

Influence of Engagement, Work-Environment, Motivation, Organizational Learning, and Supportive Culture on Job Satisfaction

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Abstract

This paper intends to investigate the role of engagement, motivation, work environment, supportive culture, and organizational learning on job satisfaction. Responses were collected from 169 employees in Malaysian higher education sector. Further, the data obtained were analysed by using Statistical Package for the Social Sciences (SPSS). The results indicated that there are positive and significant relationships between engagement, supportive culture, motivation, and work environment on job satisfaction among employees of Malaysian higher education sector. However, organizational learning is not a significant towards job satisfaction. In future research, employees from private universities and public universities can be studied as comparison. By conducting these comparisons, it will help in creating plans to narrow down the gaps between these two sectors. In addition, the results will help to enhance the rising literature on job satisfaction from Asian context as this study was based on Malaysian samples. Data from employees working in different higher education institutions was utilized for this study to ensure the unbiased responses. Therefore, this study contributes to the literature concerning job satisfaction among employees, and the results of this study provide significant evidence on the influence of engagement, motivation, work-environment, organizational learning and supportive culture on job satisfaction in Malaysian higher education sector.

Keywords: Malaysia, engagement, motivation, work environment, organizational learning, supportive culture, job satisfaction, higher education

1. Introduction

Basically, job satisfaction has been studied in the recent years and the past few decades (Tahir, Hussein & Rahim 2020; Zahari, Salleh, Azlan, Baharuddin, Baniamin 2020; Hanaysha, 2016; Castaneda & Scanlan, 2014; Mavridis, 2014). In general, job satisfaction can be described as the opinion of individual towards their work and job experience (Laschinger, Zhu, & Read, 2016). In addition, Tahir et al., (2020) defines job satisfaction as the individual's emotional condition which draws from his or her experiences particularly work environment.

As reported by the Malaysian Reserve (2017), JobStreet.com has conducted a research on job satisfaction in Malaysia. Surprisingly, the findings of the research revealed that 78% of respondents were disappointed and unhappy with their current jobs. Further, JobStreet.com mentioned that the primary reason many felt unhappy at work was because of the scope of work. The study was participated by 1,145 employees (62% were from the middle management level).

Fauziah et al (2009) conducted a research on job satisfaction level (among academic staff in Malaysia) and the researchers stated that effective education systems were relying on a few factors such as involvement, effort, and the general academic staff professionalism. The researchers further added that job satisfaction among academic staff are essential towards the success of the academic institutions. A progressive university environment could help towards an increased in job satisfaction among academic staff.

A recent research by (Hee, Ong, Ping, Kowang, & Fei, 2019), stressed that employee satisfaction is significant to any organisations especially to the higher learning institutions. Thus, factors that can influence job satisfaction need to be given further attention, this will help to increase a high quality of education and most importantly students' learning outcomes can be achieved positively.

Moreover, the attention given towards researching job satisfaction has shown the importance of this topic. Thus, to be successful, organizations need to make sure that the workers are satisfied with their jobs (Hanaysha, 2016). As discussed above, job satisfaction is an important factor applied to evaluate organizational effectiveness (Khan, Anjam, Faiz & Khan, 2020). Additionally, employees who are satisfied are more likely to be committed and productive. It is essential to understand that somehow the workforce play a part as an important role to increase the organizational performance.

Hence it is vital to make sure that employees have the skills that meet organizational needs. Furthermore, human capital leads to organizational success and organizations need to maximize human resources competencies strategically to boost employees' performance (Ngwenya & Pelsler, 2020). According to Zahari et al., (2020) the successfulness of an organisation has been associated to attain job satisfaction at a greater level. In addition, to maintain a long-term performance, job satisfaction among workers should be emphasised (Arnold & Silvester, 2005).

Job satisfaction among employees and workforce is a crucial element of organizational success especially in managing the human resources of the organization (Zahari et al., 2020; Gitoho, 2015). There are a few factors that can affect job satisfaction for instance, Jolodar and Jolodar (2012) proved that job satisfaction was related with employee productivity and human resources development. Based on a study conducted by (Lo & Ramayah, 2011) there are several elements that linked to job satisfaction. One of the elements is organizational learning. Maarefi et al. (2020) found that it is vital to increase organizational learning to increase job satisfaction among employees.

In addition, a study conducted by Hanaysha (2016) also found that organizational learning has significantly affect job satisfaction. Thus, organizational learning signifies the capability of an organization in increasing the skills and knowledge of its workers to safeguard better productivity and efficiency at workplace.

