

THE ROLE OF SELF-EFFICACY IN MEDIATING THE EFFECT OF SELF-
LEADERSHIP AND KNOWLEDGE SHARING TOWARDS INNOVATIVE
WORK BEHAVIOUR IN PRIVATE HIGHER EDUCATION
INSTITUTIONS

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DEDICATION

This thesis is dedicated to my beloved husband, families, supervisors and friends for continuous guidance, support and encouragement throughout my study.



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ABSTRACT

Innovative work behavior is crucial to achieve a long-term survival and sustainability for organizations inclusive Higher Education Institutions. Numerous studies indicated that self-leadership and knowledge sharing are important predictor on innovative work behavior. However, the study which focused on the effect of self-leadership and knowledge sharing on innovative work behavior is still scarce especially in the context of Malaysian educational sector. Thus, this research aims to investigate how self-leadership and knowledge sharing influence innovative work behavior among the academics. This research also investigates the mediator role of self-efficacy on both relationships of self-leadership and knowledge sharing toward innovative work behavior. This research applied quantitative approach using data collected through online distribution of questionnaires to PHEIs. A total of 350 data was collected from academics in Klang Valley and Johor region to participate in the study. Structural equation modeling was used to analyze the data by using AMOS 21. The findings indicate that self-leadership, knowledge sharing and self-efficacy are positive and significantly affect innovative work behavior. Meanwhile, self-efficacy has a mediating effect on both relationships of self-leadership and knowledge sharing toward innovative work behavior. In sum, this research extends Social Cognitive Theory and Knowledge Based View by incorporating self-efficacy as a mediator in both relationships of self-leadership and knowledge sharing toward innovative work behavior. The findings of the study have provided valuable insights to increase the understanding toward the importance of self-leadership, knowledge sharing and self-efficacy in cultivation innovative work behavior. It also serves as an important point of reference for PHEIs to implement practical plan and policies to enhance innovative work behavior among academics that will lead to better university performance.

ABSTRAK

Tingkah laku kerja inovatif adalah penting bagi mencapai jangka panjang dan kelangsungan semua organisasi termasuk Institusi Pengajian Tinggi. Beberapa kajian telah menunjukkan bahawa kepimpinan sendiri dan perkongsian ilmu adalah faktor penting ke atas tingkah laku kerja inovatif. Walaubagaimanapun, kajian ke atas kesan kepimpinan sendiri dan perkongsian ilmu dengan tingkah laku kerja inovatif adalah masih berkurangan terutamanya dalam konteks sektor pendidikan di Malaysia. Oleh yang demikian, kajian ini bertujuan mengkaji lebih lanjut bagaimana kepimpinan sendiri dan perkongsian ilmu mempengaruhi tingkah laku kerja inovatif di kalangan akademik. Kajian ini juga mengkaji peranan keberkesanan sendiri sebagai pengantara ke atas hubungan antara kepimpinan sendiri dan perkongsian ilmu terhadap tingkah laku kerja inovatif. Kajian ini menggunakan pendekatan kuantitatif di mana data diperoleh melalui edaran borang soal selidik secara talian kepada akademik di IPTS. Sebanyak 350 data telah di kutip daripada akademik di kawasan Klang Valley dan Johor bagi menyertai kajian ini. Data dianalisis dengan melaksanakan Pemodelan Persamaan Struktur berasaskan AMOS 21. Dapatan kajian menunjukkan kepimpinan sendiri, perkongsian ilmu dan keberkesanan sendiri mempengaruhi tingkah laku kerja inovatif. Manakala keberkesanan sendiri menjadi pengantara ke atas dua hubungan kepimpinan sendiri dan perkongsian ilmu terhadap tingkah laku kerja inovatif. Secara keseluruhan, kajian ini mengembangkan Teori Kognitif Sosial dan Teori Pandangan Berasaskan Pengetahuan dengan memasukkan keberkesanan sendiri sebagai pengantara ke atas hubungan kepimpinan sendiri dan perkongsian ilmu terhadap tingkah laku kerja inovatif. Keputusan kajian ini telah memberikan pengetahuan yang mendalam terhadap kepentingan kepimpinan sendiri, keberkesanan sendiri dan perkongsian ilmu dalam memupuk tingkah laku kerja inovatif. Ia juga di jadikan sebagai rujukan penting kepada IPTS untuk melaksanakan rancangan praktikal dan polisi bagi meningkatkan tingkah laku kerja inovatif di kalangan akademik untuk mencapai prestasi universiti yang lebih baik.

