



**UNIVERSITI PUTRA MALAYSIA**

***INTERVENING EFFECTS OF HIGH PERFORMANCE WORK SYSTEM  
AND FIRM SIZE ON RELATIONSHIP BETWEEN ORGANIZATIONAL  
INTERNAL RESOURCES AND PERFORMANCE AMONG MALAYSIA  
MANUFACTURERS***

**TEE KEE CHAI, CHARLES**

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By

**TEE KEE CHAI, CHARLES**

**Thesis submitted to the Graduate School of Management, Universiti Putra  
Malaysia, in Fulfilment of the Requirements for the Degree of  
Doctor of Philosophy**

**August 2016**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment  
of the requirements of the degree of Doctor of Philosophy

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**August 2016**

**Chairperson : Prof. Dr. Haslinda Abdullah, PhD**  
**Faculty : Graduate School of Management, UPM**

In order to have high organizational performance, organization can implements high performance work systems (HPWS) supported by good internal resources. However internal resources such as technology, human resource flexibility, leadership, culture could significantly influences HPWS and ultimately organizational performance. Therefore this study aims to investigate the intervening effects of high performance work system (HPWS) and firm size, on the relationships between organizational internal resources and organizational performance among Federation of Malaysian Manufacturers. The study is a quantitative method using a cross-sectional design, in which questionnaire was distributed among HR managers in the manufacturing industries listed in the Federation of Malaysian Manufacturers Directory 2015, and analyzes on the impact of HPWS as mediator, firm size as moderator on the organizational performance. The research mainly focused on the relationships between company's internal resources namely technology, human resource flexibility, leadership, and culture, with HPWS and organizational performance. The research design uses systematic random sampling procedure and employed PLS-SEM for data analysis.

The research findings indicate a positive linear relationship between technology, leadership, culture on high performance work systems (HPWS); and human resource flexibility, leadership on organizational performance, providing support and extension to the resource-based view theory (RBV). PLS-SEM analysis gives a statistically non-significant mediating effect individually in the respective relationship, organizational contextual variable firms' size moderating effect on HPWS and organizational performance is nonetheless statistically non-significant. In the descriptive analysis of variables, the results suggesting that the overall level of the manufacturers on HPWS and organizational performance are satisfactory.

This empirical research has specifically contributed to the literature, practice and policy of strategically managing organizational internal resources towards the attainment of high performance work system and organizational performance by exhibiting a model of statistically significant relationships between the specified variables. The overall contribution of this research to the literature is that it has managed to further extend and strengthen the theoretical discourse on the RBV of HPWS as source of competitive advantage and attaining organizational performance as perceived by Malaysian manufacturers. The resource-based view (RBV) research identifies the attributes of these internal resources and capabilities to achieve competitive advantage. There has been scarce research on the relationship between these internal resources and the way firms are organized. This has created a gap in the body of knowledge and between the theoretical and practical aspect of managing organizations. The above findings filled the gap by further extend and strengthen the theoretical discourse on the RBV of HPWS as source of competitive advantage in particular by empirically illustrating the extent or magnitude of the relationship between organizational internal resources and organizational performance.

Overall this study has managed to provide empirical evidence and support into the insight of the perception of Malaysian manufacturers on the issue of high performance work system (HPWS) as source of competitive advantage from the RBV. The findings offer managers with a practical organizational model that can be utilized to assess and understand the organizational internal resources and capabilities in implementing strategic management policy to achieve competitive advantage and enhance the level of organizational performance.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia  
Sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**KESAN INTERVENSI SISTEM PRESTASI KERJA TINGGI DAN SAIZ  
FIRMA TERHADAP HUBUNGAN ANTARA SUMBER DALAMAN  
ORGANISASI DAN PRESTASI ORGANISASI ANTARA PERSEKUTUAN  
PEKILANG-PEKILANG MALAYSIA**

