



Institute of Technology Management and Entrepreneurship



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**WORKING ENVIRONMENT AND JOB SATISFACTION AMONG TEACHING
ENGINEERS: A CASE STUDY IN UTeM**

PRATISH A/L MOHAN

**A thesis submitted
in fulfillment of the requirements for the degree of Master of Science in Human
Resource Development**



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2023

DECLARATION

I declare that this thesis entitled “Working Environment and Job Satisfaction Among Teaching Engineers: A Case Study in UTeM” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in the candidature of any other degree:



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APPROVAL

I hereby declare that I have read this thesis, and in my opinion, this thesis is sufficient in terms of scope and quality for the award of Master in Science in Human Resource Development.

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Date	:	16/05/2023

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DEDICATION

This study is dedicated to my beloved parents, who have been the source of motivation and gave me the determination to progress forward when I thought of giving up, who continuously provide their moral, spiritual, emotional, and financial support.

To my beloved brother, sister-in-law, relatives, friends, and fellow coursemates who bestowed their words of advice and encouragement to complete this study.

And above all, I dedicate this study to the Almighty God; thank you for the guidance, strength, knowledge, wisdom, and for giving us a healthy life. All of these, we offer to you. In the words of the legendary Indian music composer, A.R. Rahman:

Ellam pugazhum iraivanukku (All praise to God)
اونيور سیتی ییکنیکل ملیسیا ملاک

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ABSTRACT

Job satisfaction is an essential aspect of human resource management and is constantly being discussed by researchers nowadays. Among the many determinants that affect job satisfaction, the work environment affects job satisfaction the most. A proper working environment ensures a job well done, as it significantly affects the well-being of employees. Previous studies have mainly highlighted this in organizational and industrial context. Within the higher education contexts, very few studies focus on technical universities and their academic staff members. Studies on teaching engineers in the Malaysian higher education context are almost non-existent. This is a qualitative study that identifies the themes related to working environment and describe how they affect the job satisfaction of teaching engineers while also providing recommendations on improving job satisfaction in a technical university in Malaysia. This study focuses primarily on 23 teaching engineers, the academic staff members with a significant role in the faculty of engineering technology. This study provides insights into the issues and concerns faced by teaching engineers while also providing the best recommendations that can be implemented to improve job satisfaction. This study also considers the justifications and perspectives of two officers in registrars and two faculty deans. Focus group discussion on teaching engineers and semi-structured in-depth interviews on the officers in registrars and faculty deans are adopted as the primary research instrument while outlining the Constructivist Grounded Theory for data collection and analysis. The discussions and interviews are recorded, transcribed, and analyzed using thematic analysis. The findings of this study revealed seven themes of working environment that affect job satisfaction; (a) policy, (b) academic promotion, (c) salary, (d) academic benefits, (e) job scope, (f) organizational structure, and (g) workplace relationships. It is revealed that the theme of academic promotion and academic benefits most prominently affects the job satisfaction of teaching engineers. As a whole, many issues and concerns related to job satisfaction are highlighted by the teaching engineers. They have also provided many recommendations to improve their job satisfaction. The findings of this study allow for further improvement in the job satisfaction of teaching engineers and other academic staff members for the betterment of the university. The findings also ensure a better understanding of the working life of teaching engineers and human resource development in the higher education sector.

