

Impact of strategic dimensions on HRM and firm performance in Singapore

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Summary: This study sheds light on the widely debated contingency perspective in strategic human resource management (HRM) in Singapore. We found support for the adoption of the universalistic model of HRM. There was support for the mediating relationships of employee skills and employee role behaviors between HRM System and firm performance. Both HRM system and strategic emphasis are found to have a significant impact on firm performance.

Abstract

This study sheds light on the widely debated contingency perspective in strategic HRM. Data collected from the responses of 190 Singaporean organizations showed that there was an adoption of the universalistic model of HRM. There was support for the mediating relationships of employee skills and employee role behaviors between HRM system and firm performance. The findings also provide support for the contingency relationship between strategic emphasis and employee skills and role behaviors in strategic HRM. Both HRM system and strategic dimensions are found to have independent impact on firm performance. Research and practical implications are discussed in relation to the challenges faced by the HRM function in Singapore.

Many researchers have argued that the adoption of strategic HRM actually result in tangible benefits such as a positive impact on organizational performance. Past studies have explored the linkages between the use of strategic HRM or systems with various measures of performance and found consistent support for such relationships (e.g., Delaney and Huselid, 1996). However, there still lies a dearth in the knowledge of the effects of strategic HRM during the Asian economic crisis, that is, how do firms in Singapore adopt strategic HRM and its impact organizational performance? The question of whether there are other mediating factors between HRM system and performance also remains. The next sections explore the literature on strategic HRM. The remaining sections then review the method used, the statistics used and the results.

Building Human Capital in Singapore

Since this study is based in Singapore, it is pertinent to explore the uniqueness of Singapore as a context for research. Furthermore, the question of whether the western model is perfectly applicable in the Singapore context also needs to be answered. Singapore is a small country with a total population of 3.87 million (as at April 2000). The total labor force is made up of 1.97 million people and unemployment rate is around 3.3 percent. With a considerably small population, Singapore constantly faces the problem of labor shortage throughout the years. How strategic is HRM in Singapore? Can the HRM model be explained by the Western model, which is commonly expounded in empirical research? With such a wide difference in culture and environment, would a perfect application of the Western model be possible?

A single HR practice is unlikely to capture the effects of an entire HRM system. It is the combination of HR practices in a bundle that shape the pattern of employment relations (Lepak and Snell, 1999). Hence, if we evaluate the linkage between individual practices and performance alone, we will be unable to capture the effect of the entire HRM system (Cutcher-Gershenfeld, 1991). As such, HRM systems are the appropriate unit of analysis for studying the link to performance because they create multiple, mutually reinforcing conditions that support employee motivation and skill acquisitions (e.g., Huselid, 1995; MacDuffie, 1995). Strategic HRM researchers largely advocate external and internal fit.

External Fit and Strategic HRM

External fit refers to the alignment between an organization's strategy with three generic conceptual variables: (1) HRM practices; (2) employee skills, and (3) employee behavior (Wright and Snell, 1998). The exploration of past empirical studies has largely centered around the strategy-HRM linkage rather than on skills and behaviors. The most commonly conceptualized in the measurement of external fit is that of strategy-HR practices fit. The rationale behind this alignment is that firms pursuing a certain strategy should select HR practices that complement such a strategic direction. Jackson, Schuler, and Rivero (1989) found that firms pursuing an innovation strategy tend to provide more training, greater employment security, and reduced incentive compensation for their hourly employees. Miles

and Snow (1984) advocated using different HR practices based on whether the firm adopts defender, prospector, or analyzer strategic types. Youndt and his colleagues (1996:842) conclude that manufacturing strategy moderate the HRM-performance relationship. MacDuffie (1995) examined the hypothesis that a HRM system must be integrated with complementary bundles of practices from core business functions (and thereby with the firm's overall business strategy) to be effective.

The present gap in strategic HRM research is the lack of studies that adequately explore the efficacy of alignment or fit in strategic HRM (Becker and Huselid, 1998). Although such a theoretical model of fit is compelling, empirical studies have been lacking. Wright and Sherman (1998) believed that current research and theory is deficient in delineating or testing the fit notion. They argued that the failure to consistently observe such effects can be traced to problems in the "models of fit" and "operationalization of fit". The current study attempts to adopt some of their recommendations to advance research.