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Dalam usaha untuk mencapai prestasi organisasi yang tinggi, organisasi boleh melaksanakan sistem kerja berprestasi tinggi (HPWS) yang disokong dengan sumber-sumber dalaman yang baik. Walau bagaimanapun, sumber dalaman seperti teknologi, fleksibiliti sumber manusia, kepimpinan dan budaya boleh mempengaruhi HPWS dengan ketara, dan akhirnya mempengaruhi prestasi organisasi. Oleh yang demikian, kajian ini bertujuan untuk mengkaji kesan campur tangan sistem kerja berprestasi tinggi (HPWS) dan saiz firma, keatas hubungan antara sumber-sumber dalaman organisasi dan prestasi organisasi bagi Persekutuan Pekilang-Pekilang Malaysia. Kajian ini menggunakan kaedah kuantitatif dan reka bentuk keratan rentas, di mana soal selidik telah diedarkan di kalangan pengurusan Sumber Manusia (HR) dalam industri pembuatan yang tersenarai di dalam Direktori Persekutuan Pekilang-Pekilang Malaysia 2015, serta analisis mengenai kesan HPWS sebagai pengantara, juga saiz firma sebagai pemudahcara kepada prestasi organisasi. Kajian ini memberi tumpuan utama kepada hubungan antara sumber-sumber dalaman organisasi tersebut iaitu teknologi, fleksibiliti sumber manusia, kepimpinan, dan budaya terhadap HPWS dan prestasi organisasi. Rekabentuk kajian menggunakan prosedur persampelan rawak bersistematik dan PLS-SEM untuk tujuan analisis data.

Hasil penyelidikan menunjukkan hubungan linear yang positif antara teknologi, kepimpinan, budaya kepada sistem kerja berprestasi tinggi (HPWS); dan fleksibiliti sumber manusia, kepimpinan pada prestasi organisasi memberikan sokongan serta melanjutkan lagi teori Pandangan Berasaskan Sumber (RBV). Analisis PLS-SEM memberikan kesan pengantara statistik tidak signifikan secara individu dalam hubungan masing-masing, kesan saiz sebagai pemudahcara dalam hubungan HPWS dan prestasi organisasi adalah tetap tidak signifikan secara statistik. Dalam analisis

deskriptif pembolehubah, keputusan menunjukkan bahawa tahap keseluruhan pengeluar pada HPWS dan prestasi organisasi adalah memuaskan.

Kajian berbentuk empirikal ini turut menyumbang kepada literatur, amalan dan dasar pengurusan strategik terhadap sumber dalaman organisasi ke arah pencapaian sistem kerja berprestasi tinggi dan juga prestasi organisasi, dengan mempamerkan model hubungan statistik yang signifikan antara pemboleh ubah yang dinyatakan.

Sumbangan keseluruhan kajian ini kepada literatur adalah bahawa, ia telah berjaya untuk terus memperluaskan dan mengukuhkan wacana bagi teori RBV berkaitan HPWS sebagai sumber kelebihan daya saing dan pencapaian prestasi organisasi seperti yang disaksikan oleh pengilang-pengilang Malaysia. Penyelidikan dalam teori Pandangan Berasaskan Sumber (RBV) berupaya mengenal pasti sifat-sifat sumber-sumber dalaman serta kemampuannya untuk mencapai kelebihan daya saing. Terdapat kekurangan kajian dalam hubungan antara sumber-sumber dalaman dan cara organisasi disusun. Perkara ini telah mewujudkan jurang dalam ilmu pengetahuan antara aspek teori dan praktikal menguruskan organisasi. Hasil kajian ini dapat mengisi jurang tersebut dengan memperluaskan dan mengukuhkan wacana dalam teori RBV berkaitan HPWS sebagai sumber kelebihan daya saing, khususnya dengan secara empirik menggambarkan tahap atau magnitud hubungan antara sumber-sumber dalaman dan prestasi organisasi.

Secara keseluruhan, kajian ini telah berjaya memberikan bukti empirikal dan sokongan terhadap wawasan persepsi pengeluar Malaysia mengenai isu sistem kerja berprestasi tinggi (HPWS) sebagai sumber kelebihan daya saing dari RBV. Hasil kajian ini menawarkan pihak pengurus dengan model praktikal yang boleh digunakan untuk menilai dan memahami sumber dan keupayaan dalaman organisasi dalam melaksanakan dasar pengurusan strategik bagi mencapai kelebihan daya saing dan meningkatkan tahap prestasi organisasi.

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I certify that the examination committee met on 25 August 2016 to conduct the final examination of Tee Kee Chai on his thesis titled: “Intervening Effects of High Performance Work System and Firm Size on Relationship between Organizational Internal Resources and Performance among Malaysia Manufacturers” in accordance with the Universities and University College Act 1971 and the Constitution recommend that the student be awarded the degree of Doctor of Philosophy.

