Faculty of Technology Management and Technopreneurship

FRAMEWORK FOR SKILLS MANAGEMENT OF SKILLED WORKERS IN PROTON: A CASE STUDY

Eng Poh Hwa

Doctor of Philosophy

2018

FRAMEWORK FOR SKILLS MANAGEMENT OF SKILLED WORKERS IN PROTON: A CASE STUDY

ENG POH HWA

A thesis submitted
in fulfillment of the requirements for the Doctor of Philosophy

Faculty of Technology Management and Technopreneurship

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2018

ACKNOWLEDGEMENTS

First and foremost, I would like to express my sincere acknowledgement to both of my supervisors (PM. Dr. Mohd. Syaiful Rizal Bin Abdul Hamid and PM. Dr. Chew Boon Cheong) from the Faculty of Technology Management and Technopreneurship Universiti Teknikal Malaysia Melaka (UTeM). I highly appreciate their kindness for being patient and supportive to me throughout my long journey of PhD study. Special thanks to both of them for providing me with useful and sufficient supervision, guidance, advises and assistance which helps to facilitate my process of PhD study. I would not be able to produce my PhD thesis and complete my PhD study without the assistance provided by both of my supervisors.

Apart from that, I would like to express my deepest gratitude to my mother and father, Jonathan Lim, Alicia, Sam, Mark and Kar Lai. Firstly, I highly appreciate the kindness of my parents for providing me with financial assistance, moral support and encouragement throughout my long journey of PhD study. They have been very patient to me while waiting for me to complete my PhD study. Secondly, I would like to express my special thanks to my second sister (Alicia) for providing me with useful tips which facilitate my process of PhD study. Thirdly, appreciate Jonathan Lim for being patient and supportive along the difficult path of my PhD journey.

Fourthly, I would like to take this opportunity to express my greatest gratitude to the *Head of Learning and Development (L&D) at Proton, Mr Rusly bin Ismail; Head of Main Plant Shah Alam, Mr Ahmad Zamri Bin Ahmad Lias; Head of Medium and Volume Factory (MVF), Mr Mohammad Azman Bin Ismail; Head of Painting, Mr Rohaizad Bin Johari and Head of Body Assembly, Mr Fuad Bin Ramli* for assisting me throughout the process of conducting the data collection (research interviews) at Proton. Apart from that, I highly appreciate the participants of the research interviews (21 managerial employees and 49 highly-skilled blue collar workers) who voluntarily contribute the efforts to participate in the research interviews.

Lastly, thank you to my colleagues and everyone who had been associated to the crucial parts of realisation of this thesis.

DEDICATION

To my respected main supervisor (PM. Dr. Mohd. Syaiful Rizal Bin Abdul Hamid)

and co-supervisor (PM. Dr. Chew Boon Cheong)

To my beloved father and mother, Jonathan Lim, Alicia, Sam, Mark, Kar Lai

DECLARATION

I declare that this thesis entitled "Framework for Skills Management of Skilled Workers in Proton: A Case Study." is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature : .....

Name : .....

Date : .....

LIST OF PUBLICATIONS

Eng, Poh Hwa, Chew, Boon Cheong, and Hamid, Rizal Syaiful, 2016. Case Study for Skills Management Approach to Manage and Retain the Highly-Skilled Blue Collar Workers. *International Business Management*, *10*(16), pp.3558–3566.

Eng Poh Hwa, Boon Cheong Chew, Mohd Syaiful Rizal, November 2015.
Case Study For Skills Management Approach To Manage And Retain The Highly-Skilled Blue Collar Workers, Proceeding, 4th International Conference on Technology Management, Business and Entrepreneurship, "Sustaining Entrepreneurial Ecosystem through Technology Innovation".

Eng Poh Hwa, Boon Cheong Chew, Mohd Syaiful Rizal, September 2015. Empirical Study for Skills Management approach to manage and retain the highly-skilled blue collar workers, Proceeding, International Conference on Advanced Research in Business and Social Sciences, 2015.pp.369-376.

