



UNIVERSITI PUTRA MALAYSIA

***FACTORS INFLUENCING INNOVATIVE BEHAVIOR OF EMPLOYEES IN
SMEs IN ELECTRICAL AND ELECTRONIC SECTOR IN MALAYSIA***

ROSMELISA BINTI YUSOF

GSM 2016 26



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By

ROSMELISA BINTI YUSOF

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

March 2017

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

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March 2017

Chairman : Associate Professor Serene Ng Siew Imm, PhD
Faculty : Graduate School of Management, UPM

The organisations of Small and Medium Enterprises (SMEs) need to be prepared for the external challenges which are mostly beyond the control of SMEs. One of the challenges faced by the SMEs is related to employee's low productivity. Hence, SMEs could improve its internal strength in terms of improving the employees work processes. This however, is only effective if the employees are innovatively improving their work. Therefore, this study aims to look at the role of the employee's intention to engage in innovative behaviour and examined it by using the Theory of Planned Behaviour (TPB) as a theoretical basis. The research employed determinants of attitude, subjective norm and perceived behavioural control to understand employee's intention to engage in innovative behaviour. Subsequently, this study attempts to assess the influence of factors such as self-enhancement, openness to change, organizational support, leader expectation, self-efficacy and thriving towards the three determinants of TPB (attitude, subjective norm and perceived behavioural control). This study also investigated the relationship between intention and innovative behaviour. Besides, the organizational fairness was added as a moderator to better reflect the impact of intention on innovative behaviour. Lastly, this study also examined the positive outcomes of innovative behaviour (job satisfaction and job performance).

The research employed quantitative method to examine the relationship among the variables. The questionnaires were sent to the 382 professional workers of Electrical and Electronic (E & E) SMEs in Malaysia using convenient sampling. A total of 201 completed questionnaires were obtained. The hypothesis in this research was tested using PLS-SEM. The results revealed that three antecedents of attitude, subjective norm and perceived behavioural control affected the employee's intention and innovative behaviour. Significant results were also found for openness to change, organizational support, leader expectation, self-efficacy and thriving. Unfortunately, the results of self-enhancement and moderator effects were insignificant. Finally,

this study managed to show a positive relationship between innovative behaviour and the outcomes variables (job satisfaction and job performance).

This thesis contributes to the theoretical and practical aspects of innovative behaviour in the context of E & E SMEs. In general, the study extends the application of TPB in the context of innovative behaviour and provided empirical support that intention leads to innovative behaviour. Thus, innovative behaviour helped the employees to enhance their skills and capabilities, and contribute to better job performance. In short, it is important to ensure the SMEs employees engaged in innovative behaviour, in order to help the organization to increase its productivity and competitiveness.



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

**FAKTOR-FAKTOR YANG MEMPENGARUHI TINGKAH LAKU
INOVATIF PEKERJA DI PKS DALAM SEKTOR ELEKTRIK DAN
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Organisasi Perusahaan Kecil dan Sederhana (PKS) perlu bersedia untuk menghadapi cabaran luar yang kebanyakannya di luar kawalan PKS. Salah satu cabaran yang dihadapi oleh PKS adalah berkaitan dengan produktiviti rendah pekerja. Oleh itu, PKS boleh meningkatkan kekuatan dalaman dari segi menambah baik proses kerja pekerja. Walau bagaimanapun, ini hanya berkesan jika pekerja itu inovatif dalam meningkatkan hasil kerja mereka. Oleh itu, kajian ini bertujuan untuk melihat peranan niat pekerja untuk melibatkan diri dalam tingkah laku inovatif dengan menggunakan Teori Tingkahlaku Dirancang (TPB) sebagai asas teori. Penentu penyelidikan adalah berdasarkan sikap, norma subjektif dan kawalan tingkah laku dilihat berkaitan dengan niat pekerja untuk melibatkan diri dalam tingkah laku inovatif. Selepas itu, kajian ini cuba untuk menilai pengaruh faktor-faktor seperti-peningkatan diri, keterbukaan kepada perubahan, sokongan organisasi, jangkaan pemimpin, keberkesanan diri dan berkembang maju ke arah tiga penentu TPB (sikap, norma subjektif dan kawalan tingkah laku) dilihat. Kajian ini juga menyelidik hubungan antara niat dan tingkah laku inovatif. Di samping itu, keadilan organisasi ditambah sebagai moderator untuk lebih mencerminkan kesan niat ke atas tingkah laku inovatif. Akhir sekali, kajian ini juga bertujuan untuk melihat hasil positif tingkah laku inovatif (kepuasan kerja dan prestasi kerja).

Kaedah kuantitatif penyelidikan digunakan untuk mengkaji hubungan antara pembolehubah. Soal selidik telah dihantar kepada 382 pekerja profesional Elektrik dan Elektronik (E & E) PKS di Malaysia dengan menggunakan persampelan mudah. Sebanyak 201 soal selidik yang lengkap diperolehi. Hipotesis dalam kajian ini telah diuji menggunakan PLS-SEM. Keputusan mendedahkan bahawa tiga latar belakang sikap, norma subjektif dan kawalan tingkahlaku dilihat mempunyai hubung kait dengan niat pekerja dan tingkah laku inovatif. Keputusan signifikan juga didapati dalam keterbukaan kepada perubahan, sokongan organisasi, jangkaan pemimpin,

keberkesanan diri dan berkembang maju. Malangnya, keputusan peningkatan diri dan kesan moderator adalah tidak ketara. Akhir sekali, kajian ini berjaya menunjukkan hubungan yang positif di antara tingkah laku inovatif dan hasil pembolehubah (kepuasan kerja dan prestasi kerja).

Tesis ini menyumbang kepada aspek teori dan praktikal tingkah laku inovatif dalam konteks PKS E & E. Secara umum, kajian ini meliputi penggunaan TPB dalam konteks tingkah laku inovatif dan memberi sokongan empirikal terhadap kepentingan niat dalam membawa kepada tingkah laku inovatif. Oleh itu, tingkah laku inovatif dapat membantu pekerja untuk meningkatkan kemahiran dan keupayaan mereka, dan menyumbang kepada prestasi kerja yang lebih baik. Pendek kata, ia adalah penting untuk memastikan kakitangan PKS terlibat dalam tingkah laku inovatif, untuk membantu organisasi meningkatkan produktiviti dan daya saing.



ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and the Most Merciful, Alhamdulillah, all praises to Allah for the strengths and His blessing in completing this thesis. Special appreciation goes to my supervisor, Associate Prof. Dr. Serene Ng Siew Imm, for her supervision and constant support. Her invaluable help of constructive comments and suggestions throughout the thesis works have contributed to the success of this research. Not forgotten, my appreciation to my co-supervisor, Associate Prof. Dr. Ho Jo Ann and Associate Prof. Dr. Azmawani Abd Rahman for their support and knowledge regarding this topic. I would also like to thank Universiti Sains Malaysia for providing me a scholarship and facilities to undertake this study.

My deepest gratitude goes to my beloved father Mr. Yusof Bin Mohd and my Late mother Allahyarhamah Sarehah Binti Md Zain (passed away in July, 2015). How I wish I can celebrate my happiness completing this thesis with my mother. She is my biggest supporter who keeps praying for my success throughout my study. Without her effort, I am nobody in this world. I would also like to thank my sisters, brother, nieces, nephews and my friends for their support.

Last but not least, a special thank to my beloved husband Mr Amir Anwar Bin Shabudin for his endless love and encouragement. He was always by my side cheering me up, stood by me during good and bad times. Not forgotten, my in laws family and also my cutest son Ammar Fikry that came and accompanied me during my last stage of completing the thesis. To those who indirectly contributed in this research, your kindness means a lot to me. Thank you very much.

I certify that a Thesis Examination Committee has met on 16 March 2017 to conduct the final examination of Rosmelisa Binti Yusof on her thesis entitled “Factors Influencing Innovative Behavior of Employees in SMEs in Electrical and Electronic Sector in Malaysia” in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy

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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
GOF	Goodness of Fit
HTMT	Heterotrait-Monotrait
MATRADE	Malaysia External Trade Development Corporation
PLS	Partial Least Square
SEM	Structural Equation Modelling
SET	Social Exchange Theory
SMEs	Small and Medium Enterprises
SMIDEC	Small and Medium Industries Development Corporation
SRMR	Standardized Root Means Square
TPB	Theory of planned behaviour
VIF	Variance Inflation Factor

CHAPTER 1

INTRODUCTION

This chapter discusses an overview of the study regarding innovative behavior in the context of SME employees. In the first part, the background of the study in the context of SME employees is discussed. The next section reviews the concept of innovative behavior and SME overview in Malaysia. The subsequent sections explain the problem statement, research questions, research objectives, significance of the study and definition of terms.

1.1 Background of study

In the pace of globalization, organizations throughout the world have to deal with the challenge of drastic changes in technology and market liberalization. The Malaysian economy is also affected by the fast changes of business operations globally. Functioning within the fast, changing environment and threat from the globalization phenomenon, organizations in Malaysia must have a suitable business strategy to compete effectively in global markets. To be more prepared for the external challenges which are mostly beyond the control of SMEs, SMEs could capitalize on improving its internal strengths in terms of improving work processes. This however, is only effective if the employees are innovatively improving their work by trying out new techniques, methods or processes of doing their jobs, which would then translate to improvement of the overall work process of the organization.

One of the important issues for Malaysian SMEs to increase its productivity and performance is related to the skilled employees who are a key factor contributing to firm effectiveness and competitiveness (Xerri, 2013). Individual innovative behavior can be referred to the accumulated knowledge, experience and skills of a person (Marcati, Guido & Peluso, 2008). Thus, skilled employees postulate the value of innovation among its members. Innovative behavior refers to intentional establishment or use of original ideas, procedures, and products within a person's work task or group (West & Farr, 1989).

Academics and researchers asserted that employees have the potential to build up and cultivate innovation within themselves, which in turn drives organizational performance and competitive advantage (Reuvers et al., 2008; Yuan et al., 2013; Xerri, 2013; Stock, 2015). Individual innovative behavior acts as a foundation for high organizational performance and the application of innovative behavior aimed to improve firm performance and productivity (Carmeli, Meitar, & Weisberg, 2006). Firms cannot remain static in creating products and services in a similar way without any improvement, and continue with standard employee behavior (Kheng, June, & Mahmood, 2013). This kind of situation will likely lead to a decline in the firm's productivity. According to Pieterse and Knippenberg (2010), employees who engage

in innovative behavior would stimulate organizational effectiveness and productivity. Employees who innovate would also contribute to firm improvement in terms of economic perspective by increasing firm productivity and sales (Knol & Linge, 2008).

SMEs have a responsibility to improve the nation's economy and employment rates, as well as social improvement (Harvie & Lee, 2002). SMEs often relied on the innovative process (e.g. cost leadership strategy) and products (e.g. product differentiation strategy) as one of a ways to survive and compete in global markets (June, 2011). However, little is understood about the role played by the employee in innovative work engagement and whether it contributes to SME's innovative performance. Thus, the employee's capacity in producing innovative products and services may determine SME's success such as the increase of firm productivity and performance.

In gaining its market competitiveness, SMEs need to fully exploit its internal strength and minimize weaknesses (Gallato et al., 2012). Nevertheless, SMEs in Malaysia are still facing several challenges and difficulties that impede its growth. Some of the challenges faced by Malaysian SMEs are related to competitiveness (Ali, 2012), weak culture (Gallato et al., 2012), difficulty in retaining talents (Mat, Ahmad, Emieza & Ngah, 2012) and low productivity among employees (June, 2011). Malaysian SMEs only contributed 19% of total Malaysian exports (SME Corporation Malaysia, 2009). Hence, uncovering the role of employees as innovators and whether innovative behavior of employees contributes to firm innovation helps SMEs to improve its innovative competency.