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## LIST OF ABBREVIATIONS

AMOS	Analysis of Moment Structure
ANOVA	Analysis of Variance
ASEAN	Association of South East Nation
AVE	Average Variance Extracted
BC	Bias-Corrected
CA	Competitive Advantage
CB-SEM	Covariance-Based Structural Equation Modeling
CFA	Confirmatory Factor Analysis
CI	Confidence Interval
CMV	Common Method Variance
CR	Composite Reliability
EDA	Exploratory Data Analysis
E&E	Electrical & Electronics
FMM	Federation of Malaysian Manufacturers
GoF	Goodness-of-Fit
GDP	Gross Domestic Product
HRM	Human Resource Management
I/O	Industrial Organization
LCAG	Learned, Christensen, Andrews and Guth
LISREL	Linear Structural Relations
MARTRADE	Malaysia External Trade Development Corporation
MITI	Ministry of International Trade and Industries
ML	Maximum Likelihood

MLR	Multiple Linear Regression
MMR	Moderated Multiple Regression
MNC	Multi-National Corporation
OB	Organizational Behaviour
OLS	Ordinary Least Squares
PLS	Partial Least Squares
RBV	Resource-based View
SCA	Sustainable Competitive Advantage
SEM	Structural Equation Modeling
SLR	Simple Linear Regression
SM	Strategic Management
SME	Small & Medium-sized Enterprise
SPSS	Statistical Package for the Social Sciences
SWOT	Strengths, Weaknesses, Opportunities and Threats
UK	United Kingdom
US	United States
VAF	Variance Accounted For
VIF	Variance Inflation Factor
VRIN	Value, Rareness, Imitability and Non-substitutability
VRIO	Value, Rarity, Imitability and Organization

## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

In today's competitive world economy and globalization trade such as ASEAN Economic Community (AEC) 2016, the strength of the manufacturing firm is increasingly dependent upon product quality and rapid adaptation to changing conditions. According to Baum and Kling, (2004) and Kling (1995), to succeed in this environment, firm may choose to rely upon the creativity, ingenuity and problem solving skills of their employees. Hence, the firm attempts to provide employees the information, skills, incentive, and responsibilities to make decisions essential for quality improvement, innovations, and rapid response to changes. The strategic role of human resource management (HRM), and specifically, the influence of a firm's HRM system on its financial performance, has generated considerable interest within the academic and practitioner communities (Becker and Huselid, 2010; 1998). Since firm performance is one of major organization goals, much of the HPWS studies have been focusing on the relationship between High performance Work Systems (HPWS) and firm performance. The main aim of employer in introducing the new innovations has been to attain/retain competitive advantage in increasingly complex product markets. Hence, such response pushes for development of new production system with greater flexibility, enhanced employee involvement in decision-making and emphasis on team working. At the same time, these new systems require supporting employment structures developed out of existing structures (Hinterhuber, 2013; Whitfield and Poole, 1997).

The term High-Performance Work Systems (HPWS) is often used to refer to describe a set of work innovations that include autonomous work teams, socio-technical systems, open systems planning, new plant designs, and other similar innovations. HPWS is an approach in which an array of innovative human resource management practices, including employee involvement, team-based work, job security, training, incentive payment systems and information sharing, is used in certain combination or bundles which attain synergistic benefits through an iterative and mutually reinforcing way to generate positive outcomes (Muduli, 2015, Huselid, 1995). The HPWS typically involve two main elements: (1) employment structures (which provide the environment within which these operate), deals with explicit guarantees of employment security, mechanism aimed at enhancing the flow of information through the organization, group-based payment mechanism and structures for enhancing the skills of employees; And (2) production systems which focus on how work is organized, has involved three elements, increased the flexibility in worker's job assignment, Emphasis on team-working and devolution of decision making (Netland, and Aspelund, 2013; Whitfield and Poole, 1997). Although there are various definitions but a common thread is that HPWS are systems of managerial practices that increase the empowerment of employees and enhances the skills and incentives that enable and motivate them to take advantage of this greater empowerment (Appelbaum et al., 2000; Gollan 2005; Lawler 2005).



In chapter 1, it covers the introduction of this research work, the problem statement, research objectives, research questions, hypotheses, research framework, significant of the research, definitions of terms, boundary limit of the research and the structure of proposed study.

## **1.2 Background of Study**

From beginning of industrialization, international businesses and Multinational Corporations (MNCs) such as Sony, Toyota and Intel have achieved and sustained their competitive advantage via various strategic management practices and approaches. Indeed, in the present era of globalization, industries and enterprises compete and confront each other on the global scale. Therefore, Malaysian business enterprises, particularly the manufacturers, have much to learn from these so called international and multinational corporate “giants” in so far as their strategic management practices and approaches towards sustaining their competitive advantage are concerned.

