

INTERRELATIONSHIP BETWEEN FACTORS
AFFECTING JOB SATISFACTION AND
EMPLOYEE ENGAGEMENT AMONG LECTURERS

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LIST OF ABBREVIATION

AC	Achievement
AF	Affiliation
AVE	Average Variance Extracted / Convergent Validity
CFS	Centre for Foundation Studies
CR	Composite Reliability
EE	Employee Engagement
F2	Effect Size
HF	Hygiene Factors
HTMT	Heterotrait-Monotrait Ratio / Discriminant Validity
ICSR	Internal Corporate Social Responsibility
IR	Indicator Reliability
JS	Job Satisfaction
JSQS	Job Satisfaction Questionnaire Survey
MF	Motivating Factors
MOHE	Ministry of Higher Education
MQA	Malaysian Qualifications Agency
PLS-SEM	Partial Least Square Structural Equation Modelling
PW	Power
PY	Pay
Q2	Predictive Relevance
R2	Coeffecient of Determinations
Std_Beta	Standardized Beta
Std_Error	Standard Deviation
UTAR	Universiti Tunku Abdul Rahman
VIF	Variance Inflation Factor / Collinearity
WB	Work-life Balance
WC	Working Conditions

ABSTRACT

Like any other industry, the competition in the higher education market has become extremely intense because of the proliferation of technology. Lecturers' satisfaction and engagement with their work are the forces that drive innovation and elevate the competitive advantage for an organization's continuous growth. Hence, this study examines the interrelationship between hygiene (pay, work-life balance and working conditions) and motivating factors (achievement, power and affiliation) affecting job satisfaction and employee engagement among lecturers in CFS, UTAR Sungai Long Campus, including assessing the mediation effect of job satisfaction between these factors and employee engagement. Data were collected from all CFS lecturers except for the three who are on maternity leave. Sixty responses out of the total sixty-three lecturers in CFS were obtained and analysed using the PLS-SEM. The findings indicated hygiene and motivating factors are the determinants of job satisfaction but not employee engagement; motivating factors are a stronger predictor of job satisfaction than hygiene factors. Job satisfaction, in turn, affects employee engagement and mediates between motivating factors and employee engagement. However, it does not have any mediation effect between hygiene factors and employee engagement. Conclusively, motivating factors are the more important determinants of lecturers' job satisfaction and thus enhance employee engagement. A fairer appraisal system and a clear career path should be designed to motivate lecturers who perform and have the potential to continue contributing to the centre. Strategic teams and exchange programs can be formed to provide recognition and a platform for lecturers to showcase their talents. Having a dialogue group encourages two-way communication and increases commitment from the joint decision made. Besides, teamwork can be cultivated for organising activities to build rapport among lecturers. Job satisfaction embeds positive feelings inside the lecturers and thus connects them to work with full dedication and enthusiasm. Most studies analysed the direct effects on job satisfaction rather than its role as a mediator. This study presents the direct and indirect effects, thus untying some knots from a more complex and intriguing perspective.

Keywords: Job satisfaction, Employee Engagement, Lecturers, Higher education institution

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

Chapter 1 provides a quick overview of what and why in conducting this research. It starts with formulating the research problem by observing issues that require an evidence-based investigation. To begin, the enquiry into the subject area must have a clear research objective and question. Selecting what to research must also consider the study's significance, including its contributions to the people and organization and the researcher's interest.

1.1 Background

Like any other industry, the higher education market has progressed drastically, especially over the past five years. It took a player at least 20 years to be in the top market in the nineties. However, the market now reacts very quickly, attributable to the proliferation of technology. In the early years, not many had the opportunities to pursue tertiary education, but fast forward to today, if you throw a stone, it will easily hit a graduate. The need to increase knowledge generation has created a craze among parents and students who perceive higher education as a ticket to success in life.

The higher education market itself is a huge industry worth billions of dollars. In Malaysia, graduates have grown rapidly over the years, with the industry worth RM35 billion in 2018 and forecasted to grow to RM65 billion in 2026 (MIDA, n.d.). Higher institutions, including the colleges, are mushrooming, with over 400 offering various programmes that include Foundation, Pre-University, Diploma, Degree, Master and PhD. Competition is highly intense, and every college fights to have a larger piece of the cake. Any institution that fails to thrive in the IR4.0 technologies world will lose out in the race. Nevertheless, reinventing the institution requires the people in the organization to bring change, and change usually causes anxiety and unhappiness, resulting in disengagement from work.

This phenomenon was witnessed during Covid-19. When the Covid-19 pandemic first started in early 2020, the world loomed in uncertainty, creating fear

and anxiety among workers about their job security. The future seems bleak, with many losing jobs and settling for lower-level jobs to make ends meet. Stress levels also build up as workers find difficulties coping and adapting to new ways of performing their jobs, especially technology. After adjusting to the new norm for almost three years, workers are now better equipped with the appropriate skills to deal with their work, and organisations are more prepared to face the challenges.

Surprisingly, the workers' stress level is still increasing despite the positive sign of economic recovery and readiness to cope with the whirlwind situations. According to the State of the Global Workplace: 2022 Report, employee stress is at a new all-time high again. In 2021, 44% of the employees worldwide experienced a lot of stress compared to 43% in 2020, 38% in 2019, 37% in 2018 and 29% in 2017 ("Workers", 2022). The Philippines registered the highest stress level in Southeast Asia at 50%. Stress is one of the most critical reasons that dictate emotions and happiness in the workplace and is highly associated with job satisfaction. Nonetheless, the Gallup report revealed another interesting fact: ranking first for stress level, the Philippines also tops the chart for employee engagement at 31%, 10 points higher than the worldwide average rate of 21%. Based on this data, job satisfaction, which is normally viewed as the catalyst to employee engagement, might not hold true.

According to the World Happiness Report from Gallup World Poll, white-collar workers experienced happier emotional states than blue-collar workers. On average, a professional worker registered 6 out of 10 for life quality, whereas a farmer at 4.5. The Gallup World Poll also revealed that workers from Western countries are more satisfied with their jobs, and characteristics such as pay, work-life balance, job variety, and social capital are the predictors behind happiness (De Neve & Ward, 2017). On the other hand, a report from Glassdoor stated that pay is not the top predictor of job satisfaction; culture and leadership were rated as the top two reasons. As income rises, workers place more emphasis on culture and leadership rather than day-to-day concerns like pay and work-life balance. High-income earners are more willing to give up leisure over work and show higher appreciation for the organization's value (Chamberlain, 2017). The relationship and measurement between job satisfaction and employee engagement are indeed complex, which is what this study intends to investigate further. They are

undoubtedly important attributes contributing to productivity, performance and innovation.

1.2 Research Problem

Universiti Tunku Abdul Rahman (UTAR) is a non-profit, local private higher education institution established two decades ago. It was the brainchild of a race-based political party and intended to serve the Chinese community, particularly the middle to lower-income group. UTAR is reckoned to have achieved great heights, considering that it has managed to become one of the top universities in the country and one of the fastest-growing private higher education globally in just a short time. Nevertheless, the management of the university is still very much influenced by the notion of prudence largely due to the sources of funds being charity based and prioritizing the noble purpose of serving the local community from a comparatively lower income group—a Foundation a.k.a wholly own UTAR trust fund. As a semi-government institution, it is led and controlled by prominent politicians who sit on the Board of Trustees. The Board and the top management team play a vital role in all policies-crafting. On top of that, the hierarchy of decision-making is top-down.

Centre For Foundation Studies (CFS) is a foundation centre in UTAR that offers foundation programme studies for secondary school leavers. CFS UTAR offers two programmes: the Foundation in Science and the Foundation in Arts. The Foundation in Science is split into two streams, Biology Science and Engineering Science, while the Foundation in Arts also comprises two streams, Management and Accountancy and Arts and Social Science. The programmes are approved by the Ministry of Higher Education (MOHE) and accredited by the Malaysian Qualifications Agency (MQA).

Contrarily to hearsay, student intakes for CFS UTAR could increase as parents might switch to sending their children from more expensive universities to more affordable universities. Still, unfortunately, this prediction did not materialize. This can be seen in the significant drop in the student intakes for the foundation programmes resulting in revenue loss. The shrinking Chinese population could also

be one of the causes of the declining revenue. Besides, the programmes offered a lack of innovation and flexibility to meet the wants of the current market trend.

A new trend has emerged from the pandemic. The players in the higher education industry, especially the private institutions, are back in the game, competing against each other to attract more students to enrol with their universities. With the establishment of 20 public universities, close to 50 private universities and hundreds of other small colleges in Malaysia, the competition is highly intense (Ministry of Higher Education, n.d.). Nowadays, parents have higher expectations of educational value. Besides university ranking and graduate employability, parents and students also emphasise other aspects in deciding their university choices. University ranking is no longer the sole benchmark used to measure education quality. Parents and students are more aware and concerned about the study experiences that can provide holistic learning and shape personalities. They look for diversity, including acquiring soft skills rather than just academic knowledge (PwC Malaysia, n.d.)

As students are spoilt with so many university choices on top of the various attractive offerings such as scholarships and discounts, it is essential for UTAR to understand the needs and wants of students. In higher education, lecturers are the pillars of quality education. Lecturers' roles are not only confined to imparting knowledge but also to provide a purposeful learning experience to each student; thus, promoting innovation among lecturers is far most important in today's education. Having lecturers who are satisfied and engaged with their work drives innovation. It brings a change in propelling the institutions to a higher level that can meet the diverse expectations of the parents and students.

Lecturers are the front liners and main forces in manoeuvring the changes to achieve the university's vision. Hence, ensuring their dedication and attachment to the university is crucial to sustaining the competitive higher education market. The university has to synthesize how work engagement can be made voluntarily and self-initiated rather than imposed; how active participation in updating the syllabus and improving the program can be worked on continuously. Lecturers are the impetus in executing the plan into actions that meet the goals. One of the critical problems any educational institution faces is keeping a dedicated team of educators

and finding out what drives them to give their best to meet the institution's goals. In other words, finding out what keeps them happy and what drives them to be engaged with their work will be the key solution to the root of the problems. Happy lecturers will be more engaged with their work and, thus, can design programs and deliver teaching that meets student expectations and eventually achieve sustainable competitive advantage. A chain reaction leads and connects one to the other, which will be inquired about and studied in this research.

1.3 Research Objectives

The main objective is to examine the interrelationship between factors affecting job satisfaction and employee engagement among lecturers at Centre for Foundation Studies, UTAR Sungai Long Campus. They are specified in more detail as follows:

1. To measure the lecturers' job satisfaction levels based on hygiene factors (pay, work-life balance and working conditions) and motivating factors (achievement, power, and affiliation).
2. To analyse the relationship between hygiene and motivating factors with job satisfaction and employee engagement of lecturers.
3. To ascertain the mediating role of job satisfaction between hygiene and motivating factors on employee engagement of lecturers.
4. To examine the relationship between job satisfaction and employee engagement of lecturers.

1.4 Research Questions

Below are the research questions that will be scrutinized to achieve the objectives of the study.

1. How do lecturers perceive their work-related experiences overall, and to what extent do these factors cause satisfaction and dissatisfaction?
2. Do hygiene and motivating factors influence job satisfaction and employee engagement among lecturers?

3. Does job satisfaction mediate between hygiene and motivating factors on employee engagement of lecturers?
4. Does job satisfaction affect employee engagement among lecturers?

1.5 Significance of Study

Views and perspectives gathered from the study would provide insights into how lecturers' work-related issues can be addressed to increase employee engagement and create new business opportunities and strategic direction through innovation. As experts in all subject fields, lecturers' contributions towards high-quality education that promotes lifelong learning are undeniably essential. Program innovation will be regularly looked into, and the syllabus will be continuously updated when lecturers are driven and immersed to engage in their work. Revising the curriculum is a tedious and lengthy process that requires rigorous efforts from the lecturers; hence this study can ascertain what motivates the lecturers towards achieving this goal.

Getting regular feedback from lecturers on their work experience is crucial as they are the primary service providers who directly affect the education quality and students' learning experiences. Lecturers receive first-hand information from students and deal with them almost daily. What the lecturers feel about their job and how this will affect their work performance is worth exploring, considering that the emotional aspect also plays a part in the teaching delivery. The analysis of how lecturers cope and deal with problems and whether or not support is provided under challenging times could unmask the pretence that all is within control. This study might give the opportunities for lecturers to reveal their inner thoughts and feelings towards what makes them happy about the job and its effects on their work engagement level.

Gathering and analysing lecturers' views and perceptions helps higher education institutions make better decisions on whether changes are needed to meet the new millennials' expectations and focus on practices and activities that create value for the institution. Changes require a person to have a powerful mindset to cope with diversity and uncertainty. Hence, the voices of lecturers must be heard, and their opinions should matter; otherwise, they might think that their efforts are

put to waste. They will feel burned out and discouraged when their goals are not aligned with the university's goals. In this context, this study could minimize the communication gap between the management and lecturers so that both sides understand the need to build cohesion and have a clear direction in achieving the university's goals.

1.6 Chapter Layout

The study layout is organised into five chapters. Chapter 1 is the research overview, mainly providing a brief background, the problem statement, the objectives and the significance of the study. Chapter 2 covers the literature review synthesising the findings from various articles to develop the conceptual framework and hypothesis. Chapter 3 describes the methodology used and the research design applied in the study, followed by Chapter 4, which analyses the survey results. Lastly, Chapter 5 concludes by discussing major findings, implications, limitations, and recommendations for future study.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

Chapter 2 clarifies the research problem by narrowing it down and refining the studies others have investigated. A theoretical review and empirical review are performed to contextualise the findings and identify the literature gap in developing the conceptual framework that fits into answering the research questions. Hypotheses are also constructed for testing, enabling the verification and conclusion of the research objectives.

2.1 Underlying Theories

This study applies the following management theories, which are the basis for developing the conceptual framework and explaining the relationships between the variables.

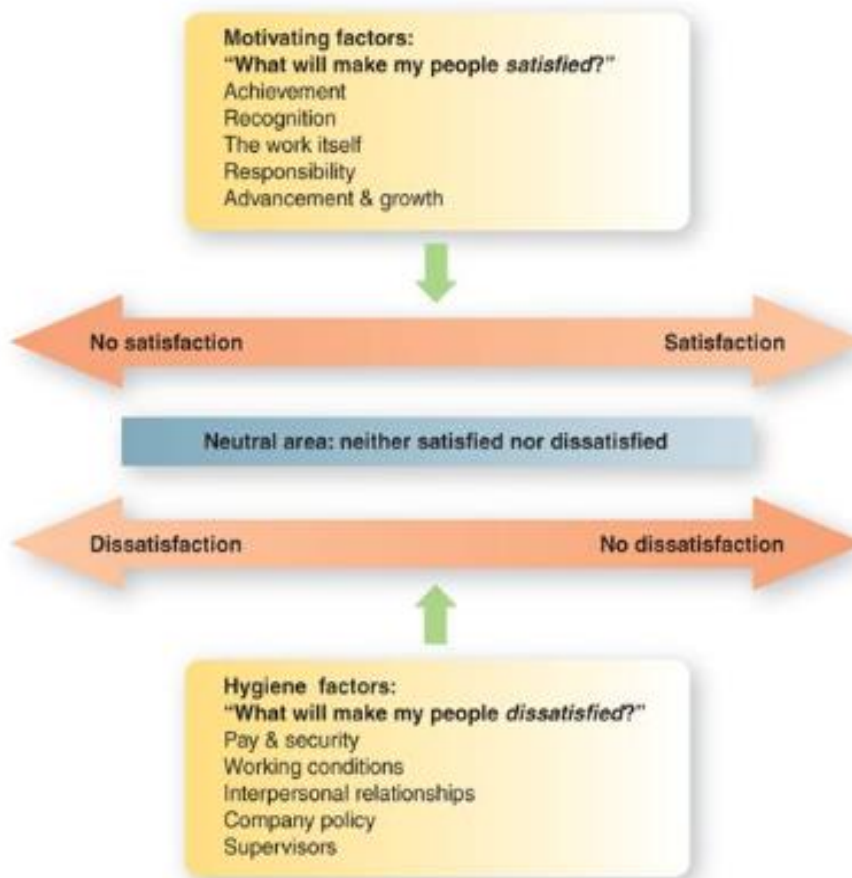
1. Herzberg's Two-Factor Theory
2. Maslow's Hierarchy of Needs Theory
3. McClelland's Acquired Needs Theory

These theories stem from the need-based perspectives that emphasize how people's behaviour can be aroused by fulfilling their needs deficiencies that include physiological and psychological.

2.1.1 Herzberg's Two-Factor Theory

Herzberg's 2-factor theory drew on the conclusion that satisfaction and dissatisfaction are derived from the motivating factors or satisfiers and the hygiene factors or dissatisfiers. The motivating factors are the higher-level needs, while the hygiene factors are the lower-level needs and in between is the neutral zone where it is neither satisfied nor dissatisfied (Herzberg et al., 1959). This theory suggests that the dissatisfaction must first be eliminated before fulfilling the satisfaction. In other words, why people are dissatisfied must be addressed, then only focus on how to make the people satisfied; the former looks at the context while the latter on the content (Kinicki & Williams, 2016).

Figure 2-1 Herzberg's Two-Factor Theory: Satisfaction vs Dissatisfaction



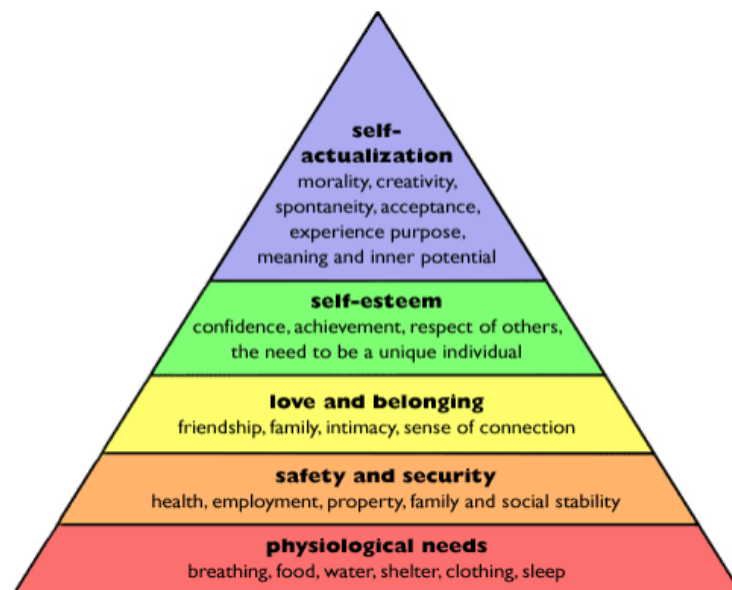
The hygiene factors are the dissatisfying factors. If these needs are not met, it will result in negative attitudes such as distress and displeasure. On the other hand, motivating factors serve as the satisfying factors which will inspire the employee to put in extra effort and feel enthusiastic about their job (Frempong et al., 2018). An employee typically works to earn a salary and to feel safe at the workplace; hence salary and working conditions are the hygiene factors. Given a choice, no employee will be happy and stay with the organization if they are given a low salary, and the workplace is unfavourable. Motivating factors, on the other hand, will spur employee motivation comprising recognition, promotion and personal growth. Herzberg's viewpoint underlines the hygiene factors as disappointment while the motivating factors as sparks connected to the work itself; the former results in no work fulfilment and the latter in great fulfilment (Bose & Maheshwary, 2019).