**PERSEKITARAN KERJA DAN KEPUASAN KERJA DALAM KALANGAN
JURUTERA PENGAJAR: SATU KAJIAN KES DI UTeM**

ABSTRAK

Kepuasan kerja merupakan aspek penting dalam pengurusan sumber manusia dan sentiasa dibincangkan oleh penyelidik pada masa kini. Di antara banyak penentu yang mempengaruhi kepuasan kerja, persekitaran kerja yang paling mempengaruhi kepuasan kerja. Persekitaran kerja yang sesuai memastikan kerja dilakukan dengan baik, kerana ia memberi kesan yang ketara kepada kesejahteraan pekerja. Kajian dahulu lebih menekankan perkara ini dalam konteks organisasi dan industri. Dalam konteks pendidikan tinggi, sangat sedikit kajian yang menumpu kepada universiti teknikal dan kakitangan akademik mereka. Kajian berkaitan jurutera pengajar dalam konteks pendidikan tinggi Malaysia hampir tidak wujud. Ini ialah satu kajian kualitatif yang mengenal pasti tema yang berkaitan dengan persekitaran kerja dan menerangkan bagaimana ia mempengaruhi kepuasan kerja, di samping memberikan cadangan untuk meningkatkan kepuasan kerja dalam satu Universiti Teknikal di Malaysia. Kajian ini memberi tumpuan terutamanya terhadap 23 jurutera pengajar, kakitangan akademik yang mempunyai peranan penting dalam Fakulti Teknologi Kejuruteraan. Kajian ini memberi pandangan tentang isu dan kebimbangan yang dihadapi oleh jurutera pengajar di samping memberi cadangan terbaik yang boleh dilaksanakan untuk meningkatkan kepuasan kerja. Kajian ini juga mengambil kira justifikasi dan perspektif dua pegawai pendaftar dan dua dekan fakulti. Perbincangan kumpulan berfokus terhadap jurutera pengajar dan temubual mendalam separa berstruktur terhadap pegawai pendaftar dan dekan fakulti diguna pakai sebagai instrumen kajian utama sambil menggariskan Teori Asas Konstruktivis untuk pengumpulan dan analisis data. Perbincangan dan temubual direkodkan, ditranskripsikan, dan dianalisis menggunakan analisis tematik. Hasil kajian ini mendedahkan tujuh tema persekitaran kerja yang mempengaruhi kepuasan kerja; (a) polisi, (b) kenaikan pangkat akademik, (c) gaji, (d) faedah akademik, (e) skop kerja, (f) struktur organisasi, dan (g) hubungan tempat kerja. Kajian ini menunjukkan bahawa tema kenaikan pangkat akademik dan faedah akademik paling ketara dalam mempengaruhi kepuasan kerja jurutera pengajar. Secara keseluruhannya, banyak isu dan kebimbangan berkaitan kepuasan kerja diketengahkan oleh jurutera pengajar. Mereka juga telah memberikan banyak cadangan untuk meningkatkan kepuasan kerja mereka. Hasil kajian ini membolehkan penambahbaikan lagi dalam kepuasan kerja jurutera pengajar dan kakitangan akademik lain demi kemajuan universiti. Hasil kajian ini juga memastikan pemahaman yang lebih baik tentang kehidupan kerja jurutera pengajar dan pembangunan sumber manusia dalam sektor pendidikan tinggi.

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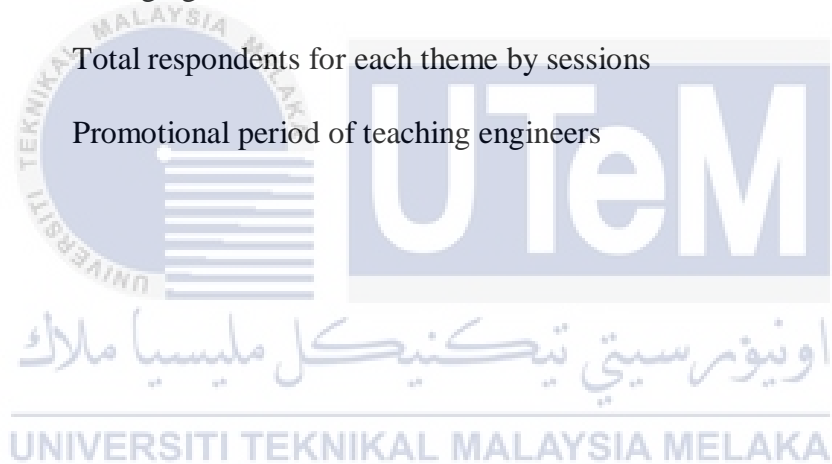
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LIST OF ABBREVIATIONS