The local authority has put continuous effort to further expand and extend the potential of value added activities in the country by introducing measures for existing manufacturers to migrate to higher technology and new investments in high-end manufacturing to enhance their competitiveness. The government will focus on encouraging greater capabilities building and productivity-enhancing activities financial support to increase the competitiveness of local industries. As such, the issue of manufacturers’ competitive advantage is high on the national economic agenda to ensure they can perform efficiently and effectively.

Strategic management is also of great interest to academia. Strategic management is the process and approach of specifying an organization’s objectives, developing policies and plans to achieve and attain these objectives, and allocating resources to implement the policies and plans. In short, strategic management can be seen as a combination of strategy formulation, implementation and evaluation (David, 2005; Haim, 2005; Mohd Khairuddin, 2005; Zainal Abidin, 2005; Osman, Ho, and Galang, 2011).

### **1.2.1 Supportive Government Policies**

Government policies that maintain a business environment with opportunities for growth and profits have made Malaysia an attractive manufacturing and export base in the region. The private sector in Malaysia has become partners with the public sector in achieving the nation's development objectives. A major factor that has attracted investors to Malaysia is the government's commitment to maintain a business environment that provides companies with the opportunities for growth and profits. This commitment is seen in the government's constant efforts to obtain feedback from the business community through channels of consultation such as regular government-private sector dialogues. These allow the various business

communities to air their views and to contribute towards the formulation of government policies which concern them (Mart, 2016).

These efforts have received worldwide recognition through improved rankings in reports by various international institutions.

- 1) The Global Competitiveness Report 2016-2017, released by the Switzerland-based World Economic Forum, ranked Malaysia 18th out of 140 economies;
- 2) The focus of the World Bank Doing Business 2016 Report (DB 2016) is on the quality of regulations. Based on the improved measurement that focuses on regulatory quality and efficiency, Malaysia is ranked 18th out of 189 economies joining the world's top 10 percent easiest countries for business community; and
- 3) In the latest World Competitiveness Yearbook 2016 (WCY) released by the Institute for Management Development (IMD), Lausanne, Switzerland. Malaysia was ranked 19th, Within the Asia Pacific region, Malaysia was ranked 6th out of 14 nations.

### **1.3 Problem Statement**

With reference to the latest Global Manufacturing Competitiveness Index (GMCI) by Deloitte Global (2016), Malaysia ranked 17<sup>th</sup>, behind Thailand (14<sup>th</sup>) and Singapore (10<sup>th</sup>). In order to succeed in the rapidly evolving global manufacturing landscape, organizations will need to embrace a targeted approach to some of the key elements of manufacturing competitiveness, including, ensuring talent as top priority; embracing advanced technologies to drive competitive advantage; leverage strength of ecosystem partnerships beyond traditional boundaries; developing balanced approach across the global enterprise; and cultivate smart, strategic public-private partnership.

Competitive advantage is a concept that remains a major research area as far as strategic management is concerned. Competitive advantage is also important as far as global and local businesses are concerned. In order to compete and sustain successfully, locally and globally, businesses must not only excel in their area but also persevere in the long run. Achieving such a “sustainable competitive advantage” status is not an easy task without a proper road map or strategy being outlined and practiced, Competitive advantage is a result of being associated with a long list of contributing factors. Such factors include operational efficiencies, mergers, acquisitions, levels of diversification, types of diversification, organizational structures, top management team composition and style, human resource management, manipulation of the political and/or social influences in the market, conformity to various interpretations of socially responsible behaviours, international or cross-cultural activities of expansion and adaptation, and various other organizational and/or industry level phenomena (Vela-Jiménez. , Martínez-Sánchez , Pérez-Pérez and Abella-Garcés 2014; Flint and Van Fleet, 2005; King,

2007b). From the literature review, most previous studies conducted on globalized companies, particularly those related to manufacturers, are concerned with their strategy and performance (Pan and Chi, 1999; Werner, 2002; Goerzen and Beamish, 2003; Ma, 2004; Svensson, 2006; Ainuddin, Beamish, Hlland and Rouse, 2007).

In the search for a good and sound business strategy, organizations need to initially examine and understand their internal organizational resources. As such, a different approach and perspective is needed to examine and understand the competitiveness of manufacturers by analyzing the relationship between their internal resources, particularly the manufacturers that operate in Malaysia. In light of this background, it is vital to study and understand the relationship between manufacturers' organizational resources, and their competitive advantage and performance. Hence, the management of the organization is paying more attention to the high commitment or high performance work system (HPWS) approach, and it is gaining popularity as a source to competitive advantage (Na Mao, Song and Han, 2013; Pfeffer, 1998). It is known that HPWS could positively affect the organizational performance.

