UNIVERSITI PUTRA MALAYSIA

PREDICTORS OF PROTEAN CAREER BEHAVIOR AND MODERATING ROLE OF CAREER STRATEGIES AMONG PROFESSIONALS IN THE MALAYSIAN ELECTRICAL AND ELECTRONICS INDUSTRY

WONG SIEW CHIN

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By

WONG SIEW CHIN

Thesis submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirement for the Degree of Doctor of Philosophy

July 2015
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DEDICATION

With my love to my late father

This dissertation is specifically dedicated to my husband,
Mr Hong Wei Liam

and my sons
Nicholas Hong Yan Hin
Ryan Hong Yan Jun

For their patience, encouragement and support.

To my mother, parent in law and sisters for their faith and understanding in me.
Abstract of thesis presented to the Senate of Universiti Putra Malaysia in Fulfilment of the requirements for the degree of Doctor of Philosophy

PREDICTORS OF PROTEAN CAREER BEHAVIOR AND MODERATING ROLE OF CAREER STRATEGIES AMONG PROFESSIONALS IN THE MALAYSIAN ELECTRICAL AND ELECTRONICS INDUSTRY

By

WONG SIEW CHIN

August 2015

Chair: Roziah Mohd Rasdi, PhD
Faculty: Educational Studies

The present study is aimed to investigate the predictors of protean career behavior and the moderating roles of career strategies among professional employees in E&E industry. The concept of protean career behavior transferred the responsibility from the organization to the individual in managing their career development. Basically, new career concept of protean career behavior is featured with non-linearity as compared with traditional career. Individual is viewed as “agent of their own career destinies”. Hence, this study examines how individuals predisposition to shape their careers, as well as the specific external environmental factors to affect individual career planning and management. Investigating this process is both theoretical and practically significant to provide better understanding of career-related behavior. This study employed Social Cognitive Career Theory (SCCT), extended SCCT, Job Characteristics Model (JCM), integrative model of job design and proactive behaviour as well as career dynamic model of reactions in order to provide an integrative and dynamic theoretical framework in explaining protean career behavior among professional employees in E&E industry. This study extends SCCT model by integrating job-related factors in predicting protean career behavior. Further, the present study aimed to examine the moderating role of career strategies on the relationship between independent variables (e.g., individual, organizational and job-related factors) and protean career behavior among professional employees in E&E industry. The findings indicated the level of protean career behavior was high among 306 respondents from E&E industry. The result in the PLS-SEM path models revealed that self-efficacy, outcome expectation, goal orientation, internal locus of control and external locus of control (individual-related variables), employability culture (organizational-related variable) and job autonomy (job-related variable) were positively associated with professional employees’ protean career behavior. In contrast, there were no significant relationship among mentoring (organizational-related variable), task significance and job feedback (job-related variables) towards professional employees’ protean career behavior. Furthermore, the findings also indicated that goal orientation, employability culture and mentoring explained professional employees’ protean career behavior differently for high and low level usage of career strategies. The
findings of this study confirmed Social Cognitive Career Theory (SCCT) that proximal contextual elements (i.e., career strategies) would moderate the relationship between goal orientation (individual-related variable), employability culture and mentoring (organizational-related variables) on protean career behavior. This study provides a predictive framework explaining protean career behavior among professionals in E&E industry. The findings of the study also would assist individual, HRD practitioners and organization in understanding the issues and prospects of protean career behavior in the workplaces.
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

PERAMAL TINGKAH LAKU KERJAYA PROTEAN DAN PERANAN KERJAYA STRATEGIK SEBAGAI PENYEDERHANA DI KALANGAN PEKERJA PROFESIONAL DALAM INDUSTRI ELEKTRIK DAN ELEKTRONIK MALAYSIA