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LIST OF SYMBOLS AND ABBREVIATIONS

PHEIs	-	Private Higher Education Institutions
HEIs	-	Higher Educational Institutions
K-economy	-	Knowledge-based economy
KLEC	-	Kuala Lumpur Education City
IWB	-	Innovative work behaviour
KS	-	Knowledge sharing
SE	-	Self-efficacy
SL	-	Self-leadership
HLIs	-	Higher Learning Institutions
GRIIs	-	Government Research Institutes and Agencies
BE	-	Business Enterprises
NGO	-	Non-Governmental Organizations
SCT	-	Social Cognitive Theory
KBV	-	Knowledge Based View
AMOS	-	Analysis of Moment Structures
CB-SEM	-	Covariance-based Structural Equation Modelling
SEM	-	Structural Equation Modelling
CFA	-	Confirmatory factor analysis
%	-	Percentage
<	-	Less Than
>	-	Greater Than

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CHAPTER 1

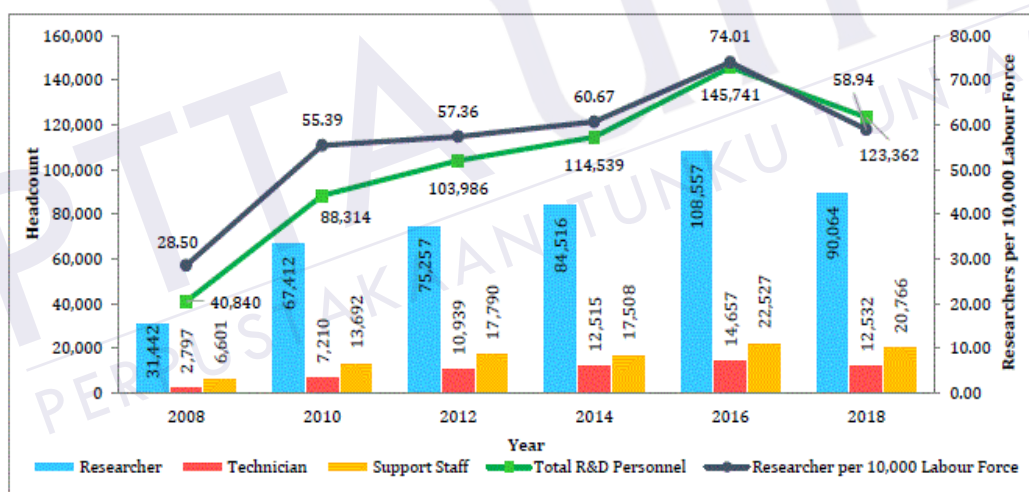
INTRODUCTION

1.1 Background of Study

Innovation is crucial for organisations to face challenges in this ever-changing environment. Innovation leads to new and improvement of products, services and processes, thus enable the organisations achieving long-term survival and in global competitiveness that benefits to economic growth. (Lau *et al.* 2010; Salehzadeh *et al.* 2017; Gërguri *et al.* 2017). Hence, organisations need to focus on innovations that aim to engage new ideas and knowledge to manage the internal and external environment to ensure long term commercial success.

Innovation in organisation is the extent of introducing change in the way the organization is managed. It can also refer to the development of new ideas and knowledge that provide effectiveness for organisations to outperform organisational goals yet stay relevant. (Yu *et al.*, (2020). Thus, investment in innovation is essential, such as facilitates in developing new products and services that can cater to the demanding market and simultaneously gaining economic advantages that implicitly assist national economy (Gërguri *et al.* 2017). Hence, the industrial processes in current years have evolved from a Production-based economy (P-economy) into an innovative Knowledge-based economy (K-economy).

In line with The National Transformation 2050, Malaysia is moving towards becoming an innovative knowledge-based economy in order to become a developed nation which focuses on innovation. Research and Development activities are crucial in innovation in order to generate new knowledge and produce research output like publications, intellectual properties and patents. According to the Ministry of Science, Technology and Innovation (MOSTI) report, involvement of human resource in research activities in 2016 was 74 researchers per 10,000 labour force which has exceeded the target of 70 researchers per 10,000 labour force by 2020 (Figure 1.1). However, the target dropped to 59 in 2018 because the decrease of almost 18,500 number of researchers from 2016 to 2018. In most cases, the decrease in the number of researchers is due to R&D project cycle and reduction in budget for R&D. As a result, fewer researchers are needed for certain R&D project.