Conversely, innovative employees contributed to firm competitiveness and better performance. The success performance of the organization is much dependent on the worker's skill and behavior whereby they helped the organization to increase its productivity (June, 2011; Mat et al., 2012). With this in mind, understanding the innovative behavior of the employees in SMEs who provide new ideas and solutions in their tasks is important as this potentially translates to a firm's innovative performance.

This study identified the antecedents that contribute to the development of individual innovative behavior specifically in the context of SME employees working in Electrical and Electronic Industry. Although Theory of Planned Behavior (TPB) is well-known for describing individual behavior, none of the innovative behavior (IB) framework is found using TPB as a theoretical basis in predicting behavior. Current innovative behavior models such as Scott and Bruce (1994), Carmeli & Spreitzer (2009), Yuan et al. (2010) and Vinarski-Peretz et al. (2011), did not include innovative behavior's intention in their studies. Measuring intention to engage in innovative behavior is important because intention leads individuals to have strong motivation to undertake the behavior (Norman & Hoyle, 2004). This will allow us to understand better the process of innovative behavior engagement. For that reason,

this study closes the gap in the literature by understanding the employee's innovative behavior using the theory of planned behavior (TPB) as a theoretical basis.

By incorporating the TPB and antecedents to behavioral beliefs, custom beliefs and control beliefs (Jemmott et al., 2007), this study intends to consolidate the framework and propose a holistic model of individual innovative behavior. On top of that, this study proposes a moderator, the importance of organizational fairness, in translating employee's intention to engage in innovative behavior. The role of organizational fairness is justified using social exchange theory (SET) perspective. Researching innovative behavior within SME employees is timely and relevant as this sector contributes more than 50% of total employment in the Malaysian private sector, but labour productivity of Malaysian SMEs is still low compared to their counterparts in other Asean countries (SME Corporation Malaysia, 2013). As such, this study looked into the role of employees as the innovative driver in order to help the SMEs to improve its business performance.

1.2 Concept of Individual Innovative Behavior

Research on innovation is viewed at two levels: organizational and individual level of innovativeness (Koellinger, 2008). Previously, the study of innovation is based on the context of product and process of innovation (Chen, Lin, Lin, & McDonough, 2012; Sundbo, Orfila-Sintes, & Sørensen, 2007) that referred mostly at the firm level (Koc, 2007). The research on product and process of innovation mainly focused on research and development (R&D), as people tend to think and believe that innovation existed only in the R&D Department (Koc & Ceylan, 2007).

The term "innovation" was first used broadly by Ven (1986) to explain the individual perspective of innovation, which includes various aspects and forms of innovation, either individual or organizational. Subsequently, the research on individual innovative behavior has captured interest among scholars as individual innovative behavior was found to influence the effectiveness and survival of an organization (Janssen, 2003). Based on the individual innovative behavior perspective of Ven (1986), innovation is referred to as the mixture of fresh and old thoughts by a person, in which this idea will become a new formula or order (Ven, 1986). The concept of individual innovative behavior was further developed for a more insightful understanding of the concept but no measurement scale was developed at this stage.

The most prominent study of individual innovative behavior was developed by Scott and Bruce (1994), who explained the stages of individual innovative behavior in which they proposed a few factors that influenced individual innovative behavior and, more importantly, they developed a measurement scale of innovative behaviour (IB). Thus, the measurement scale of IB by Scott and Bruce (1994) was mostly referred to and cited by scholars in the field of innovative behavior study (e.g.

Carmeli, Meitar, & Weisberg, 2006; Jong & Hartog, 2007; Vinarski-Peretz, Binyamin, & Carmeli, 2011; Vinarski-Peretz & Carmeli, 2011; Yuan et al., 2010).

Innovative behavior is described as the intended use of original thoughts, processes and products within an employee's work role and association (West and Farr, 1989). Most innovative behavior studies adopted this definition of innovative behavior provided by West and Farr (1989). Research on individual innovative behavior has been widely done for over a decade now since Scott and Bruce's innovative behavior study in 1994. The factors influencing individual engagement in innovative behavior has been viewed from several perspectives. In the meantime, the process of individual innovative behavior was introduced by Scott and Bruce (1994), who posits that individuals gradually innovate through evolutionary stages. This process includes the phases of problem recognition, idea creation and execution of the ideas. Having said that, this study does not intend to understand individual's innovation stages, but to identify factors contributing to IB.

A number of individual innovative behavior models were proposed by various scholars who take different, often interrelated factors into account. Among them are leadership role (Reuvers, Engen, Vinkenbunrg, & Wilson-evered, 2008; Stock, 2015; Scott & Bruce, 1994), individual's psychological aspects (Pieterse & Knippenberg, 2010; Vinarski-Peretz et al., 2011), social support (Janssen, 2003; Montani, 2012; Vinarski-Peretz & Carmeli, 2011; Xerri & Brunetto, 2011), individual skills and capabilities (Carmeli & Spreitzer, 2009; Yidong & Xinxin, 2012) and outcomes of innovation (Janssen, 2003; Shih & Susanto, 2011).

Research linked to innovative behavior of SME's employees is still scarce in the Malaysian context. So far, only one research of innovative behavior is found in Malaysia, in which Ghani, Hussin and Jusoff (2009) studied innovative behavior in the educational sector that mainly focused on lecturers in private universities in Malaysia. The study looks at the influence of emotional empowerment on innovative behavior of lecturers in private universities. None of the innovative behavior research in Malaysia tends to focus on SMEs. Despite SMEs being one of the largest business sectors, contributing more than 50% of the employment rate in Malaysia, a lack of study on innovative behavior is evident. Accordingly, the performance of the organization is driven by the potential development of employees' innovation (Reuvers et al., 2008), SMEs need to enhance and utilise their employees' innovative skills to attain higher productivity. SMEs in Malaysia is reported to have lower labour productivity than that of other Asean countries (SMEECorp, 2013). In an effort to increase its performance and productivity, knowledge on innovative behavior of employees in a Malaysian context is certainly valuable for Malaysia SMEs especially in developing suitable range and training programs to prepare SMEs to take up their contribution to the Malaysian economy. Thus, understanding ways to enhance employees' innovative behavior is timely and relevant.

Besides that, innovation is seen as one of methods that could improve a firm's effectiveness and efficiency (Xerri & Brunetto, 2011). According to Koellinger

(2008), the entrepreneur's innovativeness depends on the environment and individual's action which in this case relates to the workers of a firm. In order for SMEs to compete successfully, the firm needs to develop their employees' talents, skills and right behavior (Che & Mat, 2010). Innovative behavior is one of the desired behaviors practised by employees in an organization. In addition, improving the individual employee's innovative behavior would also improve the performance and competitiveness of the SME.

1.3 The Scope of Study

The study intends to focus on the innovative behaviour of Malaysian employees working in SMEs Electrical and Electronic (E&E) sector. Thus, the Malaysian context of innovation and the overview of SMEs industry specifically focus on electrical and electronic sector in Malaysia was discussed below.

1.3.1 Innovation in Malaysian Context

Literature on innovation in Malaysian context has grown and attracted researcher to study further on this concept. Previous study revealed that the innovation level of Malaysian companies is still at lower level comparing to countries with high-income (Zakaria, Abdullah & Yusoff, 2016). Hence, several literatures suggested the need to design more studies on innovation capacity of Malaysian firms. In addition, most previous studies on innovation were conducted at the organizational such as in the study of Zakaria et al. (2016), Hilmi and Ramayah (2008) and Aziz and Samad (2016). For example, the study of Zakaria et al., explored the organization performance and innovation linkage in Malaysian manufacturing SMEs. Meanwhile, Aziz and Samad (2016) examined the innovation-competitive advantage of manufacturing foods SMEs.

Despite the importance of innovation at organizational level, the need to address more research at the individual level in Malaysian context has been pointed out by several literatures (Othman; 2015; Hakimian et al., 2015; Zakaria et al., 2016). Thereafter, the study of Hakimian et al., (2015) examined the importance of commitment in the context of employees' innovative behaviour and set the tone for employee level of innovative behavior. Besides that, several studies attempted to explore the innovative personality and affective commitment of innovative teachers in Malaysia (Othman, 2016; Abdullah & Ling, 2016). Due to limited numbers of literatures on individual innovative behaviour in the Malaysian context especially in the context of SMEs, this study was designed to overcome this gap and extending the literature of innovative behaviour in the context of Malaysian SMEs.

1.3.2 Overview of SMEs in Malaysia

In East Asia, most business enterprises are small and medium enterprises (SME). In Malaysia, SMEs have a tough position in enhancing the nation's employment percentage and social growth (Nik Abdullah, & Mohd Zain, 2011). SMEs are known as sources of innovation, generating export opportunities, and also act as a platform for providing future successful large-scale enterprises. SMEs have the potential to encourage domestic business enlargement in surviving and new industry, and also reinforce the flexibility of the economy on the rise of global economic competition (SME Corporation Malaysia, 2013).

Malaysian SMEs developed in the era of industrialisation where the Industrial Master Plan (IMP) was set up since 1966 (Che, 2010). Thereafter, the Small and Medium Industries Development Corporation (SMIDEC) was introduced by the government. Then, Malaysia External Trade Development Corporation (MATRADE) were also created as principal agencies to help SMEs in Malaysia.

The Malaysian SMEs are characterized according to the quantity of workers and yearly sales turnover. The Malaysian SMEs are divided into four major segments: manufacturing, manufacturing-related services, services (with information and communication technology), and primary agriculture (Ab, Nizam & Zain, 2011). SMEs in Malaysia are now contributing 32% of Gross Domestic Product (GDP), 59% of employment and 19% of exports to the Malaysian economy (SMECorp, 2015). This shows that SMEs is considered as key traders and service contributors to main industries. In addition, a large number of SMEs are also recognised as producers of finished goods and services in various industries.

The Malaysian Department of Statistics stated in 2006 that more than 90% of business establishments in Malaysia were set up as SMEs (June, 2011). SMEs also employed some 3.7 million workers that consisted of 59% of the total employment in the private sector (SMECorp, 2013). Therefore, SME's performance largely determines the country's growth potential. The Chief Economist of Malaysian Rating Corporation stated that "The growth of SMEs has consistently surpassed the overall economic growth between 2004 and 2010, where SMEs' value-added growth averaged 6.8% versus 4.9% for the Malaysian economy." (SMECorp, 2013). Indeed, SMEs consist of a large portion of business establishments and provide the highest numbers of employment for the Malaysian economy. Thus, SMEs play a pivotal responsibility in social and financial growth in Malaysia.

The Malaysian government needs to adopt domestic and international market policies in order to be globally viable (Muhammad, Char, Yasoa & Hassan, 2010). Therefore, the Government of Malaysia has finalised the SME Masterplan that showed the policy route for SMEs through the year 2020 by creating a beneficial network for SMEs to succeed and transform domestic SMEs to be internationally aggressive by enhancing capital foundation as well as contribute to the social well-

being of the country (SME Annual Report, 2011). Based on the SME Masterplan 2012-2020, the government recognises a few key characteristics that SMEs need to overcome. One of them is related to the problem of low productivity (SMECorp, 2013). Low productivity of SMEs is largely due to low employee performance. Meanwhile, studies show that employees who are innovative are reported to contribute more to an organization's productivity and performance (Xerri & Brunetto, 2011; Xerri, 2013; Stock, 2015). Similarly, Kavoo-Linge and Kiruri (2013) also stated that the achievement of organization is relied on the employees' effectiveness and efficiency. One of the indicators for employee performance or effectiveness was based on their innovative skill and behavior (Xerri & Brunetto, 2011). Thus, by cultivating innovative behavior among employees, SME's labour productivity level was also improved.

For SMEs to compete with bigger business entities, they need to be innovative (Rosenbusch, Brinckmann, & Bausch, 2011). Previous research has proposed that innovation has a greater effect in helping SMEs become competitive and grow larger compared to large firms (López-sintas & Martínez-ros, 2000). However, most of the studies on SMEs focused on the innovation process of SMEs at the firm level (Koellinger, 2008; López-sintas & Martínez-ros, 2000; Rosenbusch et al., 2011). The individual level of innovative behavior has not attracted much attention within SME research. Thus, research on employees' innovative behavior of SMEs is left ambiguous and needs further investigation in the current study.

