

INFLUENCE OF JOB SATISFACTION, SOCIAL SUPPORT SYSTEM AND
WORK-LIFE BALANCE ON MALAYSIAN WOMEN ENGINEERS'
PROFESSIONAL COMMITMENT

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DEDICATION

To Emak and Abah – for the endless prayers. To my siblings, Dr. Nik and everyone else who has been part of this journey.

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ABSTRACT

A limited number of studies have explored the factors related to professional commitment of women engineers in the Malaysian context. The decreasing presence of female representation in the engineering sector in Malaysia could contribute to a significant brain drain and impairs growth of Malaysia's economy. This study investigated the influence of job satisfaction, social support system and work-life balance on the professional commitment of Malaysian women engineers. Data were gathered from women engineers across Klang Valley in the form of survey questionnaires. Through this cross-sectional study, relationship and influence of these human resource factors to the professional commitment of Malaysian women engineers were determined. This study implied that there exist moderate level of jobs satisfaction, social support, work-life balance and professional commitment amongst Malaysian women engineers. Jobs satisfaction and work-life balance has been found to have moderate relationship with their professional commitment. Furthermore, job satisfaction emerged as the biggest factor that influences professional commitment amongst Malaysian women engineers. Results from this study could help organizations and policy makers in implementing strategies that can strengthens professional commitment of women engineers and in return increases their intention to stay in their profession.

ABSTRAK

Kajian yang menerokai faktor-faktor berkaitan dengan komitmen kerjaya bagi jurutera wanita di Malaysia adalah terhad. Pengurangan bilangan jurutera wanita yang meneruskan perkhidmatan mereka di dalam bidang kejuruteraan menghampiri tahap yang membimbangkan dan secara tidak langsung hal ini telah menyumbang kepada ketandusan modal insan dalam bidang ini di Malaysia. Kajian ini bertujuan untuk mengenal pasti hubungan dan pengaruh kepuasan kerja, sistem sokongan sosial dan keseimbangan kehidupan-kerja jurutera-jurutera wanita kepada komitmen kerjaya mereka. Hubungan dan pengaruh faktor-faktor diatas ditentukan melalui kajian keratan rentas daripada data yang diperolehi dengan menggunakan soal selidik yang dikumpulkan daripada jurutera-jurutera wanita dari sekitar Lembah Klang. Keputusan kuantitatif menunjukkan bahawa wujud tahap kepuasan kerja, sistem sokongan sosial, keseimbangan kehidupan-kerja dan komitmen kepada kerjaya yang sederhana di kalangan jurutera-jurutera wanita di Malaysia. Kepuasan kerja dan keseimbangan kehidupan-kerja didapati mempunyai hubungan yang kuat dengan komitmen kepada kerjaya mereka. Kepuasan kerja muncul sebagai faktor terbesar yang mempengaruhi komitmen kepada kerjaya di kalangan jurutera-jurutera wanita di Malaysia. Dapatan kajian ini dapat membantu organisasi dan pembuat polisi di dalam melaksanakan strategi yang boleh membantu untuk meninggikan komitmen kerjaya jurutera-jurutera wanita di Malaysia dan secara langsung meningkatkan keinginan mereka untuk terus berkhidmat dalam bidang kejuruteraan.

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LIST OF ABBREVIATIONS

ANOVA	-	Analysis of Variance
COL	-	Critical Occupation List
IES	-	Institute for Employment Studies
ILMIA	-	Institute of Labour Market Information and Analysis
JS	-	Job Satisfaction
MSPSS	-	Multidimensional Scale of Perceived Social Support System
MSQ	-	Minnesota Satisfaction Questionnaire
PC	-	Professional Commitment
SET	-	Social Exchange Theory
Sig.	-	Significance Probability
TNB	-	Tenaga Nasional Berhad

LIST OF SYMBOLS

df	-	Degree of Freedom
F	-	F-statistic
N	-	Population size
n	-	Sample Size
p/P	-	Significance Probability
r	-	Pearson Coefficient
R/R ²	-	Correlation Coefficient
t	-	t-statistic
x	-	Independent Variable
y	-	Dependent Variable
β	-	Weight of Regression

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CHAPTER 1

INTRODUCTION

One of the challenges in global economies today is to attract and retain professional women who are qualified in the labour force. A professional is defined as an individual who has been formally trained and certified by a qualified professional body specified to that profession. To practice as a professional, the individual's competence level must meet a set of standards specific to the related job scope. Professions are of utmost importance to the society as extensive time, effort and resources have been acquired to develop the required skills, and their knowledge and skills are vital to the country's development.