Firstly, the current study adopts Wright and Snell (1998)'s fit-based model for the investigations of alignment in HRM. Their fit-based model not only includes the use of strategy-HRM linkage, but also linkages between strategy-employee skill and strategy-role behaviors to provide a comprehensive theoretical model investigating HRM linkages.

Secondly, the view of fit as moderation is used in this study. Venkatraman (1989) noted that there are six potential operationalizations stemming from the definition of fit. The view of fit as moderation, however, is consistent with contingency-based theories in that the relationship between two variables depends on a third variable (Wright and Sherman, 1998). Such an operationalization of fit is more consistent with the fit-based model conceptualized by Wright and Snell (1998). The relationship between each construct (that is, employee skills, role behaviors and HR practices) and organizational performance depends on a third variable, firm strategy.

To deal with the problem of inconsistency in the operationalization of HRM system, all aspects of HRM system including recruitment and selection, training and development, performance appraisal and compensation will be taken into account. The measurement of "employee involvement" aspects, such as the amount of employee participation in the organization will also be included.

Internal Fit and Strategic HRM

Internal fit in strategic HRM refers to the internal consistency and complementarity of HR practices (Delery, 1998). Specifically, this means that HR practices work together as a system to achieve the objectives of the organization, instead of working individually. Baron and Kreps (1999) clarified the meaning of consistency and suggest that there are three aspects to it. Firstly, different parts of the overall HRM system that bear on individual employees such as recruitment, compensation, performance appraisal and promotion etc., should be consistent or complementary. The second issue is concerned with the treatment of different workers in the organization. They suggest that different workers must be treated consistently. Thirdly, the HRM philosophy and premises of the organization should demonstrate some degrees of temporal consistency or continuity. This means that in general, employees should not be treated radically differently over time. Such a definition of consistency illuminates our understanding of what consistency really means. It has gone beyond the traditional thinking of internal fit as simply the congruence between various HR practices to show us that consistency is much more than that.

Empirical support for the internal fit has been rather limited. MacDuffie (1995) found significant relationships for the contribution of bundles of HR practices to labor productivity and quality. Contrary to the findings of MacDuffie (1995), Delaney and Huselid (1996) constructed a variable in their complementarity hypothesis to indicate the number of HRM

practices for which a firm was above the sample median. Studies attempting to test the concept of horizontal fit also found little support for the effect (Delery and Doty, 1996).

In the current study, we propose that HRM system does not directly impact organizational performance, but does so via employee role behaviors and skills. 'HRM system' is defined as the combination of practices in a bundle which shape the pattern of interaction between and among managers and employees'. To the extent that HRM system is able to elicit favorable employee role behaviors and skills, there will be better financial and organizational performance. Hence, we propose that HRM system has a direct impact on contributes to performance. This hypothesis looks at the bundling of HR practices as a system and its positive contribution to performance.

Hypothesis 1: HRM System is positively associated with firm performance (such as perceived market performance and perceived organizational performance).

Linkages between Strategy, Employee Skills and Role Behavior

The second category of fit is between strategy and employee skills. Competitive advantage emanating from HRM stems most directly from a human capital pool that contains the necessary skills and whose members display the necessary behaviors (Wright, Smart and McMahan, 1995). HR practices are thus tailored to identifying individuals who possess the skills required by the strategy of the organization. Wright and his colleagues (1995) found that there was a need to match HR and strategies to maximize HR performance. The study also provided evidence that strategies influence the acquisition of the skills of the entire human capital. The focus here is on measuring the skills of the larger human capital pool and not individual's skills. According to human capital theory, employees are the ones who possess skills, knowledge and abilities that provide economic value to the firm. Increased productivity derived from investments in increasing skills and knowledge of the employees reflects the benefits of such investments (Parnes, 1984; Snell and Dean, 1992).