Oleh

WONG SIEW CHIN

Julai 2015

Pengerusi: Roziah Mohd Rasdi, PhD
Fakulti: Pengajian Pendidikan

Kajian ini bertujuan untuk mengkaji factor-faktor yang mempengaruhi tingkah laku kerjaya protean dan kerjaya strategik sebagai penyederhana di kalangan pekerja profesional di industri elektrik dan elektronik Malaysia. Konsep tingkah laku kerjaya protean telah memindahkan tanggungjawab pengurusan perkembangan kerjaya dari pihak organisasi ke individu masing-masing. Oleh demikian, kajian ini mengkaji tentang kecenderungan individu untuk membentuk kerjaya mereka, dan factor-faktor persekitaran yang mempengaruhi perancangan and pengurusan kerjaya individu. Penyiasatan dari segi teori dan praktikal adalah penting untuk memberikan pemahaman yang lebih menyeluruh mengenai sifat tenaga kerja demi menjangkakan tingkah laku mereka yang berkaitan dengan kerjaya. Lebih-lebih lagi, kajian ini juga bermatlamat untuk mengkaji peranan strategi kerjaya sebagai penyederhana di antara factor-faktor individu, organisasi dan kerja dengan tingkah laku kerjaya protean di kalangan pekerja profesional dalam industri E&E Malaysia. Hasil kajian ini menerangkan tahap tingkah laku kerjaya protean adalah tinggi di kalangan 306 responden di MNCs. Keputusan dalam model PLS-SEM mendedahkan bahawa pembolehubah individu (e.g., keberkesan diri, jangkaan hasil, orientasi matlamat, lokus kawalan dalaman dan lokus kawalan luaran), pembolehubah organisasi (budaya keupayaan mendapt pekerjaan), dan autonomi kerja (pembolehubah kerja) menunjukkan perhubungan yang positif dengan tingkah laku kerjaya protean. Sebaliknya, terdapat hubungan yang tidak signifikan di antara mentor (pembolehubah organisasi), tugas penting dan maklum balas kerja (pembolehubah kerja) dengan tingkah laku kerjaya protean di kalangan pekerja profesional di industry E&E. Keputusan kajian juga menunjukkan bahawa orientasi matlamat, budaya keupayan mendapat pekerjaan dan mentor mempunyai pengaruh yang berbeza terhadap tingkah laku kerjaya protean. Keadaan ini adalah bergantung kepada tahap strategi kerjaya yang berlairinan. Hasil kajian ini telah mengesahkan kepentingan elemen kontekstual proksimal (strategi kerjaya) di dalam SCCT model. Ia akan menyederhanakan hubungan antara pembolehubah individu dan organisasi yang berkenaan dengan tingkah laku kerjaya protean. Akhirnya, kajian ini menyediakan rangka kerja ramalan untuk menjelaskan tingkah laku kerjaya protean dalam kalangan profesional dalam industri E&E.
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I would like to extend my gratitude to those who have directly and indirectly contributed to the completion of my thesis. The completion of this thesis would not have materialized without the guidance, support, encouragement and assistance of all of them.

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I certify that a Thesis Examination Committee has met on (viva date) to conduct the final examination of (Wong Siew Chin) on her thesis entitled: “Predictors of Protean Career Behavior and the Moderating Role of Career Strategies among Professionals in Malaysian Electrical and Electronics Industry” 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 recommend that the student be awarded the Doctoral of Philosophy.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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Name of Member of Supervisory Committee: Bahaman Abu Samah, PhD

Signature: ________________________
Name of Member of Supervisory Committee: Wahiza Abd Wahat, PhD
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<tr>
<td>AVE</td>
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CHAPTER 1

INTRODUCTION

Background of the Study

In recent decades, the drastic changes in business environment has caused profound effects on an individual’s career (Greenhaus, Callanan & Godshalk, 2010). Individuals develop their careers in response to changing competitive work environments (Cabrera, 2009). The protean career behavior is increasingly popular in the 21st century (Arthur, Inkson & Pringle, 1999). Hall’s (1976, 1996, 2004) notion that protean career behavior explains individuals who manage their careers proactively based on their own value systems. Protean career behaviors are determined by individually defined goals and psychological success. Hall (2002) stressed that the central focus of career development is with the individual, not the organization in today workplace. They embrace freedom and self-directedness in managing their careers (Briscoe and Hall, 2006).

A review of career related literature explains that protean career behavior is a new approach for understanding career self-management. It conceptualizes self-directed and value-driven elements in realizing career goals. Basically, there are a wide variety of terms used synonymously to describe a protean career behavior. For instance, proactive career behavior (Sturges, Conway & Davey, 2002), individual career management (King, 2004), and self-managed career (Kossek, Roberts, Fisher & Demarr, 1998; Ball, 1997; Orpen, 1994). Based on these previous studies, the concept of protean career behavior is interchangeable with individual career management, career self-management, self-managed career are terms utilized as basis for individuals to take initiatives proactively and manages one’s career. In this study, the term of protean career behavior (Hall, 1976) is employed throughout the study.

Nowadays changes in the economic, social, technological and market pressures fostered a leaner organizational structure in order to adapt, respond, and compete in a turbulent business environment (DeFillippi & Arthur, 1996; Davis, Haltiwanger & Shuh, 1997; Reitman & Schneer, 2008). Many organizations are reducing managerial layers, outsourcing secondary business functions and initiating on collaborative work groups (Eisenhardt & Martin, 2000). These downsizing and restructuring activities had led to greater demands on the employees’ flexibility and competencies (Reitman & Schneer, 2008). Many employees are more alert that such business strategies is critical to enhance firms’ competitive edges. They understand the declining of long term career opportunities in the organization. Subsequently, they learn to navigate their career on their own as expected in a protean career behavior (Reitman & Schneer, 2008).

Most of professional employees either from management or technical categories will have to proactively iron out new strategies and career attitudes which will help them to survive in such contemporary employment environments (Arnold, 1997; Ballout, 2007). Allred, Snow and Miles (1996, p.26) suggested that organizations increasingly will “serve less as employers and more as tools that individuals can use to advance their careers”.
As employers increasingly withdraw from traditional career management programs, employees may be pushed to this new career concept (protean career behavior) either through redundancy, unemployment, organizational restructuring, new management, broken promises and loss of promotion opportunity (Hall, 1976; Baruch, 2006).