Since women make up roughly half of the global population, unlocking the female talent asset through gender diversity and inclusion initiatives could be the differentiating factor or even a deal breaker for economies aspiring to move up the value chain. It is therefore imperative for Malaysia as a developing country to focus on retaining professional women in the workplace and to address the relatively low level of female participation in the labour force particularly in male dominated profession such as engineering.

One of the key reasons for less participation of women in this male dominated profession is due to gender biases. Also, significant portion of women workers in the Malaysia leave their job when they start a family, and thereafter do not return to the workforce. Based on the study carried out by Talent Corp-ACCA in a survey report entitled "Retaining Women in the Workplace" indicated that 93% of those surveyed want to return to the workplace but around 63% found it difficult to do so which resulted in Malaysia as one of the countries where women leave their job and do not return to the their qualified profession (TalentCorp-ACCA, 2013).

1.1 Background of Study

In Year 2000, according to the statistic produced by the World Bank on female participation in “industry” which includes values from mining, manufacturing, construction, electricity, water, and gas sectors, percentage of women working were at 28.9%. However, in Year 2017, this number dropped down to 20%. This suggest that employment of professional women in the industry sector has been declining (World-Bank, 2017).

Based on the statistic produced in Graduan 2016 by the Ministry of Education Malaysia, the number of women graduating from engineering field is 9,610. However, according to the 2016 Statistic on Women, Family and Community produced by the Ministry of Women, Family and Community Development (MWFDC) Malaysia, only 2,508 new women engineers were registered as professional and graduate engineers between Year 2015 to 2016. This implies that only 30% of the female graduates in Malaysia with an engineering degree end up pursuing a career in their qualified field.

The prevailingly low rates of women continuing their profession in engineering upon graduation raises a few compelling questions as to why this gap exists. Some questions that can shed light to addressing the issues includes; what are the unique pressure and challenges women engineers face in the Malaysian context? Is there lack of gender diversity and inclusion initiatives to encourage women engineers in Malaysia to stay committed to their profession? Is there safety issues or concerns for women engineers? Is self-motivation factor that impedes women engineers from pursuing careers in their qualified field? Do Malaysian women engineers feel dissatisfied with their job? Above all, the question that needs to be asked and answered to is how employers can facilitate a favourable environment for working women engineers to encourage retention in the profession itself.

In other developing countries, a growing number of researches have been carried out to study the factors driving retention and motivation of women engineers. In studies carried out in other countries, job satisfaction, support system, career

guidance, work flexibility and recognition were identified as key factors in retention motivation.

A previous study carried out by Johari, Mat, Mat, Othman, and Mohamed (2013) concluded career motivation significantly contributes to Malaysian women engineers' career success. However, our current understanding of why Malaysian women leaves and withdraws from the engineering profession altogether is still limited. Therefore, this paper aims to further explore the perceptions of Malaysian women engineers about their job and work environment particularly relating to their job satisfaction, social support system, work life balance that contributes to their intention to stay in their profession (professional commitment).

Professional commitment defines the dedication of a person to their career, dedication to the professional standards and dedication to co-workers in the same field. Professional Commitment is as a major variable to positive employee relations and highly trained employees such as scientists and engineers continue to be deeply loyal to their career and profession (Baugh & Roberts, 1994). It is estimated that for an engineer to become fully competent in their field, 5 to 10 years of experience is required. Therefore, women in the age range between 30 to 34 is deemed to be fully competent. However, in their 30's women often think of leaving their profession to pursue other career paths. It is imperative to study their professional commitment as strong commitment to a profession is directly linked to job satisfaction, which leads to greater intention to stay.

Job satisfaction is characterized as the degree of happiness a worker feels in their working environments where the happier the person is, the more satisfied they are with their job. Therefore, as opposed to job satisfaction, job dissatisfaction contributes to the idea of career change. Lower levels of job satisfaction lead to greater career abandonment thought and when paired with reasonable reasons and other options, results in withdrawal from occupation and in most cases opting out of the engineering profession all together.