Source: National Survey of Research and Development (R&D) in Malaysia

Figure 1.1 Research and Development Personnel and Researchers per 10,000 Labour Force (2008-2018)

In term of innovation output of publication, Table 1.1 shows the types and number of publications for 2016-2018. Most of the published materials were produced by HLIs. Indexed journal (Scopus/WoS) was the highest publications by HLIs in 2018 with 30,135. For Higher Learning Institutions (HLIs), the output of all publications except books has increased from 2016 to 2018. For Government Research Institutes and Agencies (GRIs) except for the hike in the number of other publications (from 772 in 2016 to 2,082 in 2018), all of the publications decreased in number from 2016 to

2018. In addition, a summary of the intellectual property indicators in 2016-2018 is shown in Table 1.2. For HLIs, all intellectual property increased between 2016 and 2018 while all intellectual property indicators decreased for GRI. All intellectual property indicators for Business Enterprises (Bes) decreased in number as compared to 2016 except for the boost in copyright. In 2018, Non-Governmental Organizations (NGOs) only produced two copyrights.

Table 1.1 Number of Publications, 2016-2018

Publication	HLI		GRI		BE	NGO	Total	
	2016	2018	2016	2018	2018	2018	2016	2018
Indexed Journal (Scopus/WoS)	25,070	30,135	598	483	39	27	25,668	30,684
Conference Proceedings	14,073	15,281	3,028	2,248	253	8	17,101	17,790
Non-indexed Journal	9,949	13,874	1,187	600	86	0	11,136	14,560
Chapters in Book	2,542	4,277	227	193	9	7	2,769	4,486
Books	1,465	1,293	812	386	116	3	2,277	1,798
Other Publications	12,539	13,497	772	2,082	382	42	13,311	16,003

Source: National Survey of Research and Development (R&D) in Malaysia

Table 1.2 Number of Intellectual Property Indicators, 2016-2018

Intellectual Property	HLI		GRI		BE		NGO		Total	
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018
Patents Filed	392	512	53	48	662	497	6	0	1,113	1,057
Patents Granted	148	213	61	26	326	225	1	0	536	464
Copyright	1,859	2,996	493	165	445	1,786	0	2	2,797	4,949
Trademark	84	215	62	15	956	546	1	0	1,103	776
Industrial Design	30	36	6	3	2,493	473	1	0	2,530	512

Source: National Survey of Research and Development (R&D) in Malaysia

In comparison Malaysia performance on production of patent with other countries, Malaysia was ranked 9th with only 7,295 patents filed. China was the top of 11 selected Asian countries with 1,542,002 patents filed. This was followed by Japan, which recorded 313,567 of patents filed. South Korea ranked third with 209,992 of patents filed. India was fourth, with 50,055 of patents filed. Singapore ranked 6th with 11,845 patents filed. Meanwhile, in term of total headcount of researchers, Malaysia reported at ranked 12th with 90,064 headcount of researchers in 2017. Japan ranked 1st with 930,720 researchers then followed by South Korea with 482,796 researchers.

Highly educated and skilled workforce are essential for Malaysia in achievement a status of developed nation. As a result, innovation has been highly emphasized and is continuously highlighted in various industrial sectors to achieve K-economy. One of the industrial sectors that significantly contributes to the economy in Malaysia is the service industry (Cheen, 2015), with a high increase in GDP (Raja Aziz & Azmi, 2017) from 40.1% (1998) to 54.5% in 2017. The service industry has also incurred RM423.5b in revenue by the Third Quarter of 2018 (Department of Statistics Malaysia). Thus, the Malaysian Higher Education Institutions (HEI) have a primary role to play in ensuring the development of the national workforce and the economy (Tan, Goh, & Chan, 2015). The universities and tertiary institutions are required to produce skilled and competent graduates and high-quality researches that meet the demands of the K-economy and the continuous technological advancement (Lasakova *et al.*, 2017). As the primary foundation of innovation and agents of economic growth (Salem, 2014), developing countries need to ensure that higher education system assists in the creation of a skilled workforce that can respond to and compete with the changing needs of the new knowledge-based economy.

The importance of knowledge creation and innovation as the primary goals of boosting the national economy has driven Malaysia to become an education hub within the Asian region beyond 2020 (Rathakrishnan *et al.*, 2016). Through a comprehensive plan that aims to establish Malaysia as a regional education hub, two projects have been carried out, which involves the development of the Educity in Iskandar Malaysia, and the Kuala Lumpur Education City (KLEC) in the Klang Valley. The purpose of Educity is to provide high-quality education and to produce a skilled workforce that supports foreign companies and academic-industry collaborations

through joint researches at laboratories or designated centres. On the other hand, KLEC targets both the social and economic reasons, which involved investments into developing the human capital for the K-economy, as well as showcasing Malaysia as an environment-friendly, energy-efficient and interactive knowledge-based regional centre (Knight & Morshidi, 2011). Innovation is deemed the most critical aspect within the aspirations of these projects, with the expectation on education as a definitive source and advantage in competitive sustainability (Kising *et al.*, 2016). Nonetheless, Păcuraru (2012) suggested that institutions of the higher education have to manage the concurrent challenges and various issues, which include courses, facilities, innovation in teaching relevance, student attraction, relevance to the labour market, and institutional management, in providing quality education.