DF	<i>Dekan Fakulti</i> (codename used for the Faculty Deans)
DS	Lecturer service scheme code
DV	Teaching engineer service scheme code
FTK	<i>Fakulti Teknologi Kejuruteraan</i>
FTKEE	<i>Fakulti Teknologi Kejuruteraan Elektrik dan Elektronik</i>
FTKMP	<i>Fakulti Teknologi Kejuruteraan Mekanikal dan Pembuatan</i>
HLP	<i>Hadiah Latihan Persekutuan</i>
HR	Human Resources
HOD	Head of Department
JP	<i>Jurutera Pengajar</i> (codename used for the Teaching Engineers)
JV	Engineer service scheme code
JPA	<i>Jabatan Perkhidmatan Awam</i>
KPI	Key Performance Index
KPT	<i>Kementerian Pengajian Tinggi</i>
MTUN	Malaysian Technical University Network
PP	<i>Pegawai Pentadbir</i> (codename used for the Officers in Registrars)
PLV	<i>Pegawai Latihan Vokasional</i>
PTj	<i>Pusat Tanggungjawab</i>
SCuBBA	<i>Skim Cuti Belajar Staf bukan Akademik</i>
TUCN	Technical University College Network
UMP	Universiti Malaysia Pahang

UniMAP	Universiti Malaysia Perlis
UTeM	Universiti Teknikal Malaysia Melaka
UTHM	Universiti Tun Hussein Onn Malaysia
VC	Vice-Chancellor



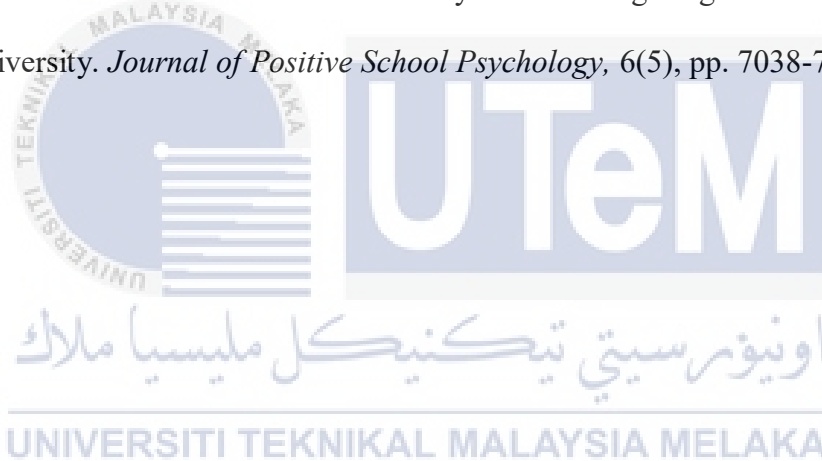
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LIST OF PUBLICATIONS

Mohan, P., and Kamarudin, M.F., 2021. Job Satisfaction among Academics in Higher Education: A Systematic Review. *Turkish Online Journal of Qualitative Inquiry*, 12(3), pp. 1457-1483.

Mohan, P., Kamarudin, M.F., and Mustafa, N.A., 2022. Humanising Working Environment for Sustainable Job Satisfaction: A Case Study of Teaching Engineers in a Malaysian Technical University. *Journal of Positive School Psychology*, 6(5), pp. 7038-7047.



CHAPTER 1

INTRODUCTION

1.1 Background of problem

Since its independence, higher education in Malaysia has undergone many changes to meet the demand for quality education (Lee et al., 2017). Some of the changes made were the implementation of several educational policies by the government over the decades. In 1989, the National Philosophy of Education was launched as part of Malaysia's 2020 Vision to become a fully developed nation by 2020. In 2012, a new National Education Blueprint (NEB) was released to reinforce Vision 2020 and equip the younger generation for the requirements of the 21st century (James et al., 2022). Despite surpassing Vision 2020, its aspirations remain one of the objectives for the country (Da Wan et al., 2018). The government also established strategies and initiatives to encourage higher education institutes to embrace change and compete in the global education market (Noah and Aziz, 2020). Recently, the ministry launched the Malaysian Education Blueprint for Higher Education. This was done due to the need for a more comprehensive blueprint for all education levels and to provide equal importance to university education as well as technical and vocational education and training (TVET)(MOE, 2015).

Higher education in Malaysia consists of 20 public and 50 private universities (Hanh et al., 2020). The government has also invested in education, training, and development programs for public sector employees to strengthen their job-specific competencies, such as knowledge, skills, and work culture (Sulaiman and Salleh, 2016). TVET is also emphasized to produce more Knowledge workers (K-Workers) (Ismail and Abiddin, 2014) to boost the country's economic growth and cater to the demands of the technical and engineering

workforce. For that, the government established a cluster of universities called the Malaysian Technical University Network (MTUN).