Studies have shown that high performance work system (HPWS) as source of competitive advantage could have significant impact on firm's performance. Recent studies indicated a favourable effect of HPWS on labour productivity (Huselid, 1995), turnover (Guthrie, 2001; Huselid, 1995) and firm financial performance (Muduli, A., 2015; Guthrie, 2001; Huselid, 1995). Scholars of strategic Human Resource Management (SHRM) focused their attention during the last decade to a "bundle" of mutually reinforcing and synergistic human resource (HR) practices that facilitate employee commitment and involvement (Ferguson and Reio Jr., 2010; MacDuffie, 1995), and HPWS are seen as a potential source of competitive advantage (Becker and Huselid, 1998).

Boxall and Macky (2007) of NZ studied on HPWS and organizational performance: Bridging theory and practice (Obeidat, Mitchell, and Bray, 2016; Whitfield and Poole, 1997) written on issues on organizing employment for high performance: Theories, Evidence and Policy. Appelbaum, Bailey, Berg, and Kalleberg (2000) of Australia published on a book reviews on subject of Manufacturing Advantage with focus on why high performance work systems pay off. Evans and Davis (2005) of USA published on issues of HPWS and organizational performance, with mediating role of internal social structure (Laforet, 2016). Recent studies on the challenge of leadership in high performance work organization (Jung, Chan, Chen, and Chow, 2010; Kirkman, Lowe, and Yaung, 1999). Edwards and Wright (2001) of UK focused on HPWS and performance outcomes, relating to the strength of variable, contingent and context-bound relationships. Hartog and Verburg (2004) of Netherlands highlighted results on HPWS, organizational culture and firm effectiveness.

Brunswick and Vanhaverbeke (2014) and Maranto-Vargas and Tagle-Rangel (2005) studied SME manufacturing, found statistical evidence to suggest that organizational performance is positively related with the development of internal resources, such as soft technology (methods and training processes); hard technology (machinery technology, innovative raw material) and leadership on strategy of continuous improvement and building innovation and change culture. The HRM researchers have noted the importance of fitting HPWS to a firm's competitive strategy (Andersén, 2012; Delery and Dirty, 1996; Wright and Snell, 1991), structure, and values (Chadee, and Roxas, 2013; Toh, Morgeson, and Campion, 2008). They also claim that this may be especially true for firms operating in Asia that attempt to adapt HPWS to their particular organizational context. The study tests the mediating role of procedural justice and moderating role of power distance on the relationships between HPWS and employee attitudes. Other studies covering the issues of technology, HR practices, leadership, culture, HPWS and organization performance respectively, it can be observed while these studies focus on each issue individually, there is still a need to examine these variables as an integrate relationship model (Posthuma, Campion, Masimova, and Campion, 2013). While there exists a huge body of knowledge on human resource management (HRM) and organizational performance within the Malaysian context, studies that focus specifically on HPWS is still insufficient.(Asmawi and Chew, 2016). Therefore, this leads to a general research questions as to: "What is the magnitude of the relationship between technology, HR flexibility, leadership, culture, HPWS and organizational performance of Federation of Malaysian Manufacturers?" Or put in different way, whether technology, HR flexibility, leadership, and culture will be able to significantly explain the variation organizational performance?" and what is the intervening effects of HPWS and firm size on the relationships between organizational internal resources and organizational performance?

Numerous studies as discussed above shown positive relationship between HPWS and organization performance. However previous studies in Malaysia are very limited in investigation of this phenomenon (Asmawi and Chew, 2016; Ugheoke1, Al-Rawas1, Mohd Isa1, and Wan Mohd Noor, 2015; Osman., Ho., and Galang, 2011), besides Caspersz (2006) and Yalabik, Chen, Lawler, and Kim (2008), little empirical research has been done to date. This study examine the relationships between HPWS and firm performances, predicting variables technology, human resource flexibility, leadership, culture and HPWS, and also on the possible moderating effect of firm size of the manufacturing company. From the above summary, it can be observed that while most previous studies have concentrated on issues of organizational resources, high performance work systems and performance respectively, there is still a need to examine these variables as an integrated relationship model which is currently lacking empirical studies in particular. Therefore, this leads to a general research question as to: "What is the magnitude of the relationship between organizational internal resources, high performance work systems and performance of Malaysian manufacturers? In other words, whether organizational internal resources will be able to significantly predict the competitive advantage and performance of organizations?" Specifically, the following research questions provide an overview of the research problem statement and issues in focused.