Eng Poh Hwa, Syaiful Rizal Hamid, Boon Cheong Chew, December 2014. Experts' Opinions on the Impacts of Minimum Wage Policy on the Electrical and Electronics Industry in Malaysia, Proceeding, The 6th International Conference on Postgraduate Education (ICPE-6 2014), Transforming the Frontiers Towards Sustainable Postgraduate Education.

Eng Poh Hwa, Syaiful Rizal Hamid, Md Norhayati Tahir, Oct 2013. Historical Review of Minimum Wage Policy in the developed countries: Implementation of National Minimum Wage Policy in Malaysia, *International Journal of Business and Technopreneurship*, 3(3), pp.387-411.

Eng Poh Hwa, Syaiful Rizal Hamid, Md Norhayati Tahir, June 2013. Poverty Line Income and Implementation of Minimum Wage Policy in Malaysia, *International Journal of Business and Technopreneurship*, 3(2), pp.243-260.

ABSTRAK

Kajian literatur yang sistematik dijalankan dan didapati bahawa terdapat kekurangan pekerja mahir di kalangan pekerja kolar biru yang berkemahiran tinggi dalam industri automotif di Malaysia. Ini mendorong pengkaji untuk menyiasat tentang bagaimana untuk mengurus pekerja kolar biru yang berkemahiran dalam industri pembuatan teknologi tinggi di Malaysia. Kajian ini sesuai dilaksanakan dalam konteks paradigma interpretivism. Pengkaji memulakan penyelidikan dengan menggunapakai pendekatan deduktif dan mengakhiri penyelidikan dengan menggunapakai pendekatan induktif. Kajian ini merupakan kajian penerokaan kerana ia dijalankan untuk mencari fakta-fakta sebenar dan untuk mengkaji berhubung topik proses pengurusan kemahiran. Kajian ini merupakan kajian kualitatif kerana ia bertujuan untuk menemui proses pengurusan kemahiran untuk mengurus dan mengekalkan pekerja kolar biru yang berkemahiran tinggi di industri pembuatan teknologi tinggi di Malaysia. Penyelidik menggunapakai reka bentuk kajian kes tunggal untuk penyelidikan kerana ia dijangka meningkatkan pemahaman penyelidik tentang fenomena penyelidikan apabila dia meneroka dan menyiasat kajian kes secara intensif. Kajian ini telah menggunakan data sekunder daripada semakan dokumen dan data utama daripada temu bual penyelidikan. Pengkaji telah menggunakan pembangunan penjelasan untuk analisis data kajian. Kaedah analisis data membolehkan penyelidik untuk menghubungkan data dengan cadangan dan mentafsirkan penemuan penyelidikan beliau ke arah pembinaan teori. Penyelidik telah membuktikan secara teori dan empirikal bahawa proses pengurusan kemahiran terdiri daripada empat peringkat aktiviti: perancangan kemahiran, pembangunan kemahiran, pemindahan kemahiran dan pengekalan kemahiran. Para pekerja kolar biru yang berkemahiran tinggi dapat meningkatkan penguasaan kemahiran mereka selepas melalui empat peringkat proses kemahiran pengurusan. Penyelidikan ini merupakan satu kajian kes di mana fokusnya hanya kepada industri automotif di Malaysia. Penyelidik lain yang berminat dengan penyelidikan boleh memilih untuk menjalankan penyelidikan berkenaan dengan proses pengurusan kemahiran aplikasi dalam industri pembuatan lain di Malaysia. Penyelidikan ini menyediakan pendekatan yang lebih sistematik untuk mengurus dan mengekalkan pekerja mahir dalam automotif di Malaysia. Penyelidikan ini adalah baru dan asal; topik mengenai pengurusan kemahiran dalam bidang sains pengurusan kurang dikaji.