Wright and Snell (1998) provide us with the rationale of how fit can be achieved in organizations. The strategic objectives or "intended strategy" is often translated into "intended and desired employee behaviors and skills". Thus, it is this perception of required skills and behaviors that drives the HRM practices. Truss and Gratton (1994) suggested that the operationalization of these desired HRM practices into actual HRM practices is never perfectly assured. Eventually, the actual HRM practices implemented will influence the actual skills and behaviors of the employees, thereby, impacting organizational performance.

The next category of fit is the strategy-employee role behavior linkage. Role theory has been widely used in various fields of research including psychology, social psychology, organization behavior and human resource management since 1930s (Welbourne et. al., 1998). Lawler (1986) believed that the goals of organizational interventions such as total quality or employee involvement are really to encourage employees to change the way they work. What really happens when such programs are successful is that employees become more willing to take up responsibilities and go beyond their traditional job scopes.

Interestingly, Whittlesey (1999) believed that employers must focus on changing the behavior of the employees and not just motivating them. Most of the time, the real objective is to direct motivated employees towards exhibiting behaviors that achieve organizational goals. For example, while creativity is a desired employee behavior in organizations trying to differentiate themselves in product design or marketing, it is certainly not the focus in organizations where cost and efficiency is emphasized. The desired employee behaviors must be in line with organization goals to be effective in contributing to organizational performance.

Schuler and Jackson (1987) called for different role behaviors based on different strategies. This perspective is commonly termed as the "behavioral perspective". The behavioral perspective is built on the rationale that different firm strategies require employees

to display different kinds of role behaviors. They advocated that companies pursuing an innovation strategy should have employee role behaviors including a high degree of creative behavior; a longer term focus; a relatively high level of cooperative, interdependent behavior; a moderate degree of concern for quality; a moderate concern for quantity; an equal degree of concern for process and results; a greater degree of risk-taking and a high tolerance of ambiguity and unpredictability. On the other hand, quality-enhancement and cost-reduction strategies will require a different set of employee role behaviors. As such, firm performance can be maximized depending on the extent to which the entire human capital pool collectively exhibits the role behaviors which are consistent with chosen competitive strategy.

In the current paper, employee role behaviors and skills are advocated to play mediating roles between HRM system and performance. The idea stems from Schuler and Jackson's (1987) behavioral perspective which stressed that employee role behaviors are instrumental in the implementation of the competitive strategies. Schuler (1992) built on this perspective by proposing that it is the specific HR practices that motivate employees to exhibit the needed role behaviors associated with various strategies. Consequently, Wright and McMahan (1992: 305) suggested that strategic HRM studies should focus on the types of HR practices, which are effective in eliciting these role behaviors. The authors also encouraged further studies to be conducted to demonstrate that the relationship between strategies and firm performance is either mediated or moderated by HRM practices and employee role behaviors.

Similarly, employee skills are also elicited by the HRM system. This can be explained by Wright and Snell (1991), who advocated that organizations can be described as input, throughput and output systems involved in transactions with a surrounding environment. The authors proposed that the inputs in the HRM system are competencies (that is, skills and abilities) of employees which the firm must import from its external environment. The throughput process can then be characterized by the behaviors of these employees. Finally, the outputs consist of both performance and affective outcomes such as job satisfaction. As such, this recognizes that the firm needs to attract, retain employees with the necessary skills for executing the business plans. The HRM system is a means, in which firms can effectively attract and retain people with the kinds of skills required by the strategies of the organization.

Hypothesis 2: The relationship between HRM system and performance is mediated by employee role behaviors.

Hypothesis 3: The relationship between HRM system and firm performance is mediated by employee skills.

Business-level strategies and HRM

The use of business strategy in strategic HRM empirical researches has largely centered on Miles and Snow (1984) typology (defender, prospector and reactor) and Porter's (1980) generic strategies of differentiation cost leadership and focus. Within the adoption and conceptualization of these competitive strategies, two schools of thoughts have emerged. One school of thought professed that firms can either seek efficiency or differentiation (Porter, 1985), while the other believed that it is possible to have both cost and differentiation strategy pursued simultaneously.