#### 1.4 Research Questions

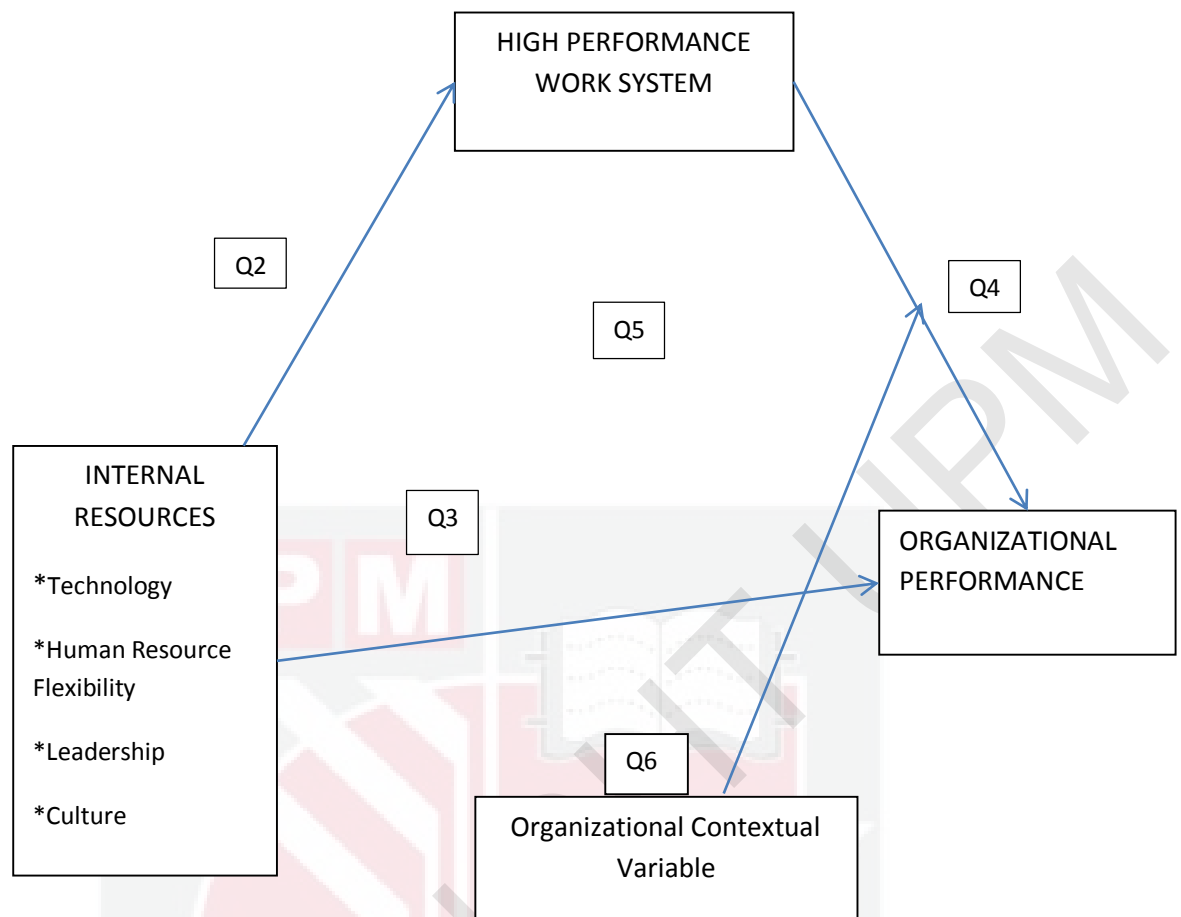
The study is to address the gap in the literature and meet the above research objectives. It offers important issues that have not been previously investigated in other studies and in the manufacturing setting in Malaysia: What is the extent of these predicting factors impacts on firm performance? Do HPWS practices mediate these predicting factors on company's performance? Do the organizational contextual factor moderates the relationship between HPWS and company's performance?

The specific questions of this research are as follows:

1. What are the levels of organizational internal resources, HPWS and organizational performance as perceived by Federation of Malaysian Manufacturers?
2. What is the relationship between organizational internal resources and HPWS
3. What is the relationship between HPWS and organizational performance?
4. What is the relationship between organizational internal resources and organizational performance?
5. What is the mediating effect of HPWS in the relationship between organizational internal resources and organizational performance?
6. What is the moderating effect of firm size, in relationship between HPWS and organizational performance?

The above research questions are indicated in figure 1 below.