Basically, new career concept of protean career behavior is featured with non-linearity as compared with traditional career. The departure from traditional career and the accompanying changes to the psychological contract have attracted scholarly interest in individuals as agent of their own career destinies (Baruch, 2004). Hence, this study examines how an individuals’ predisposition will shape their careers, as well as how specific external environmental factors affect career planning and management decisions. Investigating this process is both theoretical and practically significant as to provide a better understanding to the nature of the workforce in anticipating career-related behaviors.

This study is conducted in Electrical and Electronics (E&E) industry in Malaysia, a most establishing private industry in Malaysia. According to Nambiar (2009), the E&E industry is characterized by rapid and dynamic changes in its business nature and organizational restructures resulting from external environment factors. This unique business environment is different from other private industries as there are direct effects and influence from advancement of technologies, changes in governmental policies, localization of multinational corporations (MNCs) as well as effect from the financial crisis of 1998 and 2008. As such professional employees in this industry are pushed to adopt a protean career behavior instead of depending on the limited traditional organizational career development programs (Sullivan, 1999; Arthur, Khapova & Wilderom, 2005; Hall & Chandler, 2005).

**Electrical and Electronic (E&E) Industry in Malaysia**

The Electrical & Electronics (E&E) Industry is Malaysia’s leading and the most established industry. Over the last thirty years, Malaysia has developed to become a major global manufacturing base for the electronics industry. The E&E industry in Malaysia started in the early 1970s as Malaysian government’s effort to promote export-oriented nation. With the establishment of the first semiconductor plant in Penang in 1972, the electronics industry has developed rapidly to become the largest industry within the manufacturing sector. This industry contributes significantly to the country’s exports and employment opportunities perspective. Based on the Malaysian Industry Development Authority’s (MIDA, 2008) records, there are four major sub-sectors of the E&E industry which include: electronic components, industrial electronics, consumer electronics and electrical products. It started from a total of just four companies with 577 employees and a total output value of RM25 million in 1970.

Since last two decades, the industry has shifted into the manufacturing of high-end products, and more capital-intensive operations. Special emphasis is given towards after-sales support and marketing instead of purely mass assembly and production. The capital investment per employee (CIPE) ratio showed a growth from RM79,149 per employee in 1995 to RM333,830 per employee in 2000 and RM578,469 per employee in 2007. The E&E industry is moving towards higher value-added activities through the intensification of R&D efforts as well as the incorporation of design and development
Over the years, Malaysia's electronics industry has developed significant capabilities and skills for the manufacture of a wide range of semiconductor devices, high-end consumer electronic and information and communication technology (ICT) products (MIDA, 2008). In the first quarter of 2012, the E&E industry has expanded to more than 1,900 companies with total investment of more than RM108 billion. It represents RM37 billion or 6% of Malaysia Gross National Income, 40% of the total export volume with the value of RM250 billion and offers 522,000 skilled and semi-skilled job opportunities in labor market (MIDA, 2012). According to 18th Malaysia Productivity Report (2011), the productivity performance of E&E products is 7.1 percent which represented 24.1 percent of added value contributions to the manufacturing sector.

Nevertheless, the prospect of Malaysia E&E industry is becoming hollowed out in near future due to two main reasons. First, many MNCs especially engaged in assembly operation, gradually moving offshore recently to cheaper regional competitors such as China, Vietnam and Indonesia. For instance, the investment from Japan, Taiwan and United States are decreasing due to the drive up operational and labor costs in Malaysia. Second, the oversupplies and shortages (periodic occasions) of global semiconductor industry affects the prices stability of the E&E industry (Malaysia Economic Outlook, 2009).

According to Malaysia Economic Outlook (2009), the economic slowdown in 2008 has led to decrease in revenue of E&E industry, particularly, diminishing in products demand, unstable pricing pressures and declined in purchases. Therefore, many companies in E&E industry implemented dynamic cost saving strategies in order to ensure their survival in the industry. In 2010, the gross output of the industry declined to a total of RM158.7 billion (US$50.94 billion), exports amounted to RM235.5 billion (US$75.7 billion) as compared with 2008. (Economic Outlook, 2010).

Subsequently, workforce reduction has always been regarded as a potential means of minimizing expenditure in the operation. In 2009, the statistical data from Department of Labour revealed that the number of retrenchment for voluntary separation scheme (VSS) was recorded higher in 2005 with 13,689 workers and subsequently dropped 27.2 per cent to 9,958 workers in 2009. Meanwhile, there are 90,438 workers’ laid off by employers from 1st Oct 2008 to 18th February 2009 including permanent retrenchment, voluntary separation scheme (VSS), lay off and salary cut.