2.1.2 Maslow's Hierarchy of Needs Theory

The all-time famous motivation theory developed by Abraham Maslow in 1943, put forth during the human relations movement, proposed the five levels hierarchy of needs, ranging from the lowest to highest: physiological, safety, love, esteem and self-actualization. Physiological is the most basic need for a human to survive, such as the need for food, shelter and clothing, while safety evolves around job security and a safe workplace. The needs move up to love at the next level, having good relationships within the social network and esteem, clamouring for higher social status and recognition—lastly, self-actualization, fulfilling the highest-level need by attaining true happiness (Kinicki & Williams, 2016).

Most discussions delve into the needs in a fixate order. Most people must meet their basic needs before they can pre-occupy themselves with their higher needs. That is the ground basis of Maslow's motivation theory. However, it is imperative to know that paycheck might be more than what an employee need. For instant, some might view love as more important than money. Hence, the organization has to look beyond the paycheck and provide opportunities for employees to fulfil their needs in advancing their goals (Maslow, 1943).

Figure 2-2 *Maslow's Hierarchy of Needs*



This theory is widely discussed in management because it can move people to do something they wish to accomplish. In an organization, it is a powerful tool to attract talent, retain employees, increase productivity, improve work engagement and, most importantly, reform working behaviour to achieve the organization's goals. Both monetary and non-monetary factors have positive impacts on employee working behaviour. An organization should consider that extrinsic rewards are as equally important as intrinsic rewards. Educators view financial incentives as the key motivator; nevertheless, this might not necessarily contribute to an organization's performance. The more important motivators are feeling passionate about teaching and having good relationships with supervisors, colleagues and students (Manalo et al., 2020).

2.1.3 McClelland's Acquired Needs Theory

McClelland acquired needs theory was developed in the 1960s, after Maslow and Herzberg and similarly proposed human needs as the motivators in a workplace from three perspectives:

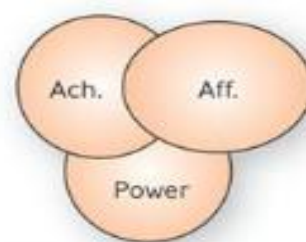
1. Need for achievement: strive for success.
2. Need for power: in control and take charge of people.
3. Need for affiliation: seek interpersonal relationship.

The theory believes that what drives a person depends on his life experience and culture. It considers the situational aspect, which makes it more relevant to today's business organization. Ideally, a good manager should possess a well-balanced of all three needs. Nonetheless, in a stark business world, top managers are associated with a high need for power and a low need for affiliation. Managers who are good at accomplishing tasks may not be suited to hold top positions. In contrast, those with good relationships are not likely to be good managers as sometimes managers need to make hard decisions that resent people. Assessing these needs, which vary among the people in the organization, can create an environment that responds to high work performance (Osemeke & Adegboyega, 2017).

This theory further elaborates on the need for personal and institutional power. Personal power is the desire to gain power for the good of oneself, while

institutional power pursues the organization's goals. Successful people are akin to those with high power needs. People seeking institutional power are more successful as they can solve problems, command followers, and create a favourable working environment. In today's world, the power that comes with the responsibility to bring up people in the organization will be more appreciated than the power that glorifies the leader itself (Kinicki & Williams, 2016).

Figure 2-3 *McClelland's Three Needs*



A "well-balanced" individual: achievement, affiliation, and power are of equal size.



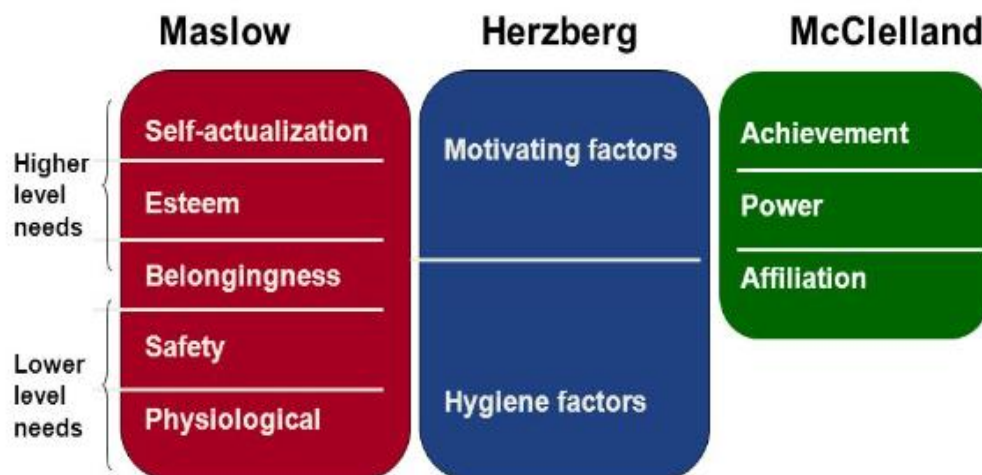
A "control freak" individual: achievement is normal, but affiliation is small and power is large.

A well-balanced individual seeks the three needs equally and exuberates the positive kind of power, which most managers find them challenging to keep all three in parity. A control freak seeks high power and generally can accomplish tasks fairly well; however, he will step on other people's toes most of the time due to his craze to take charge of everything. Identifying the lines along the three needs is critical in creating a harmonious working environment that promotes healthy co-worker relationships (Kinicki & Williams, 2016).

There are clearly some overlapping between the three theories, Herzberg, Maslow and McClelland, each contributing to managing people's needs to meet the organization's goals. Maslow is widely used, considering that it can be applied across many fields. Herzberg focuses on two-track continuums where hygiene factors meet lower-level needs and do not necessarily provide job satisfaction. Herzberg's motivating factors have some similarities to McClelland's three needs. The major difference is McClelland believes people are not born with needs; they are learnt and acquired through what society dictates how one should behave (Pardee, 1990).

Providing extrinsic rewards resembles people not feeling dissatisfied with their work but does not dictate that they are driven. This kind of reward is usually short-lived as it is not embedded in the human brain, which is connected by a network of neurons and, by far, more complex to unveil the inner needs. Matching the rewards, both intrinsic and extrinsic, will have a more long-lasting effect on satisfaction (Rybnicek et al., 2019).

Figure 2-4 Comparison: Maslow, Herzberg and McClelland Needs Theories



2.2 Review of Variables

2.2.1 Employee Engagement

Employee engagement is a multidimensional concept which has different constructs in explaining its definition. It lacks the solitary due to different scales used to measure employee engagement. Even though there are many interpretations by various researchers, mostly pointing to a similar conclusion of conceding employee engagement as a critical element affecting an organization's competitiveness and innovation.

According to Kahn (1990), employee engagement is a person's role performance categorized by three psychological states: cognitive, emotional and physical. Its terminology outstretched the old-styled notion of organizational commitment and participation. It has a broader meaning that encompasses more than motivation and involvement. Employee engagement inquires deeply into the relationship, connection and interaction between employee and work, including intellectual, emotional and energy involvement within the organization (Ahmed et al., 2020). Djoemadi et al. (2019) applied these three dimensions to measure employee engagement using the terms "Stay, Say and Strive"; Stay for having a strong desire to be a member of the organization, Say for talking positively about the organization and Strive for exerting efforts towards organizational success. Djoemadi et al. (2019) also added the three levels of employee engagement: first is "Disengaged", where employees withdraw from work due to dissatisfaction; second is "Somewhat Engaged", where employees work as what is required by their job duties; and third is "Engaged" where employees are very enthusiastic and innovative to advance in the company.

A decade after Kahn's definition of employee engagement, Schaufeli and Salanova (2006) discerned employee engagement as a fulfilling and positive state of mind characterized by vigour, dedication and absorption. Vigour emulates a high energy level; dedication reflects pride, and absorption denotes a person's attachment to the organization (Ampofo, 2020). Engaged employee proactively mobilizes job resources, are open to new experiences and compel full force to overcome challenges (Bakker & Oerlemans, 2016). An engaged employee has bursting energy, is dedicated to this work and will go the extra mile to complete missions

assigned to them (Manalo et al., 2020). An engaged employee is so engrossed in his work that he finds it hard to detach from it, and time passes quickly (Mbhele & de Beer, 2021).

Another perspective on employee engagement came from Vallerand (2003), which measures a person's strong inclination towards advancing things they like and find meaningful. It is a two-factor structure split into harmonious passion and obsession passion. The former insinuates positive and autonomous internalization, while the latter denotes negative and controlled internalization.

Table 2-1 *Characteristics of Employee Engagement*

Researcher	Theoretical Framework	Characteristics
Kahn (1990)	Multidimensional Framework	Cognitive, Emotional and Physical
Schaufeli (2006)	Positive antithesis to burnout	Vigour, Dedication and Absorption
Vallerand (2003)	Dualistic Approach	Harmonious and Obsession Passion

2.2.2 Job Satisfaction

Job satisfaction has a more consistent definition among the researchers as it is relatively less complex and more established than employee engagement. It has a simpler connotation of being happy with their work or profession. Job satisfaction was developed way back in the 1920s by Elton Mayo through its Hawthorne Effect studies that gave birth to the rise of the human relations movement. The conclusion was that employees work harder when given special attention, and the managers care about their welfare, which emotion or satisfaction affects work behaviour (Djoemadi et al., 2019).

It can be the positive and negative feelings directly related to the mood and emotional situation prevailing in the working conditions, work requirements and expectations (Dalkrani & Dimitriadis, 2018). Frempong (2018) states that job

satisfaction is the pleasurable feeling towards work, whether he likes his job. Bayona (2020) defined job satisfaction as enjoyment or boredom, stating that a person enjoys his job and does not dislike the job. Job satisfaction is an overall degree of whether a person likes his job (Kakkar et al., 2020).

Job satisfaction mainly has five dimensions: work itself, attendance, payroll, promotion and lead style (Arifin & Manan, 2019). Luz et al. (2018) highlighted similar dimensions of job satisfaction, splitting them into satisfaction with the nature of the job, the pay, the promotion, the colleagues and the boss. Fidyah and Setiawati (2020) stated that job satisfaction has five indicators: the work itself, salary, promotion opportunities, colleagues and superiors. Job satisfaction revolves around the job and workplace, covering the aspects of gratifying rewards (Afaq et al., 2020).

Job satisfaction has a clear consensus among researchers, primarily pointing to the monetary and non-monetary rewards benefiting employees' feelings towards their careers and what they want to attain from their job (Ahmad & Jameel, 2018). Likewise, it touches on extrinsic satisfaction, the reward obtained from the work and intrinsic satisfaction, the feeling of successfully performing the work (Chayono et al., 2020). To conclude, job satisfaction is simply the favourable and unfavourable feelings affecting an employee's attitude towards work (Manalo et al., 2020).

2.2.3 Hygiene Factors

Hygiene factors are associated with lower-level or basic needs, which in the absence of these needs, will cause dissatisfaction among employees in an organization. Examples are pay, work-life balance and working conditions.

2.2.3.1 Pay

Researchers	Descriptions
Afaq et al. (2022)	Compensation like competitive wages and benefits packages primarily influence the employees' commitment level and make them feel valued.
Ahmad and Jameel (2018)	Reward linked to core outcome money positively affects employee performance.
Ampofo (2020)	Employee who are highly immersed in their jobs experienced good benefits such as salary and bonuses.
Bose and Maheshwary (2019)	A reward plan such as salary, bonus, benefits and medical insurance coverage not aligning with market rates does not meet the employees' needs resulting in dissatisfaction.
Dalkrani and Dimitriadis (2018)	Pay is a major factor in determining work satisfaction.
Frempong et al. (2018)	Rewards in the physical form, monetary payments, or assets like cars are benefits employees receive for their work contributions and are vital in determining job satisfaction.
Mahmood et al. (2019)	Salary is the key strategy to increase job satisfaction and has an immediate effect towards employee motivation, but more is needed to build sustainable commitment.
Memon et al. (2020)	Equitable pay influences the work engagement level. The effort employees put into their work

Researchers	Descriptions
	depend on how fairly they gain from the compensation.
Nasution et al. (2019)	Compensation is salaries, bonuses, job allowances, prizes and other benefits in which attractive and higher compensation stimulates organization commitment.
Reissova and Frickova (2019)	The employer's contribution to social security, pension or retirement funds, life and medical insurance, and extended annual leave is the most common employee benefits scheme. Employers spend considerable money to design incentive plans to motivate their personnel as they believe it will increase work engagement.

2.2.3.2 Work-life Balance

Researchers	Descriptions
Anugud (2022)	A good balance between work and life drives work engagement.
Bakker and Oerlemans (2016)	Employees lose connection with work when they have a high workload causing burnout and tasks exceeding capacities.
Dinh (2020)	Great Place to Work programs like flexible working time and a period to recharge from stress demands help to increase employee engagement.
Duque et al. (2020)	The New Way of Working reflects on three aspects: flexibility, working at home and working together at a distance, a freely accessible workplace that can stimulate

Researchers	Descriptions
	employee relationships, and so-called teleworking.
Reissove and Papay (2021)	Eliminating stress may increase employee engagement.

2.2.3.3 Working Conditions

Researchers	Descriptions
Ahmad and Jameel (2018)	Job security has two dimensions: stability of permanent employment contract and no fear of termination contract.
Anugud (2022)	The working environment includes training for career development has the most significant impact on employee engagement.
Arifin and Manan (2019)	Intimidation creates an inconducive working environment and poses serious problems with employee engagement.
Bose and Maheshwary (2019)	Facilities provided to perform the job represent an analysis of satisfaction with the workplace environment.
Dalkrani and Dimitriadis (2018)	Adverse working conditions result in an unfavourable emotional state and affect productivity.
Eldor and Harpaz (2016)	A learning climate that includes acquiring and transferring knowledge relates to how much an employee engages with his job.
Frempong et al. (2018)	Work environmental features like lighting effect, air quality, facilities and other criteria affect employees' physical and mental well-being and job satisfaction.

Researchers	Descriptions
Iwu et al. (2016)	Employees struggle to work properly under a severely lacking infrastructure, which increases work challenges that affect performance output.
Memon et al. (2020)	Training satisfaction refers to the likeability of an employee towards the activities organized to help them perform the tasks effectively.
Wang and Wang (2020)	Employee silence and inaction due to adverse working conditions are a waste of resources as it depletes the employee physically and emotionally.

2.2.4 Motivating Factors

Motivating factors are associated with higher-level needs, which in the presence of these needs, will give satisfaction among employees in an organization. Examples are achievement, power and affiliation.

2.2.4.1 Achievement

Researchers	Descriptions
Anugud (2022)	How leaders communicate and give orders and feedback to their employees holds the responsibility for employee engagement.
Cahyono et al. (2020)	Abilities of leaders to inspire the employees in a way that employees are driven to achieve the organization's goals beyond expectation.
Dalkrani and Dimitriadis (2018)	Promotion opportunities for personal growth directly related to earning a higher income and social recognition are among the five critical areas for measuring work satisfaction.

Researchers	Descriptions
Kakkar et al. (2020)	Appraisal fairness is positively associated with work engagement and tends to induce employees' reciprocation towards task accomplishment.
Memon et al. (2020)	Unbiased, fair and mutually beneficial appraisal stimulates higher work engagement levels as it increases the sense of obligation, appreciation and recognition of their work.

2.2.4.2 Power

Researchers	Descriptions
Ahmad and Jameel (2018)	Empowerment allows employees to participate in decision-making and increases staff involvement in the organization's success.
Bose and Maheshwary (2019)	Lack of trust and empowerment creates a feeling of insecurity among employees that affects their job satisfaction.
Frempong et al. (2018)	Employees who are given the facts, authority and freedom to act in the capacity of their daily work are associated with positive work attitude and job satisfaction.
Gatt and Jiang (2021)	An autonomy-supportive environment that promotes self-initiating and choosing one's action can fulfil employees' needs for autonomy and connection with work.
Mbhele and de Beer (2021)	Guiding, directing, motivating and inspiring subordinates through effective communication increase the information's credibility, as the quality of information plays a vital role in building a trustful exchange relationship.

2.2.4.3 Affiliation

Researchers	Descriptions
Ampofo (2020)	Employees' attachment to the organization is through "links", the formal and informal ties between them and "fit", the employees' compatibility with the organization.
Anugud (2022)	Values like respect and mentoring are the key drivers of employee engagement.
Bose and Maheshwary (2019)	Relationships with managers, teamwork and ideas sharing are sentiments used in measuring job satisfaction.
Dalkrani and Dimitriadis (2018)	Good interpersonal relationships with co-workers contribute to the emotional state of the employees and are a force affecting job satisfaction.
Ojo and Yusliza (2021)	Support from family, friends and supervisors in facilitating resources determines resilience and work engagement.