In terms of industry, the SMEs will be from the electrical and electronic industry. This is because the electrical and electronic industry has expanded and become one of the main contributors to the Malaysian gross domestic product (GDP) growth (Matrade, 2013). The electronic sector encompasses three broad subsectors, i.e. electronic components, consumer electronics, and industrial electronics. The electrical segment can be categorized into electrical components, industrial electrical utensils and end user electricals (Matrade, 2011). This was deemed a promising industry for the Malaysian economy. The demand for local and imported electrical and electronic products and services is ever increasing and points to a bright future for the electrical and electronic sector in Malaysia. Table 1.1 shows the increasing total exports for electrical and electronic products comparing to other products in Malaysia from 2014 to 2015 based on quarterly term. While Table 1.2 shows the increasing number of total sales from the E & E Industry. This provide a great opportunity for E & E SMEs in Malaysia to expand its business.

Table 1.1: Malaysia's exports products (Quarterly)

Products	Q4 2014	Q3 2015	Q4 2015
	RM Million	RM Million	RM Million
Electrical & Electronic Products	67,688.5	74,278.7	74,159.6
Petroleum Products	17,027.0	13,669.0	14,952.6
Chemicals & Chemical Products	13,463.9	14,312.1	14,507.9
LNG	16,534.0	9,461.6	12,409.9
Palm oil & palm-based products (palm oil; palm kernel oil & other palm based products)	11,854.9	12,679.7	11,950.1
Manufactures of Metal	7,144.7	9,013.1	11,287.1
Machinery, Appliances & Parts	7,497.6	9,057.0	9,914.3
Optical & Scientific Equipment	5,808.0	6,413.6	7,554.7
Crude Petroleum	7,698.4	6,083.3	7,257.2
Rubber Products	4,670.2	4,999.1	5,518.8
Total Exports	195,937.2	199,876.9	211,735.6

(Source: Malaysia External Trade statistic, 2015)

Table 1.2: Sales from E & E Industry (RM Billion)

	2010	2011	2012	2013	2014
Products					
E&E Industry	166.8	158.7	167.8	166.7	191.4
Semiconductors & Electronic Components	69.44	69.7	79.8	75.4	95.1
Audio & Audio Visual Products	43.06	38.7	36.2	39.5	42.2
Manufacture of office and accounting machinery & computers and computer peripherals	33.29	27.5	29.3	27.5	28.3
Wires & cables	11.3	12.4	10.9	10.9	10.4
Manufacture of domestic appliances not elsewhere classified	2.78	4	4.4	4.4	4.3
Electricity distribution and control apparatus	2.21	3.5	4.1	4.1	3.6
Manufacture of electric motors, generators and transformers	2.88	1.5	1.3	2.9	5.4
Accumulators, primary cells and primary batteries	0.28	0.3	0.6	0.6	0.66
Electric lamps and lighting equipment	0.58	0.3	0.3	0.4	0.46

(Source: Department of Statistic, 2015)

1.4 Problem Statement

Innovation is vital for the development of a firm's competitive gain (Xerri & Brunetto, 2011). The innovation process of an organization requires innovative employees who have the ability to produce innovative solutions and ideas (Scott & Bruce, 1994). Thus, having employees who engage in innovative behavior is crucial for SMEs to gain its competitive advantage and also increase employees' productivity level (Scott & Bruce, 1994; Shih & Susanto, 2011; Yuan et al., 2010). Several literatures on innovative behaviour in Malaysian context are specifically referring to innovative capacity of teachers and lecturers (Othman, 2016; Abdullah & Ling, 2016). Meanwhile, some of the study in the context of Malaysian firm focused more on innovation capacity at organizational level. For example the study of Zakaria et al., 2016 found that organizational innovation are having positive

relationship with organizational performance of Malaysian SMEs. Besides that, Aziz and Samad (2016) focused on competitive advantage of manufacturing SMEs. Hence, the study of individual innovative behavior of SME employees in Malaysia is still scarce and has not attracted much attention from the scholars.

One of the problems faced by Malaysian SMEs is related to the low productivity of employees (June, 2011; Khalique et al., 2011). This problem triggered the need to explore ways to improve employees' skills and behavior that might contribute to increasing productivity. One of the ways is to cultivate innovativeness among employees. Employees who engage in innovative behavior helped their firms gain its market competitiveness, performance and productivity (Carmeli et al., 2006; Xerri, 2013; Yuan et al., 2010). In addition, the Electrical and Electronic (E & E) SMEs also having the difficulties of hiring experienced and good quality of workers (Wong, 2013). The E & E SMEs may possibly enlarge their business if they have fine quality and excellent skills of workers. This could be done by hiring employees who are expected to engage in innovative behavior.

Previous research on individual innovative behavior proposed a few models, which take various and often overlapping factors with a weak theoretical basis in their innovative behavior framework. For example, few studies focused on the individual's internal motivational aspects such as thriving (Carmeli & Spreitzer, 2009), self-leadership skill (Carmeli et al., 2006), optimism (Li & Wu, 2011) and employee's psychological empowerment (Singh & Sarkar, 2012). Other studies emphasized external motivational factors such as transformational leadership (Pieterse & Knippenberg, 2010) that support the employees to engage in innovative behavior (Pieterse & Knippenberg, 2010; Reuvers et al., 2008). Another group of studies look at organizational factors such as learning culture (Carmeli & Spreitzer, 2009) and co-workers' support in helping the employees to innovate (Janssen, 2003; Shih & Susanto, 2011). The main limitation of these studies is their failure to discuss and examine important factors (individual, leader and organization) within one model or framework.

The review of the extant literature provides a broad range of factors influencing the individual's engagement in innovative behavior (Scott & Bruce, 1994; Vinarski-Peretz et al., 2011; Chou, Shen, Hsia & Chen, 2014; Yuan et al., 2010). However, previous antecedents examined were scattered. For instance, the study by Yuan and Woodman (2010) showed only the individual differences that affect employee innovativeness while the study by Vinarski-Peretz et al. (2011) only discussed the implications of subjective relational experience on employee engagement in innovative behavior. Therefore, a model of innovative behavior that provides comprehensive factors would be helpful (Vinarski-Peretz et al., 2011). So far, all IB models studied predictors to innovative behavior without measuring "intention of innovative behavior" (Carmeli & Spreitzer, 2009; Vinarski-Peretz et al., 2011; Chou et al. 2010; Yuan et al., 2010). It is important to have "intention" in the framework if referred to Theory of Planned Behavior (TPB) because some predictors may influence intention but not behavior, and intention does not always translate to behavior (Verbeke & Vackier, 2005).

The internal motivation factor of innovative behavior such as individual values coincide with attitude components of Theory of planned behavior (TPB), organizational support and leader's role on the other hand coincide with subjective norms of TPB, while self-efficacy and thriving for innovation seems very similar to the context of perceived behavioral control of TPB. Earlier studies on innovative behavior (e.g. Chou et al., 2014; Scott and Bruce, 1994; Carmeli & Spreitzer, 2009; Vinarski-Peretz et al., 2011; Yuan and Woodman, 2010) have not looked at all the elements of TPB (attitude, subjective norms and perceived behavioral control) in one framework. The limitation of this becomes the foundation for the current study to consolidate innovative behavior models into a more holistic framework with a stronger theoretical foundation using TPB as the theoretical basis and integrates predictors identified in earlier models of innovative behavior as antecedents to each of the TPB determinants (attitude, subjective norm and perceived behavioral control). By virtue of that, the antecedents of individual innovative behavior used in previous literature will be integrated into the TPB model. This will provide a holistic understanding of what it takes to cultivate employees who involve in innovative work behavior.

The theory of planned behavior (TPB) has been extensively used by researchers to predict human intention to take on a particular behavior, basing on the aspect of attitude, normative belief and perceived behavioral control. For instance, this theory has been applied to explain the human behavior of whistle-blowing (Trongmateerut & Sweeney, 2012), environmental behavioral intention (Greaves et al, 2013), fish consumption (Aghamolaei, 2012) and sustainable marketing (Ferdous, 2010). TPB also has the capability to explain the actual behavior through the individual's intention (Verbeke and Vackier, 2005). However, intention does not always translate to the actual behavior (Gollwitzer, Sheeran, Michalski, & Seifert, 2009). Thus, the present study also aims to identify moderators that will strengthen the relationship between intention and behavior of innovativeness. It is proposed that organizational fairness will potentially moderate the intention and behavior relationship. Janssen (2000) proposed that organizational fairness influenced the exhibition of employees' work behavior and may positively or negatively influence the behavior (Shih & Susanto, 2011). According to the social exchange theory (SET), employees who perceived fair treatment from the organization will tend to reciprocate through discretionary and extra work role which could be in the form of innovative behavior (Janssen, 2000). This study therefore tries to observe the role of organizational fairness as a moderator between intention and behavior.

Previous innovative behavior studies examined the negative outcome of innovative behavior such as conflict with co-workers (Janssen, 2003; Shih & Susanto, 2011) and turnover intention (Shih & Susanto, 2011). Past innovative literature provide a restricted number of studies that observed the positive outcomes of innovative behavior for example job satisfaction and work performance (Yuan and Woodman, 2010). Job satisfaction has shown to have an important impact on the overall organizational wellbeing and effectiveness (Morgan et al., 1995). Besides that, past studies also showed that employees with skills and high performance contributed to

increasing firm productivity (Huselid, 1995) and firm competitiveness (Sun & Stuebs, 2013). Thus, employees' job performance is impacted by firm competitiveness. By virtue of that, this study intends to look at the correlation of innovative behavior and its outcome: job satisfaction and performance.

Responding to the theoretical and practical gaps in the literature, the present study developed and tested a holistic model that explored antecedents to every determinant of TPB (attitudes, subjective norms and perceived behavioral control), examined how organizational fairness (distributive, procedural and interactional) moderate the relationship between intention and behavior, and also examined the positive outcome of IB: job satisfaction and job performance.

1.5 Research Questions

The research questions are created to address the research issues:

Question 1:

What are the antecedents to each determinant of TPB (attitude, subjective norm and perceived behavioral control) in the context of individual innovative behavior?

Question 2:

Do determinants of TPB (attitude, subjective norm and perceived behavioral control) explain the intention to engage in innovative behavior?

Question 3:

Does intention to engage in innovative behavior relate to engagement in innovative behavior?

Question 4

Does organizational fairness moderate the relationship between individual's intention to engage in innovative behavior and engagement in innovative behavior?

Question 5

Does innovative behavior relate to job satisfaction and job performance?

1.6 Objectives of the Study

The focus of this study is to examine and gain insight into the concept and model of individual innovative behavior in the context of employees working in E & E SMEs. This study later arrived at a better understanding on important factors that influenced and cultivated the employees of SMEs' engagement in innovative behavior. Furthermore, this research has examined the role of organizational fairness as moderator between intention and engagement in innovative behavior. Finally, this research also examined the outcome of IB towards job satisfaction and job performance.

Thus, the aims and objectives of this study are:

1. To examine antecedents of attitude, subjective norm and perceived behavioral control that influence individual innovative behaviour, utilizing Theory of Planned Behavior as the theoretical basis. Within this aim, the antecedents to each of the determinants of TPB will be identified and managers can have a better understanding of factors that cultivate employees' IB.
2. To examine the relationship between intention to engage in innovative behavior and engagement in innovative behavior, and using Social Exchange Theory as the theoretical basis to understand the moderating role of organizational fairness. Within this aim, the reason for weak relationship between intention and engagement in innovative behavior will be uncovered.
3. To examine the outcome of innovative behavior (job satisfaction and job performance).