The use of such typologies in strategic HRM research has also met its criticisms. Chadwick and Cappelli (1999) devoted an entire article to the problems of using generic typologies in strategic HRM research. They submitted that the use of dichotomous strategy measure suggests that firms can only have on strategic emphasis at a time and "that options which are mutually exclusive on survey instruments are traded off each other in practice, reinforcing the conceptual shortfalls inherent in generic typologies" (Chadwick and Cappelli, 1999:27). Using these typologies in empirical research may also pose measurement difficulties. According to Caves and Porter (1977), an organization's business-level strategy

is usually predicated by industry conditions and competitors' actions. The problem with measuring such typologies is that, organizations do not purely follow a particular typology in reality.

Chadwick and Cappelli (1999) proposed that that an easy step forward to make measures of strategy more sophisticated comes from knowing a firm's relative level of emphasis on each dimension of a business strategy, rather than simply which dimension is emphasized the most. Such an approach also provides simple classification for the purposes of research design. As such, we have chosen several strategy dimensions for examination. They are namely, commodity-to-specialty products, marketing intensity, cost leadership. Consistent with Zahra and Covin (1993:454), these dimensions are adopted for examination because "they represent fundamental strategic choices that are meaningful in a wide variety of environmental settings". These strategic dimensions allowed generalizability across industries, which is important for this research as sampling, is being done across industries.

Hypothesis 4: Different emphasis on each strategic dimension moderates the relationship between HRM system and employee skills.

Hypothesis 5: Different emphasis on each strategic dimension moderates the relationship between HRM system and employee role behaviors.

Hypothesis 6: Different emphasis on each strategic dimension moderates the relationship between employee role behaviors and performance.

As employee skills are expected to contribute to firm performance, we believe that different emphasis on each strategic dimension is expected to moderate the relationship. While the organization that emphasizes on marketing and specialty products would want its employees to possess extensive employee skills for example, technical or problem-solving skills, an emphasis on cost leadership does not justify the investments of the organization in extensive employee skills. Hence, we hypothesize:

Hypothesis 7: Different emphasis on each strategic dimension moderates the relationship between employee skills and performance.

insert Figure 1 about here

METHODS

Selection Procedures and Participants

The analysis in this study deals with performance and HR practices at the organization level. The target organizations are Singapore companies with a human resource department. As such, only organizations with more than 40 employees will be selected for our survey. This is to ensure that they have a functional human resource department and will be able to answer our questions appropriately. A random selection of 2000 companies was taken from the Kompas Directory of Companies. Among these, 1450 companies fit our criteria of having more than 40 employees. We received a total of 190 questionnaires at the end of the data collection, representing a response rate of 13 percent (note: typical response rate for such surveys in Singapore is between 10-15 percent). As the respondents were randomly picked from the business directory, they come from a diverse range of industry sectors, including manufacturing sector (16.0 percent), construction industry (14.0 percent), electronic and IT sector (10 percent), and pharmaceutical sector (8 percent).

Measures

HRM System. We adopted 36 items relating to the functional aspects of HRM from Delery and Doty (1996) and Snell and Dean (1992). These items also incorporated the softer aspects such as employee participation and career opportunities. Principal component analysis yielded four factors which explained 66.78 percent of the variance. These factors are Career Prospects, Compensation System, Employee Importance, and Training and

development. To gauge if these factors fall into the same dimension of “HRM System”, a confirmatory factor analysis was conducted and it was found out that only one factor was available. Hence this confirms that these HRM practices consistently made up the HR System. They are then combined to form a HRM System index.

Strategic Dimensions. We adapted the 16-item scale from Zahra and Covin (1993) to operationalize the three strategic dimensions of Commodity-to-specialty products (five items, $\alpha=.8473$), Marketing Intensity (three items, $\alpha=.8752$), and Cost Leadership (six items, $\alpha=.9177$). Using a 7-point Likert scale, respondents were asked to indicate how they rate their firms compared to their competitors in terms of the above three competitive variables.