2.3 Conceptual Framework

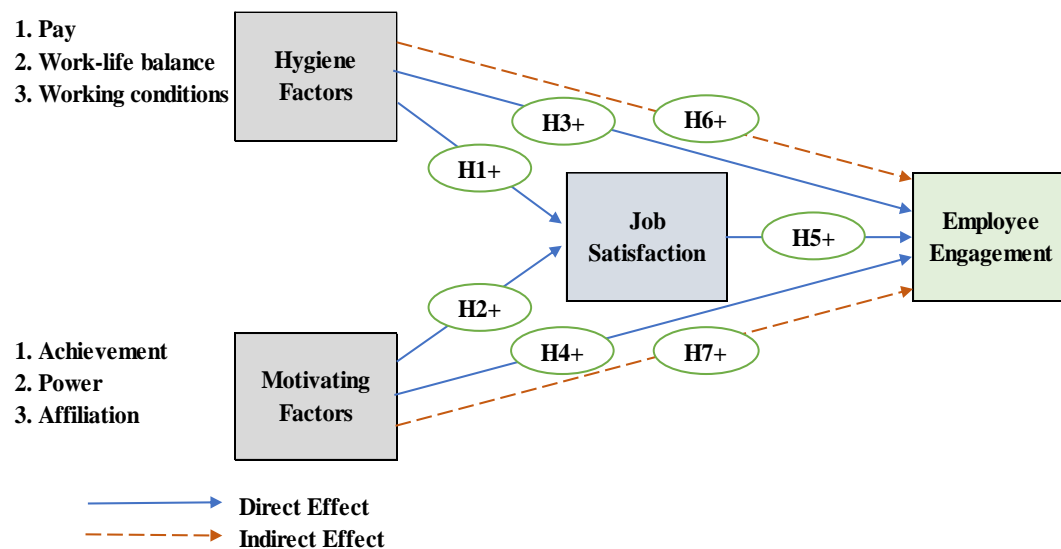
Job satisfaction is the sensation of feeling comfort and content with one's job, the positive emotions resulting from work experience (Riyanto et al., 2021). Employee engagement is the notion of connectedness to one's job, work absorption and commitment to advancing the organization's goals. Both are vital to improving job performance, but employee engagement is a harder hurdle considering that a happy worker may not necessarily be engaged with his work, and an engaged worker may not necessarily be happy (Memon et al., 2020).

Few studies were conducted on categorising lower-level and higher-level needs to measure job satisfaction and employee engagement. Not all validated constructs were used comprehensively, and there was limited analysis on the mediating role of job satisfaction in increasing employee engagement. Most findings showed a positive relationship between job satisfaction and employee

engagement. However, whether the factors significantly or positively influenced job satisfaction and employee engagement differed between the various studies. Moreover, some findings were not consistent and inconclusive.

Thus, a conceptual framework is formed in Figure 2-5 to analyse how the hygiene and motivating factors affect job satisfaction and employee engagement and measure the satisfaction and engagement levels based on the lecturers' perceived work experience. The framework also includes the mediating role of job satisfaction between hygiene and motivating factors with employee engagement.

Figure 2-5 Conceptual framework for job satisfaction and employee engagement



The hygiene factors (lower-level needs) will further inquire into pay, work-life balance and working conditions, while the motivating factors (higher-level needs) into achievement, power and affiliation. In this context, pay includes salary, bonuses, insurance, social welfare and other benefits. Work-life balance revolves around flexible working arrangements and work overload. Working conditions discuss the job security, training and conducive working environment, including facilities such as equipment, technology support and a childcare support centre. On the other hand, achievement looks at job recognition, promotion, appreciation and career advancement, while power is about autonomy in decision-making and trust. Lastly, affiliation analyses the relationship between lecturers with colleagues, students and management, the respect and support for each other.

2.4 Hypotheses Development

A literature review of more than sixty articles was performed. A list has been prepared to compare the study location, problems, objectives, methodology, underlying theory, variables, indicators, findings, limitations and implications. These articles applied mainly all the management, marketing and psychology theories, and many researchers used Herzberg's Two-Factor and Maslow's theories as the underlying theories for job satisfaction and employee engagement. Literature on these articles also showed that the quantitative method using the Likert scale or point scale questionnaire and structural equation modelling were the more popular methods. Descriptive analysis, exploratory factor analysis, confirmatory factor analysis, multiple regression analysis and principal component analysis were some alternative methods used to analyse the data. All the findings are formulated into each theme and integrated into a conceptual framework and hypotheses development.

2.4.1 Relationship between hygiene factors with job satisfaction

Findings from Afaq et al. (2020) in their study on academic staff at Pakistan's higher education institutions stated that job satisfaction is positively and significantly connected to pay, job security and working circumstances, with job security being the best predictor. There was a positive relationship between job security, financial reward and job satisfaction, as job security ranked first over financial reward at second for a survey conducted among full-time lecturers at two private universities in Iraq (Ahmad & Jameel, 2018). Work environment and training and development positively influence job satisfaction among 160 employees working at a university in Ghana (Anugud, 2022). A high workload does not satisfy employees' basic needs, with participants from various occupation backgrounds recruited through social media, Facebook and LinkedIn (Bakker & Oerlemans, 2016). A strong relationship is indicated between the constructs for hygiene factors and job satisfaction, and hence, Hypothesis 1 is developed as follows:

H1: Hygiene factors are positively related to job satisfaction.

2.4.2 Relationship between motivating factors with job satisfaction

A positive relationship between empowerment and job satisfaction leads to university success (Ahmad & Jameel, 2018). Leadership has a positive influence on job satisfaction. Open lines of communication and a solid work connection with the employer that promotes trust and teamwork between co-workers have a favourable impact on job satisfaction (Anugud, 2022). Remuneration strategies practised by Human resource in managing incentive schemes are positively related to job satisfaction and mediates between job satisfaction and employee commitment among the banking industry employees of Pakistan (Mahmood et al., 2019). Teacher's growth opportunities and responsibilities attachment are variables contributing to job satisfaction among 547 teachers in 23 schools in Nigeria (Iwu et al., 2016). Hence, Hypothesis 2 is developed following the above findings:

H2: Motivating factors are positively related to job satisfaction.

2.4.3 Relationship between hygiene factors with employee engagement

Salary and type of contract are significantly correlated with work engagement and affect the general health of the 373 nurses working in a public hospital in Spain (Gonzales et al., 2019). Knowledge characteristics influenced work engagement in a survey conducted among 531 Columbian employees from 20 economic sectors (Bayona, 2020). Physical environment and a new way of working or telework have a positive and significant relationship with employee engagement in a survey conducted at a non-profit higher education in Brazil. Interesting results are found from the study, as the physical environment is a stronger predictor in the presence of modified facilities. In contrast, in the absence of modified facilities, the new way of working is a stronger predictor (Duque et al., 2020). A study in Vietnam showed gradual growth in using non-monetary rewards due to the declining trend in cash-based rewards to retain employees. It was found that non-monetary rewards, such as work-life balance, moderately impact employee engagement (Dinh, 2020). Hypothesis 3 is built upon these findings:

H3: Hygiene factors are positively related to employee engagement.

2.4.4 Relationship between motivating factors with employee engagement

A performance management system or performance appraisal was found to enhance employee work engagement from a survey conducted in a management program attended by 322 employees in India (Kakkar et al., 2020). Voice of employees, senior management receptiveness and upward employee communication is found to have positive relationships with employee engagement among 335 state employees from various governmental organizations in Ho Chi Minh, Vietnam (Nguyen et al., 2021). Emotional Intelligence enhances positive attitudes among 405 Spanish professionals and is linked to higher work engagement (Extremera et al., 2018). Intrinsic satisfaction such as praises for doing a good job is significant predictor of employee engagement within the service industry, including the bank and universities in Windhoek, Namibia (Pieters, 2018). Below, Hypothesis 4 is constructed based on the consistent findings from various articles:

H4: Motivating factors are positively related employee engagement.

2.4.5 Relationship between job satisfaction and employee engagement

There is a direct effect between employee engagement and job satisfaction; the direct association between these two constructs showed the importance of producing excellent results of higher profits and productivity (Anugud, 2022). The outcome of a study by Bose and Maheshwary (2019) indicated that there is a strong and confident relationship between job satisfaction and employee engagement. In a study of employees from telecommunication network providers in Indonesia, work satisfaction from the working conditions, work relationships, and promotion are dominant drivers to increase employee engagement (Djoemadi et al., 2019). A study by Fidyah and Setiawati (2020), also in the telecommunication industry, supported the positive and significant relationship between job satisfaction and employee engagement. Job satisfaction results in a higher employee engagement level of managers working at private banks in India (Garg & Mishra, 2018). A study by Park and Johnson (2019) fully supported the positive relationship between job satisfaction and employee engagement, emphasising that happy workers will be more engaged with their work. There is a significant and positive direct effect of job satisfaction on employee engagement from a study conducted among human resource staff at private higher education institutions in Thailand. The is a direct

linkage between these two variables based on the above studies, hence Hypothesis 5 is developed as follows:

H5: Job satisfaction is positively related to employee engagement.

2.4.6 Mediating role of job satisfaction between hygiene factors and employee engagement

In a study by Ampofo (2020) conducted among 274 front-line employees working at 4-star and 5-star hotels in Ghana, job satisfaction partially mediates between organizational embeddedness and employee engagement. Organizational embeddedness is the work factors an employee attaches to an organization that includes the psychological and material benefits, the relationship with people in the organization and the compatibility between them. Job satisfaction partially mediates between intimidation and job performance; intimidation can be considered an element of work stress and significantly impacts employees who are less satisfied with their jobs (Arifin & Manan, 2019). In a study by Hossen et al. (2020) at a private university in Malaysia, job satisfaction mediated the relationship between Internal Corporate Social Responsibility (ICSR) and employee engagement. ICSR is the guideline that promotes a safe and healthy workplace that covers issues like physical environment, empowerment, work-life balance, governance, training and development and workplace diversity. Even there the specific variable, hygiene factors, were not mentioned in the above articles, some of the items related to it; thus, Hypothesis 6 is constructed as follows:

H6: Job satisfaction positively mediates the relationship between hygiene factors and employee engagement.

2.4.7 Mediating role of job satisfaction between motivating factors and employee engagement

The same study by Ampofo (2020) and Hossen et al. (2020), as stated in the development of Hypothesis 6, can also support Hypothesis 7 as organizational embeddedness includes relationships and compatibility between people in the organization, and ICSR also covers empowerment respectively. The mediation effect of job satisfaction was also extended to cover motivating factors in their

study. Job satisfaction as a mediator was also explored in the study by Fidyah and Setiawati (2022) between various constructs like organizational culture, defined as a harmonious relationship between organizational members, freedom to express ideas and involvement in decision-making, employee performance and employee engagement. Their study supported the mediation effect of job satisfaction between these constructs. Using the same justification for Hypothesis 6, no clear variable of motivating factors in the mediation role of job satisfaction, but there are some relevant elements inside. For this reason, Hypothesis 7 is constructed as follows:

H7: Job satisfaction positively mediates the relationship between motivating factors and employee engagement.

With the support of the article findings, the seven hypotheses is developed and concluded as follows:

H1: Hygiene factors are positively related to job satisfaction.

H2: Motivating factors are positively related to job satisfaction.

H3: Hygiene factors are positively related to employee engagement.

H4: Motivating factors are positively related to employee engagement.

H5: Job satisfaction is positively related to employee engagement.

H6: Job satisfaction positively mediates the relationship between hygiene factors and employee engagement.

H7: Job satisfaction positively mediates the relationship between motivating factors and employee engagement.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter maps out the study design detailing the methods and procedures applied in the research to find the valid, objective and accurate answers to the research questions. It is an operational plan that includes a data collection method, sampling method, construct instrument and measurement and data analysis tool used as a groundwork for hypothesis testing and analysing the results.

3.1 Research Design

This study adopted the quantitative method case study that covers descriptive and explanatory research focusing on a foundation centre in a higher education institution, UTAR Sungai Long Campus. It is also a cross-sectional study where data was collected from a sample within a stipulated timeframe. The descriptive method was used to tabulate the demographic attributes and analyse the lecturers' job satisfaction levels. Meanwhile, the explanatory method explained the relationship between the two independent variables, hygiene and motivating factors, with one dependent variable, job satisfaction. The same two independent variables are also used to analyse the relationship with another independent variable, employee engagement. The study also looks into the relationship between job satisfaction and employee engagement and the mediating role of job satisfaction between hygiene and motivating factors with employee engagement.

The quantitative method is chosen because this study intends to measure the variation's magnitude rather than explore them (Kumar, 2018). Moreover, from the literature review performed, many past studies adopting this method had been tested for their validity and reliability and can explicitly explain the relationships between the variables studied. As the study aims to ascertain the prevalence of a phenomenon and involves only one contact with the study population, a cross-sectional study is adopted to obtain an overall picture at the time of the study (Babbie, 2020).

3.2 Sampling Method

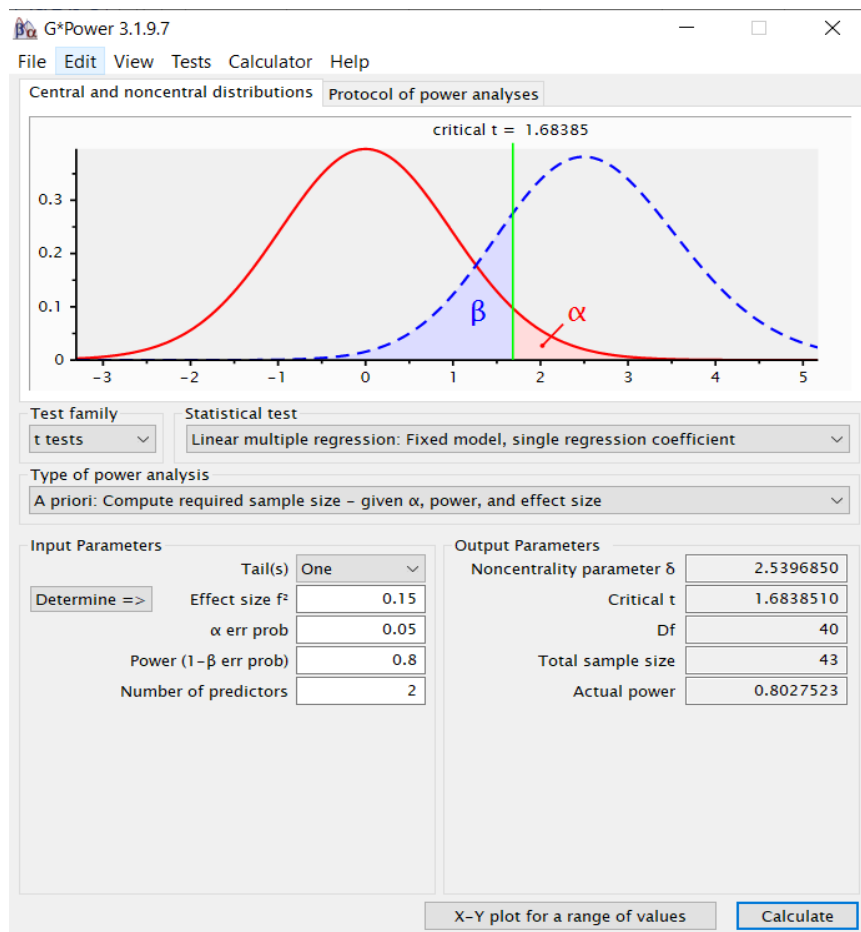
3.2.1 Target Population and Sampling Technique

Under the probability sampling design, simple random sampling is suitable to be used in a situation where a sampling frame exists; each element in the population stands an equal chance to be selected and is commonly used when the population is small. The sampling units must first be identified from the population and, after that, determine the sample size and lastly use a fishbowl or computer program to draw out the numbers (Scherbaum & Shockley, 2015). The target population of this study is CFS UTAR Sungai Long Campus academic staff or lecturers, and there is a sampling frame listing the names and titles of all lecturers from the centre. Hence, probability and simple random sampling techniques were used in this study, as every respondent or lecturer in CFS UTAR Sungai Long Campus has an equal chance of being selected, and the population is small, with a total of 63 lecturers.

3.2.2 Sample Size

Based on the statistical power formula and population size of 63, the minimum sample size required is 43 for the proposed structural model, which comprises about two-thirds of the total population. The significance level of 0.05, the statistical power of 0.80 and the medium effect size of 0.15 were set in the sample size computation using G*Power 3.1.9.7 statistical calculator as shown in Table 3-1 (Faul et al., 2007). Nevertheless, since the population is small, the researcher aims to collect as many responses as possible with a target response rate of more than 80% or equivalent to 50 responses, as higher responses are likely to produce more accurate estimates.

Table 3-1 *G*Power Sample Size Calculator*



3.3 Data Collection Method

Primary data was collected using the period and quota method. The initial plan was to distribute the questionnaires to CFS UTAR Sungai Long Campus for a duration of one month, starting on 1 February 2023 until 1 March 2023 and to achieve the target response of 80% or 50 responses during the period. However, it is fortunate that the actual responses received ended up more than the target response. A total of 62 responses were collected, exceeding the required sample size of 43 and the target response rate of 80% or 50 responses. Out of the total 62 responses collected, two were invalid as they were not lecturers, left with 60 responses, representing a response rate of 95%, which were used in the study analysis. The remaining 5% constitutes three lecturers who are on maternity leave.

The questionnaires were mainly distributed to the lecturers using hard copies and face-to-face meetings to ensure the survey questions' clarity in case the respondents needed further clarification, a quicker and more effective way of collecting back the responses and no duplication. Nevertheless, in a few instances, the questionnaires were sent via WhatsApp using Microsoft Forms after numerous unsuccessful attempts to meet them physically.

Steps taken to process and clean the data manually include making sure no omissions of answers in the questionnaire, filtering out invalid answers and outliers, eliminating inconsistencies and removing incomplete survey data or typing mistakes. All responses are checked to ensure good quality output for data analysis.

3.4 Construct Instrument and Measurement

3.4.1 Questionnaire Design and Measurement Scale

The instruments used in this study are online and hard copy questionnaires consisting of three parts: 1) demographics in the first section, 2) two independent variables sub-categorized into 3 items each, and two dependent variables in the second section and 3) short-structured questions which are categorical. Respondents were asked to answer a set of forty-five questions: seven questions under demographic, 4 questions each for the 6 subcategories of the two independent variables, 4 questions each for the two dependent variables and 6 questions for the categorical short-structured questions as stated in Table 3-2.