Since Malaysia is in the process of transformation into an innovative, knowledge-based economy, it requires the development of a highly skilled and knowledgeable workforce, thus there is a need to increase accessibility of HEI. As a result, Higher education sector in Malaysia continue to expand with increasing number of PHEIs was established. As illustrated in table 1.3, currently there is a total of 563 Public Higher Educational (HEI) with 443 represents the PHEIs. This creates an intense competition among HEI especially PHEIs in getting student enrollment. Thus, in order to continue survival in the market, PHEIs need to increase their quality of education to satisfy the needs and demands of the society that has been increasing exponentially in recent years. Moreover, PHEIs are expected to continuously attain a degree of excellence in all necessary aspects, which is required by the government in achieving the status as the regional educational hub in Asia. (Tan *et al.*, 2015). The government would not compromise on the quality of education and, therefore, has enforced PHEIs to improve the quality of education offered that must also match with the current trends in the education industry. (Tan *et al.*, 2015). In line with this, PHEIs are required to maintain a quality education, which can only be achieved through enhancement of innovation which leads to increment in student enrollment. Creativity and innovation are essential in higher education to develop quality education for achievement sustainable competitive advantage in the market. (Mohammadi, 2020).

Table 1.3: Number of Public and Private HEIs in Malaysia
Source: Ministry of Higher Education (2020)

INSTITUTE OF HIGHER EDUCATION	NUMBER OF HEIs
PUBLIC	
Universities	20
Polytechnics	30
Community Colleges	70
Total Public HEIs	120
PRIVATE	
Universities	54
Universities Colleges	37
Branch campuses (International)	10
Private Colleges	342
Total Private HEIs	443
Total Private and Public HEIs	563

Innovation has been proven to be an essential factor for competitive excellence in any organizations inclusive universities (Hamid, *et al.*, 2015) as graduates would be responsive, and relevant employees to the consistent changes and demands of the labour market, especially with innovative work behaviour. Thus, all organizations need to focus on efforts that can encourage innovative work behaviour. (Mohd Beta & Ali, 2017). The role of universities has currently gone beyond the basics of teaching and conducting researches. With the expanding education market, institutions need to incorporate the high demand for science, technology, and innovation as the foundations of a knowledge-based economy in the education system (Salem, 2014). Thus, for Malaysia to produce a pool of knowledge leaders and knowledge workers, the educational system needs to be revamped and restructured. The focus should be directed towards adjusting the existing curriculum to be more innovative that encourages students to invent and develop critical and analytical thinking, which would result in well-educated, highly- skilled, and strongly motivated workers (Shukran, *et al.*, 2011).

As part of the efforts in achieving this objective, the Ministry of Higher Education has developed a set of guidelines through the University Transformation Programme that highlights the importance of talent excellence and the relationships

towards institutional excellence. (Shariffuddin *et al.*, 2017). All academic staffs are expected to have baseline competencies in teaching, research, service and management, whereby the focus to excel in any of these four aspects would be guided by specific attributes. For example, inspiring educator and experienced practitioner are part of the attributes vital for educators. An inspiring educator will focus on innovation, which requires the educator to exhibit creativity and innovation in teaching, learning, and assessment that impacts learning. (Hashim, *et al.*, 2019). On the other hand, an experienced practitioner requires the educator to make significant contributions and innovations in the development of respective fields and demonstrate excellence in professional practice. Besides, talent excellence is a critical contributor to institutional excellence. Different attributes of talent excellence will support the development of talent excellence in a more focused way. (Selvanathan *et al.*, 2019). Hence, diversity among academic talent needs to be recognized, while distinctive criteria and different benchmarks are needed to reward these diverse talents, which would bring about Higher Educational Institutions to achieve both talent and institutional excellence.

Generation of new knowledge through education is a major contributor to economic growth. Through innovation, new knowledge is generated beside commercialization of technology to ensure the sustainability of K-economy (Summad *et al.* 2018). Moreover, education and innovation have been identified as critical economic pillars of K-economy (Shukran *et al.* 2011). These two components play an important role toward achieving K-economy as education and innovation are interrelated. Universities are the centre of innovation through curriculum, teaching and learning and higher education management. (Schulte, 2018) and through education in university provides the source of knowledge in developing human abilities and attitudes (Mohd Zain. *et al.* 2017).

Undeniably, HEIs contributes monumentally in achieving K-economy through development of innovation. Innovation in HEIS can changes related to content of learning, methods of teaching and learning, collaboration outside the university and internationally, and higher education management. (Schulte, 2018). With this regard, essential preparations are required to prepare HEI in Malaysia to compete globally as well, whereby the competition is more aggressively directed on innovation for

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