HRM Practices and Firm Performance: The Mediation of HR Roles

Ivana Chandra Voo
Faculty of Management
Universiti Teknologi Malaysia
Johor Bahru, Johor, Malaysia
Ivana.chandra@hotmail.com

Khairiah Soehod
Faculty of Management
Universiti Teknologi Malaysia
Johor Bahru, Johor, Malaysia
khairiahsoehod@utm.my

Choi Sang Long
Faculty of Business
Raffles University Iskandar
Cslong_1@yahoo.com

Abstract

Prior studies proven that there is internal fit to support the theories regarding the relationship between HRM practices and firm performance. However, there are still lack of explanation on how exactly HRM practices support firm performance. This paper is designed to extend previous findings by examining what have been studied and found, and therefore to provide a framework that complementing all the previous models to explain how exactly HRM practices act as strategic elements to support firm performance.

Keywords

1. Introduction

Over the past year, there were great deal of attention given when it comes to the study of Human Resource Management (HRM) and its efficacy to deal with the business issues within the organization. A considerable discussion in the link of HRM discipline and firm performance critically argues on how managing people in the right way may bring positive impact to the organizational success. HRM traditionally viewed as a branch of study solely focusing on running administrative tasks and managing people in a firm. However, as the modern study of
HRM are emerged as relatively focusing on its impact on performance, the interest expanded on how HRM can be a key strategic by creating competitive value to the organization.

The concept of Strategic Human Resource Management (SHRM) started when the study of HRM and firm performance focusing on more integrated approach on how HRM practices benefits firm performance. It is because the interest between HRM practices and firm performance highly related to the changes of HRM itself as an important factor that support the competitive value for the firm. The modern HRM finding key driven that can be relating to align practices either direct or indirectly to support both system and strategic perspective in SHRM study. It involves not only focusing on supporting employees’ motivation, creating value, and to encourage involvement towards firm’s development, but also to view employees as the firm’s intangible assets that create value to deliver firm performance. However, the complexities of HRM practices in its strategic nature leads to various empirical studies which resulted mixed findings on the model framework in this area. This proved that the evidence gathered so far has only demonstrate partial verification on this relationship (Khandekar and Sharma, 2005; Theriou and Chatzoglou, 2015; Singh and Kassa, 2016). Some researchers (Boxall and Purcell, 2003; Paauwe, 2009; Guest, 2011) commenting the inconsistencies in the HRM practices and firm performance findings are due to the nature of these practices itself to be ambiguous in its strategic nature to support firm performance.

Based on the discussion above, the aim of this paper is to develop a conceptual framework based on reviews on the relevant literature and develops the hypotheses of study with few research objectives in mind. The first one is to examine the relationship between HRM practices and firm performance. The second objective is to examine the relationship between HRM practices and HR roles. The third is to identify the relationship between HR roles and organizational performance. Finally, to examine the mediating effect of HR roles between HRM practices and firm performance. This includes the discussion on the concept of HRM in previous HRM studies, the relationship between HRM practices and firm performance, HRM practices and HR roles, HR roles and firm performance, and the logical reasoning to explain how HR roles mediate the relationship between HRM practices and firm performance.

2. Literature Review and Hypotheses Development

2.1. Concept on HRM

Despite positive finding on the linkage between HRM practices and firm performance, there were still lack of precision explanation on how exactly HRM practices produce value to organization. The complexities on HRM practices itself leads to broad research streams. Such aspects focusing on either direct or indirect nature of HRM, and how HR system is managed or how HR involved and aligned with the organizational strategy. Based on these assumptions, studies on this field came out with different kind of approaches, perspectives, and models as an effort to demonstrate the linkage between HRM practices and firm performance.

Direct approach such as universalistic approach is a branch of HRM practices studies where it demonstrates a link between HRM practices and firm performance through various ‘set of practices’ that proclaimed to be related to positive performance. Research based on universalistic approach proposed specific list of HR practices termed “best practices” pointed that the implementation of certain set of practices will bring better result than the other in terms of firm performance. Several studies have supported this approach by introducing quite numbers of literature namely “Best HR Practices, (Pfeffer, 1994), “high performance work system or practices (HPWS)” (Appelbaum and Batt, 1994), or “best practices” (Delery and Doty, 1996).
Universalistic approach generally is a traditional branch of SHRM where it believes that there is ‘perfect fit’ of set of practices which directly improve performance regardless of the strategic goals in the organization (Huselid, 1995). These set of these practices will be an impact factor that subjected as a competitive advantage for the firm and support employees to be important intangible assets to the firm (Hamid, 2013). However, this approach failed to explicitly explain the nature of the linkage between HRM practices and firm performance as more literature came out with different sets of practices that claimed to be the ‘best bundle of practices’. The universalistic approach trends then moved to contingency approach as (Guest, 1997) argues that there is need to fill in better theory with respect to explain the ‘missing fit’ to explain how HRM practices contribute to firm performance.