Table 3-2 *Structure of the Questionnaire*

Section	Number of questions
First Section:	
Demographics	7
Second Section:	
Two Independent Variables:	
1) Hygiene Factors	
i) Pay	4
ii) Work-life Balance	4
iii) Working Conditions	4
2) Motivating Factors	
i) Achievement	4
ii) Power	4
iii) Affiliation	4
Two Dependent Variables:	
1) Job Satisfaction	4
2) Employee Engagement	4
Third Section:	
Categorical short-structured question	6
Total Questions	45

A Six-Point Likert scale with (1) Strongly disagree, (2) Disagree, (3) Somewhat disagree, (4) Somewhat agree, (5) Agree and (6) Strongly agree is used to evaluate the responses as per the questionnaire enclosed in Appendix 1. The respondents must select the appropriate point that best indicates how they would rate the attributes.

To ensure respondents feel comfortable and honest in answering the questions, they are given the assurance that their responses are anonymous, kept confidential and strictly used for academic purposes only. A clear instruction coupled with avoidance of ambiguous words in the questionnaire were provided so that all responses required an equal effort, and the questions are answered without

any bias (Reio, 2010). The questions were adopted and adapted from a few articles with Cronbach Alpha of more than 0.70, as stated in Table 3-3.

Table 3-3 *Questions adopted and adapted from articles*

Variable Code	Adopted and Adapted Questionnaire	Citation	Cronbach Alpha
Independent Variable (IV1)			
Hygiene Factors (HF)			
Subcategory of IV1			
Pay (PY)			
PY1	I feel that my pay is fair for the work my institution offers.	Dalkrani and Dimitriadis (2018)	0.855
PY2	My salary is directly related to my performance.	Arora and Sharma (2021)	0.797
PY3	I get extra incentives for giving extraordinary results.	Arora and Sharma (2021)	0.726
PY4	My institution provides better benefits and takes care of my needs.	Bose and Maheshwary (2019)	JSQS*
Subcategory of IV1			
Work-life Balance (WB)			
WB1	My job allows me to manage work-life balance.	Bose and Maheshwary (2019)	JSQS*
WB2	There are sufficient staff to cover the current workload in my institution.	Nayak and Mohanty (2018)	0.776
WB3	My institution promotes flexible work schedules.	Nayak and Mohanty (2018)	0.776
WB4	My job does not require me to work long hours.	Nayak and Mohanty (2018)	0.776

Variable Code	Adopted and Adapted Questionnaire	Citation	Cronbach Alpha
Subcategory of IV1			
Working Conditions (WC)			
WC1	I receive appropriate training to do my job effectively and efficiently.	Bose and Maheshwary (2019)	JSQS*
WC2	I feel secure regarding my job stability.	Nemțeanu et al. (2022)	0.776
WC3	I have the resources I need to complete my work.	Shuck et al. (2017)	0.781
WC4	My institution frequently arranges development programs for my personal growth.	Arora and Sharma (2021)	0.760
Independent Variable (IV2)			
Motivating Factors (MF)			
Subcategory of IV2			
Achievement (AC)			
AC1	I receive appreciation and recognition from management for my achievements and task accomplishments.	Bose and Maheshwary (2019)	JSQS*
AC2	My manager encouraged me to continue my achievement.	Cahyono et al. (2020)	0.892
AC3	I received credit for helpful ideas and suggestions.	Mbhele and de Beer (2021)	0.900
AC4	There are equal opportunities for advancement and promotion in my job.	Dalkrani and Dimitriadis (2018)	0.778

Variable Code	Adopted and Adapted Questionnaire	Citation	Cronbach Alpha
Subcategory of IV2			
Power (PW)			
PW1	I am allowed to use my own judgement.	Arora and Sharma (2021)	0.806
PW2	I organise my work as I see fit.	Mahmood et al. (2019)	0.870
PW3	I am given the power to plan and control my job.	Manalo et al. (2020)	0.738
PW4	My manager trusts me and empowers me to take on higher responsibilities.	Bose and Maheshwary (2019)	JSQS*
Subcategory of IV2			
Affiliation (AF)			
AF1	I am closely connected to one another regardless of our designation.	Arora and Sharma (2021)	0.760
AF2	I get along with my colleagues.	Nemţeanu et al. (2022)	0.714
AF3	My manager backs me up and supports me in difficult situations.	Mbhele and de Beer (2021)	0.900
AF4	I feel respected and have a good relationship with my students.	Bose and Maheshwary (2019)	JSQS*

Variable Code	Adopted and Adapted Questionnaire	Citation	Cronbach Alpha
<u>Dependent Variable (DV1)</u>			
Job Satisfaction (JS)			
JS1	All in all, I am satisfied with my job.	Ampofo (2020)	0.838
JS2	In general, I like working at my institution.	Ampofo (2020)	0.911
JS3	I find real enjoyment in my job.	Mahmood et al. (2019)	0.930
JS4	I feel good about working at my institution.	Nemţeanu et al. (2022)	0.854
<u>Dependent Variable (DV2)</u>			
Employee Engagement (EE)			
EE1	I exert a lot of energy on my job.	Shen and Jiang (2019)	0.890
EE2	I really push myself to work beyond what is expected of me.	Shuck et al. (2017)	0.883
EE3	I am proud to tell others that I work for my current organisation.	Shuck et al. (2017)	0.890
EE4	At work, I focus a great deal of attention on my job.	Shen and Jiang (2019)	0.900

Note(s): *Job-Satisfaction Questionnaire Survey

3.5 Pre-Test

The questionnaire was then pre-tested by two academic experts and two industry experts for face validity and refined according to their comments and suggestions. As to test the content validity, five lecturers from the actual respondents were selected to form a focus group to give their opinions on issues such as difficult or unclear questions, the flow of the questions, and the wording (Memon et al., 2017b).

3.6 Pilot Test

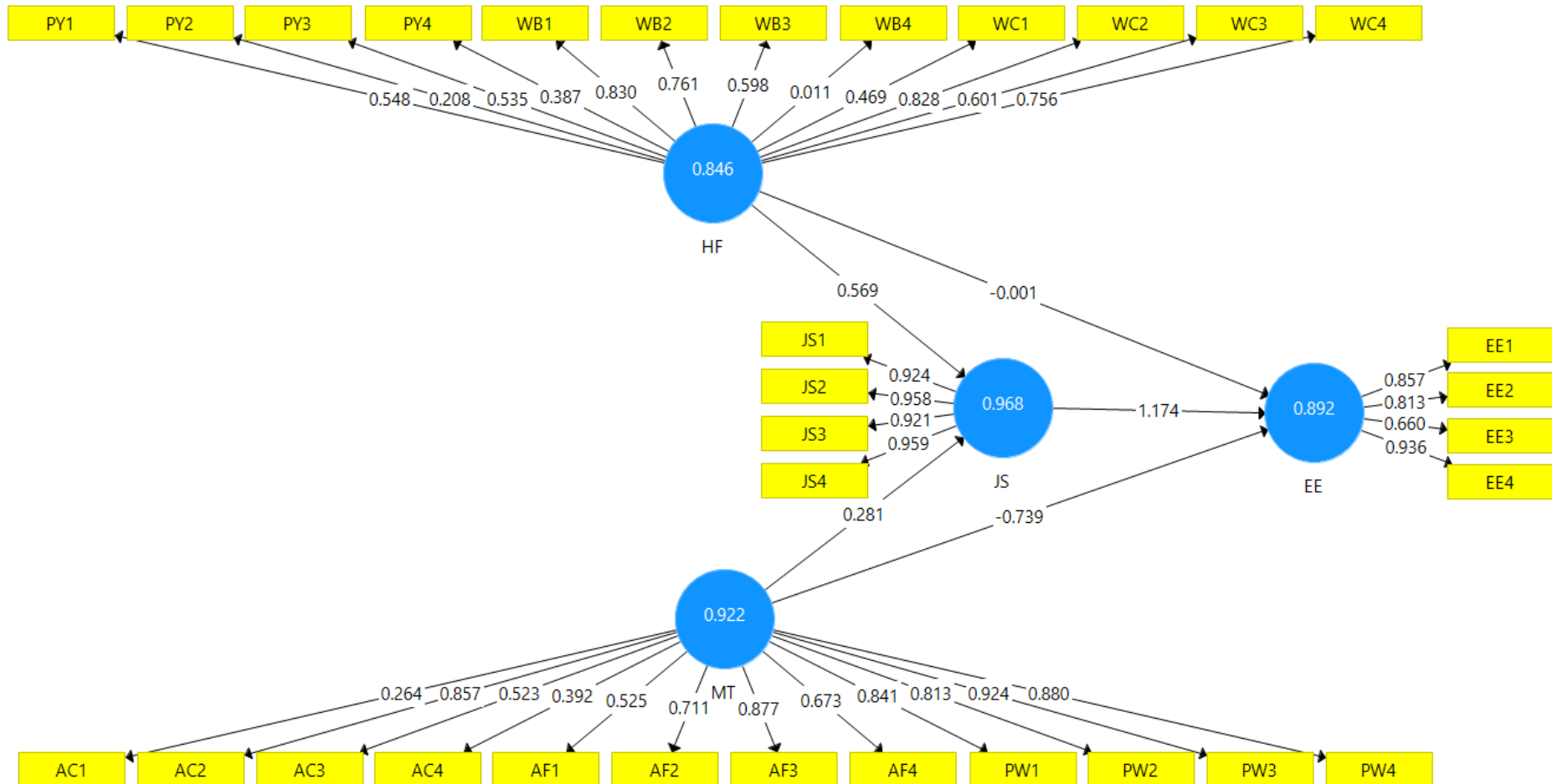
A pilot test from a small sample of thirteen responses was conducted before the actual data analysis. The rule of thumb for the minimum sample size for pilot study is 12 and according to Connelly (2008), the sample size for pilot study should be 10% of the study population. The purpose is to perform a small-scale study and test its reliability. The results of the pilot test are tabulated in Table 3-4.

Table 3-4 *Pilot Test: Composite Reliability and Cronbach's Alpha*

Constructs	Variable Code	Composite Reliability	Cronbach's Alpha	No. of items
Hygiene Factors	HF	0.846	0.797	12
Motivating Factors	MF	0.922	0.908	12
Job Satisfaction	JS	0.968	0.956	4
Employee Engagement	EE	0.892	0.837	4

The Composite Reliability and Cronbach's Alpha for all the above four variables are more than 0.70; hence the higher bound of reliability is established. On the other hand, most of the outer loadings for all items, as shown in Figure 3-1, have fair indicator reliability (> 0.60) except for a few items under hygiene factors and motivating factors, of which some of these items can be dropped during the actual data analysis if they remain low.

Figure 3-1 Pilot Test: Indicator Reliability (Outer Loadings) And Internal Consistency (Composite Reliability)



3.7 Data Analysis

3.7.1 Statistical Analysis Method

The raw data were converted into a compatible format, and tables and graphs were generated for the descriptive analysis using Pivot Table in Microsoft Excel. As for the explanatory analysis assessing the relationship between hygiene and motivating factors with job satisfaction and employee engagement, the partial least squares structural equation modelling (PLS-SEM), the second-generation statistical analysis method, is applied.

There are mainly three reasons for choosing PLS-SEM for analysing this study. First, the analysis concerns the prediction of the dependent variables (what factors affect job satisfaction and employee engagement?). Second, the research objective is to comprehend the incremental complexity of the study (job satisfaction as the mediator between hygiene and motivating factors with employee engagement), and third, the population is small (total population is 63) (Hair et al., 2017). The three reasons fit into the study's conceptual framework, which requires an explanation of the predictive value of the variables and the mediation effect.

3.7.2 Reliability and Validity

Two stages are involved in evaluating the research framework: Stage 1, the measurement model or the outer model evaluation and Stage 2, the structural model or the inner model evaluation. The outer model is to assess and ensure the adequacy level of the reliability and validity of the model, including the Indicator Reliability (Outer Loading > 0.70), Internal Consistency (Composite Reliability > 0.70), Convergent Validity (Average Variance Extracted > 0.50) and Discriminant Validity (HTMT < 0.90). Indicator Reliability measures the items to the construct; Internal Consistency measures the correlation between the items; Convergent Validity measures the average of the items explaining the construct; Discriminant Validity measures each variable measuring different phenomenon (Hair et al., 2017; Ramayah et al., 2018).

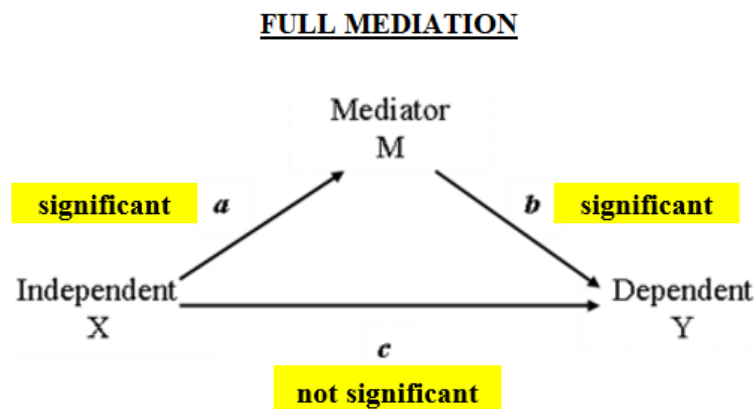
3.7.3 Structural Model

The inner model, on the other hand, is to determine the existence of the relationships as stated in the hypothesis development that includes assessing collinearity issues ($VIF < 5$), significance and correlation in hypothesis testing (p-value and Beta), how the independent variables collectively explain the dependent variables (coefficient of determinations- R^2), which independent variable is more important to explain the dependent variable (effect size- f^2) and whether the model has good predictive quality (predictive relevance- Q^2). It is to ensure the Goodness of Fit of the model and sufficient evidence and confidence to make a conclusion for the hypotheses (Hair et al., 2012b).

3.7.4 Mediation Analysis

Mediation brings to light the true relationship between the dependent and independent variables. In order to prove that there is a mediation, first, the mediator must have a significant relationship with the dependent and independent variables. Full mediation is the complete intervention caused by the mediator; this happens when the relationship between the dependent and independent variables is insignificant. Under similar circumstances, partial mediation occurs if there is a significant relationship between the dependent and independent variables (Zhao et al., 2010). As illustrated in Figure 3-2, “a” and “b” must be significant to have a mediation. If “a” and “b” are significant, there is a full mediation when “c” is not significant and a partial mediation when “c” is significant (Zhao et al., 2010).

Figure 3-2 *Two Types of Mediation*



PARTIAL MEDIATION

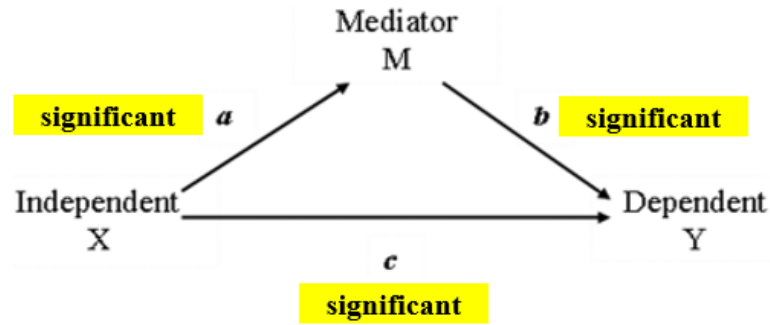
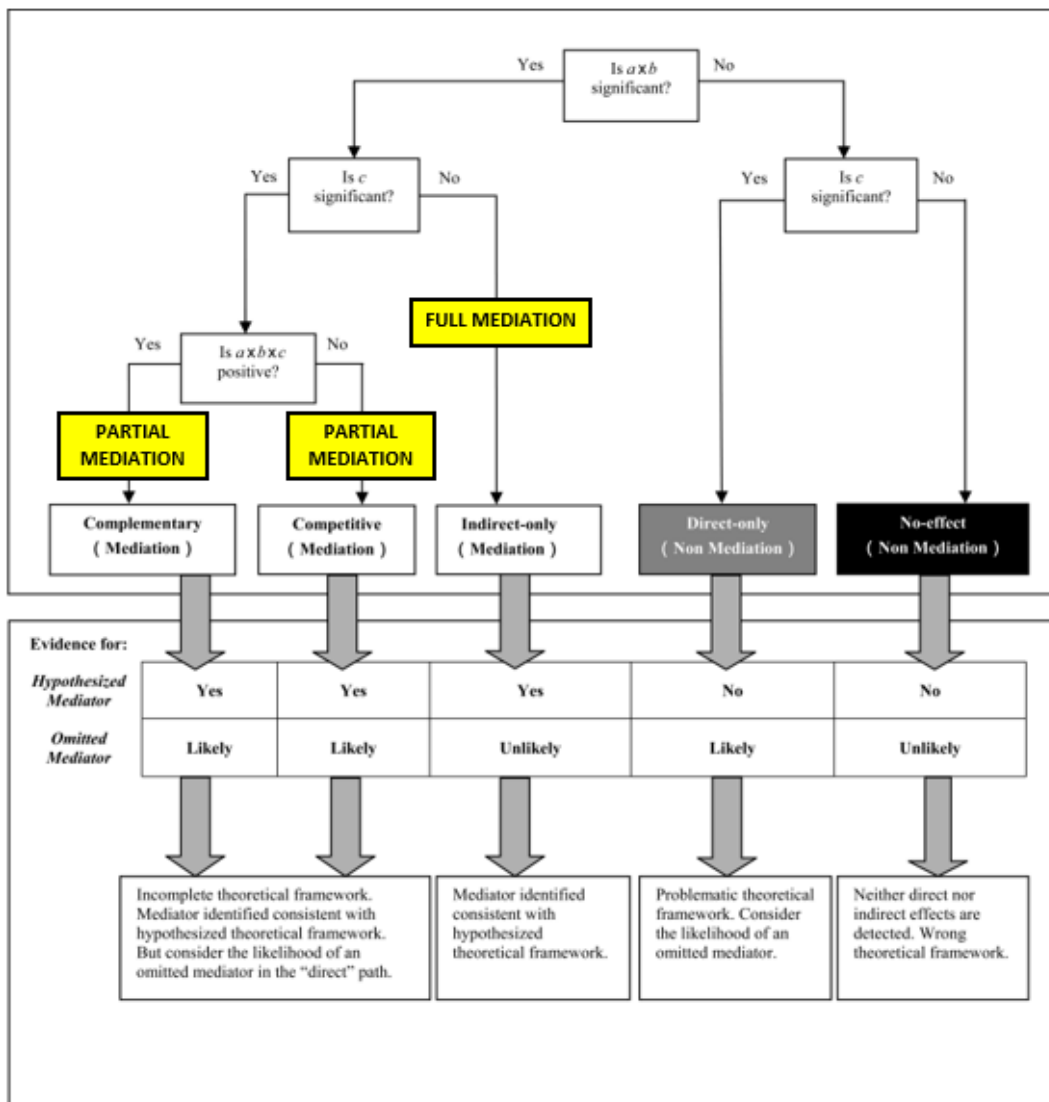


Figure 3-3 *Decision Tree for Establishing And Understanding Types of Mediation and Non-Mediation*



CHAPTER 4: RESULTS

4.0 Introduction

This chapter lays out the analysis framework, which delves into mainly the descriptive and explanatory analysis. Demographic data, job satisfaction levels on hygiene and motivating factors, cross tabulation and categorical data are covered in the descriptive analysis using Pivot Table in Microsoft Excel. As for the explanatory analysis, two stages are involved using the SmartPLS 3; the first stage is the measurement model or outer model, which assesses the reliability and validity of the model, and the second stage is the structural model or inner model, which includes the hypotheses testing to infer whether relationships exist between the constructs. In addition, the mediating role of job satisfaction between hygiene factors and motivating factors with employee engagement is also assessed.