Employee Role Behavior. Eight items are used to measure the different employee role behaviors that an organization encourages, based on the normative framework in Schuler and Jackson (1987). Using a 7-point Likert scale, respondents were asked to indicate how they would rate the extent to which employees exhibit each of the behaviors along a semantic differential scale. The construct “Employee Role Behaviors” is measured by the average of the eight items ($\alpha=.8175$).

Employee Skills. Employee skills are operationalized to measure the extent of the variety of skills that the organization wants its employees to possess according to the underlying rationale of the human-capital theory. On a scale of 1 to 7, respondents are asked to circle the number that represents the level of skills that employees in the organization possess. We used nine items (adopted from Youndt et. al., 1996) to tap the degree to which different value-added skills such as technical skills, communications skills as well as administrative skills are possessed by employees in the organization ($\alpha =.9416$).

Firm Performance. Following Huselid (1995), we adopted subjective measurements of firm performance in this study, namely, perceived organizational and market performance (Delaney and Huselid, 1996). We did not ask for financial performance figure as we want to maximize the response rate. It has also been concluded that there is a high correlation between objective and subjective measures of firm performance (Dollinger and Golden, 1992). ‘Perceived organizational performance’ includes seven items pertaining to the organization’s performance in comparison to their competing organizations ($\alpha=.9547$). ‘Perceived marketing performance’ seeks to find out respondents’ perception of how well their organization did, in comparison to their product market competitors for the past three years ($\alpha=.9487$).

Control Variables. Several control variables are operationalized, in line with previous empirical work. Unionization (Guthrie, 2001) is measured by the percentage of the total employees in the organization that are covered by collective bargaining. We also controlled for sector differences by creating a dummy variable for manufacturing versus service firms. Size was controlled by calculating the natural logarithm of firm size (Guthrie, 2001).

RESULTS

To test the hypotheses, we conducted a hierarchical regression analysis. With perceived market performance as a dependent variable, HRM system was found to be a significant predictor for both Perceived Organizational Performance ($\beta=.67$, $p<0.01$) and Perceived Market Performance ($\beta=.72$, $p<0.01$). Hence, Hypothesis 1 was supported.

Mediating Hypotheses (Hypothesis 2 and 3)

Mediating relationships are tested using the steps outlined in Baron and Kenny (1986). The result of regressing HRM system against Employee Role Behavior showed that HRM System is a significant predictor (Step 2). Step 3 of the analysis showed that Employee role behaviors was a significant predictor of Perceived Market Performance ($\beta=.67$, $p<0.01$) and Perceived Marketing Performance ($\beta=.61$, $p<0.01$). Employee Skills was found to be significant predictor of Perceived Market Performance ($\beta=.62$, $p<0.01$) and Perceived Marketing Performance ($\beta=.59$, $p<0.01$).

In Step 4, both HRM system and employee role behaviors were entered as independent variables. HRM system was a significant predictor of Perceived Organizational Performance. HRM system and Employee Role Behaviors were both significant predictor of Perceived Marketing Performance. Employee Role Behaviors was found to be a mediator of the two aspects of firm performance. Therefore, Hypothesis 2 was supported.

In Hypothesis 3, the same 4 steps procedure was applied to determine if Employee Skills mediates between HRM system and Firm Performance. The result of the first step was the same as Hypothesis 2. In the second step, HRM system was found to be a significant predictor of Employee Skills. In Step 3, Employee Skills was found to be a significant predictor of Perceived Market Performance and Perceived Organizational Performance. For Step 4, HRM system was found to be a significant predictor of Perceived Market Performance ($\beta=.81, p<0.01$) and Perceived Organizational Performance. Employee Skills was a moderately significant predictor of Perceived Market Performance ($\beta=.16, p=.052$). Hence, Hypothesis 3 was partially supported.

Moderating Hypotheses (Hypothesis 4, 5, 6, 7)

Hypothesis 4 seeks to find out if different dimension of strategic emphasis moderates the relationship between Employee Skills and Firm Performance, as well as between Employee Role Behaviors and Firm Performance. For a strategic emphasis on Specialty Products, the model is statistically significant ($R\text{-square}=.82, p<0.01$) and the predictors were HRM system ($\beta=.83, p<0.01$) and specialty products emphasis ($\beta=.10, p<0.05$). The interaction item was found not to be statistically significant.