Supportive social system is an important element to the success of women in male-dominate professions. Social support from families and other female role models is also found to be a positive influence that enables women engineers to better cope with negative socialization pressure and social identity threats such as gender biases that the engineering profession is known for.

For women engineers, the challenging demands both at work and at home could have negative implications on their well-being and their job performance. For organizations to sustain women engineers, it is increasingly important to realize that creating an environment which allows and encourages a healthy work-life balance will be crucial and subsequently will lead to heighten professional commitment amongst women engineers.

1.2 Problem Statement

In the report produced by the Ministry of Women, Family and Community Development in Malaysia in 2010 (Johari et al., 2013), approximately 70% of women who obtained degrees in science, engineering and technology are not working in their qualified fields. The reduction in the number of professional women engineers in the practice could contribute to a significant brain drain and impairs growth of Malaysia's economy. Private organizations struggle to get qualified women to work which subsequently leads to reduced local expertise. This brain drain in the engineering profession can lead to lost of skilled workers in our emerging economies and subsequently weakening growth in Malaysia's economy. Furthermore, since effort, resources and money have been invested to train qualified Malaysian female engineers in both government and private sectors, it is important to study their professional commitment to ensure that investments made by all parties are not wasted.

The Critical Occupation List (COL) for Malaysia developed by Talentcorp, Institute Labour Market Information and Analysis (ILMIA) and World Bank highlighted that engineers are some of the most sought-after and hard to fill

occupations in Malaysia. The 2018/2019 COL report indicated that engineering positions are difficult to fill due to primarily candidates who do not meet the required qualification, expertise, technical know-how and job experiences. Respondents reported that positions in this occupation category require substantial experience in the field and 67% of companies revealed that there is a shortfall of engineers with more than 4 years of experience. As this profession requires niche set of skills, all the company surveyed do not report hiring less well qualified workers. Many multinational companies opted to hire foreign experts to fill this gap. The impact of the shortage caused companies to face difficulties in meeting customer specific technical demands and objectives and current workers in the workforce reported to have been burdened from increase in workloads. In Malaysia, like many other countries struggling with engineer shortages, the shortage of trained professionals is further compounded when Malaysian women engineers are drawn to less technical occupations such as working as insurance agents, bank officers and teachers.

A study on UK oil and gas sector further elaborated that women decides to start their career in the workforce are most like to leave early. This leads to another issue that contributes to deteriorating numbers of women engineers continuing their career past senior levels that is the scarcity of highly regarded and well-respected female role model in upper management that successfully integrated career and family in the industry.

It is necessary to understand women engineers' satisfaction related to their work as well as to understand how women experiences support in their professional engineering career in order to determine the factors that contributes to the decreasing presence of female representation in the engineering sector in Malaysia. Job satisfaction, social support system and work-life balance needs and requirements for female working in the engineering sector can be different from other industries which are more gender neutral and this issue has not been addressed in the country.

Based on what has been discussed above, this research aims to seek answers to whether within a Malaysian context, specifically amongst female engineers, the influence of job satisfaction, social support system and work-life balance to their

professional commitment. Specifically, this study attempts to explore whether there is significant positive influence between these three variables to levels of professional commitment among Malaysian women engineers.

1.3 Research Objectives

The objectives of the research are:

- (1) To determine the level of job satisfaction, social support system and work-life balance among Malaysian women engineers
- (2) To identify the Malaysian women engineers' perception regarding their professional commitment
- (3) To examine the relationship between job satisfaction, social support system and work life balance with Malaysian women engineers' professional commitment
- (4) To examine the influence of job satisfaction, social support system and work life balance on Malaysian women engineers' professional commitment.

1.4 Research Question

- (1) What is the level of job satisfaction, social support system and work-life balance among Malaysian women engineers?
- (2) What is the perception of Malaysian women engineer's in regard to their professional commitment?
- (3) Is there a relationship between job satisfaction, social support system and work life balance with Malaysian women engineers' professional commitment?

- (4) What is the influence of job satisfaction, social support system and work life balance on Malaysian women engineers' professional commitment?

1.5 Research Hypothesis

From the stated problem statement and research question, the following hypotheses were derived and to be investigated in this study.

H1: There is a relationship between Job satisfaction with Malaysian women engineer's professional commitment.