Contingency approach, on the other hand is a line of indirect approach that view HRM practices as an element that do not impact firm performance directly (Katou and Budhwar, 2006). Known as ‘best-fit’ perspective, contingency proposed more conceptualized method to elicit performance based on the HRM effectiveness. Becker and Gerhart (1996) pointed out that there were still lack of understanding about ‘how and why’ process through which HRM creates organizational value and increases performance. Based on this perspective, the relationship between HRM practices and firm performance linked with new external variables, called ‘black box’ which consisted of factors such as motivation, creativity, and skills fill in the theory of key intervening as variables that support HRM and firm performance. Many of recent studies have applying the contingency approach by finding best-fit of practices to support firm performance. Inyang (2010) considered set of practices that can be aligned with the business strategies. Dimba (2010) suggested that HRM and firm performance mediated by employee motivation Oltra and Alegre (2011) and Theriou and Chatzoglou (2008) suggested organizational learning and knowledge management as linked the relationship.

Although best-fit approach seems to be more realistic than the universalistic approach, contingency approach sets inescapable conclusion on the relationship with overall mixed results. Setting HRM practices into a static set to certain intended strategy is impossible as the changes of one variable will have impacts on others (Paauwe, 2009). It is because different studies came out with different ‘black box’, variables, or external factors to establish an effective HRM practices and firm performance relationship. The irony once again showed that different studies came with new theoretical frameworks with different variables to support the linkage and still unable to precisely understand how HRM practices can be a strategic value to contribute firm performance.

Configurational approach is the new interest in the field of HRM and performance. This approach combines the internal and external fit to understand SHRM. The perspective concerned with how a pattern of independent variables is related to the dependent variables. Based on the configurational approach, the HRM practices viewed based on its ability to facilitate both internal consistency of the organizational activities and the ability of the practices to be strategic based on the goals.

Despite considerable number of evidence presented based on the empirical data in 30 years researches, the contribution of HRM to organizational performance has progressed far enough to support the theory to be crucial although there were still lack of support both on theory and explanation (Theriou and Chatzoglou, 2015). Singh et al., (2016) supported that there is an absence of theory to fully convincing the linkage between HRM practices and firm performance. This suggested that configurational approach may be used to explain on the relationship. Instead of focusing on best-practices and best-fit, the configurational support any patterns of individual variables to complement and reinforce each other.

2.2. The Relationship between HRM Practices and Firm Performance

The concept of HRM practices and performance have been rapidly discussed where the linkage of the relationship has been approached with variety of elements in an organization. Zakaria (2013) suggested that based on previous
research, there are evidences that HRM acts as proactive role instead of reactive to the firm success. This supported by Huselid (1995) that effective HRM practices helps to develop knowledge, skills, and abilities of employees as the firm’s competitive advantage. Although there are an increase studies on HRM practices and firm performance (Panayotopoulou et al., 2003; Zheng et al., 2009; Marchington and Wilkinson, 2008; Theriou and Chatzoglou, 2008; Inyang, 2010; Dimba, 2010; Osman et al., 2011), there is still lack of explanation on how and why HRM practices create values to support firm success. Despite the overwhelming progress and constant development on the findings related to HRM practices and firm performance, most of the studies focus on current issues labelled as ‘add-on-ism’ (Paaue, 2009) instead of to discuss about how exactly the mechanism of HRM practices contribute to firm performance (Wielemaker and Flint, 2005).

Firm performance on the other and is an accomplish result that can be defined based on the intended outcome of transformation from inputs to outputs of a process in an organization (Zakaria, 2013). In economic perspective, performance generally referred on the firm’s effectiveness and efficiency without excessive use of cost (Chien, 2004). Lindstrom and Vanhala (2013) suggested that there are three types of performance to measure longevity and wellbeing of the firm. These performances are financial, organizational, and HRM outcomes. Financial performance refers to sales and profitability, organizational performance measures productivity and quality, and HRM outcomes focuses on employees’ turnover and individual growth.

