journal of Human Resource Management*, 4(4), 897-916.
- Nunnally, J.C. (1978). *Psychometric theory* (2nd ed.), New York: McGraw-Hill
- Osman, I., Ho, T. C., & Galang, M. (2011). Are human resource departments really important? An empirical study on Malaysian small and medium enterprises (SMEs) in the service sector. *International Journal of Business and Management*, 6(2), 147-153.
- Pan, T. J. (2007). An investigation of the relationship between business strategy and HRM in the budget, mid and upper hotel sectors. Unpublished Dissertations & Theses, University of Strathclyde, United Kingdom.

- Rowley, C., & Abdul-Rahman, S. (2007). The management of human resources in Malaysia: Locally-owned organisations and multinational organisations. *Management Review*, 18(4), 427-453.
- Schuler, E. S., & Jackson, S. E. (1987). Linking competitive strategy with human resource management practices. *Academy of Management Executive*, 3, 207-219.
- Shaw, J. B., Tang, S. F. Y., Fisher, C. D., & Kirkbride, P. S. (1993). Organizational and environmental factors related to HRM practices in Hong Kong: A cross-cultural expanded replication. *International Journal of Human Resource Management*, 4(4), 785-815.
- SMIDEC. (2009). *Annual Report*. Kuala Lumpur: Percetakan Nasional Malaysia Berhad.
- Stewart, G. L., & Brown, K. G. (2009). *Human Resource Management Linking Strategy to Practice*. USA: Wiley.
- Takeuchi, N., Wakabayashi, M., & Chen, Z. (2003). The strategic HRM configuration for competitive advantage: Evidence from Japanese firms in China and Taiwan. *Asia Pacific Journal of Management*, 20(4), 447-480.
- Tansky, J. W., & Heneman, R. (2003). Guest editor's note: Introduction to the special issue on human resource management in SMEs: A call for research. *Human Resource Management*, 42(4), 299-302.
- Truss, C. (2001). Complexities and controversies in linking HRM with organizational outcomes. *Journal of Management Studies*, 38(8), 1121-1149.
- Tsui, A. S., & Wu, J. B. (2005). The new employment relationship versus the mutual investment approach: Implications for human resource management. *Human Resource Management*, 44(2), 115-121.
- Wagar, T. (1998). Determinants of human resource management practices in small firms: Some evidence from Atlantic Canada. *Journal of Small Business Management Science*, 36(2), 13-23.
- Wright, P. M., & Snell, S. A. (1998). Toward a unifying framework for exploring fit and flexibility in strategic human resource management. *Academy of Management Review*, 23, 756-772.
- Zajac, E. J., & Shortell, S. M. (1989). Changing generic strategies: Likelihood, direction, and performance implications. *Strategic Management Journal*, 10, 513-530.