The data indicated that semi-conductor and electronic industry experienced biggest declines in employment and career opportunities as compared with other industries. In view of the job insecurity and drastic working environment, protean career behavior is seen to be more appropriate to be practiced by employees career development instead of depending on traditional organizational career development program (Briscoe, Hall & DeMuth, 2006). The dynamics of career development opportunities in E&E Industry is explained in the following section.
Career Opportunities in Electrical and Electronic (E&E) Industry

The drastic workforce reduction programs indicates that job security and career growth path within E&E industry is diminishing. Many organizations are forced to implement cost down strategies by reducing programs in employee training and development, career development and well-being improvement (Harvey & Brown, 2006). In view of these changes, employees begin to be aware of the importance of “self-concept”. They accept individual responsibility for determining their own career path in articulating and satisfying these needs to the performance requirements of firm.

They are required to be “able adopt many different perspectives, to deal with contradiction, to accumulate diverse experience and to tolerate uncertainty and to process information heuristically” as suggested by Arnold (1997, p.16). Self-concept is emphasized to be congruent with individual’s changing strengths and weaknesses, belief and attitudes among the employees. Self-concept orientation also explained as “self-directed” elements in protean career behavior attitudes (Stewart & Knowles, 2000). Putnam and Hanson (1972) added that self-concept is essential specifically in protean career behavior development. Career development is a process of developing and implementing self-concepts, with satisfaction to self and benefits to society (Briscoe et al., 2005).

In search of their own career advancement prospects lacking in their current organizations, professional employees in the E&E industry are willing to be ‘poached’ by competitor organizations for their expertise or as professional employees. (Hall & Chandler, 2005). Moreover, the upcoming “gold collar workforce” (i.e., generation X and Y) are highly skilled professional employees in various technical and managerial functional areas. They shifted their focus from life-long employment relationship to frequent job-hopping in searching for challenging jobs and career success opportunities (Holland, Hecker & Steen, 2002; Ruona & Lynham, 2004).

Park and Rothwell (2009) pointed out that career strategy is one of the methods to enable individual be personally responsible for managing their own careers. Greenhaus et al. (2010, p.131) defined career strategy “as any behavior, activity, or experience designed to help individual to meet career goals”. Employees pursue career strategies based on the expectation that it will provide them with greatest chances of achieving career success. Noteworthy to stress that internal and external contextual factors has shifted the traditional career development to a new trend of protean career behavior development among professional employees in the industry. In fact, such changing landscape of career development in E&E industry is closely related and affected by the Malaysian human resource development (HRD) policies as discussed in the next session.
Malaysian Policies in Human Resource Development in Private Sector

One of core activities of the New Economic Model (NEM) is to intensify human resource development (HRD). The main purpose is to develop human capital to be knowledgeable, competitive, high skilled, dynamic, flexible as well as innovative which are prerequisites towards achieving a developed and high income nation (NEAC, 2010). Human resource development (HRD) is a “combination of training, career development and organizational development offers the theoretical integration need to envision a learning organization, but it must also be positioned to act strategically throughout the organization” (Marsick & Watkins, 1994, p.355).

The National Economic Advisory Council (NEAC) foresees that the HRD process will drive labour productivity and boost efficiency to reach growth of 6.5% per annum over the 2011 to 2020 period. In addition, per capita Gross National Product (GNP) will be improved to about USD17,700 by 2020. In other words, the initiatives from government provide significant changes of direction and administrative related activities in E&E industry, particularly to develop skilled workforce as outlined in the Strategic Reform Initiative (SRI) 2 “Developing a quality workforce and reducing dependency on foreign labor” (NEAC, 2010).

In supporting human resources Training and Development (T&D), the government implemented the Human Resource Development Act (1992). There is a series of HRD support mechanisms, incentives and initiatives introduced to manufacturing sector. One of the key attentions is to develop, retain and attract skilled professionals, particularly to embrace their talent which is needed to spur an innovative and high value added knowledge economy as outlined in the New Economic Model. On 8 September 2012, the Prime Minister announced two more initiatives to accelerate the workforce transformation and development program through (i) MyProCert, a program to develop employees’ skills towards international certification standards, and (ii) the national talent enhancement program (NTEP) in E&E industry. The NTEP is a 12 months training program which is intended in developing employees’ required skills via partnerships with E&E companies. These initiatives are drawn on the assumption that employees should be continual learners who are always expose to new possibilities and view their career as a series of learning stages. In turn, employees are more confident to manage their own career achievement as emphasized by protean career behavior (Sears, 1982; Hall & Briscoe, 2006; Enache, Sallan, Simo & Fernandez, 2011).