ABSTRACT

The research applies systematic literature review to identify that there is a shortage of skilled blue collar workers in the automotive industry in Malaysia. Therefore, the research investigates on how to manage the skilled blue collar workers at Proton. The study fits within the interpretivism paradigm and it begins with deductive approach and ends with inductive approach. The research is exploratory study because it is conducted to discover the real facts and to study in depth about skills management process. The research is qualitative research because it aims to further discover about the skills management process to manage the skilled blue collar workers at Proton. The research is a single case study because it was expected to improve the researcher's understanding of the research phenomenon when she explores and investigates on the case study intensively. The researcher has collected secondary data from document review and primary data from research interviews to achieve the research objectives. The research is adopting explanation building for data analysis of the research. This data analysis method enables the researcher to link data to propositions and to interpret her findings in the research towards theory building. It is proven theoretically and empirically that the skills management process consists of four stages of activities: skills forecasting and planning, skills development, skills transfer and skills retention. The skilled blue collar workers are able to increase their skills mastery after going through the four stages of skills management process. The research is a single case study where the focus is only on automotive industry in Malaysia. Other researchers who are interested about the research can opt to conduct the researches pertaining to the application skills management process in other manufacturing industry in Malaysia. The research provides a systematic approach to manage and retain the skilled workers in the automotive in Malaysia. The research is new and original; the topic about skills management in the field of management science is under studied.

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter provides the overall view about the research of skills management on the skilled blue collar workers at Proton. This chapter begins with the point of departure to describe about the ideas which initiate the research topic about skills management. The skills management concept is triggered from the components of technology (brainware and know-how). Then, the chapter continues to discuss about the research background and problems of the research. The research is triggered due to the shortage of skilled workers in the automotive industry in Malaysia. The Malaysian Automotive Institution (MAI) forecasts a whopping 30,000 job openings in the automotive sector in 2018, with over a quarter for skilled labour (MalayMail, 2018).

The National Automotive Policy 2014 focuses on Human Capital Development, which is Malaysia Automotive Human Capital Development Roadmap. Through the roadmap, local skilled and semi-skilled workers will replace 80% of foreign workers in the automotive manufacturing sector by 2020 to transform the Malaysian automotive industry into a vibrant sector that will enhance further the industrialization of Malaysia. It is expected that by 2020 the automotive industry will contribute 10% to GDP. Therefore, there is a high demand for skilled workers in the automotive industry in Malaysia from 2013 to 2020 (National Automotive Policy, 2014).

1.2 Point of Departure

The research departs from the components of technology to study about "skills management". Technology in this context refers to a set of skills and abilities to do particular things (Gehani, 1998). Zeleny (1986) highlights that technology consists of three interdependent components: Hardware, software and brainware. Zeleny (2005, p.182) states that brainware refers to "the purpose (objectives and goals), reason and justification to use or deploy the hardware or software in a specific way. This is known as know-what and know-why of technology. In other word, it means the determination of what to use or deploy, when, where and why".

A fourth component must be considered independently apart from the three components above due to the fact that it encompasses all levels of technological achievements: Khalil (2000) defines know-how as the learned or acquired technical skill pertain on how to do things well. Know-how can be a result of experience, transfer of skills or hands-on practice. People acquire technical know-how by undergone formal or informal education or training or by working closely with an expert in a particular area. Know-how can also be acquired through recognised method of technology transfer.

The research departs from the components of technology (brainware and know-how) to further study about “skills management.” Skills are essential to enables the skilled blue collar workers to perform their jobs. Skills as basic ability refer to the ways by which an individual adjusts to life. Skills can be defined as the ability a worker provides in exchange for remuneration at the workplace. Skills are associated with know-how while speed and accuracy are some of its traits and characteristics (Adeyemo, 2010).

Both of the worker and the employer obtain satisfactions in correspondence if the skills provided at the workplace are satisfactory (Baiyelo and Adeyemo, 2001). Skills must be developed through training, practice and experience. Skills are quality of performance which do not depend solely upon a person's fundamental and innate capacities (Adeyemo, 2010). Skills are concerned with what a person can do rather than with what one knows. Labour economists viewed skills as a property of individuals from a various combinations of education, training and competence (Tight, 1996).

Management refers to work to determine the best alternative to apply the resources of an organisation to produce goods or provide services. The resources of an organisation include its employees, equipment and money. Management must make good decisions, communicate well with people, make work assignments, delegate, plan, train people, motivate people and appraise employees' job performances (Rue and Byars, 2010). Management refers to the process of working with and through others to achieve organisational objectives in a changing environment (Kreitner, 2009).