**Figure 1.1: Conceptual Framework**

### 1.5 Study Objectives

The general objective of this research is to examine the relationship between organizational internal resources (technology, HR flexibility, leadership, culture) and organizational performance among the Federation of Malaysian Manufacturers and the intervening effects of high performance work system and firm size.

The specific objectives of this research are as follows:

- 1) To examine the levels of organizational internal resources, HPWS and organizational performance as perceived by Federation of Malaysian Manufacturers.
- 2) To examine relationship between organizational internal resources and High Performance Work Systems (HPWS)
- 3) To examine relationship between organizational internal resources and organizational performance
- 4) To examine the relationship between HPWS and organizational performance
- 5) To determine the mediating effect of HPWS in the relationship between organizational internal resources and organizational performance.
- 6) To examine the moderating effect of firm size, in relationship between HPWS and organizational performance.

## 1.6 Significance of Study

This empirical research seek to contribute to the literature, in strategically managing the relationships between organizational internal resources and organizational performance, with the determination of intervening effect of High performance work system and firm size by exhibiting a model of statistically significant relationships between these specified variables, eventually can help the organizations to take the appropriateness of activities that can contribute to its competitive advantage and enhance organizational performance.

In practice, manufacturing sector is one of the three important pillars (along with petroleum and Agriculture sectors) to the Malaysia economy. It is also served as one of the key sector of employment market and main export revenue for Malaysia. In addition, the China-ASEAN Free-Trade-Zone agreement has taken effect on 1<sup>st</sup> January, 2010, and ASEAN Economic Community trade agreements are putting tremendous price pressure on the local manufacturing companies. Besides the technological development (high investment cost) and globalization market (high risk and barrier), high performance work system is becoming the alternate popular strategy to improve our competitiveness. The direction of Malaysia's trade policy remains focused on ensuring that Malaysia becomes a self-reliant and industrialized nation by 2020. Emphasis is being placed on integrating Malaysian companies into global value chains and developing commercial ties with new markets (MIDA, 2014)

The importance of manufacturing sector can be observed by the following area: namely 1) One of the largest sources of employment opportunities; 2) Manufacturing is expected to remain a strong contributor of the sustained recovery and growth of the Malaysia economy; and 3) the close relationship between the HRM practices and manufacturing sector.

The effect of HPWS uses and impact on firm's performance has been an enthusiastically researched topic while empirical evidence done to various part of the world (Wright et. al., 2005). This study examined a different analytical tool to approach the issue and consider the path of several organization contextual variables affecting on performance (Shih, Chang and Hsu, 2006). This research explores the impact on employee of relevant component of HPWS and to confirm that employees in a supportive work environment are capable of breakthrough performance gains, uses the untapped capabilities by this integrated work management strategy.

The findings will help to enhance the present understanding on the causal relationship between HPWS and manufacturing firm performance in Malaysia, improve the competitiveness of our products in the global market. In terms of theoretical significance, this study would also propose to fill the gap in the body of knowledge, in the significance of strategic HRM on organizational practices by contributing to its literature focuses on HPWS in Asian perspective.

## 1.7 Scope of Study

This cross-sectional study using the quantitative approach is selected because it is the most appropriate method available to address the issues of time and financial constraints. Future studies should consider a longitudinal research and/or using qualitative approach (Adler and Adler, 1987; Berg, 1989), given available time and financial resources, to address properly the issues of dynamic resource-based strategy (Chaharbaghi and Lynch, 1999; Peteraf and Bergen, 2003), dynamic capabilities (Eisenhardt and Martin, 2000; Winter, 2003) and sustainable competitive advantage.

The extent of this research will confine to the examination of the potential relationship between organizational internal resources, namely technology, human resource flexibility, leadership and cultures and organizational performance, and examination of the intervening effect of the HPWS and the firm size. The proposed manufacturers in this research will be restricted to those organizations that are listed as members of the Federation of Malaysian Manufacturers on the basis of the HR manager's perception as to the interaction between the selected research variables.

## 1.8 Definition of Terms

The validity of this research is based on the specific definitions of relevant variables. The details and specific descriptions of these variables are listed below:

**1.8.1 High Performance Work Systems (HPWS):** HPWS term refers to a human resource management approach that tries to elicit employee commitment to and involvement with the organizational goals so that people's behavior is self-regulated rather than controlled by sanctions and pressures (Walton, 1985; Wood and Albanese, 1995). Appelbaum and Batt (1994) called these new systems name as high performance work systems.