1.7 Significance of the Study

Various empirical studies have been carried out abroad with regards to the issues of individual innovative behavior. For instance, the research on innovative behavior with SME employees as respondents was done in the study by Xerri and Brunetto (2011), which explored the correlation between innovative behavior and workplace social networks within the context of SMEs in Australia. Malaysian SMEs is a good setting to validate further the innovative behavior model, as Malaysia covers different cultural settings and workforce diversity. As a multi-ethnic country, Malaysia provides a ground for study to prove the application of innovative behavior

within employees in SMEs. Most innovative behavior studies were examined in the context of developed countries such as Netherlands (Janssen, 2003; Sanders, 2010), United States of America (Yuan et al., 2010) and Australia (Xerri, 2013). For developing countries, specifically Malaysia, the research on innovative behavior of employees is still scarce. In an effort for SMEs in Malaysia to increase its labour productivity and performance, knowledge on innovative behavior in a Malaysian environment is definitely fruitful for Malaysian SMEs in order to develop suitable range and training programs for preparing employees to fulfil their role in helping the firm to achieve its goals and succeed.

As for theoretical contribution, this study would add to the on-going development and validation of theory of planned behavior (TPB) expanded by Ajzen (1991). Despite the use of TPB in explaining various types of behavior, none of the studies extends TPB in the context of individual innovative behaviour (Ajzen, 2001; Aghamolei, 2012; Ferdous, 2010; Greaves et al., 2013). Responding to this gap, the present study expands the function of TPB, using the three determinants of attitudes, subjective norm and perceived behavioral control, as a basis to predict the innovative behavior of SME employees in Malaysia. This is important because by examining the three determinants of TPB (attitudes, subjective norms and perceived behavioral control) within innovative behavior context, a basis for explaining the antecedents of innovative behavior within SME employees is provided. Thus, this study provides a clear picture of which antecedents contributes the most to developing and enhancing employees' innovative behavior.

Apart from that, this study also extends the use of social exchange theory (SET) proposed by Blau (1964), in which this study includes organizational fairness as a moderator between intention and engagement in innovative behavior. This research therefore sheds light on the outcomes of intention. This is because employees who have the intention to execute innovative behavior sometimes do not execute that actual behavior. Therefore, the present study examined the role of organizational fairness (distributive fairness, procedural fairness and interactional fairness) in strengthening the relationship between intention and actual behavior. These variables are important to be included because it explains situations of a strong relationship between intention and innovative behavior. This study also contributes to the body of knowledge for innovative behavior by expanding the current framework proposed in previous researches and expedite the positive outcomes of innovative behavior such as job satisfaction and job performance.

Apart from theoretical contribution, this study also provides practical contributions to practitioners, specifically the management of SMEs. The findings of this study highlight to the management the importance of cultivating IB in employees and how IB can be encouraged. For example, if self-efficacy (a variable in the innovative behavior model) is found to influence intention and behavior, training to improve employees' capabilities would lead to higher IB intention. On top of that, if individual values are found to affect attitude to innovative behavior, value assessment could be used as a candidate selection tool. For example, candidates with

high openness to change are shortlisted for positions requiring innovative work practices.

Innovative SME employees are expected to show good attitude and perceived behavioral control for their work-related and personal affairs in order to help an organization to increase its productivity and performance. According to the social exchange theory, employees who perceived an obligation towards the organization who provides fair treatment are likely to reciprocate beneficial behavior such as innovative behavior (Chen, Huang, Snape & Lam, 2012). This study provides insights for SMEs to create a fine relationship with their employees and provide them with support in order for employees to demonstrate innovative work behavior which will assist the business organization to achieve its goals by increasing its labor productivity and performance. For example, if this study finds that organizational support was significant in influencing innovative behaviour of workers, then organization can focus on setting a conducive environment where leaders, colleagues and organization could encourage and support the workers to engage in innovative behavior.

1.8 Operational Definition of Key Terms

Some of the terms used throughout this proposal is critical and specific to the current study. The specific definitions are as follows:

Attitude. Attitude relates to the perceived of individuals value towards a particular behaviour. Attitude is defined as general feelings or evaluation, either positive or negative, about a person, object or issues (Heider, 1959).

Innovation. Innovation is described as a new or combination of old thoughts that is perceived by a person to be a new order, formula or unique approach (Ven, 1986). Innovation includes the context of organizational and individual innovation.

Innovative behavior. Intentional establishment or application of new ideas, processes and products within a person's work role or organization (West and Farr, 1989). The innovative behaviour consist of the stages starting from generating new idea, obtained support and establishment of the new idea.

Organizational Fairness. Employees' perception of fairness within a company that includes distributive, procedural and interactional justice that companies must embrace in bringing the implication towards employee's motivation and satisfaction (Hassan, 2013; Niehoff & Moorman, 1993).

Personal values. Personal values is defined as learned beliefs about preferred ways of acting that serves as leading principles in someone life (Schwartz, 1994). Personal values consists of values of self-enhancement and openness to change.

Self-efficacy. Self-efficacy is defined as a belief in one's capabilities or a competence person to organize and execute the course of action required to produce desired results (Gist, 1987; Bandura, 1997).

Subjective Norm. Individual perception of how they should or should not perform the behavior based on the influence of surrounding or other people's thinking (Ajzen & Fishbein, 1977). Subjective norms also referred as social norms whereby the social surrounding influence a person's behaviour.

Thriving. Thriving is defined as a person who grows, develops and energizes. Thriving consists of two things: vitality and learning, which serves as the joint experience of a person (Porath, Spreitzer, Gibson, & Garnett, 2012).

1.9 Organization of the Thesis

This thesis is composed of seven chapters. Chapter one explains the background and scope of study, problem statement, research objectives and significance of the study. Chapter two begins by reviewing definitions of innovative behaviour, context of innovative behaviour, theoretical background and relevant previous research works. Chapter three outlines the research framework and develops hypotheses. Chapter four explains the methodology and analytical tools that have been adopted to analyse the data. Chapter five analyzes the data and displays the results. Chapter six discusses the main findings and contributions of this study. Chapter seven reviews and concludes the study.

1.10 Conclusion

This chapter offered an introductory review of the research. The earlier section provided the research background and setting. The background information established that research evidence on the model of innovative behavior in the context of Malaysian SMEs is lacking. Thus, the model of employees' innovative behavior and the importance of innovative behavior to Malaysian SMEs were explained. The rest of the sections explained the problem statement, research questions, objectives and significance for this research. This chapter provided the definitions of terms used in this study to better understand the terminologies. The next chapter reviews the literature on innovative behavior, identify various models, dimensions and perspectives of individual's innovative behavior.

REFERENCES

- Abdullah, N. L. , Jamaludin, K. R. & Hayati, H. A. T. (2014). Pretesting Impact of Operational Complexity in Malaysia's Electrical and Electronics Manufacturing Industry. *Jurnal Teknologi (Sciences & Engineering)* 67:3 (2014), 43–50
- Ab, N., Nik, H., Nizam, S., & Zain, M. (2011). The Internationalization Theory and Malaysian Small Medium Enterprises (SMEs), *International Journal of Trade, Economics and Finance*, 2(4), 318-322.
- Abzari, M. & Abbasi, R. (2011). Investigating Impact of Organizational Climate on Intention to knowledge Sharing Behavior by Using Theory of Planned Behavior (TPB). *Interdisciplinary Journal of Contemporary Research in Business*, 2, 121-135.
- Accinelli, E., & Sanchez Carrera, E. J. (2011). Strategic complementarities between innovative firms and skilled workers: The poverty trap and the policymaker's intervention. *Structural Change and Economic Dynamics*, 22(1), 30–40. doi:10.1016/j.strueco.2010.11.004
- Adams, J. S. (1965). "Inequity in Social Exchange", In Berkowitz, L. (ED.), *Advances In Experimental Social Psychology*, 2, Academic Press, New York, NY, 267-299.
- Agarwal, U. A., Datta, S., Blake- Beard, S. & Bhargava. S. Linking LMX, innovative work behaviour and turnover intentions : The mediating role of work engagement. *Career Development International* 2012 17:3, 208-230
- Aghamolaei, T., Tavafian, S. S. & Madani, A. (2012). Fish Consumption In A Sample Of People In Bandar Abbas, Iran: Application Of The Theory Of Planned Behavior. *Archive of Iranian Medicine*, 15, 545-548.
- Ahmed, S. F. (2010). Applying the Theory of Planned Behavior to Explain Marketing Managers' Perspective on Sustainable Marketing. *Journal of International Consumer Marketing*, 22, 313-325.
- Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall.
- Ajzen, I. (1988), *Attitudes Personality and Behavior*, Milton Keynes, England; Open University Press
- Ajzen, I. (1991), *The Theory of Planned Behavior*. *Organizational Behavior and Human Decision Processes*, 50, pp 179-211.
- Ajzen, I. (2001) Nature and operations of attitudes. *Annual Review of Psychology*. vol. 52 27-58.
- Ajzen, I. (2002). Residual Effects of Past on Later Behavior : Habituation and Reasoned Action Perspective. *Personality and Social Psychology Review*, 6(2), 107–122.
- Ajzen, I. (2011). The theory of planned behaviour : Reactions and reflections. *Psychology and Health* 26(9), 1113–1127.
- Ajzen, I. & Fishbein, M. (1972). Attitudes and Normative Beliefs as Factors Influencing Behavioral Intentions. *Journal of Personality and Social Psychology*, 21 (1), 1-9.
- Ajzen, I., & Fishbein, M. (1977). Attitude-Behavior Relations : A Theoretical Analysis and Review of Empirical Research, 84(5), 888–918.
- Ali, H. K. (2012). Emotional intelligence and entrepreneurial orientation The moderating role of organizational climate and employees' creativity, 14(1), 115–136. doi:10.1108/14715201211246869

- Amalina, A. (2010). Harking Back to Hisbah. *Accountants Today*.
- Babbie, E. (1995). *The Practice of Social Research*. Belmont: Wadsworth Pub. Co.
- Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.
- Bandura, A. (1977). Self efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215. <http://dx.doi.org/10.1037/0033-295X.84.2.191>.
- Bass, B. M. (1985). *Leadership And Performance Beyond Expectations*. New York, NY:Free Press.
- Beebe, K. R., Pell, R. J., & Seasholtz, M. B. (1998). *Chemometrics: A Practical Guide*. New York, NY: John Wiley & Sons.
- Bhatti, M. A., Sundram, V. P. K. & Hoe C. H. (2013). Expatriate Job Performance and Adjustment: Role of Individual and Organizational Factors. *Journal of Business & Management* Volume 1, Issue 1 (2012), 29-39
- Bierhoff, H. W. (2012). The Values and Attitudes Towards TEU in a Cross-Cultural Sample *, 2(6), 343–360.
- Bilsky, W. & Schwartz, S. H. (2008). Measuring Motivations: Integrating Content And Method. *Personality and Individual Differences*, 44, 1738-1751.
- Bilsky, W., Janik, M., & Schwartz, S. H. (2011). The structural organization of human values – Evidence from three rounds of the European Social Survey (ESS). *Journal of Cross-Cultural Psychology*, 42, 759-776. <http://dx.doi.org/10.1177/0022022110362757>.
- Blau, P. (1964). *Exchange and Power in Social Life*, John Wiley & SOns, New York, NY.
- Blankenship, K. L., Wegener, D. T., & Murray, R. a. (2012). Circumventing resistance: using values to indirectly change attitudes. *Journal of personality and social psychology*, 103(4), 606–21. doi:10.1037/a0029226
- Boer, D., & Fischer, R. (2013). How and When Do Personal Values Guide Our Attitudes and Sociality? Explaining Cross-Cultural Variability in Attitude-Value Linkages. *Americqan Psychological Association*, 1-35.. doi:10.1037/a0031347
- Bouranta, N. (2013). The link between organizational learning culture and customer satisfaction: Confirming relationship and exploring moderating effect. *The Learning Organization*, 20 (1), 48-64, doi:10.1108/09696471311288528
- Brandon,G.,& Lewis, A. (1999). Reducing household energy consumption: A qualitative and quantitative field study. *Journal of Environmental Psychology*, 19, 75-85.
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. 1983. Assessing attitudes and perceptions of organizational members. In S. Seashore, E. Lawler, P. Mirvis & C. Cammann (Eds.). *Assessing organizational change: A guide to methods, measures and practices*. New York: Wiley.
- Campbell, C. H., Ford, P., Rumsey, M. G. and Pulakos, E. D. (1990) 'Development of multiple job performance measures in a representative sample of jobs', *Personnel Psychology*, 43: 277-300.
- Campbell, J. P. (1990) 'Modeling the Performance Prediction Problem in Industrial and Organizational Psychology', in M. D. Dunnette and L. M. Hough (eds), *Handbook of Industrial and Organizational Psychology*. PaloAlto: Consulting Psychologists Press. Vol. 1: pp. 687-732.
- Carmeli, A., Meitar, R., & Weisberg, J. (2006). Self-leadership skills and innovative behavior at work. *International Journal of Manpower*, 27(1), 75–90. doi:10.1108/01437720610652853