Regardless on research framework suggested with no consistency of findings on previous studies, several lists of HRM practices have been compared and showed significant outcomes of practices that proven to support firm performance. For example, Dimba (2010) model suggested that HRM practices contribute to firm performance through the level of employee’s motivation as mediator for the relationship. It is suggested that training and development, recruitment and selection, and compensation and benefits can increase employee motivation to support performance.

Singh et al., (2016) study measure direct relationship between HRM practices and firm performance. The study focuses on the impact on a set of HRM practices that believed as a main contributor to prepare and develop their employees to compete in global performance. The study found that selection, training, performance appraisal, career planning, compensation, and employee participation as important practices that support financial performance in India firms.

Tanveer et al., (2011) model through universalistic approach concluded that employee performance is significantly related to the three HRM practices of recruitment and selection, training, and performance appraisal. The study proven that employee performance may affect firm performance. This relationship can be related through the input-process-output framework.

Way (2002) suggested high performance work systems to support the universalistic perspective between HRM practices and firm performance. The study argued that the relationship between HRM and performance should be based on consensus both in theoretical can empirical method. Way (2002) highlighted recruitment and selection, compensation, flexible job assignments, teamwork, training, and communication as best practices that contributed to positive performance.

Elarabi and Johari (2014) and Theriou and Chatzoglou (2014) suggested that safety and health must be prioritizes in recognition to the important of employees’ awareness and as a new strategic thinking. The study represents direct model to show the linkage of HRM practices with organizational performance based on employee related performance. These practices are safety and health, training and development, and recruitment and selection.

Based on Othman (2009) study, the researcher examines the application and processes of key distinctive in running Human Resource Management functions by focusing on two main HRM practices, the recruitment and selections,
and training and development practices. These two practices then studied on its application in supporting business strategy. The outcome shows that there are slightly differences in terms of elaborateness, approach, and process for both practices in Japanese and Malaysian companies. However, both companies are highly practiced HR involvement in the organizational functions. It is then added that although the Malaysian companies Human Resource Management functions in business strategy involvement is not strong, there are positive progress for strategic role in Human Resource Management and business strategies.

Theriou and Chatzoglou (2008) utilized nine practices that support the relationship of HRM practices and firm performance. The model used is based on contingency approach where HRM practices linked with knowledge management and organizational learning capabilities to support firm performance. Theriou and Chatzoglou (2014) argued that knowledge management and organizational learning capabilities as the fit to elaborate the mechanism that intervenes between HRM practices and firm performance. These practices are teamwork, appraisal, decentralized decision making, recruitment and selection, decentralized job status, training and development, employee communication, career opportunities, and broad defined jobs.

Osman et al., (2011) study on Human Resource Management practices and firm performance design a research in Malaysia by examining the involvement of strategic Human Resource Management practices in driving the firm’s strategic goals. The study distributed 800 surveys in different industries and manages to collect 217 questionnaires. From the data collection, it shows an effective implementation of Human Resource Management practices in Malaysian firms and these practices leads to major impact in firm’s performance. Three main practices that influence firm’s performance are employee relations and communication, career planning, and job or work design with productivity and sales growth as indicators for firm performance. It is concluded that HRM practices are in the line for strategic goals and performance in Malaysian industries.

Table 1. Variables for HRM practices

<table>
<thead>
<tr>
<th>Author</th>
<th>HRM Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elarabi and Johari (2014)</td>
<td>● ● ●</td>
</tr>
<tr>
<td>Osman et al., (2011)</td>
<td>● ● ● ● ● ● ●</td>
</tr>
<tr>
<td>Tanyeer et al., (2011)</td>
<td>● ● ● ● ● ● ●</td>
</tr>
<tr>
<td>Dimba (2010)</td>
<td>● ● ●</td>
</tr>
<tr>
<td>Othman (2009)</td>
<td>● ● ●</td>
</tr>
<tr>
<td>Theriou and Chatzoglou (2008)</td>
<td>● ● ● ● ● ● ●</td>
</tr>
<tr>
<td>Singh et al (2016)</td>
<td>● ● ● ● ●</td>
</tr>
<tr>
<td>Way (2002)</td>
<td>● ● ●</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>7 6 3 4 2 3 1</td>
</tr>
</tbody>
</table>

1- Training and development, 2- Recruitment and selection, 3- Employment and security, 4- Compensation and benefits, 5- Employee relations and communication, 6- Career Opportunities, 7- Safety and health