MTUNs are small-scale universities that focus on technical aspects and areas that prioritize optimizing the approach of labs and industrial issues (Krishnan, 2012). Such university networks have existed in many countries all over the world, such as the Australian Technology Network (ATN), an alliance of six leading institutes of technology in Australia (ATN, n.d.), and the German Universities of Technology (TU9), a coalition of nine leading technical universities in Germany (TU9, n.d.). The MTUN cluster comprises four universities, namely Universiti Teknikal Malaysia Melaka (UTeM), Universiti Malaysia Pahang (UMP), Universiti Malaysia Perlis (UniMAP), and Universiti Tun Hussein Onn Malaysia (UTHM). The formation of MTUN is to educate, train, and prepare highly qualified human resources capable of helping the country become a world-class industrial nation (MTUN, 2015). This cluster is industry-driven and focuses on providing the best quality in terms of curriculum, staff, students, facility, and contributing qualified fresh graduates to fulfill the industrial sector requirements.

UTeM is a higher education institution that is the first technical public university and the first university to offer engineering technology programs in Malaysia (UTeM, 2022). In doing so, it fulfills its vision to be one of the most creative and innovative technical universities globally. UTeM emphasizes engineering technology and has established a campus that caters to the program. It houses many academic staff members, but one particular group is the teaching engineers (*jurutera pengajar*).

Teaching engineers are academic staff members primarily involved in developing the faculty of engineering technology and its curriculum. They are unique as they are only present in MTUN universities. They are essential in maintaining the networking and consultation between the university and the industrial sector and preparing students for

industrial work life and culture. Teaching engineers are necessary for the university and MTUN. It is also evident that, like other academics, teaching engineers have many concerns in their working environments, such as their career path issues and the overbearing responsibilities they have to shoulder, all of which are highlighted in this study. Hence, it is crucial to ensure that the needs of teaching engineers are looked upon to improve their job satisfaction, which is the focus of this study.

1.2 Problem statement

The working environment is an essential factor that affects job satisfaction. A good working environment contributes to employees' productivity and performance in the workplace (Alemu, 2022). It is also found that a conducive working environment can positively affect the well-being of employees and can improve job satisfaction (Ahmad et al., 2021). Employees who work in an insecure and unhealthy environment can cause job dissatisfaction, leading to poor work quality and increasing absenteeism (Hafeez et al., 2019; Shammout, 2021). Many studies have determined the relationship between the working environment and job satisfaction in various circumstances (Raziq and Maulabakhsh, 2015; Agbozo et al., 2017; Vohra et al., 2022), and have shown that the working environment significantly affects employee satisfaction.

Throughout the years, studies conducted on the working environment and job satisfaction mainly focused on the organizational and industrial context (Muhammad et al., 2015; Kacane et al., 2019). According to Raziq and Maulabakhsh (2015), organizations and industries face challenges due to the demanding nature of the globalized world, which prompts them to be more competitive to keep up with globalization. To do that, organizations and industries must ensure that their employees work in a conducive and friendly environment. In many works of literature, employees are the driving force behind an organisation's growth as they contribute to the current operational performance and future

competitive advantage (Bellou and Chatzinikou, 2015). Therefore, employees must be managed well, as this can improve job performance and increase the overall productivity of the organization or industry, which is closely related to job satisfaction (Atmaja and Puspitawati, 2018).

In the higher educational context, higher education institutions are also motivated by the need to stay competitive to produce skilled workforces to contribute to the knowledge-based global economy (Mugimu, 2021). Significantly, university ranking is also emphasized as a yardstick to measure global competitiveness (Pavel, 2015). Due to this, higher education institutions and academic staff members have to consistently strive hard to produce qualified graduates, contributing to the industrial requirements and their ranking. In Malaysia, higher education institutions must adapt to the demands of globalization to offer skilled workforces to develop a knowledge-driven economy (Taylor, 2016). MTUN is one higher education institution network that is responsible for preparing skilled individuals to cater to such demands.