- Carmeli, A. & Schaubroeck (2007). The Influence of Leaders' and Other Referents' Normative Expectations on Individual Involvement in Creative Work. *The Leadership Quarterly*, 18, 35-48.
- Carmeli, A., & Spreitzer, G. M. (2009). Trust, Connectivity, and Thriving: Implications for Innovative Behaviors at Work. *The Journal of Creative Behavior*, 43(3), 169-191. doi:10.1002/j.2162-6057.2009.tb01313.x
- Carmeli, A., Jones, C. D. and Binyamin, G. (2016), The power of caring and generativity in building strategic adaptability. *J Occup Organ Psychol*, 89: 46-72. doi:10.1111/joop.12106
- Chang, M. K. (1998). Predicting Unethical Behavior: A Comparison of The Theory of Reasoned Action and The Theory of Planned Behavior, *Journal of Business ethics*, 17, 1825-1834.
- Chang, S.-J., Witteloostuijn, A. V. and Eden. L. (2010). From the Editors: Common Method Variance in International Business Research. *Journal of International Business Studies*. 41: 178-184.
- Che, Z., & Mat, R. (2010). Influential Factors for SME Internationalization : Evidence from Malaysia, 4(2), 285-304.
- Chen, S. H., Huang, X., Snape, E., & Lam, C. K. (2012). Spiritual Leadership, Follower Mediators And Organizational Outcomes:Evidenc From Three Industries Across Two Major Chines Societies. *Journal Of Applied Social Psychology*, 42 (4), 890-938.
- Chen, M. Y.-C., Lin, C. Y.-Y., Lin, H.-E., & McDonough, E. F. (2012). Does transformational leadership facilitate technological innovation? The moderating roles of innovative culture and incentive compensation. *Asia Pacific Journal of Management*, 29(2), 239-264. doi:10.1007/s10490-012-9285-9
- Chen, X.-H., Zhao, K., Liu, X., & Wu, D. D. (2012). Improving employees' job satisfaction and innovation performance using conflict management. *International Journal of Conflict Management*, 23(2), 151-172. doi:10.1108/10444061211218276
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a New General Self-Efficacy Scale. *Organizational Research Methods*, 4 (1), 62 - 83.
- Chin, W. W. (1998a). Commentary: Issues and Opinion on Structural Equation Modeling. *MIS Quarterly*, 22(March), 1. doi:Editorial
- Chin, W. W. (1998b). The Partial Least Squares Approach for Structural Equation Modeling. In *Modern methods for Business Research* (pp. 295-336). London: Lawrence Erlbaum Associates. doi:10.1016/j.aap.2008.12.010
- Choi, J. N. (2012). Context And Creativity: The Theory Pf Planned Behavior As Alternative Mechanism. *Social Behavior and Personality*, 40 (4), 681-692.
- Churchill, G. A. (1995). Paradigm of for Developing Constructs Measures of Marketing Constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Cohen, L. H., Cimboric, K., Armeli, S. R. & Hettler, T. R. (1998). Quantitative Assessment Of Thriving. *Journal of Social Issues*, 54 (2), 323-335.
- Colton, D., & Covert, R. W. (2007). *Designing and Constructing Instruments for Social Research and Evaluation* (1st ed.). San Francisco: John Wiley & Sons, Inc.
- Conner, M., & Armitage, J. (1998). Extending the Theory of Planned Behavior : A Review and Avenues for Further Research. *Educational and Child Psychology*, 1429-1464.

- Cooper, D. R., & Schindler, P. S. (2008). *Business Research Methods* (Internatio.). New York: McGraw-Hil.
- Cremer, D. D., Brockner, J., Fishman, A., Dijke, M. V., Olffen, W. V., & Mayer, D. M. (2010). When Do Procedural Fairness and Outcome Fairness Interact to Influence Employees ' Work Attitudes and Behaviors ? The Moderating Effect of Uncertainty. *Journal of Applied Psychology*, 95(2), 291–304. doi:10.1037/a0017866
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. California: SAGE Publication, Inc.
- Cullen, K. L., Edwards, B. D., Casper, W. C. & Gue, K. R. (2013). Employees' Adaptability and Perceptions of Change-Related Uncertainty: Implications for Perceived Organizational Support, Job Satisfaction, and Performance. *Journal Business Psychology*, 1-12. DOI 10.1007/s10869-013-9312-y
- Davis, G. (2004). Job satisfaction survey among employees in small businesses, 11(4), 495–503. doi:10.1108/14626000410567143
- de Bruin, M., Sheeran, P., Kok, G., Hiemstra, A., Prins, J. M., Hospers, H. J., & van Breukelen, G. J. P. (2012). Self-regulatory processes mediate the intention-behavior relation for adherence and exercise behaviors. *Health psychology : official journal of the Division of Health Psychology, American Psychological Association*, 31(6), 695–703. doi:10.1037/a0027425
- Dewettinck, K., & Amejide, M. V. (2005). Linking leadership empowerment behaviour to employee attitudes and behavioural intentions. doi:10.1108/00483481111118621
- Dhammika, K. A., Ahmad, F. B., & Sam, T. L. (n.d.). Job Satisfaction , Commitment and Performance : Testing the Goodness of Measures of Three Employee Outcomes.
- Dickinson, J. R., & Kirzner, E. (1985). Questionnaire Item Omission as a Function of Within-Group Question Position. *Journal of Business Research*, 13(1), 71–75.
- Diekmann, K. A., Sondak, H., & Barsness, Z. I. (2007). Does Fairness Matter More to Some than to Others ? The Moderating Role of Workplace Status on The Relationship Between Procedural Fairness Perceptions and Job Satisfaction. *Social Justice Research*, 20(2), 161–181. doi:10.1007/s11211-007-0036-x
- Dubinsky, S. W. (1997). Infinitival relative clauses in English: An antisymmetric approach to discontinuous constituency. *Proceedings of the 1996 Eastern States Conference on Linguistics (ESCOL 96)*, Ithaca: CLC Publications, Cornell University 82-93
- Duffy, R., Fearn, A., & Hornibrook, S. (2003). Measuring distributive and procedural justice: An exploratory investigation of the fairness of retailer-supplier relationships in the UK food industry. *British Food Journal*, 105(10), 682–694. doi:10.1108/00070700310506236
- Dutton, J. E. (2003). *Energize Your Workplace: How To Build And Sustain High Quality Connectuons At Work*. San Francisco: Jossey-Bass Publishers
- Egmond C., R. Jonkers, G. Kok, 2005. A strategy to encourage housing associations to invest in energy conservation. *Energy Policy*, 33, pp. 2374-2384.
- Electrical and Electronics Industry (2012). Ministry of International Trade and Industry. Retrieved from <http://www.miti.gov.my/cms/content.jsp-c0a81573-6a5e6a5e-4a9c1c2e>

- Eves, F., Hoppe, R. & McLaren, L. (2003). Prediction Of Specific Types Of Physical Activity Using The Theory Of Planned Behavior. *Journal of Applied Behavior Research*, 8, 2, 77-95.
- Falk, R. F., & Miller, N. B. (1992). *A Primer for Soft Modeling*. Akron, OH: University of Akron Press.
- Feather, N. T. (2013). Value Correlates Of Ambivalent Attitudes Toward Gender Relations. *Personality and Social Psychological Bulletin*, 3-12.
- Ferber, R. (1966). Item Nonresponse in a Consumer Survey. *Public Opinion Quarterly*, 30(3), 399-415.
- Ferdous, A. S. (2010). Applying the Theory of Planned Behavior to Explain Marketing Managers ' Perspectives on Sustainable Marketing, 313-325. doi:10.1080/08961530.2010.505883
- Fernandez S. & Pitts, D. W. (2011). Understanding Employee Motivation to Innovate: Evidence From Front Line Employees In United States Federal Agencies. *The Australian Journal Of Public Administration*, 70 (2), 202-222.
- Florea, L., Cheung, Y. H. & Herndon, N. C. (2012). For All Good Reasons: Role Of Values In Organizational Sustainability. *Journal of Business Ethics*.
- Fornell, C., & Bookstein, F. L. (1982). Two Structural Equation Models: LISREL and PLS Applied to Consumer Exit-Voice Theory. *Journal of Marketing Research*, 19(4), 440. doi:10.2307/3151718
- Fredrickson, B. L. (2001). The Role Of Positive Emotions In Positive Psychology: The Broaden And Build Theory Of Positive Emotions. *The American Psychologist*, 56, 218-226.
- Gardner W.L., Reithel B.J., Foley R.T., Coglisier C.C., & Walumbwa F.O. (2009). Attraction to organizational culture profiles: Effects of realistic recruitment and vertical and horizontal individualism-collectivism. *Management Communication Quarterly*, 22 (3) , pp. 437-472
- Gallato, C. G., Rashid, S., Suryasaputra, R., Warokka, A., Reamillo, K. A. G., & Hilman, H. (2012). Fostering Niches among SMEs in Malaysia through Organizational Commitment , Leadership , Organizational Culture and Job Satisfaction, 2012. doi:10.5171/2012.511352
- Gefen, D., Straub, D. W., & Boudreau, M. C. (2000). Structural Equation Modeling And Regression: Guidelines For Research Practice. *Communications of the Association for Information Systems*, 4(7), 76. doi:10.1.1.25.781
- Geisser, S. (1975). The Predictive Sample Reuse Method with Applications. *Journal of the American Statistical Association*, 70(350), 320-328.
- Ghani, N. A., Hussin, T. A. B. & Jusoff, K. (2009). The Impact Of Psychological Empowerment On Lecturers' Innovative Behavior In Malaysian Private Higher Education Institutions. *Canadian Social Science*, 5 (4), 54-62.
- Giacomantonio, M., Pierro, A. & Kruglanski, A. W. (2011). Leaders' Fairness And Followers' Conflict Handling Style. *International Journal of Conflict Management*, 22 (4), 358-372.
- Gibbons, R. (1998). Incentives in Organizations, *Journal of Economic Perspectives*, 12 (4), 115-132
- Goepel, M., & Hölzle, K. (2012). Individuals ' Innovation Response Behaviour : A Framework of Future Research. *Creativity and Innovation Management*, 21(4), 412-426.
- Gollwitzer, P. M., Sheeran, P., Michalski, V., & Seifert, A. E. (2009). When Intentions Go Public Does Social Reality Widen the Intention-Behavior Gap ?, *Association for Psychology Science* 20(5), 612-619.