Independent variables also known as control variables. The purpose of control variables is to act as an impact to produce meaningful result from the study. For this study, to prove that the relationship between HRM practices and firm performance are not dependent on neither universalistic nor contingency approach, five different practices chosen based on the frequencies and attention given on these specific practices in the HRM-performance literature. From the analysis on table above, training and development, and recruitment and selection showed highest contribution on HRM-performance literature. Compensation and benefits averagely studied, employee relations and communication showed limited studies, and safety and health as least studied in this field.
Based on the above discussion, the following hypothesis developed:

**H1:** There is positive relationship between HRM practices (i.e. training and development, recruitment and selection, compensation and benefits, employees relation and communication, and safety and health) and organizational performance.

### 2.3. The Relationship between HRM Practices and HR Roles

The role of HRM in the SHRM literature often discussed in linking its impact to the basic HR function (Wielemaker and Flint, 2005) mainly based two areas which either for the development of core competencies and strengthen competitive advantage, or to pursue in business strategies related to business survival. The continuous research in SHRM developed an increasing awareness where to be strategic HRM needed to act as a change maker and catalyst reactor to align in parallel direction with organizational vision.

Ulrich Business Partner Role Model is one of the most discussed model when it comes to the Roles or HRM. Ulrich suggest HR roles serves to support the need of SHRM to improves immediate contribution to organizational efficiency, empowerment for employees, and to align HR practices with the business objectives of the firm. Zheng et al., (2009) argued that strategies in HRM is not necessarily making direct impact on business performance. It is because SHRM is viewed as a contingency in making one step further to simultaneous the linkage between HRM, its intended direction, and how it supports the expected outcome. Ulrich HR roles in this study viewed as a support system that carry strategic roles to improve firm performance. This supported by Wielemaker and Flint (2005) study, where legitimizing SHRM should support traditional HRM practices and how it can be strategic to re-coordinating its purposes in a firm.

Previous HR roles literature based on different types of studies found support for the closed link between HRM practices and HR roles. Hayton (2005) studies on innovation claimed that HRM practices should play key roles that support employee development, increase motivation, support business strategic, and perceived as human capital to support innovation between employees. Farouk et al., (2016) study indirectly found that effective HRM practices (training, compensation, communication, and selection) can promote the desired individual attributes needed by linking HR roles with HRM practices.

Jiang et al., (2012) found that a comprehensive recruitment and selection process can play a significant role in creating a talented pool of people that advocate their talents and to develop human capital for long term advantage. The consistency between these two roles act as a strategic orientation in choosing the right employees for the firm.

Kirkbride (2003) suggested that Ulrich (1997) HR roles are a good example to indicate the level of HR’s involvement in terms of firm success. Kirkbride (2003) argues that successful HRM departments are based on how effective and efficiently it delivers HR roles as internal strategies to support firm performance. This includes staffing, training, compensation, benefits, health, and rewarding. HR roles are viewed as a medium to create congruence in HRM. Training and development, employee relations, and concern on safety and health are viewed as an important medium for human capital development. Kirkbride (2003) added the importance of employee advocate as proper people management will contribute to firm’s development on intellectual capital.

From the discussion on this section, it is found that there is significant linkage between HRM practices and HR roles based on various source of HRM literature studies. While some studies are directly linking HRM practices with strategic orientation, others support the important roles of employee advocate and developing human capital roles for HRM to be strategic. Therefore, it is proposed that:
**H2:** There is a positive relationship between HRM practices (training and development, recruitment and selection, compensation and benefits, employee’s relation and communication, and safety and health) and HR roles (strategic partner, employee advocate, and human capital developer).

### 2.4. The Relationship between HR Roles and Firm Performance

Ulrich’s HR roles represent the new dimension of HRM on how it acts as delivering factor for organizational success. Papalexandris and Panayotopoulou (2004) suggested that Ulrich’s HR roles are believed to form best perspective that implies positive relationship between HRM practices and firm performance. Ulrich and Brockbank (2005) argued that it is not what HR does, but how it delivers in any meaning to contribute organizational outcomes.