4.1 Descriptive Analysis

4.1.1 Demographic

The total study population is 63, and the total responses collected are 62. Out of the total 62 responses collected, two were invalid as they were not lecturers, left with 60 responses, constituting a response rate of 95% (60/63). As such, the 60 responses after checking and cleaning the data were used to demonstrate the demographic characteristic as shown in Table 4-1 below.

Table 4-1 *Demographic Background of Lecturers*

Characteristic	Category	Frequency	Percent
Gender	Female	48	80%
	Male	12	20%
Marital Status	Single	16	27%
	Married	44	73%
Age	20 – 30 years	2	3%
	31 – 40 years	42	70%
	41 to 50 years	11	19%
	51 to 60 years	5	8%
Position	Assistant Lecturer	8	13%
	Lecturer	37	62%
	Senior Lecturer	15	25%
Qualification	Degree	8	13%
	Master's degree	50	84%
	PhD / Doctorate	2	3%
Work experience in the education line	0 – 5 years	4	7%
	6 – 10 years	20	33%
	11 – 15 years	17	28%
	Above 15 years	19	32%
Length of service at the current institution	0 – 5 years	7	12%
	6 – 10 years	18	30%
	11 – 15 years	26	43%
	Above 15 years	9	15%

Most lecturers are female (80%) and married (73%). 70% are from the middle age group of between 31 to 40 years old. The centre has a good staff balance in terms of age as the weight is heavier in the middle age group and a relatively smaller percentage for the younger (3%) and older age groups (27%). The middle age group is usually in their prime time who are keen to strive for career advancement and a workforce that could progressively contribute and bring innovation to the institution. A quarter of them (25%) holds the position of Senior Lecturer, 62% as Lecturer and only 13% as Assistant Lecturer. Only 3% have a

PhD, the remaining 84% with master's degrees and 13% with a degree. The very low PhD holders are because writing research papers in the centre is not a compulsory requirement. Since most hold the position of Lecturer, there is still room for the potential to grow and develop their career.

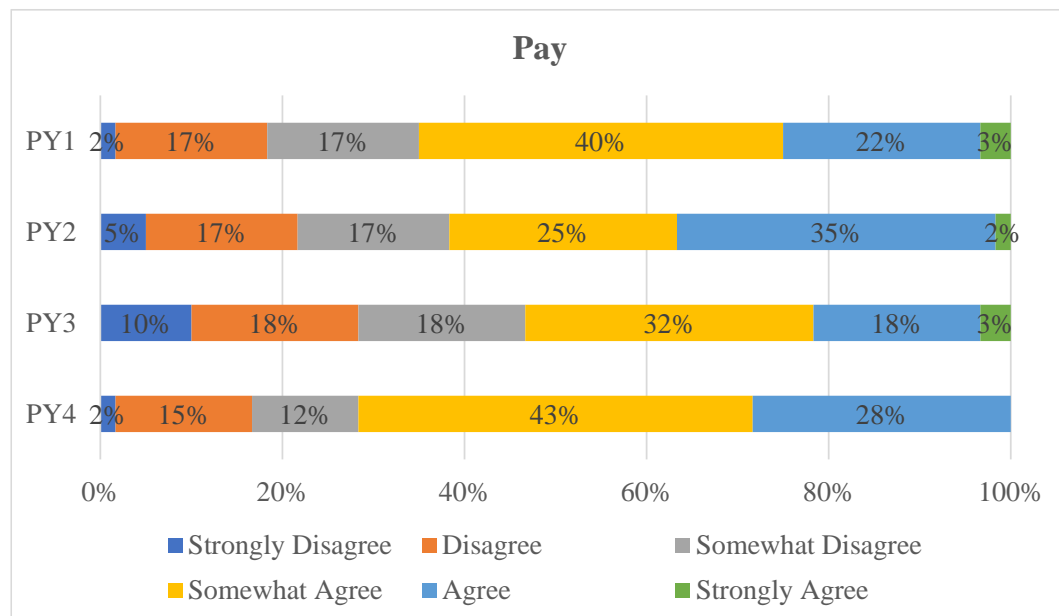
Almost two-thirds have work experience in the education line and have been with the institution for more than ten years. It represents that the centre has many very experienced staff, which can be a catalyst for improvements but can also be a setback as it may denote they are in the comfort zone that hinders innovation or change. Interestingly, an astounding 88% of them have continued to stay and work in the institution for more than five years, indicating a low staff turnover rate that provides stability and saves costs for new hiring on the good side. However, a low staff turnover rate may not benefit the institution if this situation harbours the underperformers and frustrates the top performers (Biagini, 2019). Too much conformity and no conflicts impede fresh ideas and rising stars from showcasing their capability and talents. Hence, it is crucial to identify those who are highly engaged in their work and provide opportunities for them to develop and grow their career. Creating a succession plan for the candidate with high performance and potential can prevent top performers from leaving and, at the same time, from falling into becoming a stagnant institution.

4.1.2 Job Satisfaction Levels on Hygiene Factors

Table 4-2 *Hygiene Factor: Pay*

Variable code	Hygiene Factor Pay	Mean	Median	Mode	SD
PY1	I feel that my pay is fair for the work my institution offers.	3.73	4.00	4.00	1.13
PY2	My salary is directly related to my performance.	3.73	4.00	5.00	1.29
PY3	I get extra incentives for giving extraordinary results.	3.40	4.00	4.00	1.34
PY4	My institution provides better benefits and takes care of my needs.	3.82	4.00	4.00	1.07

Figure 4-1 *Satisfaction Level: Pay*

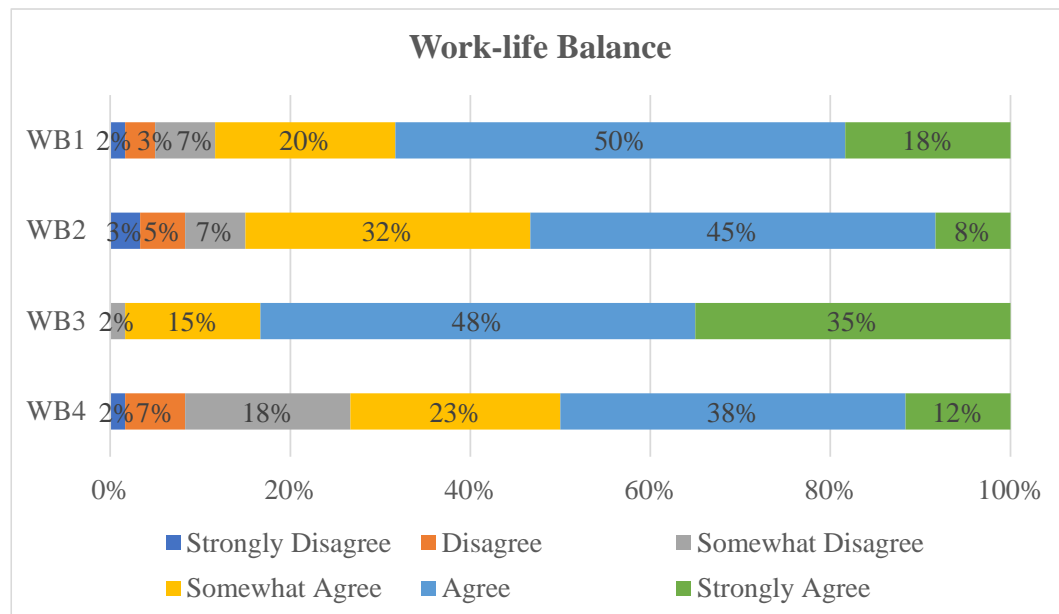


All four questions under Pay scored a mean of below 4, showing that lecturers are dissatisfied with Pay. The median is 4 for all questions. The same goes for mode at 4 for all questions except PY2 at 5; the standard deviation is between 1.07 and 1.34. Notably, close to half, 46%, are dissatisfied with PY3 at the lowest mean of 3.40 on getting extra incentives for extraordinary performance. Nonetheless, 71% stated that they are satisfied with PY4 on staff benefits and taking care of their needs.

Table 4-3 *Hygiene Factor: Work-life Balance*

Variable code	Hygiene Factor Work-life Balance	Mean	Median	Mode	SD
WB1	My job allows me to manage work-life balance.	4.68	5.00	5.00	1.07
WB2	There are sufficient staff to cover the current workload in my institution.	4.35	5.00	5.00	1.12
WB3	My institution promotes flexible work schedules.	5.17	5.00	5.00	0.74
WB4	My job does not require me to work long hours.	4.25	5.00	5.00	1.19

Figure 4-2 *Satisfaction Level: Work-life Balance*

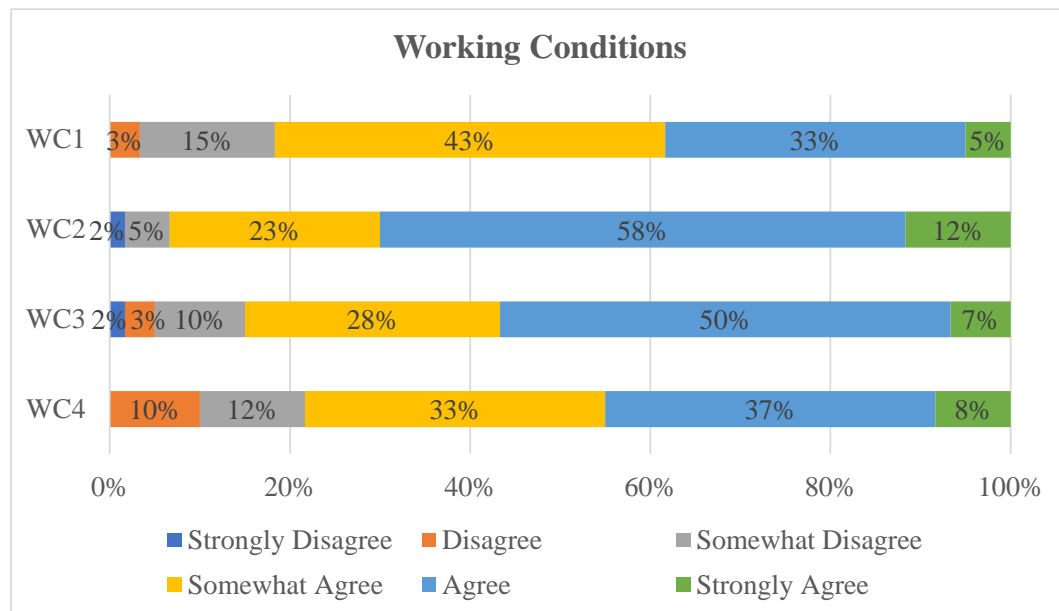


Contrarily to Pay, Work-life Balance scored a higher mean of above 4 for all questions, representing that lecturers are satisfied between balancing their work schedules and family or personal life. The median and the mode are 5 for all questions, while the standard deviation is between 0.74 to 1.19. WB3 has the highest mean at 5.17, which denotes that they are happy with the flexible working hours offered by the institution. Even then, the lowest mean score is still above four at 4.25 for WB4, requiring lecturers to work long hours. Hence, the overall results generally showed that lecturers find their workload manageable as more than half skewed toward agreeableness for all four questions.

Table 4-4 *Hygiene Factor: Working Conditions*

Variable code	Hygiene Factor Working Conditions	Mean	Median	Mode	SD
WC1	I receive appropriate training to do my job effectively and efficiently.	4.22	4.00	4.00	0.88
WC2	I feel secure regarding my job stability.	4.72	5.00	5.00	0.87
WC3	I have the resources I need to complete my work.	4.42	5.00	5.00	1.00
WC4	My institution frequently arranges development programs for my personal growth.	4.22	4.00	5.00	1.09

Figure 4-3 *Satisfaction Level: Work Conditions*



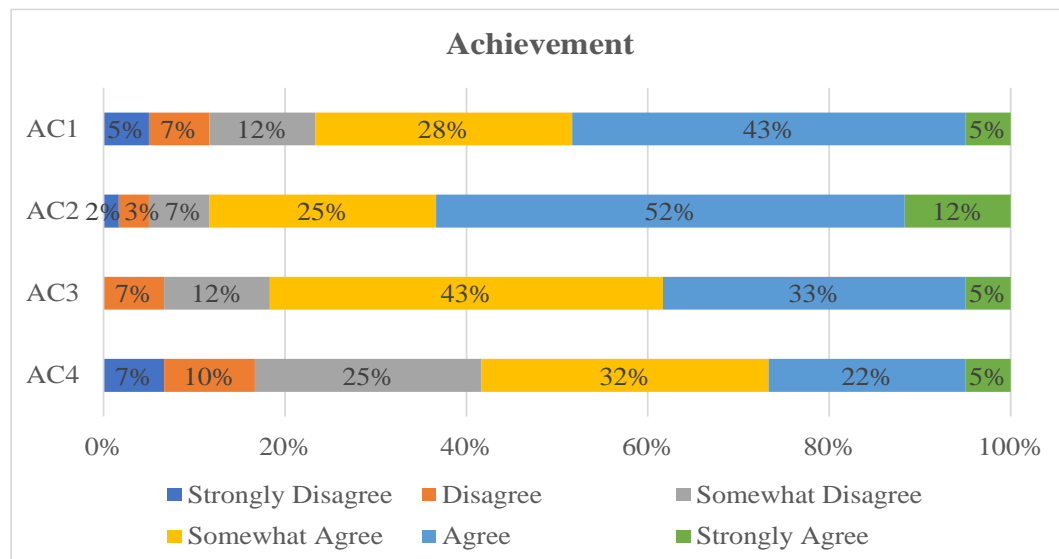
Similar to Work-life Balance, Working Conditions scored a mean of above 4 for all questions, reflecting that lecturers are satisfied with the working conditions and resources available to perform their jobs. WC1 and W4 have a lower median of 4 compared to WC2 and WC3 at 5. The mode is 5 for all except for WC1, while the standard deviation is between 0.88 to 1.09. WC1 and WC4 scored the lowest mean at 4.22, which shows that lecturers are only somewhat satisfied with the training and development program for their personal growth. Besides, the majority, 70%, were agreeable to WC2 regarding job stability.

4.1.3 Job Satisfaction Levels on Motivating Factors

Table 4-5 *Motivating Factor: Achievement*

Variable code	Motivating Factor Achievement	Mean	Median	Mode	SD
AC1	I receive appreciation and recognition from management for my achievements and task accomplishments.	4.13	4.00	5.00	1.21
AC2	My manager encouraged me to continue my achievement.	4.57	5.00	5.00	1.01
AC3	I received credit for helpful ideas and suggestions.	4.18	4.00	4.00	0.95
AC4	There are equal opportunities for advancement and promotion in my job.	3.67	4.00	4.00	1.26

Figure 4-4 *Satisfaction Level: Achievement*

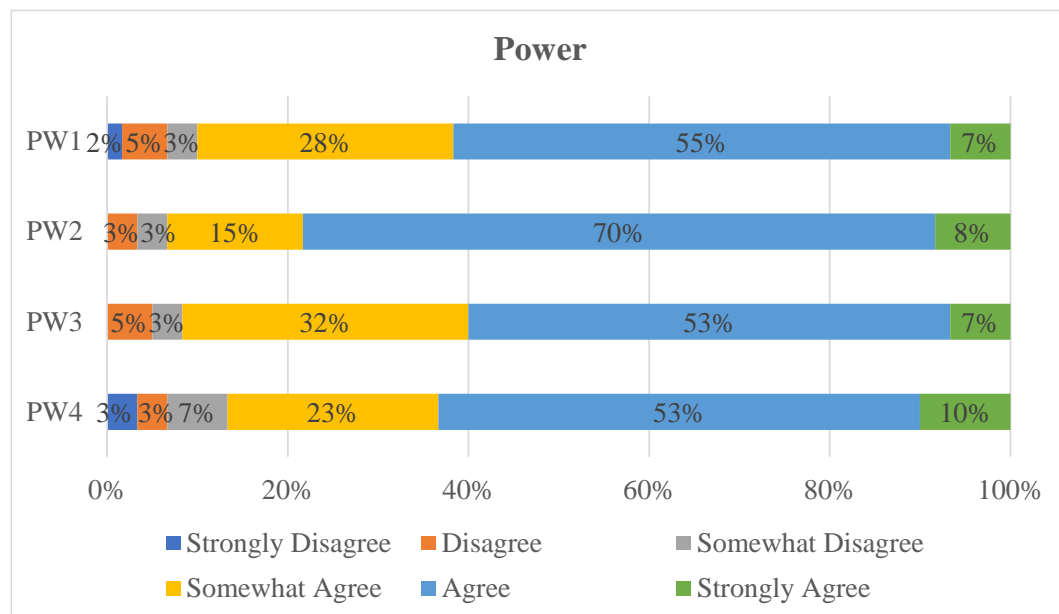


The mean for Achievement is above 4, the weaker side of 4 for all except for AC4, which scored even lower at 3.67 compared to the other questions. The median is 4 for all except AC2 at 5. The mode for AC1 and AC2 is 5, while AC3 and AC4 are 4. The standard deviation is between 0.95 and 1.26. Conflicting statements are found between AC4 and AC2 because, on the one hand, 42% of lecturers are somewhat dissatisfied with equal opportunities for promotion; however, on the other hand, 89% of them are somewhat satisfied with the manager encouraging them to continue their achievements.