Linking Employees’ Protean Career Behavior Practice in E&E Industry and Malaysia HRD Policies

According to Santhapparaj, Sreenivasan and Chong (2006), HRD is in line with the Malaysia government’s policy and Vision 2020 to develop knowledge workers in order to maintain competitive and career growth. Thus, by providing training and development (T&D) programs, workers are more likely to find jobs quickly that match their skills (employability) and the right jobs could rapidly attract the right workers (marketability). It is noteworthy to emphasize that by acquiring the required skills and competencies from the training and development programs, employees will become more self-reliant in managing their careers and assume the ‘ownership’ of career development. They acquire and develop a demonstrable set of portable skills and
knowledge which fosters adaptability in any environments instead of depending on the traditional organizational career development practices (Sullivan, 1999; Hall & Mirvis, 1996; Anakwe, Hall & Schor, 2000).

In line with this effort, Malaysia government has allocated RM54.6 billion, or 21% of budget 2014 in human capital development. This allocation is to achieve third budget thrust of “Inculcating Excellence in Human Capital”. In order to have effective training and development program, government continues to provide RM400 million for registered companies in employees’ up-skilling and reskilling programs in budget 2014. The allocation can also be used by these companies to train apprentices and future workers.

Similarly, government will introduce a new program, namely “Global Recognized Industry and Professional Certification Program” (1MalaysiaDRIP), with an allocation of RM300million in matching grants between the government and the Human Resource Development Fund to train 30,000 professional employees in Malaysia Budget 2015. At present, there are 13,000 registered employers who contribute a levy of 1% of the monthly wages of workers to the Human Resource Development Fund (HRDF). The levy is used to train and upgrade the skills of workers. Ultimately, employees with relevant skills and knowledge are able to manage their career in the proactive, self-directed way as well as driven by personal value in protean career behavior (Hall, 2002).

In E&E industry, on job training (OJT) techniques including job rotation and self-learning are widely practiced in most of MNCs. While off job training programs (Off-JT) are outsourced to outside agencies to train the employees. Generally, most of the employees’ training and development programs are sponsored by their employers, and wage payment during the training period is guaranteed (Steven, 2008). Trainees are required to continue working in their firms on completion of training as stipulated in employment agreement. Nonetheless, upon completion of the ‘training and employment period’, employees are allowed to move on for own career development as emphasized in protean career behavior (Steven, 2008). Therefore, it is important for employees and employers to aware of skill and knowledge development via organizational training and development program in assisting them to develop protean career behavior.

Factors Influencing Protean Career Behavior in E&E Industry

Protean career behavior development in E&E industry can be explained both by theoretical and practical reasoning. Theoretically, Social Cognitive Career Theory (SCCT) highlights that individual characteristics and external environment factor have influenced individual’s career choice action especially protean career behavior (Lent, Brown & Hackett, 1994; Brown, 2007). Since career is viewed as a property of an individual rather than an organization, individual-related factors such as self-efficacy, outcome expectation, goals orientation and locus of control were chosen as independent variables (Baruch, 2004).

Doyle (2000) further restated the interdependence of employers and employees in the career development process, noting that individual careers are influenced by
organizational-related factors. The organization success depends on the linkage between organizational goals and individual aspirations. The employability culture (Ostroff, 1993; Van der Heijde, Van der Heijden & Schyns, 2006) and mentoring (Noe, 1996; Van Dam, 2004; Ensher, Thomas & Murphy, 2001) are two important organizational-related factors is more likely to affect employees’ protean career behavior.

Since the career is viewed as ‘the pattern of work-related experience that span the course of a personal’s life’ (Greenhaus et al., 2010), job-related factors of autonomy, task significance and job feedback were examined to identify their association with protean career behavior among professional employees. Empirically, Park and Rothwell (2009) revealed that the use of career strategies in developing opportunity influences greater individual self-responsibility in managing careers and becoming self-directed in choosing a career.

In present study, individual, organizational and job related factors were identified as the three main factors influencing protean career behavior in the industry. Career strategies were examined to identify their moderation effect on the relationship between individual, organization and job-related variables and protean career behavior (Lent & Brown, 2006), particularly in E&E industry context.

**Statement of the Problem**

While the importance of protean career behavior has been discussed in the career management discipline over the last three decades, a comprehensive empirical approach to protean career behavior as a dependent variable has yet not fully developed. Majority of the studies examined the role of protean career behavior as an independent variable and its relationship to other dependent variables such as organizational commitment, career success, employability, HRD practices and career mobility (Briscoe et al., 2006; Sargent & Domberger, 2007; De Vos & Soens, 2008; Park & Rothwell, 2009).

Similarly, there are limited local studies of protean career behavior correspondences to career-related outcomes. Available local studies so far are career advancement (Maimunah & Lawrence, 2007), career success (Poon, 2004; Roziah, Maimunah, Jegak & Sidek, 2009), job insecurity (Reetha, 2010), career aspiration (Maimunah & Efizah, 2010), career goal (Maimunah & Hoo, 2014), and individual career management (Wesarat, Sharif & Abdul Majid, 2014). Particularly, the study to investigate the precedence of protean career behavior is still lacking. The investigation on relevant contextual and individual-related variables that may be associated to protean career behavior is limited (Briscoe et al., 2006; Segers, Inceoglu, Vloeberghs, Bartram & Hendericks, 2008; Park, 2009; De Bruin & Buchner, 2010; Maimunah & Efizah, 2010; Chan & Ong, 2014). In view of this situation, there is research gap to determine the association between protean career behavior and relevant research variables (e.g., individual, organizational and job-related variables).