HR roles studies prove concrete evidence that clarify its contribution to firm performance (Choi and Ismail, 2008; Lemmergaard, 2009; McDermott and Keating, 2011; Marescaux et al., 2013) where large of SHRM literatures indirectly propose HR roles related to firm performance (Kirkbride, 2003; Zupan and Kase, 2007; Abugre and Adebola, 2015; Sahay, 2015; Elorza et al., 2016). Previous research that investigated the link between HR roles and firm performance have shown positive relationship between these two variables (Choi and Ismail, 2008; Othman, 2009; Panayotopoulou and Papalexandris, 2004). It is found that HR roles act as a medium that deliver results and achieving organizational excellence. This results that the nature of HRM have progressively become broader and strategic (Bahuguna et al., 2009). In terms of HR roles, it acts as the function that sought to become integrated into strategic management process. Based on this, Bahuguna et al., (2009) suggested that HR roles can be used as medium to support firm performance by inter-relating these roles with HRM practices. Based on this discussion, functional expert (one of Ulrich’s HR roles) is regarded as a role that delivers the HRM activities that carries strategic employee management, therefore excluded from theoretical framework.

From this discussion, the hypothesis for strategic HR roles and firm performance developed:

**H3:** There is a positive relationship between HR roles (strategic partner, employee advocate, and human capital developer) and firm performance.

### 2.5. HR Roles as Mediator in the Relationship between HRM Practices and Firm Performance

To fill in the ‘missing fit’ of HRM practices and performance link, many literatures have looked for several intermediary variables in this relationship. Most of the study of HRM and firm performance explained by looking at the other elements to support the relationship (Theriou and Chatzoglou, 2009; Osman et al., 2009; Dimba, 2010; Farouk, 2016). Dimba (2010) and Jiang et al., (2013) summarizes a review on HRM practices and firm performance found that much of previous studies uses mediating mechanism in the HR-performance relationship. Some researchers use job satisfaction as their mediator (Barling et al., 2011; Boxall and Macky, 2007), Dimba (2010) use motivation, Theriou and Chatzoglou (2009) uses learning capabilities, Clerc and Galang (2011) on human capital, and Farouk et al., (2016) on innovation. This highlights that there is mediating factors that support the HRM practices and firm performance relationship. Based on previous literatures (Barling et al., 2007; Theriou and Chatzoglou, 2009; Dimba, 2010; Farouk et al., 2016), it showed that the intermediary variables that used on HRM-performance mediating literatures involves in HR roles function. For example, job satisfaction lies on building employee advocate, and innovation on strategic partner and building human capital, learning capabilities on employee advocates, strategic partner, and developing human capital. This to conclude that, there are still inadequate explanation on the relationship between HRM practices, HR roles, and firm performance.

To develop mediating model between HRM practices, HR roles, and firm performance, this study refers to Baron and Kenny (1986) statistical mediating model to explain the connection between these variables. Baron and Kenny (1986) model explained that rather than there was direct linkage between independent variables and dependent
variables, the mediator variables serve as a theory that hypothesizes from independent to mediator, then from mediator to dependent variable. The mediating relationship can only be used if there are significant relationship between independent variables and mediator, mediator and dependent variable, and independent variable and dependent variable.

Based on previous discussion, it is hypothesized the following:

**H4:** HR roles (strategic partner, employee advocate, and human capital developer) mediates the relationship between HRM practices (training and development, recruitment and selection, employee relations and communication, compensation and benefits, and safety and health) and firm performance.

### 2.6. Research Gaps

As mentioned in previous section, while there were numerous studies on HRM and firm performance have been conducted in recent years (e.g.: Barling *et al.*, 2007; Theriou and Chatzoglou, 2009; Dimba, 2010; Farouk *et al.*, 2016), there is little consensus in the studies to precisely explain all the findings in effort to understand in what way HRM practices contribute to firm performance. More specifically, whereas most of the previous research came out with different approaches, methods, and even with different set of practices, all these studies came out with same findings, which is there are positive relationship between HRM practices and firm performance. This study aims to fill in the gap to find a model that compliment previous findings and to explain on how exactly HRM practices contribute to firm performance. Based on the literature review, it is suggested that HR roles plays important elements that act as a catalyzer to support HRM practices a sense of direction to be strategic, and therefore to support firm performance.

Safety and health also act as an important subject in this study as literature of HRM practices in terms of employee’s safety and health are still limited especially when it comes with firm performance. The other important subject for this study is by converting Ulrich Business Partner Roles model as a mediator applied on HRM practices instead of HR practitioners. This study aims to demonstrate strategic HRM as the missing perspective that is responsible for the connection between HRM practices and firm performance. This study also will be covering three different variables for firm performance. Instead on applying traditional performance study based on financial and non-financial performance, this study also includes HR-related performance to measure how effective these practices affecting employee’s satisfaction.