Table 4-6 *Motivating Factor: Power*

Variable code	Motivating Factor Power	Mean	Median	Mode	SD
PW1	I am allowed to use my own judgement.	4.50	5.00	5.00	0.98
PW2	I organise my work as I see fit.	4.77	5.00	5.00	0.79
PW3	I am given the power to plan and control my job.	4.53	5.00	5.00	0.87
PW4	My manager trusts me and empowers me to take on higher responsibilities.	4.50	5.00	5.00	1.10

Figure 4-5 *Satisfaction Level: Power*

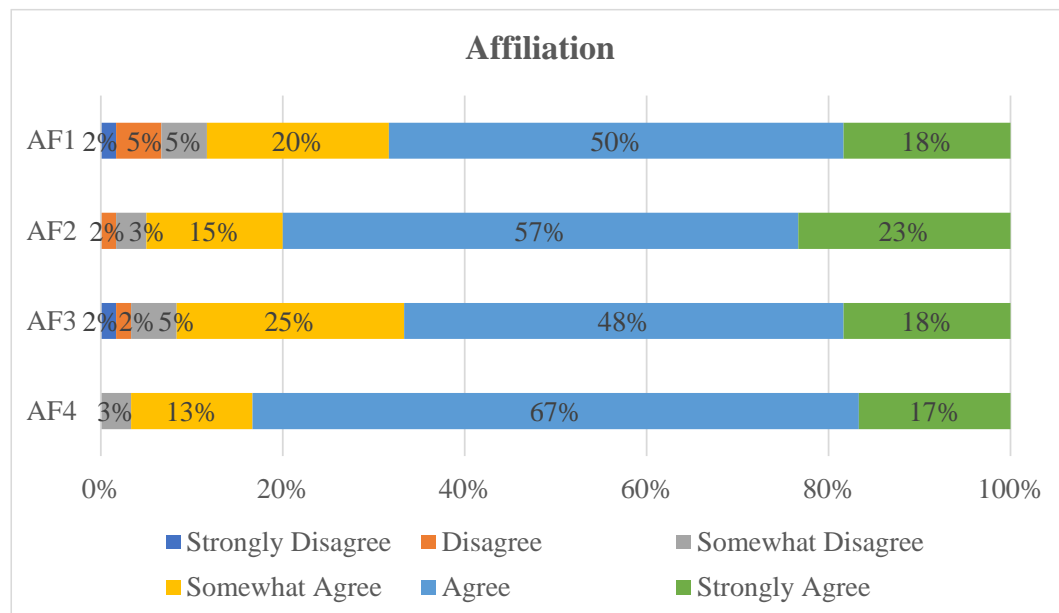


Unlike Achievement, Power showed more consistent results in which the mean has a strong 4, and the median and the mode are 5 for all questions. The standard deviation is between 0.79 to 1.10. At the highest mean of 4.77 and lowest standard deviation of 0.79, most lecturers, 78% agreeable with PW2 on organising their work as they see fit. Other than PW4 on manager trust and empowerment, less than 10% showed disagreeableness with PW1, PW2 and PW3 on control and using their judgement over their jobs. The overall results indicated that lecturers are satisfied with the discretion given to them to plan and organise their work.

Table 4-7 *Motivating Factor – Affiliation*

Variable code	Motivating Factor Affiliation	Mean	Median	Mode	SD
AF1	I am closely connected to one another regardless of our designation.	4.67	5.00	5.00	1.10
AF2	I get along with my colleagues.	4.97	5.00	5.00	0.82
AF3	My manager backs me up and supports me in difficult situations.	4.72	5.00	5.00	0.99
AF4	I feel respected and have a good relationship with my students	4.97	5.00	5.00	0.66

Figure 4-6 *Satisfaction Level: Affiliation*



Like Power, the Affiliation mean is above 4 for all, scoring a solid mean of 4 with AF2 and AF4 at 4.97, close to 5. The median and mode are 5 for all, and the standard deviation is between 0.66 and 1.10. AF4 has the highest mean and lowest standard deviation, with a whopping 97% of lecturers feeling respected and having a good relationship with their students, and only 3% is somewhat disagreeable. Other than AF1 on a close connection with one another regardless of designation, less than 10% is disagreeable with AF2, AF3 and AF3 on good relationships with colleagues and supports from the manager. The overall results showed that lecturers are happy with their relationships with colleagues, managers and students.

4.1.4 Cross Tabulation

Three demographic attributes were cross-tabulated with job satisfaction and employee engagement to ascertain whether there is a relationship between them. They are 1) Position. 2) Qualification and 3) Length of service at the current institution. There are four questions each for job satisfaction and employee engagement. Based on the 60 responses, the total number of answers will sum up to 240 for each construct.

4.1.4.1 Position

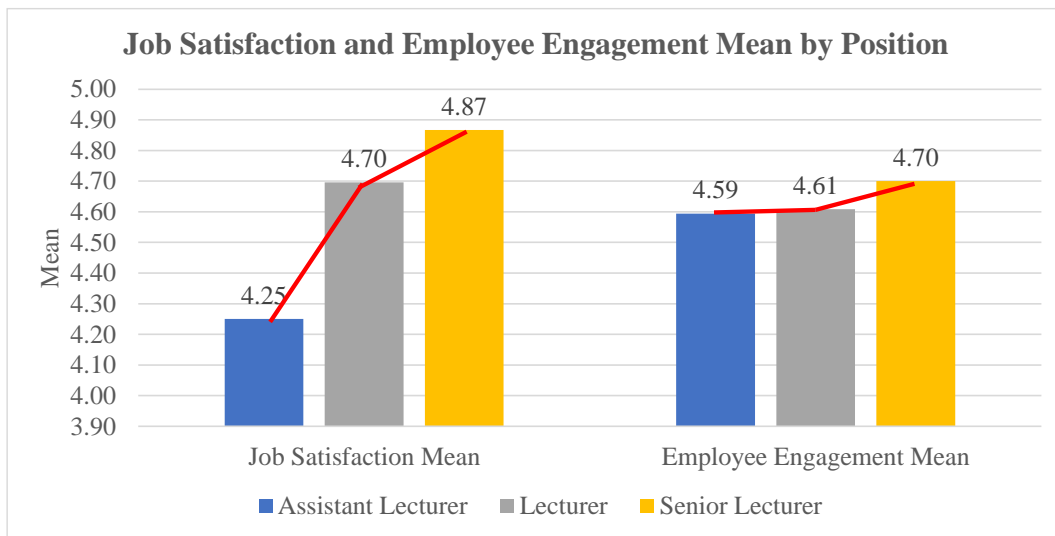
Table 4-8 *Position cross-tabulated with Job Satisfaction*

		Job Satisfaction						Total	Mean
		Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
Position	Assistant Lecturer	0	2	1	19	7	3	32	4.25
		0%	6%	3%	59%	22%	9%		
	Lecturer	1	3	5	34	93	12	148	4.70
		1%	2%	3%	23%	63%	8%		
	Senior Lecturer	0	2	0	11	38	9	60	4.87
		0%	3%	0%	18%	63%	15%		

Table 4-9 *Position cross-tabulated with Employee Engagement*

		Employee Engagement						Total	Mean
		Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
Position	Assistant Lecturer	0	3	1	8	14	6	32	4.59
		0%	9%	3%	25%	44%	19%		
	Lecturer	1	3	18	31	73	22	148	4.61
		1%	2%	12%	21%	49%	15%		
	Senior Lecturer	0	0	3	18	33	6	60	4.70
		0%	0%	5%	30%	55%	10%		

Figure 4-7 Mean Score for Job Satisfaction and Employee Engagement by Position



As shown in Figure 4-7, the higher the position held, the higher the mean score for job satisfaction. The same upward pattern is also shown for employee engagement; the difference is that only the variance of the mean score between the different positions held is more significant for job satisfaction than employee engagement. The positive association between the position held with job satisfaction and employee engagement is proclaimed in Tables 4-8 and 4-9. It can be indicated from the mean score and percentage of lecturers who are agreeable that lecturers who hold higher positions are happier and more engaged with their work. Nonetheless, interesting to note that the mean score of Assistant Lecturers for employee engagement is higher than the mean score for job satisfaction, denoting that for this position, they still engage with their work even though they are relatively less happy. Contrarily, the positions of Lecturer and Senior Lecturer reflected a reversed pattern; however, the variance is small.

4.1.4.2 Qualification

Table 4-10 *Qualification cross-tabulated with Job Satisfaction*

		Job Satisfaction						Total	Mean
		Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
Qualification	Degree	0	2	1	19	7	3	32	4.25
		0%	6%	3%	59%	22%	9%		
	Master Degree	1	5	5	41	127	21	200	4.76
		1%	3%	3%	21%	64%	11%		
	PhD/Doctorate	0	0	0	4	4	0	8	4.50
		0%	0%	0%	50%	50%	0%		

Table 4-11 *Qualification cross-tabulated with Employee Engagement*

		Employee Engagement						Total	Mean
		Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
Qualification	Degree	0	3	1	8	14	6	32	4.59
		0%	9%	3%	25%	44%	19%		
	Master Degree	1	3	21	49	102	24	200	4.60
		1%	2%	11%	25%	51%	12%		
	PhD/Doctorate	0	0	0	0	4	4	8	5.50
		0%	0%	0%	0%	50%	50%		

Figure 4-8 *Mean Score for Job Satisfaction and Employee Engagement by Qualification*

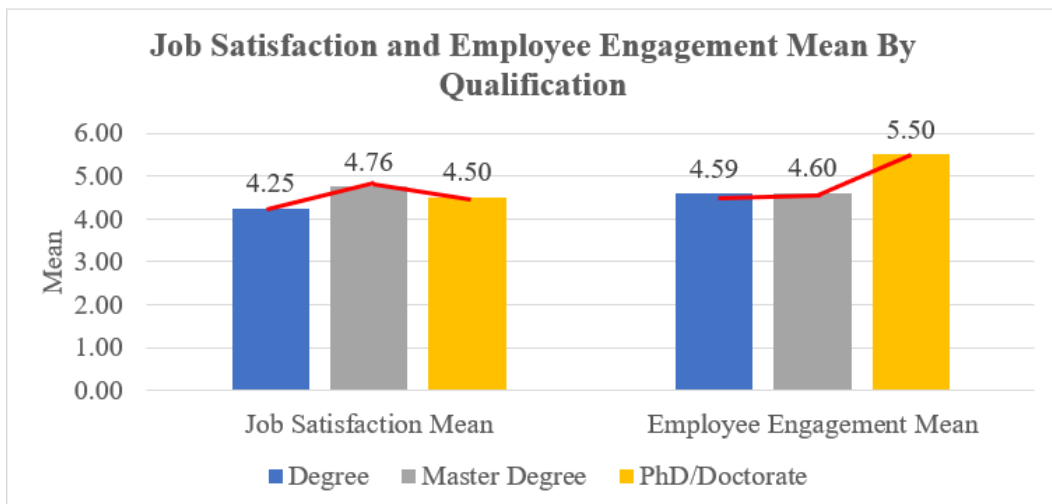


Figure 4-8 showed that the job satisfaction mean does not differ much between the different levels of qualification. Lecturers holding master's degrees scored the highest mean, 4.75 for job satisfaction, followed by PhD or doctorate at 4.50 and degree holder lecturers are least satisfied at 4.25. The employee engagement's mean score for lecturers holding a degree and master's degree is almost the same at 4.59 and 4.60, respectively. In contrast, lecturers with a PhD or doctorate are most engaged with their work, obviously higher at a mean score of 5.50. On the bright side, as shown in Tables 4-10 and 4-11, lecturers generally showed higher employee engagement in comparison to job satisfaction regardless of their qualifications.

4.1.4.3 Length of Service at the Current Institution

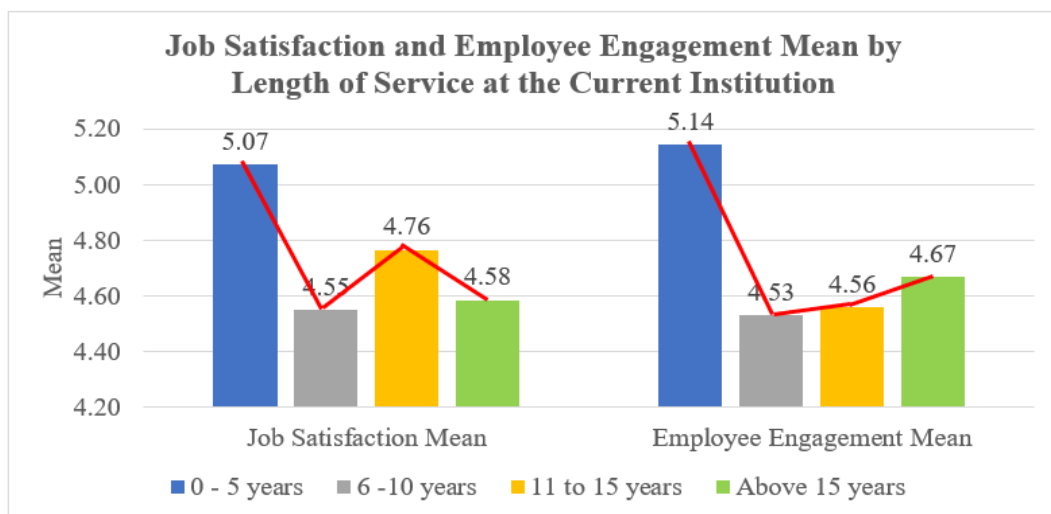
Table 4-12 *Length of Service cross-tabulated with Job Satisfaction*

		Job Satisfaction						Total	Mean
		Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
Length of service at current institution	0 - 5 years	0	0	2	2	16	8	28	5.07
		0%	0%	7%	7%	57%	29%		
	6 -10 years	1	5	1	30	63	4	104	4.55
		1%	5%	1%	29%	61%	4%		
	11 to 15 years	0	2	1	17	44	8	72	4.76
		0%	3%	1%	24%	61%	11%		
	Above 15 years	0	0	2	15	15	4	36	4.58
		0%	0%	6%	42%	42%	11%		

Table 4-13 *Length of Service cross-tabulated Employee Engagement*

		Employee Engagement						Total	Mean
		Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree		
Length of service at current institution	0 - 5 years	0	0	0	4	16	8	28	5.14
		0%	0%	0%	14%	57%	29%		
	6 -10 years	1	3	11	25	53	11	104	4.53
		1%	3%	11%	24%	51%	11%		
	11 to 15 years	0	3	7	17	37	8	72	4.56
		0%	4%	10%	24%	51%	11%		
	Above 15 years	0	0	4	11	14	7	36	4.67
		0%	0%	11%	31%	39%	19%		

Figure 4-9 *Mean Score for Job Satisfaction and Employee Engagement by Length of Service*

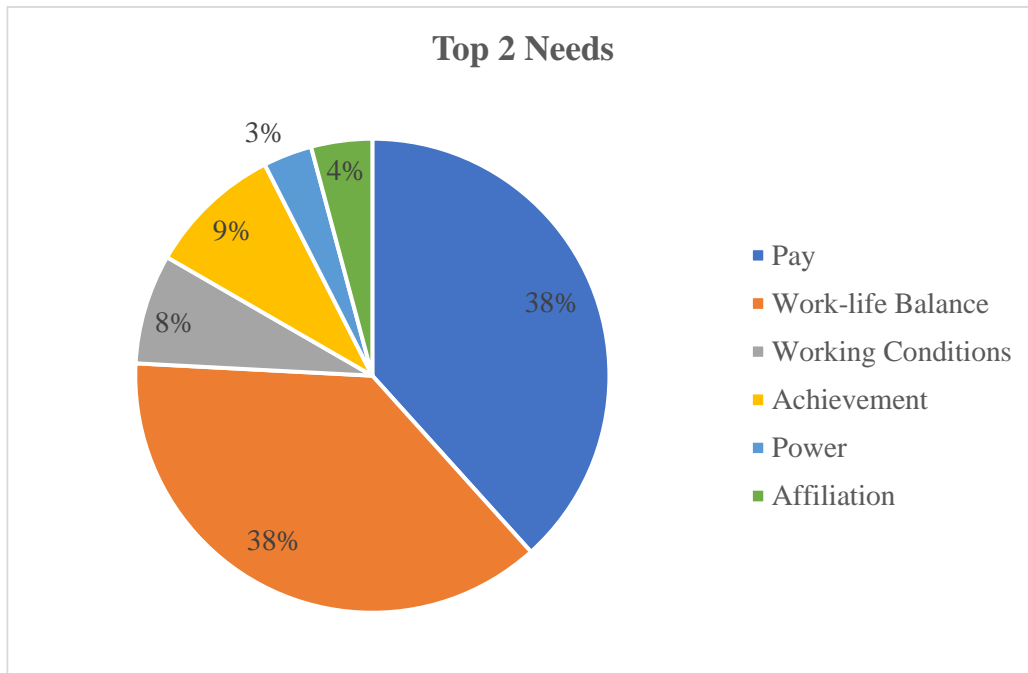


Referring to Figure 4-9, for both job satisfaction and employee engagement, lecturers with the shortest length of service, 0 to 5 years, showed the highest mean score of 5.07 and 5.14, respectively. In comparison, lecturers with a length of service between 6 to 10 years showed the lowest mean score of 4.55 and 4.53, respectively. On the other hand, lecturers with a length of service of 11 to 15 years and more than 15 years have a similar mean score of 4.76 and 4.58 for job satisfaction and 4.56 and 4.67 for employee engagement, respectively. Lecturers who just joined the institution are the happiest and most engaged with their work. For the most part, in Tables 4-12 and 4-13, job satisfaction and employee engagement deteriorate after five years of working at the institution, possibly due to a lack of opportunities for career development, which ties back to the lower satisfaction indicated in AC4 from section 4.1.3 on equal opportunities for advancement and job promotion.