Literature review also shows that there is less research conducted on protean career behavior among professional employees in private setting, particularly in the E&E industry. This is a noteworthy gap that most of the previous studies were related to other industries in previous literatures. For instance, O’Sullivan’s (2002) study on
repatriates, Sargent and Domberger (2007) conducted a research in United States higher education industry. Later in 2009, Park and Rothwell’s (2009) engaged their study in Korean Finance industry and Park’s (2009) study on South Korean manufacturing industry. Reetha’s local study focused on contract basis workers in Malaysia public sector. Recently, a local study conducted by Chan and Ong (2013) focused on Malaysia hospitality industry, which are different business environment and industry background as compared with E&E industry. In view of different industries background, additional empirical research is needed to bridge this gap by examining protean career behavior among professionals in E&E industry.

Moreover, domestic statistical data indicated that the E&E industry experienced the biggest decline in employment and career opportunities as compared with other industries (Opalyn, 2012). Protean career behavior is increasingly adopted and practiced by employees in view of job insecurity and drastic working environment in E&E industry (Enache, Sallan, Simo and Fernandez, 2011; Opalyn, 2012). However, the empirical evidence concerning the level of protean career behavior among professionals in E&E industry is lacking from local studies. Thus, the present study is to address such empirical gap specifically.

Past studies indicated that locus of control is important to career development process (Fuqua, Blum, & Hartman, 1988; Woodbury; 1999; Brusoski, Golin, Gallagher & Moore, 1993). Individuals who were more internal in locus of control had more mature and self-directed career attitudes in protean career behavior (Blustein, 1988; Rodriguez & Brocher, 1988; Sturges, Conway, Guest & Liefooghe, 2005; Shevlin & Millar, 2010). However, Sue and Sue (1990) and Lease (2004) revealed that external career locus of control was also significantly related to protean career behavior, particularly during decision making process. Based on the literature review, there were mixed research findings to indicate the significant impacts of either internal and external locus of control on protean career behavior (Blustein, 1988; Rodriguez & Brocher, 1988; Sue & Sue, 1990; Lease, 2004; Sturges et al, 2005, Guan, Wang, Dong, Liu, Yue, Liu, Zhang, Zhou, & Liu, 2013). Therefore, there is research gap to identify the impact of internal or external of locus on control influences on professional employees in Malaysian E&E industry context.

The characteristics of organizational environment plays a vital role to influence individual’s protean career behavior (Ball, 1998; John, Wendy, Tomothy & Robert, 2001; McCartney & Teague, 2001; Tzabar, Vardi & Baruch, 2003; Van Dam, 2004; Wiersma & Hall, 2007; Dikkers, Jansen, Lange, Vinkenburg & Kooji, 2010). However, most previous studies have only concentrated on individual differences framework when addressing career development practices. Less focus has been paid on the impact of organizational factors especially employability culture and mentoring on protean career behavior (Nauta, Vianen, Van Der Heijden, Van Dam & Willemsen, 2009; Kroth & Christensen, 2009, Ramaswami, Huang & Dreher, 2014).

In term of job-related factors, previous empirical studies added on that certain job characteristics is associated with protean career behavior (e.g., autonomy, task significance and job feedback) (McMurtry, Grover, Teng & Lightner, 2002; Bakker & Demerouti, 2007; Grant, 2009). Nevertheless, there is relatively little empirical research on the direct influence of job-related characteristics on protean career behavior. A review
of literature indicated that there have been no quantitative studies to date which examined the application of job characteristics to protean career behavior in Malaysian context except a study conducted by Choo, Mat and Al-Omari (2013). They concentrated on the association between Job characteristics model (JCM) and career opportunity in Malaysia multinational electronics manufacturing companies. In a similar vein, Johari, Yahya, Che Mit and Omar (2011) looked into validation study of the dimension of JCM in Malaysia public sector.

In addition, previous study conducted by Park and Rothwell (2009) indicated career strategy as contextual factor that is significant to protean career behavior. However, there is still limited study to identify its moderating role on the relationship between individual, organization and job related variables and protean career behavior (Gould & Penley, 1984; Noe, 1996, King, 2003; Nabi, 2000; 2003; Lee, 2002; Greenhaus et al., 2010).

Thus, the research questions are as such:
(i) Do individual-related factors influence protean career behavior in the E&E industry?
(ii) Do organizational-related factors influence protean career behavior in E&E industry?
(iii) Do job-related factors influence protean career behavior in E&E industry?
(iv) Does career strategy moderate the selected independent variables and professional employees’ protean career behavior?

This study intends to answer the above research questions and fill up the knowledge gap by focusing and assessing an individual’s protean career behavior and investigate relationships between individual, organizational and job-related variables towards protean career behavior.