### 3. Methodologies

This study will be conducted based on quantitative approach where field survey will be conducted for data collection. The population of this study will be based on the small and medium enterprises (SMEs) in state of Sabah, Malaysia. It is because there are still lack of empirical data covering HRM studies in Malaysian SMEs particularly in Sabah. The methodology of this study is based on positivistic paradigm where literature used to obtain instruments and variables to fill in research gap in HRM studies. This study adapted instruments from Conner and Ulrich (1996) and Gates and Langevin (2010) for HR roles, the instrument for HRM practices adapted from Vanhala and Ahteela, (2011), Fong *et al.* (2011), Moideenkutty *et al.* (2011), and Theriou and Chatzoglou (2014), and instruments for firm performance adapted from Bhatnagar and Sharma (2005) and Choi (2011).

The nature of this study is based on exploratory methodology where it is pointing towards theory development and explanation of variance. Therefore, the data analysis for this study will be based on structural equation model using SmartPLS software. The selection of PLS-SEM as statistical method viewed as significant for this study since PLS-SEM enables the researcher to analyze the latent construct accurately and efficiently involved in this study.
4. Proposed Conceptual Framework

The field of HRM has significantly emerged in a long path from its humble administrative function and personnel management of employees to gradually assumed as an important role involving decision-making process and improves firm performance. Previous literatures supported that both HRM practices and HR roles can effectively contribute to performance. In conclusion, the purpose of this study is to investigate HR roles and its impact on HRM practices and firm performance linkage. It is expected that result from this study makes a significant contribution for more understanding of HRM practices, how it can be strategic, and HR roles as SHRM mediating medium to support HRM practices and firm performance.

Based on the discussion on literature review, to prove that HRM practices-performance linkage are not based on either universalistic no contingency approach, five different practices that proven positive relationship with performance selected regardless of models, perspectives, and theories used in previous studies. Firm performance for this study consisted of three different measures which are financial, non-financial, and HR related performance. HR roles from Ulrich business partner role model will be used as mediator to support and serves as ‘missing black box’ in the HRM practices-performance relationship. With above discussion, below are proposed framework in the form of a conceptual model to explain the directions of variables studied.

```
HRM Practices
Training and Development
Recruitment and Selection
Compensation and Benefits
Employee Relations and Communication
Safety and Health

HR Roles
Strategic Partner
Employee Advocate
Human Capital Developer

Firm Performance
```

Figure 1. Proposed Conceptual Framework

5. Conclusion

The purpose of this paper is to demonstrate conceptual view on the previous studies, what have been found, and the missing points in understanding the relationship between HRM practices and firm performance. Based on literature review, there are positive perception towards the linkage between HRM practices and firm performance involving wide theoretical and approaches applied on previous studies.

The growing complexity of HRM studies are still unable to explain how exactly HRM practices support firm performance. Therefore this study set objectives that compliments other findings, by suggesting HR roles play as a ‘sense of direction’ in order HRM practices to be strategic and therefore, to support performance.
This study also proposed that there is no definite ‘best fit’ or a set of practices in order for HRM practices to support firm performance. We are proposing HRM practices can be strategic by assigning certain roles on these practices to compliment with business strategy.

A framework proposed in this study is an attempt to develop theory and also to provide explanation on what have been missing on the causal direction of these relationship. Future research of this study will be covering on data analysis where empirical data will be used as a reference for this theory.

References


Proceedings of the International Conference on Industrial Engineering and Operations Management
Bandung, Indonesia, March 6-8, 2018


Biographies

**Ivana Chandra Voo** is a PhD student in Faculty of Management, UTM interested in Strategic Human Resource Management (HRM) field. She is currently writing a thesis on HRM practices, strategic HRM particularly in HR roles and its relationship with firm performance.

**Khairiah Soehod** is a senior lecturer at Faculty of Management. She obtained her PhD in Management from University of Hull, United Kingdom, Master of Law from University of Newcastle Upon Tyne, UK, and LLB from University Technology Mara, Malaysia. She has taught several courses including industrial relations, employment law, commercial law, and occupational safety and health which are also part of her research interest. Her research interest also extends to the area of innovation and entrepreneurship.

**Choi Sang Long** research interest is in HRM and organizational behavior. He is currently an Associate Professor in a foreign based university in Malaysia. He has more than 20 years of corporate managerial (HRM) experience in various industries prior being an academician. He has published more than 100 research papers in journals, book chapters, and conference proceedings.