Managers in all organisations engage in five categories of activities: planning, organising, staffing, leading and controlling (Rue and Byars, 2010; Kreitner, 2009; Dwyer and Hopwood, 2010; Samson and Daft, 2009; Dubrin, 2010). Planning is to determine the objectives to pursue during a future period and how to achieve these objectives. Organising is to group activities, assign activities, and to provide the authority to perform these activities. Staffing is to decide on human resource needs and to recruit, select, train and develop human resources. Leading is to direct and channel human behavior toward the accomplishment of objectives. Controlling is to measure performance against objectives, to determine the causes of deviations, and to take corrective action where necessary (Rue and Byars, 2010).

Skills Management refers to the ability of an organisation to optimise the use of its human resources. Skills Management enables an organisation to optimise outcomes while ensuring the most effective, flexible and cost-effective use of workforce (Dubois and Singh, 2009). Skills management refers to the practice to define employee skills and jobs and to capture skills assessments for analysis. The results of this analysis are then used to develop and deploy people and their skills (Kenexa, 2012). In skills management, an organisation strives to fully benefit from the know-how of their employees, and try to match effectively the right person with the right task in minimum time. The skills of workforce have been recognised as strategic assets to achieve the competitive advantage (Hamel and Prahalad, 1990). The skills management involves a large number of different activities ranging from the elicitation of skills held by the employees to all the possible usages of such a formalised know-how (Colucci, Noia, Sciascio, Donini and Ragone, 2007).

The Figure 1.1 shows the story line for the initial stage of the research. This figure is a summary for the explanations in the problem of the research and point of departure.