When there was a strategic emphasis on Marketing Intensity, the model was found to be highly significant and the interaction variable was found not to be statistically significant. Only HRM system ($\beta=.83; p<0.01$) and Marketing Intensity ($\beta=.17; p<0.01$) were found to be statistically significant. When a Cost Leadership was used as a strategic dimension, the model was statistically significant. There is again, no interaction between HRM System and Employee Role Behaviors. The significant predictors were HRM System ($\beta=.90, p<0.01$) and Cost Emphasis ($\beta= -.10, p<0.01$). Hence, hypothesis 4 found no moderating effects between HRM System and Employee Role Behaviors, but both strategic emphasis and HRM system were important predictors in contributing to performance.

Hypothesis 5 seeks to find if there are moderating effects between HRM system and strategic emphases in contributing to employee skills. For strategic emphasis on Specialty Products, the model is statistically significant. The interaction item is insignificant. Only HRM system ($\beta=.70, p<0.01$) and specialty products emphasis ($\beta=.21, p<0.01$) are significant predictors. For marketing intensity as a strategic emphasis, the model is significant. The predictors are HRM system ($\beta=.71, p<0.01$) and marketing intensity ($\beta=.17, p<0.01$). For cost emphasis as the strategic emphasis, only HRM system ($\beta=.84, p<0.01$) is significant. Hence, Hypothesis was partially supported.

Hypothesis 6 tests the moderating effect of strategic emphasis on the relationship between Employee Role Behaviors and Firm Performance. With Perceived Market Performance was entered as the dependent variable, the significant predictors were Employee Role Behaviors ($\beta=.53, p<0.01$) and Marketing Emphasis ($\beta=.27, p<0.01$). In model 2, the significant predictors of Perceived Organizational Performance were Employee role behaviors ($\beta=.56, p<0.01$) and Marketing Emphasis ($\beta=.23, p<0.01$).

When Specialty Products is used as the strategic emphasis, the predictors of Perceived Market Performance include the interaction item “specialty-employee role behaviors” ($\beta=.08, p<0.01$) and Unionization ($\beta=.10, p<0.01$). When Perceived Organizational Performance was entered as the dependent variable, the interaction item “specialty-employee role behaviors” ($\beta=.74, p<0.01$) and Unionization ($\beta=.10, p<0.05$) were both found to be statistically significant. When Cost Leadership was used as the strategic emphasis, all three models were

statistically significant. Employee Role Behaviors was found to be a significant predictor of Perceived Market Performance ($\beta = .73, p < 0.01$) and Perceived Organizational Performance ($\beta = .71, p < 0.01$). Therefore, Hypothesis 6 was supported.

Hypothesis 7 seeks to explore if there are any moderating effects of strategic emphasis on employee skills in contributing to firm performance. When Perceived Market Performance was entered as the dependent variable, the interaction term “Marketing Emphasis-Employee skills” was the only significant predictor ($\beta = .71, p < 0.01$). When Perceived Organizational Performance was entered as the dependent variable, the significant predictors were Employee skills ($\beta = .45, p < 0.01$) and Marketing Emphasis: $\beta = .34, p < .01$). When Perceived Organizational Performance was used the dependent variable, the interaction item “Specialty Products-Employee Skills” was found to be significant. When organizations adopt Cost Leadership as the main strategic emphasis, Employee Skills was the only statistical significant predictor of Firm Performance.

DISCUSSION

The current study seeks to test the mediation and moderation relationships between HRM system and firm performance in the Singaporean context. Based on the results of our study, we found support for the general framework proposed. Findings from this study generally support the theoretical model and the mediating relationships proposed by Wright and Snell (1998). There was strong support for employee role behaviors and skills as mediators. However, the resultant framework of this study also deviates from the original in the following way. Specifically, no support for the strategy-HRM system was found.