- Goregenli, M., Karakus, P. & Bierhoff, H. W. (2012). The Values And Attitudes Towards TEU In A Cross-Cultural Sample. *Psychology Research*, 2 (6), 343-360.
- Gounaris, S. (2012). The role of employee job satisfaction in strengthening customer repurchase intentions, (November 2011). doi:10.1108/08876041311330799
- Graen, G. B., & Cashman, J. F. 1975. A Role Making Model Of Leadership In Formal Organizations: A developmental approach. In J. G. Hunt & L. L. Larson (Eds.), *Leadership Frontiers*:143-165. Kent, Ohio: Kent State University Press.
- Greaves, M., Zibarras, L. D. & Stride, C. (2013). Using Theory Of Planned Behavior to Explore Environmental Behavioral Intentions In The Workplace. *Journal of Environmental Psychology*, 34, 109-120.
- Grube, J. W., & Rokeach, M. (1990). Brief Report Adolescents ' Value Images Of Smokers , Nonsmokers. *Addictive Behaviors*, 15, 81-88.
- Gu, Z., Chi, R., & Siu, S. (2009). Drivers of job satisfaction as related to work performance in Macao casino hotels An investigation based on employee survey, 21(5), 561-578. doi:10.1108/09596110910967809
- Guinea, A. O. & Markus, M. L. (2009). Why Break The Habit Of A Lifetime? Rethinking The Roles Of Intention, Habit, And Emotion In Continuing Information Technology Use. *MIS Quarterly*, 33(3), 433-444.
- Hager, W. (2006). Die Fallibilität empirischer Daten und die Notwendigkeit der Kontrolle von falschen Entscheidungen [The fallibility of empirical data and the need for controlling for false decisions]. *Zeitschrift Für Psychologie*, 214, 10-23.
- Hair, J. F., anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis*. New Jersey: Prentice Hall, Inc.
- Hair, J., Bush, R., & Ortinau, D. (2009). *Marketing Research*. New York: McGraw-Hills Ltd.
- Hair, J., et al., G. T. M. Hult, C. Ringle, and M. Sarstedt (2014). *A Primer on Partial Least Squares Structural Equation Modeling (PLSSEM)*. Los Angeles: SAGE Publications
- Hakimian, F., Farid, H., Ismail, M. N., and Nair, P. K. (2015). Importance of commitment in encouraging employees' innovative behaviour. *Asia-Pacific Journal of Business Administration*, 8 (1), 70-83.
- Harvie, C. and Lee, B.C. (2002), *Globalisation and SMEs in East Asia, Studies of Small and Medium sized Enterprises in East Asia, Volume 1*, Edward Elgar, Cheltenham, UK, pp.318.
- Harvie, C. and Lee, B.C. (2002), *The Role of SMEs in National Economies in East Asia, Studies of Small and Medium sized Enterprises in East Asia Volume II*, Edward Elgar, Cheltenham, UK, pp.404.
- Hassan, S. (2013). Does Fair Treatment in The Workplace Matter? An Assessment Of Organizational Fairness And Employee Outcomes In Government. *The American Review of Public Administration*, 43 (5) 539-557. doi:10.1177/0275074012447979
- Heider, F. (1959). *The Psychology of interpersonal relations*. New York, NY:Wiley
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The Use of Partial Least Squares Path Modeling in International Marketing. *Advances in International Marketing*, 20, 277-319. doi:10.1108/S1474-7979(2009)0000020014
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal*

- of the Academy of Marketing Science, 43(1), 115–135. doi:10.1007/s11747-014-0403-8
- Hertzog, M. A. (2008). Considerations in Determining Sample Size for Pilot Studies. *Research in Nursing and Health*, 31(2), 180–191. doi:10.1002/nur.20247
- Hilmi, M. F. & Ramayah, T. (2008). Market Innovativeness Of Malaysian Smes:Preliminary Results From A First Wave Data Collection. *Asian Social Science*, 4(12), 42-49.
- Honkanen, P. & Verplanken, B. (2004). Understanding Attitudes Towards Genetically Modified Food. The Role Of Values And Attitude Strength. *Journal of Consumer Policy*, 27, 401-420.
- Huselid, M. A. (1995). The Impact Of Human Resource Management Practices On Turnover , Productivity and Corporate Financial Performance. *Academy of Management Journal* 38(3), 635-672.
- Irwin, D. & Scott, J. M. (2009). Barriers Faced By SMEs In Raising Bank Finance. *International Journal of Entrepreneurial Behavior & Resources*, 13 (3), 245-259.
- Jafri, M. H. (2010). Organizational Commitment and Employee's Innovative Behavior A Study in Retail Sector. *Journal of Management Research*, 10(1), 62–68.
- Janssen, O. (2000). Job demands , perceptions of effort — reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73, 287–302.
- Janssen, O. (2003). Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co-workers. *Journal of Occupational and Organizational Psychology*, 76(3), 347–364. doi:10.1348/096317903769647210
- Janssen, O., Vliert, E. E. & West, M. (2004). The Bright And Dark Sides Of Individual And Group Innovation: A Special Issue Introduction. *Journal of Organizational Behavior*, 25, 129-145.
- Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research. *Journal of Consumer Research*, 30(2), 199–218. doi:10.1086/376806
- Jemmott, J. B., Heeren, G. A., Ngwane, Z., Hewitt, N., Jemmott, L. S., Shell, R., & O'Leary, A. (2007). Theory of planned behavior predictors of intention to use condoms among Xhosa adolescents in South Africa. *Journal of Aids Care*, 19, 667-694.
- Jong, J. D. & Kemp, R. (2003). Determinants Of Co-Workers' Innovative Behavior: An Investigation Into Knowledge Intensive Services. *International Journal of Innovation Management*, 7 (2), 189-212.
- Jong, J. D., & Hartog, D. D. (2010). Measuring Innovative Work Behaviour. *Creativity and Innovation Management*, 19(1), 23–36. doi:10.1111/j.1467-8691.2010.00547.x
- Jong, J. D., & Hartog, D. D. (2007). How leaders influence employees ' innovative behaviour, *European Journal of Innovation Management*, 10(1), 41–64. doi:10.1108/14601060710720546
- June, S. and R. Mahmood. 2011. The Relationship between Person-job Fit and Job Performance: A Study among the Employees of the Service Sector SMEs in Malaysia. *International Journal of Business, Humanities and Technology*. 1(2): 95–105

- Kang, J. H., Solomon, G. T. and Choi, D. Y. (2015), CEOs' Leadership Styles and Managers' Innovative Behaviour: Investigation of Intervening Effects in an Entrepreneurial Context. *Jour. of Manage. Stud.*, 52: 531–554. doi:10.1111/joms.12125
- Kanter, R. M. (1983). *The change masters: Innovation for productivity in the American corporation*. New York: Simon & Schuster.
- Kanter, R. M. (1988). When a thousand flowers bloom: Structural, collective and social conditions for innovation in organizations. In B. M. Straw & L. L. Cummings (Eds.), *Research in Organizational Behavior*, 10, 123-167
- Karspinski, C. A & Milliner, K. (2016). Assessing intentions to eat a healthful diet among National Collegiate Athletic Association Division II collegiate athletes. *Journal of Athletic Training*, 51
- Katz, D., & Kahn, R.L. 1978, *The social psychology of organizations* (2nd ed.), New York: Wiley.
- Kerlinger, R. N. (1986). *Foundations of behavioral research* (3rd ed.). New York: Holt, Rinehart and Winston.
- Khalique, M., Md. Isa, A. H., Shaari, J. A. N. & Ageel, A. (2011). Challenges Faced By The Small And Medium Enterprises (Smes) In Malaysia: An Intellectual Capital Perspective. *International Journal of Current Research*, 33, 398-401
- Khar Kheng, Y., June, S., & Mahmood, R. (2013). The Determinants of Innovative Work Behavior in the Knowledge Intensive Business Services Sector in Malaysia. *Asian Social Science*, 9(15), 47–60. doi:10.5539/ass.v9n15p47
- Kheng, Y. K., June, S. & Mahmood, R. (2013). The Determinants Of Innovative Work Behavior In The Knowledge Intensive Business Services Sector In Malaysia. 9 (15), 47-59.
- Kickul, J. R., Neuman, G., Parker, C., & Finkl, J. (2002). Settling the Score : The Role of Organizational Justice in the Relationship Between Psychological Contract Breach and Anticitizenship Behavior. *Employee responsibilities and /rights Journal*, 13(2), 77-93.
- Kirkman, B. L., Shapiro, D. L. Novelli, L. & Brett, J. M. (1996). Employee Concerns Regarding Self-Managing Work Teams: A Multidimensional Justice Perspective. *Social Justice Research*, 9 (1), 47-67.
- Knol, J., & Linge, R. V. (2008). Innovative Behavior: The Effect Of Structural And Psychological Empowerment On Nurses. *The Journal of Advanced Nursing*, 359–370. doi:10.1111/j.1365-2648.2008.04876.x
- Koc, C. C. (2007). Factors impacting the innovative capacity in large-scale companies. *Technovation*. 2007, 27 (3):105-14.
- Koellinger, P. (2008). Why are some entrepreneurs more innovative than others? *Small Business Economics*, 31(1), 21–37. doi:10.1007/s11187-008-9107-0
- Kothari, C. R., 2004 , *Research Methodology –Methods and Techniques*, 2nd ed., New Age International (P) Ltd., New Delhi.
- Krejcie, R. V. & Morgan, D. W. (1970). Determining Sample Size for Research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Kumar, B. P., & Giri, V. N. (2009) Examining the Relationship of Organizational Communication and Job Satisfaction in Indian Organizations. 4(3), 177-184. doi:10.1177/097325861000400303
- Lemons, M. A., & Jones, C. A. (2001). Procedural justice in promotion decisions : using perceptions of fairness to build employee commitment. *Journal of Managerial Psychology*, 16(4), 268–280.

- Li, C.-H., & Wu, J.-J. (2011). The Structural Relationships Between Optimism and Innovative Behavior: Understanding Potential Antecedents and Mediating Effects. *Creativity Research Journal*, 23(2), 119–128. doi:10.1080/10400419.2011.571184
- Lo, M. (2011). Mentoring and job satisfaction in Malaysian SMEs, 30(4), 427–440. doi:10.1108/026217111111126891
- Locke, E. A. (1976). The Nature And Causes Of Job Satisfaction. In M. D. Dunnette (Ed.), *Handbook Of Industrial And Organizational Psychology*. Chicago: Rand McNally.
- Lund, D. B. (2003). Organizational culture and job satisfaction. *Journal of Business & Industrial Marketing*, 18(3), 219–236. doi:10.1108/0885862031047313
- López-sintas, J., & Martínez-ros, E. (2000). The Innovative Behavior of Spanish Enterprises and Its Impact on Salaries, 287–302.
- Madrid, H. P., Patterson, M. G., & Birdi, K. S. (2013). The role of weekly high-activated positive mood, context, and personality in innovative work behavior: A multilevel and interactional model. *Journal of Organizational Behavior*. doi:10.1002/job
- Malhotra, M. (1998). An Assessment of Survey Research in POM: From Constructs to Theory. *Journal of Operations Management*, 16(4), 407–425. doi:10.1016/S0272-6963(98)00021-7
- Marcati, A., Guido, G. & Peluso, A. M. (2008). the Role Of SME Entrepreneurs' Innovativeness And Personality In The Adoption Of Innovations. *Research Policy*, 37, 1579-1590.
- Marcoulides, G. A., Chin, W. W., & Saunders, C. (2009). A Critical Look at Partial Least Squares Modeling. *MIS*, 33(1), 171–175.
- Markus, M. L., & Street, F. (2009). Issues And Opinions Why Break The Habit Of A Lifetime? Rethinking The Roles Of Intention, Habit, And Emotion In Continuing Information Technology Use, 33(3), 433–444.
- Mat, S., Ahmad, N., Emieza, N., Ngah, B., & Binti, R. (2012). Motivation Model for Employee Retention: Applicability to HRM Practices in Malaysian SME Sector, 8(5), 8–12. doi:10.3968/j.css.1923669720120805.2239
- Meeus, M. T. H., & Oerlemans, L. A. G. (2000). Firm behaviour and innovative performance An empirical exploration of the selection – adaptation debate.
- Mohamedrasheed, B., & Marane, O. (2012). The Mediating Role of Trust in Organization on the Influence of Psychological Empowerment on Innovation Behavior, 33(1), 39–51.
- Montani, F. (2012). Explaining The Relationship Among Supervisor Support, Affective Commitment To Change, And Innovative Work Behavior: The Moderating Role Of Coworker Support Explaining The Relationships. *Bollettino Di Psicologia Applicata*, 264, 43–57.
- Morgan, R., Mcdonagh, P., & Ryan-morgan, T. (1995). Employee job satisfaction: an empirical assessment of marketing managers as an occupationally homogeneous group, 10(2), 10–17.
- National SME Development Council. SME Masterplan 2012-2020 (2010). Retrieved from: <http://www.smecorp.gov.my/vn2/node/190>
- Neal, J. W. & Cappela, E. (2012). An Examination Of Network Position And Childhood Relation Aggression: Integrating Resource Control And Social Exchange Theories. *Aggressive Behavior*, 38, 126-140.