4.1.5 Categorical Data

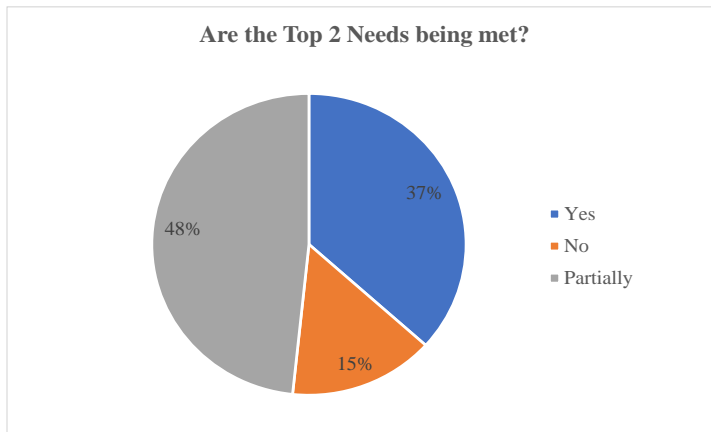
Three additional questions were asked to gauge the importance of the various needs to the lecturers, whether these needs are met, and more eminently, whether they will still engage with their work if these needs are not met.

Figure 4-10 *Top 2 Needs*



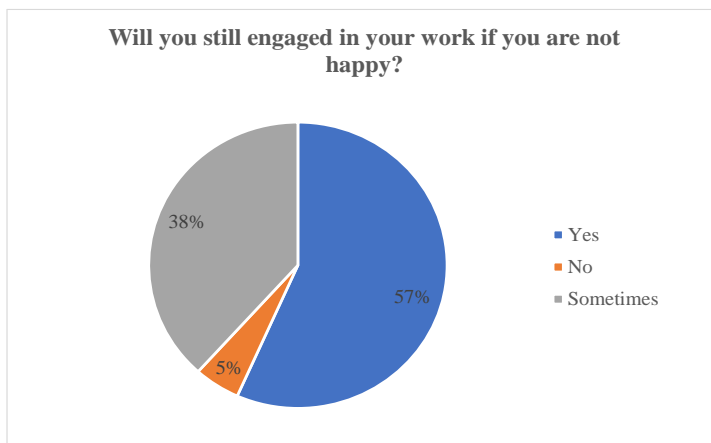
The lecturers picked Pay and Work-life Balance as their top two needs. 76% viewed Pay as equally important as Work-life Balance. The bottom two least prioritised needs are Power and Affiliation, which stood at 3% and 4%, respectively. Meanwhile, Achievement stood at 9% and Working Conditions at 8%. From another perspective, if the lower-level needs were satisfied, the lecturers would have picked the higher-level needs. However, most of them chose lower-level needs as their priorities. On this basis, it can be construed that most lecturers have yet to fulfil their lower-level needs; hence, these needs should be given more deliberation in tackling the issues involving job satisfaction and employee engagement.

Figure 4-11 *Are the Top 2 Needs Being Met?*



Even though the majority answered Yes (37%) or Partially (48%) to whether their top two needs are met, the proportion of lecturers answering No (15%) is still quite significant, and the responses from this group of lecturers should be given fair attention and not ignored.

Figure 4-12 *Will you still engage with your work if you are not happy?*



The above question explored whether job satisfaction is crucial to determining employee engagement. Since only 5% of lecturers answered that they will not engage with their work if they are not happy, it can be interpreted that most lecturers viewed their engagement with work are not explicitly affected by their job satisfaction which 57% answered Yes and 38% answered Sometimes.

4.2 Measurement Model (Outer Model Evaluation)

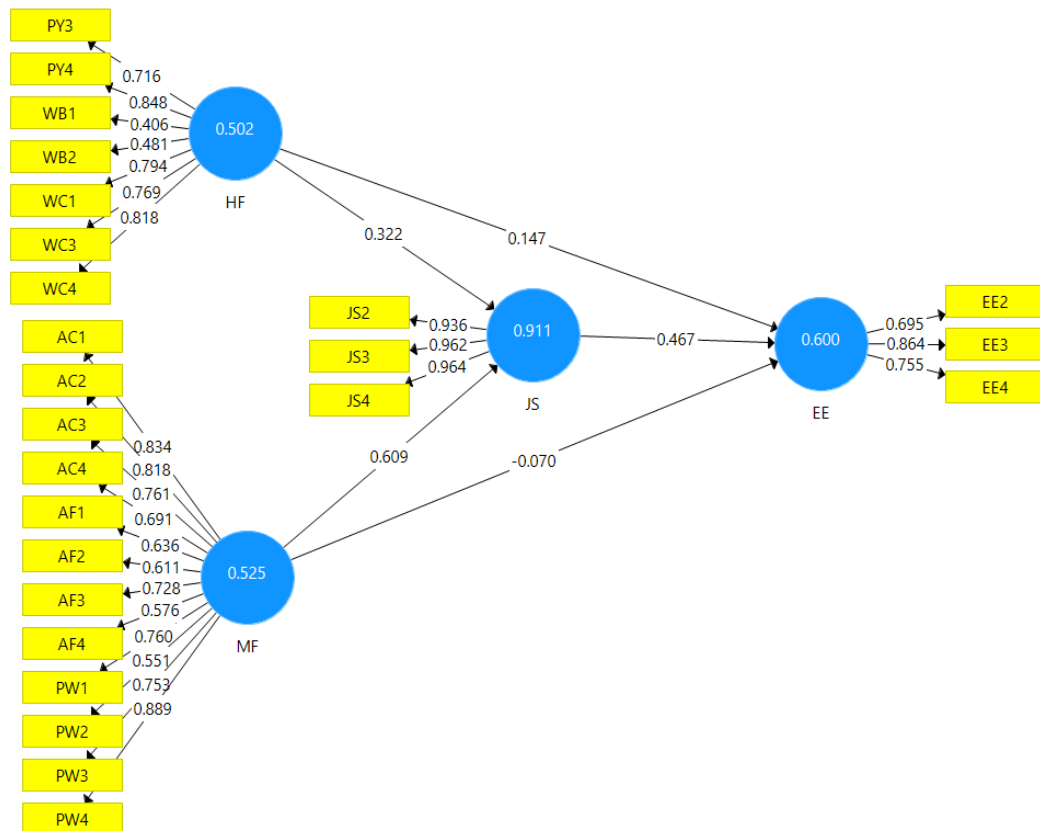
4.2.1 Internal Consistency Reliability (CR) and Convergent Validity (AVE)

Table 4-14 *Internal Consistency Reliability (CR) and Convergent Validity (AVE)*

Constructs	Items	Outer Loadings (IR)	Cronbach's Alpha	Composite Reliability (CR)	Convergent Validity (AVE)
Hygiene Factors (HF)	PY3	0.716	0.831	0.870	0.502
	PY4	0.848			
	WB1	0.406			
	WB2	0.481			
	WC1	0.794			
	WC3	0.769			
	WC4	0.818			
Motivating Factors (MF)	AC1	0.834	0.915	0.929	0.525
	AC2	0.818			
	AC3	0.761			
	AC4	0.691			
	PW1	0.760			
	PW2	0.551			
	PW3	0.753			
	PW4	0.889			
	AF1	0.636			
	AF2	0.611			
	AF3	0.728			
	AF4	0.576			
	Job Satisfaction (JS)	JS2			
JS3		0.962			
JS4		0.964			
Employee Engagement (EE)	EE2	0.695	0.698	0.817	0.600
	EE3	0.864			
	EE4	0.755			

Note(s): Cronbach's Alpha > 0.70; Composite Reliability, CR > 0.70; Average Variance Extracted, AVE > 0.50.

Figure 4-13 Measurement Model



The measurement model is stage 1 of PLS-SEM analysis which assesses the reliability and validity of the outer model. The internal consistency reliability measures for each item must explain 70% of the construct, and the correlation between all items also must be more than 70%. It is considered acceptable when the composite reliability (CR) is more than 0.70 (Ringle et al., 2020). As shown in Table 4-14, the composite reliability for hygiene factors (0.870), motivating factors (0.929), job satisfaction (0.968) and employee engagement (0.817) are all above 0.70.

The convergent validity measures the average or summarisation of all items, explaining 50% of the construct. It can be assessed by evaluating the average variance extracted (AVE); the acceptable level must be more than 0.50 (Hair et al., 2021). Table 4-14 showed that the AVE for all constructs is above 0.50; hygiene factors (0.502), motivating factors (0.525), job satisfaction (0.911) and employee engagement (0.600).

Removing items with lower outer loadings or indicator reliability is unnecessary if the CR is more than 0.70 and the AVE is higher than 0.50. However, these items must be dropped if the AVE is less than 0.50 (Hair et al., 2021). Dropping items with lower loadings is appropriate if there are enough indicators to represent the construct (Garson, 2016). PLS-SEM can handle one item to one construct, but preferably three items and above would ensure sufficient coverage of the construct's domain (Hair et al., 2021). As supported by Farrell (2010) and Latif et al. (2020), items with lower loadings should be considered dropped if they can improve the CR and AVE. Some items were dropped from the measurement model to meet and improve the average variance extracted (AVE) acceptance or recommended level. Thus, the internal consistency reliability and convergent validity were established and confirmed, as shown in Figure 4-13.

4.2.2 Discriminant Validity (HTMT)

Table 4-15 *Discriminant Validity (HTMT)*

Constructs	1 (HF)	2 (MF)	3 (JS)	4 (EE)
1. Hygiene Factors (HF)				
2. Motivating Factors (MF)	0.796			
3. Job Satisfaction (JS)	0.823	0.878		
4. Employee Engagement (EE)	0.536	0.459	0.573	

Note: Heterotrait-monotrait ratio, HTMT values < 0.90

Discriminant validity is a test measure of each construct measuring different phenomena, and the items must be different to measure different constructs with no overlapping of questions between the constructs. Each construct must not be related or distinct from others (Hair et al., 2021). The heterotrait-monotrait ratio, HTMT, is used to examine the discriminant validity, and the rule of thumb is that the HTMT cannot exceed 0.90 (Kline, 2015). As shown in Table 4-15, each construct has an HTMT of less than 0.90 and passed the criterion to affirm the discriminant validity of the model.

4.3 Structural Model (Inner Model Evaluation)

4.3.1 Collinearity (VIF)

Table 4-16 *Collinearity Assessment (VIF)*

Constructs	(HF)	(MF)	(JS)	(EE)
Job Satisfaction (JS)	1.918	1.918		
Employee Engagement (EE)	2.325	3.379	3.934	

Note: Variance Inflation Factor, $VIF < 5$

The structural model is stage 2 of PLS-SEM analysis which determine whether a causal relationship exists between the constructs of the inner model. The first step is to assess any collinearity issues for the structural model. It ensures that the predictors are not closely correlated and that the coefficient can be estimated reliably. The variance inflation factor, VIF, is used to detect whether there are any collinearity issues. The VIF has to be less than 5 to indicate that the collinearity is not critical and that there is the non-existence of a high correlation between the constructs (Hair et al., 2017). The VIF values shown in Table 4-16 are less than 5; hence it can be implied that the structural model does not possess collinearity issues.

4.3.2 Path Coefficient (Hypotheses Testing)

Table 4-17 *Hypotheses Testing (Standardized Beta, β and p-value)*

Hypo-thesis	Constructs	Std_Beta	Std_Error	t-stat	p-value	Decision
H1	HF → JS	0.322	0.094	3.415*	0.000**	Supported
H2	MF → JS	0.609	0.079	7.708*	0.000**	Supported
H3	HF → EE	0.147	0.247	0.595	0.276	Not Supported
H4	MF → EE	-0.070	0.291	0.242	0.405	Not Supported
H5	JS → EE	0.467	0.273	1.711*	0.044**	Supported

Note (s): t-statistic > 1.65* (one tail); p-value < 0.05**; Std_Beta, Standardized Beta; Std_Error, Standard Deviation

Bootstrapping is a technique for randomly taking the original data set and recreating subsamples to ensure the data is normally distributed. It has recently received much attention as it violates the normality assumption. However, according to Cheung and Lau (2008), bootstrapping generates more accurate confidence intervals than other methods that apply the normal distribution assumption. The bootstrap samples drawn randomly with replacement are usually 500 or 1000 (Cheung & Lau, 2008). Hence, 500 subsamples and a one-sided significance test were applied in the bootstrapping for the hypotheses testing. One-sided significance was chosen because the hypotheses have a specific direction in this study in which they are positively related.

From Table 4-17, the results showed that hygiene factors are positively related to job satisfaction (H1, $\beta = 0.322$, p-value = 0.000); motivating factors are positively related to job satisfaction (H2, $\beta = 0.609$, p-value = 0.000); job satisfaction is positively related to employee engagement (H5, $\beta = 0.467$, p-value = 0.044). Since the beta coefficients are positive and the p-values are less than 0.05 for H1 and H2, it can be evidently concluded that hygiene factors and motivating factors are positively and significantly correlated with job satisfaction, being motivating factors carry a higher weight than hygiene factors. The same conclusion applies to H5, job satisfaction with employee engagement. Hence, H1, H2 and H5 are supported.

In contrast, the relationship between hygiene and motivating factors with employee engagement results is insignificant (H3, $\beta = 0.147$, p-value = 0.276 and H4, $\beta = -0.070$, p-value = 0.405, respectively). Therefore, H3 and H4 are not supported.

4.3.3 Coefficient of Determinations (R^2)

Table 4-18 *Coefficient of Determinations (R^2)*

Constructs	R^2	Effect
Job Satisfaction (JS)	0.746	Large
Employee Engagement (EE)	0.278	Large

Note (s): small = 0.02; medium = 0.13; large = 0.26

The coefficient of determinations, R^2 , is measured by how much the variation of the dependent variable around the mean is explained by the variation in the independent variables collectively or in other words, how well the values fit the model. As shown in Table 4-18, the R^2 for job satisfaction and employee engagement is 0.746 and 0.278, respectively, which can be interpreted that 74.6% of the variation in job satisfaction is explained by the variation in hygiene and motivating factors; meanwhile, 27.8% variation of employee engagement is explained by the variation in hygiene and motivating factors and job satisfaction. The effect is large for job satisfaction and employee engagement, which denotes a good overall predictive accuracy of the model. The R^2 values are considered large, medium and small, with values of 0.26, 0.13 and 0.02, respectively (Cohen, 2013).

4.3.4 Effect Size (f^2)

Table 4-19 *Effect Size (f^2)*

Constructs	Predictor Construct	Target Construct	f^2	Effect Size
HF → JS	Hygiene Factors	Job Satisfaction	0.212	Medium
MF → JS	Motivating Factors	Job Satisfaction	0.762	Large
HF → EE	Hygiene Factors	Employee Engagement	0.013	Small
MF → EE	Motivating Factors	Employee Engagement	0.002	Small
JS → EE	Job Satisfaction	Employee Engagement	0.077	Small

Note (s): small ≥ 0.02 ; medium ≥ 0.15 ; large ≥ 0.35

f^2 is the effect size, and it measures the magnitude of the individual independent variable explains the dependent variable; which individual independent variable possesses more importance in explaining the dependent variable. The effect size is considered large, medium and small when f^2 is equal or more than 0.35, equal or more than 0.15 and equal and more than 0.02, respectively (Cohen, 2013). Motivating factors ($f^2 = 0.762$) have large effects in explaining job satisfaction, while hygiene factors ($f^2 = 0.212$) have medium effects. Contrarily, in explaining employee engagement, hygiene factors, motivating factors, and job satisfaction only have small effects ($f^2 = 0.013, 0.002$ and 0.077 , respectively). As a result, the institution should focus more on motivating factors to increase job satisfaction due to its large effect and small effects of other predictors.

4.3.5 Predictive Relevance (Q^2)

Table 4-20 *Predictive Relevance (Q^2)*

Constructs	Q^2	Predictive Accuracy
Job Satisfaction (JS)	0.656	Large
Employee Engagement (EE)	0.090	Small

Note (s): $Q^2 > 0$, good predictor; small ≥ 0.02 ; medium ≥ 0.15 ; large ≥ 0.35

Blindfolding is performed to generate the Q^2 . Hair et al. (2021) recommended an omission distance (D value) between 5 and 12 in the blindfolding procedure, and a D value of 7 is applied in this model. A D value of 7 implied that every 7th of the dependent variable indicators data point is eliminated in the single blindfolding round.

Q^2 indicates the cross-validated predictive relevance of the model or is called the “Goodness of Fit” measure. Q^2 values of more than 0 denote a good predictive quality for the model’s dependent variables (Hair et al., 2021). As shown in Table 4-20, Q^2 for job satisfaction is 0.656, while for employee engagement is 0.090. The predictive accuracy is strong for job satisfaction but weak for employee engagement. The values of the acceptance levels are determined based on the same indicator range as f^2 (Cohen, 2013).

4.4 Mediation

4.4.1 Job Satisfaction as a mediating role between hygiene factor and employee engagement

Table 4-21 *Indirect Relationship between Hygiene Factors and Employee Engagement with Job Satisfaction as the Mediator*

Hypo-thesis	Constructs	Beta	STDEV	t-stat	p-value	Decision
		(Indirect)				
H6	HF → JS → EE	0.150	0.110	1.366	0.086	Not Supported

Note (s): t-statistic > 1.65* (one tail); p-value < 0.05**

Table 4-22 *Direct Relationship between Hygiene Factors and Employee Engagement*

Hypo-thesis	Constructs	Beta	STDEV	t-stat	p-value	Decision
		(Direct)				
H6	HF → EE	0.147	0.247	0.595	0.276	No Effect Non-Mediation

Note (s): t-statistic > 1.65* (one tail); p-value < 0.05**

The first step in the mediation analysis is to examine the indirect relationship between the independent variable to the mediator (HF → JS) and the mediator to the dependent variable (JS → EE). The indirect relationship must be significant to determine if there is a mediating effect. As shown in Table 4-21, the p-value is more than 0.05; hence the indirect relationship between hygiene factors and employee engagement with job satisfaction as the mediator (HF → JS → EE) is insignificant.

The next step is assessing the direct relationship between the independent and dependent variables (HF → EE), as in Table 4-22. Since the direct relationship between hygiene factors and employee is also insignificant, as the p-value is 0.276, more than 0.05, it can be concluded that job satisfaction does not have a mediation

effect between hygiene factors and employee engagement. Hence, H6 is not supported.