This was interesting, as the Wright and Snell (1998) model recognizes strategy-HRM system as one of the linkages in strategic HRM. Instead of playing a moderating role, strategic emphasis exercises independent impact on both employee skills and role behaviors. This implies that, in this new framework (refer to Figure 1), strategic emphasis is an independent variable impacting employee skills and role behaviors. The main effect of the following model is the relationship between HRM system and performance. As established in earlier hypotheses, the mediating effects of employee skills and behaviors are strong and in several cases, the main effect disappears. Hence, the main effect is considerably weakened in the presence of these mediators. As such, we represented the main effect with a dotted line in the model tested.

insert Figure 1 about here

Findings from the current study provided three interesting insights into the widely debated contingency perspective in strategic HRM. Firstly, the results from factor analysis uncovered four factors making up HRM practices: employee importance, career prospects, compensation system, and training and development. These results are similar to Huselid and Delaney (1996) where they found selective staffing, training, incentive compensation and internal labor market to be important factors contributing to perceived market performance. Career prospects and employee importance could well be the same thing as internal labor market. The use of internal labor market exemplifies filling vacancies from within rather than from external labor market. This would give employees who are often addressed as internal customers the idea that they are important to the organization and that there will be greater career prospects because vacancies are first filled from within. Additionally, compensation as well as training and development are also highlighted in this study. A compensation system that is tied to performance is pertinent to giving employees the feeling of equity. Such a system inspires feelings of fairness among employees and is significantly tied to the motivations of employees. Training and development also helps to equip employees with skills and knowledge they need in their job. This would undoubtedly boost

the employees' feelings of importance and personal development. Despite the fact that these practices are extremely important to the organization, they cannot be used in isolation. They should be used as an entire HRM system instead of individually. As such, Hypothesis 1 confirms that HR practices work together synergistically as a HRM system in their contribution to organizational performance.

As mentioned earlier, employee role behaviors and skills could mediate the effects of HRM system on performance. The results of hypothesis 2 and 3 illustrated the presence of employee role behaviors and skills as mediators. Hence, HRM system's impact on the organization's performance is indirect. Employee role behaviors exercise a partial mediation upon perceived market and organizational performance. This implies that perceived organizational performance is impacted by the HRM system solely through the presence of employee role behaviors. Employee skills were also found to be a mediator. It exercises partial mediation in all three cases of performance measures. Interestingly, these results confirm the framework of Wright and Snell (1998) who suggested that the use of HR practices actually elicits employee role behaviors and skills, and it is these skills and behaviors that impact the performance of the organization. Intuitively, this tells us that companies that hope to have better performance must look into HR practices in the light of the kind of skills and behaviors they will elicit. The use of a HRM system that encourages employee participation, provides comprehensive training and rigorous on its selection will elicit employee behaviors that are innovative, team-oriented and long-term focused. It will also bring about greater variety and depth of skills such as problem solving and technical skills.

Strategic HRM literature has conceptualized the presence of external fit, referring to the alignment between the organization's strategy with (1) HR practices; (2) employee skills; (3) employee behavior (Wright and Sherman, 1998). Since HRM system was established to have impact on employee role behaviors and skills, strategic emphasis was introduced as a moderator between HRM system and role behaviors as well as skills. We could not find any moderating effects, but instead we found that strategic emphasis and HRM system had significant impact on skills and behaviors independently. This shows that both strategic emphasis and HRM system must be taken into consideration in eliciting skills and behaviors.

The strategy-employee role behavior linkage found mixed support. Moderation was found to be present in one of the three strategic emphases. We found strong support that fit was especially important for organizations that pursue specialty product emphasis. This implies that such organizations must clearly ask themselves whether the employee behaviors they elicit via their HRM system are aligned with their emphasis on product development and quality. The behavioral perspective by Schuler and Jackson (1987) suggested that such organizations should encourage employee behaviors that are high on creativity, autonomy and long-term focused. These role behaviors are in line with the strategy they adopt.

The other two strategic emphases seem to find no role of moderation between employee role behaviors and performance. This seems to suggest that the strategy-employee role behavior linkage is less important for organizations following cost and marketing emphasis. This could also mean that the specialty product emphasis required greater level of alignment, while the other two emphases had slightly less need for that.