- Neck, C. P. & Manz, C. C. (1996). Thought Self-Leadership: The Impact Of Mental Strategies Training On Employee Cognition, Behavior And Effect. *Journal of Organizational Behavior*, 17, 445-467.
- Nepomuceno, M. V., & Porto, J. B. (2010). Human values and attitudes toward bank services in Brazil. *International Journal of Bank Marketing*, 28(3), 168–192. doi:10.1108/02652321011036459
- Niehoff, B. P., & Moorman, R. H. (1993). Justice As A Mediator Of The Relationship Between Methods Of Monitoring And Organizational Citizenship Behavior. *Academy of Management Journal*, 36(3), 527–557.
- Neuman, W. L. (2006). *Social Research Methods: Qualitative and Quantitative Approaches. Relevance of social research* (Vol. 8). Retrieved from <http://books.google.fr/books?id=nObtAAAAMAAJ>
- Niessen, C., Sonnentag, S. & Sach, F. (2012). Thriving At Work. A Diary Study. *Journal of Organizational Behavior*, 33, 468-487.
- Nik A., Zain, M. & Nizam, S. (2011) The internationalization theory and Malaysian small medium enterprises (SMEs). *International Journal of Trade, Economics and Finance*, 2 (4). pp. 318-322
- Noble, C. H. (2008). The Influence of Job Security on Field Sales Manager Satisfaction: Exploring Frontline Tensions. *Journal of Personal Selling and Sales Management*, 28(3), 247–262. doi:10.2753/PSS0885-3134280303
- Norman, P., & Hoyle, S. (2004). The Theory of Planned Behavior and Breast Self-Examination : Distinguishing Between Perceived Control and Self-Efficacy. *Journal of Applied Social Psychology*, 34, 694–708.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory*. rdsepiucsforg (Vol. 3). New York, NY: McGraw Hill. doi:10.1037/018882
- Oldham, G. R., & Cummings, A. (1996). Employee Creativity: Personal and Contextual Factors At Work. *Academy of Management Journal*, 39(3), 607–634. doi:10.2307/256657
- O'Leary, V. E. (1998). Strength In The Face Of Adversity: Individual And Social Thriving. *Journal of Social Issues*, 54 (2), 425-446.
- Omri, W. (2014). Innovative behaviour and venture performance of SMEs. The moderating effect of environmental dynamism. *European Journal of Innovation Management*, 18 (2), 195-217.
- Othman, N. (2016). Exploring the innovative personality characteristics among teachers. *International Education studies*, 9 (4), 1-7.
- Pallant, J. (2013). *SPSS Survival Manual: A step by step guide to data analysis using IBM SPSS* (5th ed.). New York, NY: McGraw-Hills Ltd.
- Park , Y. K., Song , J. H., Yoon , S. W. & Kim , J. (2014) "Learning organization and innovative behavior: The mediating effect of work engagement", *European Journal of Training and Development*, Vol. 38 Iss: 1/2, pp.75 – 9
- Pelit, E., Öztürk, Y. and Y. Arslantürk (2011) “The Effects of Employee Empowerment on Employee Job Satisfaction”, *International Journal of Contemporary Hospitality Management*, Vol. 23, No. 6, pp. 784–802.
- Pelz, D.C., Andrews, F.M. 1966. *Scientists in Organizations*, Wiley, New York
- Pelz, D. C., Andrews, F. M., 1966. *Scientists in Organizations. Productive Climates for Research and Development*. John Wiley and Sons, New York.
- Petty, R. E. (2006). A metacognitive model of attitudes. *Journal of Consumer Research*, 33, 22–24.

- Petty, R. E., & Briñol, P. (2006). A meta-cognitive approach to “implicit” and “explicit” evaluations: Comment on Gawronski and Bodenhausen (2006). *Psychological Bulletin*, 132, 740–744.
- Petty, R. E., Tormala, Z. L., Briñol, P., & Jarvis, W. B. G. (2006). Implicit ambivalence from attitude change: An exploration of the PAST Model. *Journal of Personality and Social Psychology*, 90, 21–41.
- Petty, R. E., Tormala, Z. L., & Rucker, D. D. (2004). Resisting persuasion by counterarguing: An attitude strength perspective. In J. T. Jost, M. R. Banaji, & D. A. Prentice (Eds.), *Perspectivism in social psychology: The yin and yang of scientific progress* (pp. 37–51). Washington, DC: American Psychological Association.
- Phipps, S., Prieto, T. A. & Leon, C. (2015). Politicking and entrepreneurship: determining the critical political skill dimensions for high entrepreneurial intentions. *Academy of Entrepreneurship Journal*, 21
- Pieterse, A. N., & Knippenberg, D. V. A. N. (2010). Transformational and transactional leadership and innovative behavior: The moderating role of psychological empowerment Transformational and Transactional Leadership, *Journal of Organizational Behavior*, 31, 609–623. doi:10.1002/job
- Podsakoff, P. M., S. B. MacKenzie, N. P. Podsakoff, and J-Y. Lee. 2003. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*. 88(5): 879–903.
- Porath, C., Spreitzer, G., Gibson, C., & Garnett, F. G. (2012). Thriving at work : Toward its measurement , construct validation , and theoretical refinement. *Journal of Organizational Behavior*, 33, 250–275. doi:10.1002/job
- Prussia, G. E., Anderson, J. S. & Manz, C. C. (1998). Self-Leadership And Performance Outcomes: The Mediating Influence Of Self-Efficacy. *Journal of Organizational Behavior*, 19, 523-538.
- Ramamoorthy, N., Flood, P. C., Slaterry, T. & Sardesai, R. (2005). Determinants Of Innovative Work Behavior: Development And Test Of Integrated Model. *Creativity and Management*, 14 (2), 142-150.
- Reuvers, M., Engen, M. L. V., Vinkenburgh, C. J., & Wilson-evered, E. (2008). Transformational Leadership and Innovative Work Behaviour : Exploring the Relevance of Gender Differences. *Leadership and Innovation*, 17(3), 227–245. doi:10.1111/j.1467-8691.2008.00487.x
- Reynolds, N., & Diamantopoulos, A. (1998). The Effect of Pretest Method on Error Detection Rates: Experimental Evidence. *European Journal of Marketing*, 32(5/6), 480–498. doi:10.1108/03090569810216091
- Rice, J. R. (2006), Heating and weakening of faults during earthquake slip, *J. Geophys. Res.*, 111, B05311, doi:10.1029/2005JB004006
- Rich, G. A. (1997). The sales manager as a role model: Effects on trust, job satisfaction, and performance of salespeople. *Journal of the Academy of Marketing Science*, 25, 319-328
- Ridley, D. (2012). *The Literature Review: A Step by Step Guide for Students*. London: SAGE Publications Ltd.
- Roazzi, A., Campello, B. & Bilsky, W. (2013). Searching for Structure in Complex Social, Cultural & Psychological Phenomena. *Proceedings of the 14th Facet Theory Conference*
- Rogelberg, S. G., Fisher, G. G., Maynard, D. C., Hakel, M. D., & Horvath, M. (2001). Attitudes toward Surveys: Development of a Measure and Its

- Relationship to Respondent Behavior. *Organizational Research Methods*, 4(1), 3–25. doi:10.1177/109442810141001
- Rokeach, M. (1973). The nature of human values. New York: Free Press.
- Roscoe, J. T (1975). Fundamental research statistics for the behavioral sciences (2nd ed.). New York: Basic Books.
- Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of Business Venturing*, 26(4), 441–457. doi:10.1016/j.jbusvent.2009.12.002
- Rouse, A. C., & Corbitt, B. (2008). There's SEM and —SEM I: A Critique of the Use of PLS Regression in Information Systems Research. In *19th Australasian Conference on Information Systems* (pp. 845–855).
- Salant, P., & Dillman, D. A. (1994). *How to Conduct Your Own Survey*. New York: John Wiley & Sons.
- Sanders, K. (2010). How to Support Innovative Behaviour? The Role of LMX and Satisfaction with HR Practices. *Technology and Investment*, 01(01), 59–68. doi:10.4236/ti.2010.11007
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research Methods for Business Students. Research methods for business students*.
- Sayers, J. K., Sears, K. L. & Kelly, K. M. (2011). When Employees Engage In Workplace Incivility: The Interactive Effect Of Psychological Contract Violation And Organizational Justice. *Employ Respons rights journal*, 23, 269-283.
- Schappe, S. P. (1998). Understanding Employee Job Satisfaction : The Importance Of Procedural And, 12(4).
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1-65). New York: Academic Press. [http://dx.doi.org/10.1016/S0065-2601\(08\)60281-6](http://dx.doi.org/10.1016/S0065-2601(08)60281-6)
- Schwartz, S. H. (1996). Value priorities and behavior: Applying a theory of integrated value systems. In C. Seligman, J. M. Olson, & M. P. Zanna (Eds.), *The psychology of values: The Ontario Symposium* (Vol. 8, pp. 1-24). Hillsdale, NJ: Erlbaum.
- Schwartz, S. H. (2006b). Value orientations: Measurement, antecedents and consequences across nations. In Jowell, R., Roberts, C., Fitzgerald, R. & Eva, G. (Eds.) *Measuring attitudes cross-nationally - lessons from the European Social Survey* (pp.169-203). London, UK: Sage.
- Schwarz, N. (2007). Attitude construction: Evaluation in context. *Social Cognition*, 25(5), 638–656.
- Schwartz, S. H., & Boehnke, K. (2004). Evaluating the structure of human values with confirmatory factor analysis. *Journal of Research in Personality*, 38(3), 230–255. doi:10.1016/S0092-6566(03)00069-2
- Schwartz, S. H., & Sagie, G. (2000). Value consensus and importance: A cross-national study. *Journal-of-Cross-Cultural-Psychology*, 31(4), 465-497.
- Schwartz, S. H., Melech, G., Lehmann, A., Burgess, S., & Harris, M. (2001). Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. *Journal of Cross-Cultural Psychology*, 32, 519-542. <http://dx.doi.org/10.1177/0022022101032005001>.
- Schwartz, S. H., Verkasalo, M., Antonovsky, A., & Sagiv, L. (1997). Value priorities and social desirability: Much substance, some style. *British Journal of*