4.4.2 Job Satisfaction as a mediating role between motivating factor and employee engagement

Table 4-23 *Indirect Relationship between Motivating Factors and Employee Engagement with Job Satisfaction as the Mediator*

Hypo-thesis	Constructs	Beta	STDEV	t-stat	p-value	Decision
		(Indirect)				
H7	MF → JS → EE	0.285	0.160	1.776*	0.038**	Supported

Note (s): t-statistic > 1.65* (one tail); p-value < 0.05**

Table 4-24 *Direct Relationship between Motivating Factors and Employee Engagement*

Hypo-thesis	Constructs	Beta	STDEV	t-stat	p-value	Decision
		(Direct)				
H7	MF → EE	-0.070	0.291	0.242	0.405	Supported Full Mediation

Note (s): t-statistic > 1.65* (one tail); p-value < 0.05**

Conversely, in Table 4-23, the indirect relationship between motivating factors and job satisfaction (MF → JS) and job satisfaction to employee engagement (JS → EE) is significant, represented by a p-value of 0.038, less than 0.05. The mediation has been established when the indirect relationship is significant.

The further step is determining whether it is a full or partial mediation. Hence, the direct relationship between motivating factors and employee engagement (MF → EE) must be assessed. Table 4-24 showed that the direct relationship is insignificant, represented by a p-value of 0.405, more than 0.05. Thus, it is a full mediation; job satisfaction mediates the relationship between motivating factors and employee engagement. Hence, H7 is supported.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.0 Introduction

This chapter draws on the conclusion of this study and compares it with other studies from similar areas in forming a discussion of whether they are in line or contradictory. Findings are deliberated to relate them to the existing literature and managerial practice on what impact this study brings to the research field. Lastly, it wraps up the limitations of this study and recommendation for future research.

5.1 Discussion of Major Findings

This study probed into the interrelationship between factors affecting job satisfaction and employee engagement among lecturers at the Centre for Foundation Studies, UTAR Sungai Long Campus. From descriptive analysis to a more complex analysis that includes explanatory and mediation, the study analysed the lecturers' job satisfaction levels, cross tabulation on the demographic characteristics, categorical data and the interrelationship between the independent and dependent variables, including the mediating role of job satisfaction.

5.1.1 Discussion of Descriptive Analysis

Out of the six subcategories of pay, work-life balance, working conditions, achievement, power and affiliation, lecturers showed dissatisfaction with pay and achievement, moderately satisfied with working conditions and power, but satisfied with work-life balance and affiliation. Even though UTAR is a private university, the institution is governed by politicians who formed the government; hence, the organisation setup is prone to aka a semi-governmental institution which explains why pay and achievement ranked as the lowest satisfaction among the lecturers as overstaffing is common in government bodies where more staff are hired but with a lower salary. Moreover, higher positions are usually filled with people with connections rather than capability, thus dampening the opportunities for career advancement. Nevertheless, lecturers are given more flexibility to manage their work in such institutions and relatively less politicking due to the remuneration and

incentive scheme whereby the salary increment and bonus amount are fixed based on categorical position grades rather than on incremental percentage-based job performance.

The cross-tabulation also showed a positive correlation between position held with job satisfaction and employee engagement, which translated into lecturers with more power being happier and more engaged with work, as positions are usually associated with a higher power. On the other hand, job satisfaction and engagement levels are similar regardless of their qualifications, indicating that qualification is not an important determinant and does not make any difference to how the lecturers feel about their work. In a way, it is befitting the CFS as the centre does not require the lecturers to have a PhD and accept the minimum entry of a degree holder. Job responsibilities are the same across the lecturers. In terms of length of service, lecturers who just joined are the happiest, but it deteriorates as the length of services increases. Linking back to lecturers' dissatisfaction with pay and achievement, the stagnation or little growth or no growth could be the reasons for the deterioration in job satisfaction and employee engagement over the years in service.

From the categorical data, lecturers find pay and work-life balance are their top two needs, and they view both factors are equally important. That could also be why 88% of lecturers continue to stay and work at the institution for more than five years. The reason is that they are willing to trade off pay for work-life balance. On the other hand, power and affiliation are their bottom two needs. This is because, in a semi-governmental setup, there is red tape in handling the work, and it is a common acceptance that power sits at the top. Ground-level staff like lecturers or even middle management are not involved in decision-making. Moreover, 73% of lecturers are married, and most likely, their families are their priorities over affiliation at the workplace.

15% of lecturers find their top two needs are unmet, while 5% will not be engaged with their work if they are unhappy. It should not raise a red flag for now as the percentage is small; however, it should still raise a concern about finding ways to improve the situation or, at least, to prevent it from worsening.

5.1.2 Discussion of Explanatory Analysis

Out of the seven hypotheses tested, four, H1, H2, H5 and H7 are supported and three, H3, H4 and H6 are not supported as described in Table 5-1.

Table 5-1 *Decision of the Seven Hypotheses*

Hypotheses	Relationship	Decision
H1	Hygiene factors are positively related to job satisfaction.	Supported
H2	Motivating factors are positively related to job satisfaction.	Supported
H3	Hygiene factors are positively related to employee engagement.	Not Supported
H4	Motivating factors are positively related to employee engagement.	Not Supported
H5	Job satisfaction is positively related to employee engagement.	Supported
H6	Job satisfaction positively mediates the relationship between hygiene factors and employee engagement.	Not Supported
H7	Job satisfaction positively mediates the relationship between motivating factors and employee engagement.	Supported

The hygiene and motivating factors being both the lower-level and higher-level needs, have positive and significant effects on job satisfaction (H1 and H2). The same applies between job satisfaction and employee engagement (H5). This implies that all the six subcategories of pay, work-life balance, working conditions, achievement, power and affiliation are the factors determining job satisfaction, and job satisfaction enhances employee engagement. Afaq et al. (2020) stated that job satisfaction is positively and significantly connected to pay, job security and working circumstances. Teachers' growth opportunities and attachment responsibilities contribute to job satisfaction (Iwu et al., 2016). The direct effect between employee engagement and job satisfaction is important to produce excellent results of higher profits and productivity (Anugud, 2022). These findings, H1, H2, and H5, are consistent and support the studies in a similar field conducted by other researchers who also indicate a strong relationship between the constructs.

However, H3 and H4 are found to be inconsistent with the literature. While the literature by Gonzales et al. (2019) and Kakkar et al. (2020) stated that factors such as salary, work-life balance, physical environment, performance management system, voices of employees and relationships among employees affect employee engagement, this study found no relationship between them. A possible explanation for these unexpected results could be that the respondents, highly educated lecturers holding at least a degree and mostly with master's degrees and PhD, would not bank on these needs to be engaged with their work. They might deem engaging with work as their responsibility, ethics, principles, and professionalism as an educator.

Interestingly, even though no direct relationship is found between hygiene and motivating factors with employee engagement, when a mediator, job satisfaction, is added to the relationship, it was found that there is a full mediation between motivating factors and employee engagement as supported by H7 nonetheless no mediation effect between hygiene factors and employee engagement as opposed by H6. With the addition of job satisfaction as the mediator, it can now better explain the relationship between them. With a full mediation in H7, the effect of motivating factors, which are the higher-level needs, will be transmitted to employee engagement and bring to terms the true relationship between them. Hence, this study found that motivating factors are the antecedents to enhance employee engagement when the mediating role of job satisfaction is advocated. No distinct literature supports this effect; however, in a study by Ampofo (2020), job satisfaction partially mediates between organizational embeddedness and employee engagement. A study by Fidyah and Setiawati (2022) supported the mediation effect of job satisfaction between various constructs like organizational culture, defined as a harmonious relationship between organizational members, freedom to express ideas and involvement in decision-making, employee performance and employee engagement.

Likewise, motivating factors are also found to be the strongest predictor of job satisfaction and, with the mediation effect of job satisfaction, are also a good predictor of employee engagement. In hindsight, motivating factors, mainly promotion and career growth, empowerment and relationships among employees at the workplace, are the more important determinants that would make the lecturers happy doing their job and thus enhance work engagement.

5.2 Implication

5.2.1 Theoretical Implications

Many studies explain the factors affecting job satisfaction and employee engagement; however, few examine the interrelationship and mediation effect as conceptualised in the model framework. This study enhances the understanding of the determinants of job satisfaction, as it comprehensively includes both lower-level and higher-level needs, which are found to be correlated positively with job satisfaction. It strengthens the Herzberg's Two-Factor theory, where hygiene and motivating factors are essential to eliminate dissatisfaction and increase satisfaction. Besides, it also brings light to the mediation effect of job satisfaction between motivating factors and employee engagement; very few studies are indeed found concerning this and how it can complement to increase employee engagement that leads to a positive outcome and benefits the organization.

5.2.2 Managerial Implications

Job satisfaction and employee engagement are widely studied because they are the impetus that eventually leads to organizational performance. It is thus far one of the biggest challenges for any organization to keep their employees satisfied with their jobs, as it is believed that employees are more engaged with their work when they are happy. The descriptive analysis showed that pay and achievement are perceived as the two most critical reasons for lecturers' job dissatisfaction. Pay and promotion always pose an issue for any organization because they normally form a big chunk of its total cost, and the organization has to keep its cost low to earn higher profits.

Firstly, the remuneration must be fair to keep the lecturers happy about pay. An effective appraisal system must be implemented to ensure that lecturers are rewarded fairly. The centre can consider a two-way approach; for example, not only does the head of the department give the verdict on the department members, but the members also get to give their views about the head of the department and their colleagues. At the same time, the head of the department can also get feedback from other members in the department about the member whom she is appraising.

Although this system is hard to implement in a semi-governmental setup, it is worth it for the centre to consider its plus points. A better transparent appraisal system will increase team cooperation, increase job satisfaction, and enhance employee engagement. Besides, the lower pay can also be packaged and compensated with other benefits such as training and flexible working hours.

The study also found achievement, the motivating factor, to be one of the strongest predictors of job satisfaction that drives employee engagement. Promotion, career advancement and recognition are a few reasons that can heighten lecturers' commitment and dedication to work. For this, the centre must first have a clear direction and charter a career path for the lecturers. The goals set for the lecturers must be aligned with the centre's goals and ultimately achieve the university's mission and vision. It is also imperative that the goals set are the indicators in the appraisal so that lecturers will be rewarded according to their goals' achievements. This process was often not carefully designed, resulting in a mismatch between individual and organisational goals. Under these circumstances, lecturers may engage in projects that are not aligned with the centre's and university's goals. This will eventually cause dissatisfaction when accomplishments are not properly rewarded due to this mismatch. Other types of recognition, for example forming strategic teams to improve the work process or team cohesion, can be considered. Lecturers with high performance and potential can be selected to head the strategic teams, and credits will be given if they successfully accomplish the assigned tasks. Besides, initiating exchange programs and collaboration with other universities can also provide a platform for lecturers to showcase their talents as another form of recognition of their achievements.

The findings also suggested that the other two motivating factors, power and affiliation, significantly increase job satisfaction and employee engagement. Voices of lecturers must be heard, and suggestions for improvement must be conveyed constructively so that projects can be carried out together to benefit the centre and achieve the university's goals. For this, a dialogue group headed by calibre lecturers through a selection free from management's influence can be formed to connect the lecturers and the management team. It also encourages the lecturers to brainstorm ideas, build synergies and share their knowledge and expertise for improvements. Most importantly, it gives them more discretion in making a joint decision. Besides,

more events and activities as simple as breakfast or lunch together after the meeting should be organised so that the lecturers can get to know each other better. Since most lecturers are married with young kids, the centre may also consider organising a holiday camp or family day as it enhances the relationship between lecturers when they share the same interest in their children. Bringing the lecturers together more often develops team cooperation which then help increases job satisfaction.

In conclusion, the centre should focus more on the motivating factors because, based on the findings from the study, they are the strongest determinants of job satisfaction. With the mediation effect of job satisfaction, they also enhance employee engagement. Not limited to those few suggested above, they must identify ways to motivate the lecturers from the aspects of achievement, power and affiliation, as this leads them to be highly engaged with their work and thus ensure the continuous and sustainable growth of the centre and university.

5.3 Limitations

This study has some limitations. Due to its small sample size and focus group method, it cannot be generalised to the other population and industries. The quantitative method case study was used, and short structured questions were added to the questionnaire to obtain the lecturers' opinions on the issues. This method may not be rigorous enough to gain in-depth perceptions and stimulate different perspectives from the lecturers towards the problems and draw a conclusion. Besides, it is a cross-sectional study; hence, three lecturers on maternity leave were unreachable during the data collection period and thus excluded from the sample. However, considering the lecturers' tight and busy schedules coupled with a few reluctances to participate, this study's research method is deemed appropriate and acceptable.

5.4 Future Recommendations

Future studies may emulate the present conceptual framework and expand the study population to other higher education institutions in other geographical areas to generalise the findings. It can use a mixed-method approach that includes both quantitative and qualitative to gather more in-depth information, add more perspectives and explore other possibilities for undertaking research in this field of study. It may consider re-conceptualising the present model by adding another layer to assess the higher-order and lower-order constructs so that the indicators can be grouped into subdimensions to provide more precise information. Since this study found that motivating factors are the strongest predictors of job satisfaction and employee engagement, future studies may investigate other variables or subdimension that can affect the relationship between them. Of this, it will be interesting to analyse deeper into the lecturers' traits and attitudes other than the common demographic characteristics.

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APPENDICES

Appendix 1 *Questionnaire*

The link for the online questionnaire using Microsoft Forms is <https://forms.office.com/r/Gkk6ypC105>.



INTERRELATIONSHIP BETWEEN FACTORS AFFECTING JOB SATISFACTION AND EMPLOYEE ENGAGEMENT

Dear Sir / Madam / Ms

I am a postgraduate student at Universiti Tunku Abdul Rahman (UTAR).

I am currently conducting research with the aim of examining the interrelationship between factors affecting job satisfaction and employee engagement among lecturers.

I would appreciate it if you could spend some time answering the survey questions. Participation is voluntary, and your responses are anonymous and will be kept confidential and strictly used for academic purposes only.

I can be reached via email: liangcl@utar.edu.my if you may have any enquiries.

Thank you.

Yours sincerely,
Patricia Liang

1

I am currently an academic staff of Centre for Foundation Studies, Universiti Tunku Abdul Rahman, Sg Long Campus.

Yes

No

2

Gender

- Male
- Female

3

Marital Status

- Single
- Married
- Divorce

4

Age

- 20 - 30 years old
- 31 - 40 years old
- 41 - 50 years old
- 51 - 60 years old

5

Position:

- Senior Lecturer
- Lecturer
- Assistant Lecturer

6

Qualification (kindly choose the highest qualification)

- Degree
- Master Degree
- PhD / Doctorate
- Professional
- Others

7

Work experience in the education line (total number of years)

- 0 to 5 years
- 6 to 10 years
- 11 to 15 years
- Above 15 years

8

Length of service in current institution (total number of years)

- 0 to 5 years
- 6 to 10 years
- 11 to 15 years
- Above 15 years

Pay



	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I feel that my pay is fair for the work my institution offers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My salary is directly related to my performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get extra incentives for giving extraordinary results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My institution provides better benefits and takes care of my needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Work-life Balance



	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
My job allows me to manage work-life balance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are sufficient staff to cover the current workload in my institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My institution promotes flexible work schedules.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job does not require me to work long hours.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Working Conditions



	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I receive appropriate training to do my job effectively and efficiently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel secure regarding my job stability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the resources I need to complete my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My institution frequently arranges development programs for my personal growth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Achievement



	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I receive appreciation and recognition from management for my achievements and task accomplishments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager encouraged me to continue my achievement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I received credit for helpful ideas and suggestions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are equal opportunities for advancement and promotion in my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Power



	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I am allowed to use my own judgement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I organise my work as I see fit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am given the power to plan and control my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager trusts me and empowers me to take on higher responsibilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Affiliation



	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I am closely connected to one another regardless of our designation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get along with my colleagues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My manager backs me up and supports me in difficult situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel respected and have a good relationship with my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Job Satisfaction



	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
All in all, I am satisfied with my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, I like working at my institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find real enjoyment in my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel good about working at my institution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Employee Engagement



	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I exert a lot of energy on my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I really push myself to work beyond what is expected of me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud to tell others that I work for my current organisation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At work, I focus a great deal of attention on my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17

Based on the different aspects of needs in the questionnaire, what is the order of your top 2 important needs?

Please select 2 options.

- Pay
- Work-life Balance
- Working Conditions
- Achievement
- Power
- Affiliation

18

Are these top 2 needs being met?

- Yes
- No
- Partially

19

Will you still engage in your work even though you are not happy with your work?

- Yes
- No
- Sometimes

20

What would you do to increase your job satisfaction if you were managing someone like yourself? Assuming you are the management.

21

What would you do to increase your employee engagement if you were managing someone like yourself? Assuming you are the management.

22

What would you do to drive yourself to be actively engaged with your work?

This content is neither created nor endorsed by Microsoft. The data you submit will be sent to the form owner.



Appendix 2 Ethical Clearance Approval Letter



UNIVERSITI TUNKU ABDUL RAHMAN DU012(A)
Wholly owned by UTAR Education Foundation Co. No. 578227-M

Re: U/SERC/14/2023

10 January 2023

Dr Omar Hamdan Mohammad Alkharabsheh
Department of International Business
Faculty of Accountancy and Management
Universiti Tunku Abdul Rahman
Jalan Sungai Long
Bandar Sungai Long
43000 Kajang, Selangor

Dear Dr Omar Hamdan,

Ethical Approval For Research Project/Protocol

We refer to your application for ethical approval for your research project (Master student's project) and are pleased to inform you that your application has been approved under Expedited Review.

The details of your research project are as follows:

Research Title	Interrelationship Between Factors Affecting Job Satisfaction and Employee Engagement Among Lecturers
Investigator(s)	Dr Omar Hamdan Mohammad Alkharabsheh Liang Chooi Ling (UTAR Postgraduate Student)
Research Area	Social Sciences
Research Location	Malaysia
No of Participants	Minimum 43 participants (Age: 21 - 60)
Research Costs	Self-funded
Approval Validity	10 January 2023 - 9 January 2024

The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research,
- (2) Confidentiality of participants' personal data must be maintained,
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines; and
- (4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

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Should you collect personal data of participants in your study, please have the participants sign the attached Personal Data Protection Statement for your records.

The University wishes you all the best in your research.

Thank you.

Yours sincerely,



Professor Ts Dr Faidz bin Abd Rahman

Chairman

UTAR Scientific and Ethical Review Committee

c.c Dean, Faculty of Accountancy and Management
 Director, Institute of Postgraduate Studies and Research

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