Objectives of the Study

General Objective

The overall objective of this study is to examine the predictors of protean career behavior and the moderating effect of career strategy on the relationship between selected independent variables and protean career behavior among professionals in the E&E industry.

Specific Objectives

The specific objectives of this research are:

i) To determine the levels of the protean career behavior among professionals employees in E&E industry.
ii) To determine the levels of individual-related variables (self-efficacy, outcome expectation, goal orientation and locus of control), organizational-related variables (mentoring and organizational culture) and job-related variables (autonomy, task significance and job feedback) among professionals in E&E industry.
iii) To determine the relationship between individual-related variables (self-efficacy, outcome expectation, goal orientation and locus of control), organizational-related variables (mentoring and organizational culture) and job-related variables (autonomy, task significance and job feedback) and protean career behavior among professionals in E&E industry.

iv) To identify the factors contributing to protean career behavior among professionals in E&E industry.

v) To determine the moderating effects of career strategies on the relationships between the individual, organizational and job-related variables and protean career behavior among professionals in E&E industry.

vi) To develop theoretical model to explain protean career behavior among professionals in E&E industry.

**Significance of the Study**

The study provides insight for theoretical development, individual career decision process, organization practices and national policy. For theoretical development, the current study sought to extend existing knowledge of career management. Especially to explain protean career behavior in a more practical approach in a Malaysia context. The present study extends research on SCCT by focusing on relevant individual, organizational and job-related variables towards protean career behavior. In addition, the study also examines the moderating effect of career strategies on the relationship between the independent and dependent variables. The relevant individual, organization and job-related variables tested in the research also provide the predictability of these factors towards professionals’ protean career behavior in Malaysian private industry.

The study recognizes job characteristics as a crucial dimension to measure the impact of job-related variables on protean career behavior which was not included in SCCT model (Lent et al., 1994). Lent and Brown (2006) only acknowledged the association between work conditions (i.e., job characteristics) and individual’s participation in goal-related activity (i.e., goal actions), but the theoretical concept is presented in a separate theoretical framework. Thus, this study is minimizing the research gaps by incorporating job-related factors as independent variables to protean career behavior among professional employees in the Malaysia private sector.

It should be noted that this is the first study that has explored the effect of career strategies as the moderator variable between the independent variables and professional employees’ protean career behavior. The investigation on this perspective sought to reduce the research gap, which is lacking of empirical evidence to capture the interaction effect between independent variables and career strategies. Hence, the study has contributed to the body of knowledge by integrating SCCT, JCM, integrative model of job design and proactive behavior as well as career dynamic model of reactions to develop a dynamic model of protean career behavior among professionals in E&E industry.

Review of literatures has also explained that self-values typically influences protean career behaviors and achieving work life balance (Sargent & Domberger, 2007). The values fit between individual and organizational could influence individual career
satisfaction, commitment, turnover and performance. At the organizational level, this study attempts to help managers to understand the fitness between employees’ values and organizational value. It is important to develop and integrate appropriate human resource policies, strategies as well as training and development modules that can enhance employees’ commitment, efficiency and productivity towards organizational goals.

Several studies have examined person-psychological variables in career development and the potential influence of contextual factors in predicting career paths (Betz, 1989; Park & Rothwell, 2009; Maimunah & Efizah, 2010). Lent et al. (1994) identified that external contextual influence might influence (i.e., direct or moderating effects) individual’s career choice actions. Thus, the findings on the moderation effect of career strategies will enable the HR practitioner to design effective HRD intervention to suit the needs of employees. It also provides insights for organizations to develop “protean career behavior architects” as performance coaching guidelines to all employees (Seger, Inceoglu, Vloeberghs, Batram & Henderick, 2008).

For the national HRD policies, the findings of this study are useful to provide insights that the influences of individual characteristics and contextual factors in shaping human capital development. Employee competency development will have impact to goals achievement of Vision 2020 and NEM, which are heavily dependent on the enhancement of workforce and human capital development in Malaysia’s economy (NEAC, 2010) as outlined in SRI 2; “Developing a quality workforce and reducing dependency on foreign labor”.

The focus on of protean career behavior will increase employees’ awareness and readiness to manage their career in a more proactive way. Noteworthy to highlight that employees are proactively acquiring relevant skills, knowledge and opportunities via training and development programs introduced by the organizations and government. The proactive roles of employees participating in training and development programs would maximize knowledge transfer during learning processes and enhance self-competencies for career growth. In this situation, the competencies and employability always leads to career success and contributed to talent development as outlined in SRI 2 of NEM. Notably, the development of protean career behavior among professional employees is vital in achieving objectives of national HRD policy. Thus far, Malaysia’s excellent growth in its economy is due to high dependency on its workforce human capital development (Budget, 2014, 2015).
Assumptions