UTeM is a technical university in MTUN that emphasizes engineering technology to meet the industry demand. Since its establishment, UTeM has fulfilled the requirements and demands outlined by the industries (Azmy and Zain, 2019). Despite this, there is a requirement for collaboration between the industry and university to address the challenges posed by the country due to globalization (Azmy and Zain, 2019). In order to do that, UTeM employs teaching engineers to cater to the requirement. Teaching engineers are academic staff members from the industry with years of industrial experience and first-hand industry knowledge. They are considered the bridge that connects the university with the industry. Teaching engineers are also well aware of the needs and requirements underlined by the industry and can ensure that the course and curriculum follow the current requirement of the

industry. These staff members are considered the pillars in the development of the faculty and university.

Despite being integral to the university, little is known about teaching engineers. Very few studies focus on technical universities and their academic staff members, and previous studies on teaching engineers in the Malaysian higher education context are almost nonexistent. Hence, there is a need to focus on teaching engineers in the university and to look into their working environment to understand their role and importance and ensure they are satisfied. If teaching engineers are unhappy with their working environment and feel their needs and concerns are not considered, it may lead to work redundancy, which causes them to quit their position and move back to the industry. This thesis study aims to identify the themes of the working environment and describe how they affect the job satisfaction of teaching engineers in UTeM. It also provides recommendations for improving job satisfaction among teaching engineers.

1.3 Research objectives

The objectives of this research are:

1. To identify the themes of working environment that affect job satisfaction among teaching engineers.
2. To describe how the themes affect the job satisfaction of teaching engineers in UTeM.
3. To provide recommendations on the issues to improve job satisfaction among teaching engineers.

1.4 Research questions

The research aims to answer these research questions:

1. What are the themes of the working environment?

2. How do the themes affect the job satisfaction of teaching engineers in UTeM?
3. What are the recommendations that can be provided to the issues to improve job satisfaction among teaching engineers?

1.5 Research scope

The total population of this study would comprise three groups; teaching engineers, the officers in registrars, and the faculty deans. The main focus of this study is on teaching engineers. Teaching engineers include those from the engineering technology faculty, the Faculty of Electrical and Electronic Engineering Technology (FTKEE), and the Faculty of Mechanical and Manufacturing Engineering Technology (FTKMP). The officers in registrars are administrative staff members from the Human Resource Division under the Registrar's Office. Both faculty deans are from the engineering technology faculty. Since the faculty is located on the industrial campus of UTeM (*Kampus Industri*) and teaching engineers and the deans are only present there, the study will primarily focus there. However, for the officers in registrars, data collection will occur on the main campus of UTeM (*Kampus Induk*), where the administrative buildings are located.

While there are other technical universities in the country, the focus of this study is only in Universiti Teknikal Malaysia Melaka. As this study utilizes a single case study, it would be sufficient to cover one technical university. Doing so allows the researcher to have a deeper understanding of the exploring subject and provide a more accurate finding. Not only that, but it is also less time-consuming. The justification of the research scope will be further elaborated in Chapter 3.

1.6 Significance of the research

The study identifies the themes of the working environment and describes how they affect the job satisfaction of teaching engineers in UTeM while also providing

recommendations to improve job satisfaction. The thesis study is significant for the following:

Teaching engineers. This study allows teaching engineers to voice their concerns, which can help to formulate requirements and needs (Manu, 2015). This study serves as a basis for them to provide insights and perspectives on their working environment and how it can be better improved. This study also contribute to understanding the working life of the teaching engineers at UTeM.

UTeM. The outcome of this study can be shared with the university to provide a practical understanding of the current situation in the university and give a better picture in determining the needs and requirements of teaching engineers. It can also help to determine specific areas they should focus on and improve to ensure that teaching engineers and other academic staff members are satisfied.

JPA. The outcome of this study could be used to guide the ministry in improving the overall career path of teaching engineers and provide a basis for making or improving upcoming policies or circulars that would benefit the teaching engineers and the university.

Other researchers: This study contributes to the body of knowledge that other researchers can use as a referential point for upcoming research and studies in this area to identify any gaps in the literature for subsequent studies on relevant topics.

1.7 Outline of the thesis

Chapter One presents the background of the study, the problem statement, the research objectives and questions, the research scope, the significance of the study, and the definition of terms. Chapter Two provides a comprehensive literature review, consisting of the context of the study, the definition and explanation of working environment and job satisfaction, its themes with relevant literature of predated studies to demonstrate how they affect job satisfaction in a higher education context, and the theoretical framework of the