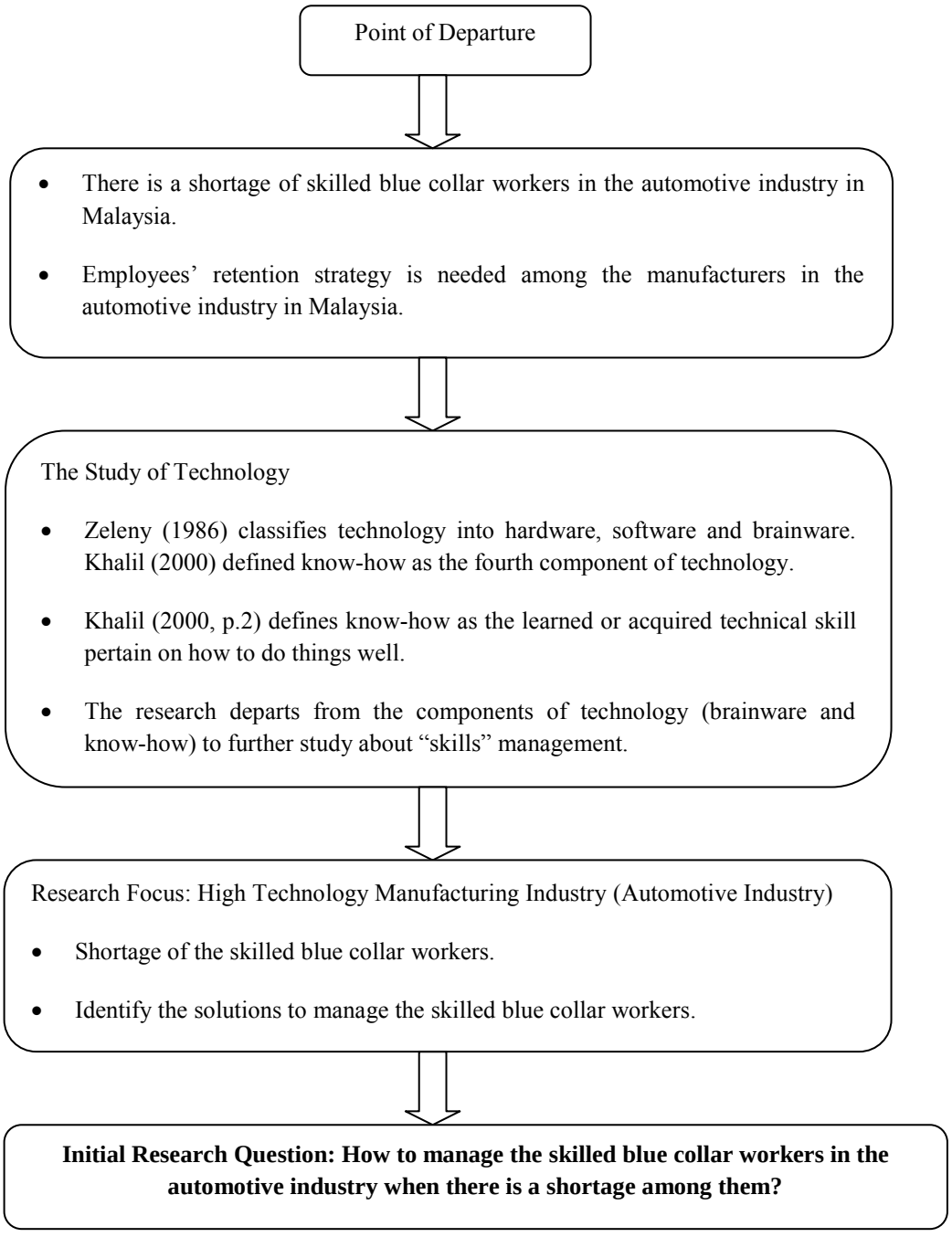

Figure 1.1 Story line of initial stage of the research

1.3 Background of The Research

The Malaysian government has introduced a national transformation framework which aims to drive the country toward an advanced nation by 2020. Three pillars of the framework, the New Economic Model (NEM), the Economic Transformation Programme (ETP), and the 10th Malaysia Plan (2011-2015), have underscored the critical role of a highly skilled, creative and innovative workforce in achieving a high income economy that is both inclusive and sustainable (OECD, 2013). According to the Prime Minister of Malaysia, PM. Najib, the goal of the NEM, ETP and 10th Malaysia Plan are to transform the Malaysian economy to become one with high incomes and quality growth by 2020 (PMO, 2010).

The human resource development strategy in the Eighth Malaysia Plan is to create a critical mass of trained, skilled and knowledgeable workforce to sustain economic growth, increase competitiveness and support a knowledge based economy. Specialised and advanced technological training programmes were expanded to meet increasing demand for highly skilled human resource (PMO, 2003). The strategy in the human resource development will be focused on strengthening the education and training delivery system to increase the supply of knowledgeable and highly skilled manpower (Zaharaton, 2003). The fast developing industry in Malaysia requires comprehensively trained skilled workers (Spöttl and Becker, 2006).

The country suffers from a shortage of skilled workers, weak productivity growth stemming from a lack of creativity and innovation in the workforce, and an over-reliance on unskilled and low-wage migrant workers (National Economic Advisory Council, 2010).

1.3.1 The Automotive Industry

(i) The Importance of Automotive Industry in the World

Many studies have shown that automotive industry has significant impact on the socio-economic life of mankind (Ueno and Muto, 1980; Mutoh, 1988; Smitka, 1991; Law, 1991; Wells and Rawlinson, 1994). Automotive industry has generated significant impact on economic development, industrial organisations, technologies, managerial practices and the standard of living of producing countries. In addition, automotive industry represents modern industry (Law, 1991).

Turnbull et al. (1992) note the automotive industry is the single largest manufacturing sector in the world. The industry generates more than 10 percent of the Japanese and American output and employment (Smitka, 1991). The top five producing countries of automotive industry are Germany, France, Italy, Spain and the United Kingdom (Sadler, 1994). The automotive industry contributes about 20 percent to the Gross Domestic Product (GDP) of Germany.

Apart from that, the automotive industry needs a set of production systems to link a wide range of industrial organisations and technologies with great variations in size and sophistication. Efforts to develop the automotive industry generate significant impact on resource based industries (iron and steel, chemical, nonferrous metal, rubber and plastic-related industries, petroleum-based industries) and on non-resource-based industries (electrical and electronics-related parts). In addition, automotive industry provides service-related activities in the tertiary sector such as stamping, repairing, designing and engineering, banking, shipping, storing, insurance and distributing and marketing channels (Rosli, 2004).