- Social Psychology, 36, 3-18. <http://dx.doi.org/10.1111/j.2044-8309.1997.tb01115.x>.
- Scott, S. G., & Bruce, R. (1994). Determinants of Innovative Behavior: a Path Model of Individual Innovation in the Workplace. *Academy of Management Journal*, 37(3), 580–607. doi:10.2307/256701
- Sekaran, U. (2000). *Research Methods for Business: A Skill Building Approach*. New York, NY: John Wiley & Sons, Inc.
- Sekaran, U., & Bougie, R. (2013). *Research Methods for Business*. In *Research methods for business* (p. 436).
- Sheeran, P. (2002). Intention-behavior relations: A conceptual and empirical review. *European Review of Social Psychology*, 12, 1–36. doi:10.1080/14792772143000003
- Shih, H.-A., & Susanto, E. (2011). Is innovative behavior really good for the firm?: Innovative work behavior, conflict with coworkers and turnover intention: moderating roles of perceived distributive fairness. *International Journal of Conflict Management*, 22(2), 111–130. doi:10.1108/10444061111126666
- Shin, S. J., Yuan, F., and Zhou, J. (2016) When perceived innovation job requirement increases employee innovative behavior: A sensemaking perspective. *J. Organiz. Behav.*, doi: [10.1002/job.2111](https://doi.org/10.1002/job.2111).
- Singh, M., & Sarkar, A. (2012). The Relationship Between Psychological Empowerment and Innovative Behavior. *Journal of Personnel Psychology*, 11(3), 127–137. doi:10.1027/1866-5888/a000065
- Singh, P., Bhandarker, A., Rai, S., & Jain, A. K. (2011). Relationship between values and workplace: an exploratory analysis. *Facilities*, 29(11/12), 499–520. doi:10.1108/02632771111157169
- Sintas, J. L. & Ros, E. M. (1999). The Innovative Behavior Of Spanish Enterprises And Its Impact On Salaries. *Small Business Economics*, 13, 287-302.
- Škerlavaj, M., Song, J. H., & Lee, Y. (2010). Organizational learning culture, innovative culture and innovations in South Korean firms. *Expert Systems with Applications*, 37(9), 6390–6403. doi:10.1016/j.eswa.2010.02.080
- SME Annual Report 2011. SME Corporation Malaysia. Retrieved from <http://www.smecorp.gov.my/vn2/node/177>
- SME Corporation Malaysia, 2009. Contribution of SMEs to GDP. Retrieved from <http://www.smecorp.gov.my/vn2/sites/default/files/chapter%202>
- SME Corporation Malaysia, 2013. SME Masterplan 2012-2020. Retrieved from <http://www.smecorp.gov.my/vn2/node/190>
- Sommer, L. (2011). The Theory Of Planned Behaviour And The Impact Of Past Behaviour. *International Business and Economics Research Journal*, 10, 91-110.
- Sosik, J. J., Kahai, S. S., & Piovoso, M. J. (2009). Silver Bullet or Voodoo Statistics?: A Primer for Using the Partial Least Squares Data Analytic Technique in Group and Organization Research. *Group & Organization Management*, 34(1), 5–36. doi:10.1177/1059601108329198
- Sousa, C. M. P., & Bradley, F. (2009). Effects of Export Assistance and Distributor Support on the Performance of SMEs: The Case of Portuguese Export Ventures. *International Small Business Journal*, 27(6), 681–701. doi:10.1177/0266242609344253
- Sousa, C. M. P. & Coelho, F. (2009). From Personal Values To Creativity: Evidence From Frontline Employees. *European Journal Of Marketing*, 45 (7)1029-1050.

- Sousa, C. M. P., Coelho, F. & Saorin, E. G. (2012). Personal Values, Autonomy, And Self-Efficacy: Evidence From Frontline Service Employees. *International Journal Of Selection And Assessment*, 20 (2), 159-170.
- Sower, V. E., Duffy, J. A. & Kohers, G. (2008). Critical To Quality Characteristics Of Excellent Hospitals: A Case Study Approach. *Proceedings of the Southwest Academy of Management Houston*, 1-14
- Spector, P. E. (1985). Measurement of Human Service Staff Satisfaction: Development of the Job Satisfaction Survey. *American Journal of Community Psychology*, 13 (6), 693-713.
- Spreitzer, G. M. (1995). Psychological Empowerment In The Workplace : Dimensions , Measurement , And Validation. *academy of Management Journal*, 38 (5), 1442-1465.
- Stajkovic, A. D., & Luthans, F. (1988). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124(2), 240-261.
- Stock, R. M. (2015). Is Boreout a Threat to Frontline Employees' Innovative Work Behavior?. *J Prod Innov Manag*, 32: 574–592. doi:10.1111/jpim.12239
- Stone, M. (1974). Cross-Validatory Choice and Assessment of Statistical Predictions. *Journal of Royal Statistical Society*, 36, 111–147.
- Strijk, J. E., Proper, K. I., Beek, A. J., & Mechelen, W. (2009). The Vital@Work Study. The systematic development of a lifestyle intervention to improve older workers' vitality and the design of a randomised controlled trial evaluating this intervention. *BMC public health*, 9, 408. doi:10.1186/1471-2458-9-408
- Sun, L., & Stuebs, M. (2013). Corporate Social Responsibility and Firm Productivity : Evidence from the Chemical Industry in the United States, 251–263. doi:10.1007/s10551-012-1579-9
- Sundbo, J., Orfila-Sintes, F., & Sørensen, F. (2007). The innovative behaviour of tourism firms—Comparative studies of Denmark and Spain. *Research Policy*, 36(1), 88–106. doi:10.1016/j.respol.2006.08.004
- Sutherland, J. (2013). Employment status and job satisfaction. *Evidence-based HRM: a Global Forum for Empirical Scholarship*, 1(2), 187–216. doi:10.1108/EBHRM-08-2012-0008
- Titah, R. & Barki, H. (2009). Nonlinearities Between Attitude And Subjective Norms In Information Technology Acceptance: A Negative Synergy?. *MIS Quarterly*, 33, 827-844.
- The Star, (2012). Budget 2012 Highlights. Retrieved from [http: www.thestar.com.my/news/story.asp?file=/2011/10/7](http://www.thestar.com.my/news/story.asp?file=/2011/10/7)
- Thomas, U. (1971). Productivity Improvement through People: Some New Approaches. *Emerald Backfiles*, 55-64.
- Trongmateerut, P., & Sweeney, J. T. (2012). The Influence of Subjective Norms on Whistle-Blowing: A Cross-Cultural Investigation. *Journal of Business Ethics*, 112(3), 437–451. doi:10.1007/s10551-012-1270-1
- Turek, D. & Wojtczuk-Turek, A. (2013). Innovativeness In Organizations: The Role Of Lmx And Organizational Justice. The Case Of Poland. *International Conference of Knowledge Management & Innovation*, 540-550
- Tuominen, T., & Toivonen, M. (2011). Studying Innovation and Change Activities in Kibs Through the Lens of Innovative Behaviour. *International Journal of Innovation Management*, 15(02), 393–422. doi:10.1142/S1363919611003209
- Underwood, P. R. (2012). Teachers Belief And Intentions Regarding The Instruction Of English Grammar Under National Curriculum Reforms: A Theory Of Planned Behavior Perspectives. *Teaching and Teacher Education*, 28, 911-925.

- Urbach, N., & Ahlemann, F. (2010). Structural Equation Modeling in Information Systems Research Using Partial Least Squares Structural Equation Modeling in Information Systems Research Using Partial Least Squares. *Journal of Information Technology Theory and Application*, 11(2), 5–40.
- Ven, A. H. V. D. (1986). Central Problems In The Management Of Innovation. *Management Science*, 32(5), 590–608.
- Verbeke, W. & Vackier, I. (2005). Individual Determinants of Fish Consumption: Application of The Theory of Planed Behavior. *Appetite*, 44, 67-82.
- Vilanova, M., Lozano, J., & Arenas, D. (2009). Exploring the nature of the relationship between CSR and competitiveness. *Journal of Business Ethics*, 87, 57–69.
- Vinarski-Peretz, H., Binyamin, G., & Carmeli, A. (2011). Subjective relational experiences and employee innovative behaviors in the workplace. *Journal of Vocational Behavior*, 78(2), 290–304. doi:10.1016/j.jvb.2010.09.005
- Vinarski-Peretz, H., & Carmeli, A. (2011). Linking care felt to engagement in innovative behaviors in the workplace: The mediating role of psychological conditions. *Psychology of Aesthetics, Creativity, and the Arts*, 5(1), 43–53. doi:10.1037/a0018241
- Wang, J., & Ritchie, B. W. (2012). Understanding Accommodation Managers ' Crisis Planning Intention : An application of the theory of planned behaviour. *Tourism Management*, 33(5), 1057–1067. doi:10.1016/j.tourman.2011.12.006
- West, M. A. & Farr, J. (1989). Innovation Among Healthcare Professionals. *Social Behavior*, 4 (3), 173-184.
- West, M. A. & Wallace, M. (1991). Innovation In Health Care Teams. *European Journal Of Social Psychology*, 21, 303-315.
- Wetzels, M., Odekerken-Schröder, G., & van Oppen, C. (2009). Using PLS Path Modeling for Assessing Hierarchical Construct Models: Guidelines and Empirical Illustration. *MIS Quarterly*, 33(1), 177–195. doi:Article
- Wong, S. H. (2013). The Malaysian Electrical & Electronics (E&E) Industry – At an Inflection Point. *Jurutera*, 6-9
- Wojtczuk-Turek, A. & Turek, D. (2013). Innovativeness In Organizations: The Role of Lmx And Organizational Justice. The Case of Poland. *International Conference of Knowledge Management & Innovation*, 540-550
- Wu, M. (2015). Extending the JD-R approach to predicting work/study engagement and creative performance: Evidences from Chinese employees and students (Master's thesis, Lingnan University, Hong Kong). Retrieved from http://commons.ln.edu.hk/psy_etd/5/
- Xerri, M., & Brunetto, Y. (2011). Fostering The Innovative Behaviour Of Sme Employees : A Social Capital. *Research and Practice in Human Resource Management*, 19 (2), 43-59.
- Xerri, M. (2013). Workplace Relationships and The Innovative Behaviour Of Nursing Employees : A Social Exchange Perspective. *Asia Pacific Journal of Human Resources*, (4), 103–123. doi:10.1111/j.1744-7941.2012.00031.x
- Xerri, M. J., & Brunetto, Y. (2011). The Impact Of The Perceived Usefulness Of Workplace Social Networks Upon The Innovative Behaviour Of SME Employees A Social Capital Perspective. *International Journal of Innovation Management*, 15(5), 959–987. doi:10.1142/S1363919611003350
- Yuan, F., & Woodman, R. (2010). Innovative Behavior In The Workplace : The Role Of Performance And Image Outcome Expectations Performance And Image,. *Academy of Management Journal* 53(2), 323–342.

- Yidong, T., & Xinxin, L. (2012). How Ethical Leadership Influence Employees' Innovative Work Behavior: A Perspective of Intrinsic Motivation. *Journal of Business Ethics*. doi:10.1007/s10551-012-1455-7
- Yin, R. K. (2003). *Case Study Research: Design and Methods. Essential guide to qualitative methods in organizational research* (Vol. 5). Thousand Oak: Sage Publications. doi:10.1046/j.1365-2648.2003.02790_1.x
- Yukl, G. (2002). *Leadership in Organizations*. (5th ed.). Upper Saddle River: Prentice- Hall
- Zhang Z. & Jia, M. (2010). Using Social Exchange Theory to Predict The Effects Of High-Performance Human Resource Practices On Corporate Entrepreneurship, Evidence From China. *Human Resource Management*, 49 (4), 743-765.
- Zhang, Z. (2010). Procedural fairness and cooperation in public-private partnerships in China, 25(20090201120038), 513–538. doi:10.1108/02683941011048409
- Zhang, Z. & Jia, M. (2010). Procedural Fairness And Cooperation In Public-Private Partnerships In China. *Journal of Managerial Psychology*, 49(28), 743–765. doi:10.1002/hrm
- Zhou, J. (2003). When The Presence Of Creative Coworkers Is Related To Creativity: Role Of Supervisor Close Monitoring, Developmental Feedback, And Creative Personality. *Journal of Applied Psychology*, 88 (3), 413-422.
- Zibarras, L. D., Port, R. L. & Woods, S. A. (2008). Innovation And The Dark Side Of Personality:Dysfunctional Traits And Their Relation To Self-Reported Innovative Characteristic. *Journal Of Creative Behavior*, 42, 201-215.
- Zikmund, Babin, Carr, & Griffin. (2012). *Business Research Methods*. (M. Fisher, Ed.) (9th ed.). Canada: SOUTH-WERTERN, Cengage Learning.
- Zikmund, W. G. (2003). *Business Research Methods* (7th ed.). Mason, OH: Thomson.