H2: There is a relationship between Social Support System with Malaysian women engineer's professional commitment.

H3: There is a relationship between Work Life Balance with Malaysian women engineer's professional commitment.

H4: Job satisfaction positively influence Malaysian women engineer's professional commitment.

H5: Social support system positively influence Malaysian women engineer's professional commitment.

H6: Work life balance positively influence Malaysian women engineer's professional commitment.

1.6 Scope of Study

The scope of study will be limited to Malaysian women engineers from various engineering industries namely oil and gas, construction, manufacturing, energy and environmental in Klang Valley.

1.7 Importance of Study

1.7.1 To Practice

To enhance the participation and retention of women in engineering as skilled professional, it is necessary to understand their perception about the nature of their work and the corresponding level of satisfaction or dissatisfaction with their job social support system they receive as well as their work-life balance. This study is imperative as input in implementation of programs to retain women in their engineering profession.

1.7.2 To Body of Knowledge

In the context of human resource management, it was found that there is a lack of women-oriented research in Malaysia particularly in regard to their participation and contribution to the national labour market. This research seeks to fill in the gap by examining the influence between job satisfaction, social support system, work life balance on the professional commitment of Malaysian women particularly in male-dominated industry such as engineering.

1.8 Definition of Terms

1.8.1 Job Satisfaction

Job satisfaction is defined as positive feelings of the employee based on their evaluation of the nature of the job (Robbins & Judge, 2007). According to Kreitner and Kinicki (2007), job satisfaction is essentially preferential feeling someone has on his or her job. Dissatisfied employees will obviously have a negative predisposition towards their profession and organizations.

Since 1969, the common scope of job satisfaction defined by researchers at Cornell University (Smith et al., 1969) i.e. “work”, “supervision”, “pay”, “promotion”, and “co-workers” are still widely recognized and used to date. From there, various dimensions, or facets, of satisfaction are commonly distinguished and have been expanded by introduction of new terms to be relevant current times. Robbins and Judge (2007) highlighted that a job satisfaction relates to broader dimensions since job nowadays requires interaction with co-workers and supervisors, adhering to organizational policies and procedures, accepting working conditions, and meeting the required performance standards.

1.8.2 Social Support

Social support has been defined as the “provision of psychological and material resources intended to benefit an individual’s ability to cope with stress” (S. Cohen, 2004). Resources can come from co-workers, the immediate supervisor, friends outside of work, and spouse or partners. Social support system can further divided into two main factors i.e. work-base social support system and personal social support system (Marcinkus, Whelan-Berry, & Gordon, 2007). Considered together, existing research suggests that a supportive organizational environment and supportive relationships outside of work may have a significant association with the work outcomes and commitment for employees (Auster & Ekstein, 2005). A strong support network will encourage the feeling of belonging and appraisals of intimacy

and subsequently contributes to an increased sense of interest and inclusiveness in the face of potential social identity threats.

1.8.3 Work-Life Balance

Kalliath and Brough (2008) identified work-life balance as an individual perception of work and non-work activities that are consistent as well encourages development, in line with the current interests in an individual's life. This concept is not only limited to employees who are married with children but also included those who seek balance for activities outside of work such as travel, sports and learning.

Any assessment of work–life balance should include personal preferences of their current role and its relevance (i.e. whether an individual prefers to spend more or less time in work-life activities). Subsequently, employees' career and life goals can vary depending on the current life phase of an individual, either to focus in development in non-work activities for example self-learning, family building, travelling or more effort being put into advancement at the workplace e.g. working harder towards achieving career goals and gaining or promotion. The concept further emphasizes that good integration in the job and/or non-work realms will contribute to positive growth and development.

1.8.4 Professional Commitment

Professional commitment is characterized as a continuity between the personal beliefs of a person and the goals in their career, with greater consistency leading to greater individual efforts on behalf of the profession (Teng et al., 2009). Conventionally professional commitment often related to the magnitude of the engagement and identification of a person to their profession (Meyer, Allen, & A. Smith, 1993). Individuals with a high level of professional engagement are distinguished by a strong belief in and recognition of the aims of the profession, a willingness to make significant initiatives on behalf of the profession, and a strong

desire to remain a part of the profession. Components of professional engagement influence the decision of an individual to stay or leave their profession (Bagraim, 2003).

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