The primary assumptions underlying this study are the existence of fundamental difference in individual’s values, beliefs and personality; and changes in the contextual environments which affect individuals’ protean career behavior among professional employees in E&E industry. Employees are assumed to cognitively utilize relevant information to determine the maximum beneficial alternatives to manage their own career (Staw, 1981; Manuel, 1983, Thite, 2001; Reitman & Schneer, 2008). Many of the research models and instrumentations are adopted from western literatures, the study assumes that the models and instrumentations are valid and applicable in the context of Malaysia E&E industry. Besides, there is strong connotation that dynamic career management process is driven by the individual along different life stages. The employees are assumed to proactively to take charge of their own career development under the dynamic and vigorous business context. Moreover, the targeted respondents are highly educated group who might utilize strategic action plans to pursue the career goals. Hence, appropriate career strategies are employed by the respondents to pursue protean career behavior.

Limitations of the Study

The study shares the limitation as others which employed cross-sectional designs. The researcher realized that the patterns of correlations and findings may vary according to circumstances, which particularly affect the findings of the research. The study is limited to certain sample of professional employees in E&E industry. According to Nambiar (2009), professionals in E&E industry are influenced by the rapid and dynamic changes of business environments. Organizational changes have influenced the nature of careers and impacted individual career progress (Wiersma & Hall, 2005). It entails the professional employees assuming greater responsibility for developing competences and attitudes such as pro-activeness and adaptability (Hall, 2002). Therefore, the findings of this study cannot be generalized to other industries such as education, medicine, hospitality, tourism and public sector.

Since self-administered questionnaire is used to collect data in this study, the data accuracy depends on the respondents’ honesty and willingness in answering the questionnaires. Similarly, the professional employees’ protean career behavior and factors contributing to protean career behavior were determined based on self-reported data, and therefore, it might have caused some common variance in data analysis stage. However, complete instructions were given in each section of the questionnaire in order to minimize the respondents’ ambiguity and misinterpretation (Williams, 2003).

Owing to the ethical obligation to maintain the confidentiality and privacy of the selected MNCs in this study, there is a high restriction of not providing and disclosing detailed information background of MNCs involved. This include the names of the MNCs, addresses, size of the companies and others relevant correspondence documentation of the research. However, the researcher expected that such restriction would not affect the usefulness and predictability of the collected data.
This study limits itself to a restricted number of antecedent variables such as individual, organizational and job-related factors to explain the phenomenon of protean career behavior. Thus, the study had to exclude some of the potential factors such as work life balance and organizational commitment that were also found to correlate with individual’s protean career behavior.

**Definition of Terms**

The definitions in this study are as follows:

*Protean career behavior* is defined as a career where the individual who experiencing greater responsibility for their career choices and career development. Protean career behavior is operationalized as professional employees manage their own career development based on self-directedness and value driven dimension.

*Professional employees* refer to white collar workers, well trained in their job scopes and skilled in performing tasks.

*Self-efficacy* is defined as individual’s judgment regarding ability to perform a task at certain level. Self-efficacy is operationalized as professional employees’ perceived level of confidence in one’s ability to perform various activities related to career planning and development.

*Outcome Expectation* refers to the individual’s estimation of a certain behavior that will result in certain outcomes. The operational definition refers to professional employees’ expectation of having particular career outcomes as a medium of performing behavior and the extent they value the outcomes.

*Goal Orientation* refers to goals pursued by individuals in order to achieve the desired outcome. Goal orientation is operationalized as professional employees develop learning and performance goal in order to shape their behavior and increase likelihood to attain career goals.

*Locus of control* refers to the perceived location of reinforcement sources for a person that is, who or what is responsible for the things that happen to a person. It is operationalized as professional employees’ perceived that the desired outcome is contingent upon his or her behavior known as internal locus of control; or controlled by luck, fade or outside forces namely external locus of control.

*Employability culture* refers as a cognitive facet of culture to support employees’ employability. It is operationalized as a supportive organizational culture which increases professional employees’ employability orientation by developing flexible and broader skills in employment.

*Mentoring* refers is defined as a process in which individual receives advices from a more experienced employees on a range of issues relating to job or career development. Professional employees are engaged in coaching, friendship and role modeling activities in order to enhance learning ropes and manage career advancement.

*Job characteristic* refers to the enriching job dimensions which affect professional employees’ job satisfaction and performance.

*Job Autonomy* refers to the discretion that employees have in executing their job. It is operationalized as professional employees have substantial freedom, independence, and discretion to perform the job.

*Task significance* refers to the degree to which the job provides opportunities to have positive impacts on well-being of others. It is operationalized as professional employees’ job has a substantial impact on the lives of other and high in task interdependence with others.
Job feedback refers to the extent of work activities which provide job incumbent relevant information about the job performance. It is operationalized as the professional employees get direct and clear information about the effectiveness of their performance.

Career strategies refers to the action plan to enable individuals in managing their own careers. It is operationalized as the professional employees use particular career strategies based on the expectation that to have the greatest opportunity of attaining personal and professional career success.
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