In the case of marketing emphasis, employee role behaviors and strategic emphasis were found to be important factors in their impact on performance. This seems to suggest that, despite the lack of interaction, both are important factors in their contribution to performance. For every unit increase on marketing emphasis, there was a corresponding increase of 0.526 units in perceived market performance.

The presence of fit was found to be much stronger in the case of strategy-employee skill linkage. The linkage was found to be significant for the specialty products and

marketing emphasis. This implies that organizations pursuing these strategies should be focused on aligning their employee skills with their strategy. Companies that place strategic emphasis on product innovation and quality should build on employee skills, so that they can be more equipped to come up with new designs for products and better quality control. With a strategic emphasis of marketing, the company wants to position itself with a premium brand image. Hence, employees must be equipped with the necessary skills to come up with the ideas for marketing campaigns. In many cases, organizations that pursue specialty products also use marketing to campaign their new products. This has to be done to make sure their newly developed products do not go unnoticed in the market.

The exploration of strategy-employee skills and strategy-employee role behaviors relationships brought us new insights. Previous research have always found very mixed support for the presence of an external fit, which they mostly defined to be the alignment between HR practices and strategy. However, external fit does not include strategy-HR practices solely. There is a need to take into consideration of the other two linkages, in trying to establish the impact of strategic HRM on performance. In this study, strong support has been found for the presence of a strategy-employee skill linkage. This linkage has been neglected in other empirical studies of strategic HRM. Although we could not find any evidences of strategy-HR practices, it could be explained that the HRM system is required to elicit the skills that the organization's strategy requires. Hence, the strategic consideration comes into play at this stage. The role a HRM system plays is in eliciting the kind of skills and behaviors that would fit with the strategic requirements. This has given us clear directions in strategic HRM as to what role strategy plays.

CONCLUSION

This study has been able to achieve its duo objectives of examining the mediating and moderating mechanisms of employee role behaviors and skills on the relationship between HRM system and performance. Specifically, we found support for the universalistic model of HRM in Singapore as HRM system is consistently significant in contributing to firm performance. We also found evidence supporting the mediating relationships of employee skills and employee role behaviors between HRM System and firm performance. This finding is consistent with the research by Wright and Snell (1998), Schuler and Jackson (1987). Finally, our findings also provide support for the contingency relationship between strategic dimensions and employee skills and role behaviors in strategic HRM (Youndt et. al., 1996; MacDuffie, 1995).

Limitations of study. However, this study is not without its limitations. The difficulties of finding more objective financial information such as equity and assets value has hampered the study in its quest to include more objective performance measures such as Return on Assets and Return on Equity. The lack of a standardized financial database containing all the Singaporean companies' financial data has not helped in this problem.

We recognize the downside of using perception variables in our measurement of performance and its potential for common method variance. However, secondary data of industry and organizational performance have been used to show the viability of the data collected in this study. Hence, it can be ascertained that common method variance has little impact on the results of this study.

The difficulty in getting industry-specific data has prevented this study from doing further analyses on industry differences. The climate of Singapore as research context is not comparable to the West where companies generally take better to research surveys. As such, the efforts of data collection for specific industries have been hampered by the lack of response.

Also, we recognize that the strategic emphases (namely, specialty products, marketing and cost leadership) used in this study are not exhaustive in the measurement of strategy. Due

to the limited among of variables that we can explore in a study, we have adopted these three most appropriate ones in our context. Nevertheless, the study has provided evidence for the existence of the contingency perspective, particularly explaining the mechanisms of how these linkages play a part in the issues of alignment.

Direction for future research. Future studies of strategic HRM could proceed along the direction of analyzing industry effects on the relationship between HRM system and Employee Role Behaviors and Skills. It is likely that in service industries, the emphasis of employee role behaviors will be greater than that of other sectors such as manufacturing. In the case of high technology industries, it may be more important to have more employee skills. Such industry studies will enable us to understand in depth the mechanisms underlying the model of strategic HRM.

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Figure 1: Resultant Framework