**1.8.2 Performance:** Performance can be defined in several ways, namely: firm's customer-focused performance, shareholder-based performance, and firm's performance measurement system that is based on organizational market standing, productivity, profitability and firm's public responsibility (Neely, 2005). In this research, there is specific focus on performance from the dimension of 'financial and non-financial', the turnover and productivity.

**1.8.3 Technology:** Technology can be defined into two dimensions. In the first dimension, we use production technology as the technology employed by the firm in the production of goods and services. In the second dimension, we use technological intensity of the industry, refer to the relative level of R&D effort and the pace of change in relevant knowledge and technology (Balkin, Markman, and Gomez-Mejia, 2000; Frias and Guerediaga, 2000; Hambrick Cho and Chen, 1996).



**1.8.4 Human Resource Flexibility:** Human resource flexibility refers to the extent to which employees possess skills and behavioral repertoires that can provide a firm with options to pursue strategic alternatives (Wright and Snell, 1998). It implies that employees are able to work on different tasks and under diverse circumstances and that the costs and time needed to mobilize employees into new duties are low (Vanden Berg and Van Der Vele, 2005). Hence, for the purpose of this study we consider three components in the definition of HR flexibility in terms of functional flexibility, skill malleability, and behavior flexibility.

**1.8.5 Leadership:** According to Rummler and Brache (1995), job management is defined as people management and suggested that leaders (managers) have a tendency to over manage individuals and undermanage the environment in which they work. In this research, leadership is defined by two dimensions of competencies: employee performance, which encompasses the competencies required for goal setting, feedback and coaching, rewards, motivating commitment, and performance assessment; and employee potential, the second competency domain, emphasizes the importance of providing employees with the knowledge, tools, and environment necessary for higher performance.

**1.8.6 Culture:** From the literatures, many definitions of culture have been proposed over the years (Denison, 1996). In this research, culture is defined as “A set of core values, behavioral norms, artefacts and behavioral patterns which govern the way people in an organization interact with each other and invest energy in their jobs and the organization at large (Van Muijen et al, 1992). Two layers of culture in this definition, the expressive symbols (behavioral component), which is the visible top layer in which culture manifests itself. The deeper layer of culture is formed by invisible norms and values, creates the underlying causes of behavior.

## **1.9 Assumptions of the Study:**

In the context of the research paradigm (Creswell 2009; Burrell and Morgan, 1979), with regards to the aspects of ontology, epistemology, human nature and methodology, indeed the objectivist approach to social science is the best approach to adopt. This is because ontologically, the study has been conducted in real social science setting, with organizations and individuals managing the organizations as the unit of analysis or the subject of the study. As for epistemology, the unit of analysis is certain (positivism) of what they are doing, i.e. managing the organizations in reality and experiencing the activity in person.

## **1.10 Organization of the Thesis**

This thesis is organized into six chapters. The following are the brief explanations of each chapter.

Chapter 1 begins with the background of study and then presents the problem statement. This is followed by the research questions and study objectives. The

theoretical and practical significance of study on the research and scope of the study are also discussed. Moreover, assumptions and definitions of terms are provided.

Chapter 2 starts with detailed theoretical perspectives of the study, those theories underlying the foundation and basis of the research namely: the strategic human resource management (SHRM) theory and Resource-Based View (RBV) theory on the relationships between organizational internal resources, includes technology, human resource flexibility, leadership, culture, and organizational performance, and the intervening effects of high performance work system and firm size. The literature reviews also covers the discussion on the critique on the RBV and HPWS, competitive advantage and organizational performance, which is creating the basis of the research gap.

Chapter 3 starts with the summary of theories and models underpinning the conceptual framework. The chapter then presents the conceptual framework of the study. This is followed by a discussion on hypothesized relationships among study variables. This study seeks to examine the integrated model of relationships between organizational internal resources and organizational performance and the intervening effects of HPWS and firm size.

Chapter 4 outlines the research design and research paradigm underlying the study. The chapter then discusses the target population, issues related to sample size, data collection method, and the instruments used to measures the main variables of the study. Results of measurement models are presented and discussed. Moreover, data analysis techniques used in the study are explained in detail.

Chapter 5 describes with the demographic characteristics of the respondents. Results of the structural model are then presented and interpreted in the light of the evaluation guidelines discussed in the preceding chapter. Discussions on direct, mediated, and moderated effects are then offered in the light of previous empirical findings. Moreover, this chapter presents the summary of the study's research questions and hypotheses.

Chapter 6 begins with the summary of findings and conclusions. The chapter then presents the theoretical and practical contributions of the study. Managerial implications and limitations of the study are discussed, as are future research directions.

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