Fascinatingly, employee engagement is another element that has been researched to influence job satisfaction. Nowack (2011) defined work engagement as an important role in influencing job satisfaction and retention. The study on employee engagement has emerged reasonably in the recent literature. A recent study by Ngwenya and Pelsler (2020) in the manufacturing sector in Zimbabwe has shown that employee engagement has significantly influenced employee performance and job satisfaction positively influenced employee engagement. Another empirical study on employee engagement and job satisfaction in China indicated that workplace has a large influence on employee engagement and job satisfaction (Rashidin, Javed & Liu, 2020). Moreover, the needs of satisfaction have been linked to dedication of workers (Vandenabeele, 2014). In addition, the basic needs of satisfaction have been

discovered to directly relate to dedication of employees (Vandenabeele, 2014). Thus, by examining these variables namely work engagement and job satisfaction, it will enhance the insights about the topic and will offer valuable recommendations for the management of higher learning institutions to establish the right policies and strategies.

Besides, several studies have been linked between job satisfaction and motivation (Stefurak, Morgan & Johnson, 2020; Carvalho, Riana & Soares, 2020; and work environment (Anasi, 2020; Badrianto & Ekhsan, 2020; Kumar, 2020; Hanaysha, 2016). Kumar (2020) stressed that job satisfaction is impacted by the attributes of work environment. To add on, Badrianto & Ekhsan, (2020) mentioned in their study that there are some factors that can influence the success of employee performance and this includes work environment and job satisfaction. Thus, organizations should empathize on rapid changes in the business environment and organizations need to regularly improve and upgrade the required facilities for workers (Hanaysha, 2016). This is to ensure that they can perform their tasks productively and with full satisfaction. It is important to note that, a satisfying working environment and right motivation can encourage workers to be more efficient and productive hence can lead to a higher level of satisfaction among employees.

Among the factors mentioned above, another factor that is linked to job satisfaction is culture (Verma, 2020; Meng & Berger, 2019; Pawirosumarto, Sarjana and Gunawan, 2017;). Culture can be defined as values that are comprehended and understood, recognized, followed, and observed together by the workforce (Pawirosumarto et al., 2017). Moreover, culture uniquely belongs to the organization and that makes the difference from other organizations (Pawirosumarto et al., 2017; Marta & Suharnomo, 2011). Thus, it is vital for organisations to establish and sustain a culture that can provide them with a solid foundation. This will help to increase employees' satisfaction and will improve their performance.

Following those arguments, there are so many factors that can influence employee satisfaction. Hence, this study focuses on the effects of organizational learning, work environment, employee motivation, employee engagement and supportive culture on job satisfaction of selected universities in Malaysia. From the review of the literature, there are limited research on examining the link between the identified elements (Hanaysha, 2016). In addition, the researcher suggested studying other variables to identify the major predictors of job satisfaction. Another research from Yeh (2013) on job satisfaction among frontline hotel employee has also recommended future research to investigate other work-related variables. The researcher also mentioned that little research attention has been done on the on-work engagement and job satisfaction, the research was conducted in the context of hotel industry.

Besides, a research by Pawirosumarto et al., (2017) on the effects of the work environment, organizational culture and job satisfaction among hotel employees has also recommended conducting similar study in the different industries. Thus, in this study, supportive culture is another variable to be studied. Determined from the gaps stated above, hence this study seeks to offer a considerable contribution and impact to the existing literature. Those five determinants work engagement, employee motivation, supportive culture, work environment, and organizational learning were selected to be discussed in this research.

2. Literature Review

2.1 Job Satisfaction

In general, job satisfaction can be described as “an emotional or effective response to several aspects of the job” (Pawirosumarto et al., 2017; Kreitner & Kinicki, 2008). While, based on Robbins (2003) job satisfaction is “the general attitude towards the performance of someone who shows the difference between the numbers of awards received by them and the amount they believe they should receive”. In addition, according to Pawirosumarto et al., (2017) an individual will be satisfied or dissatisfied with his or her job is something personal, depending on how an individual identifies the conflict or dispute between his or her desires with the outcome or result.

Moreover, it can be assumed that job satisfaction is the positive mindset or attitude of the workers. This includes attitudes and feelings over the assessment or evaluation of a job as a sense of respect in attaining the value of work. An individual will achieve certain level of job satisfaction when the preferred limit has been accomplished, plus there are no gaps between his or her desires and the truth.

Most importantly, organizations value job satisfaction as a main priority and it can be assessed through some aspects. For example, most workers who are satisfied are more likely to be experiencing comfort and positive experience towards their job (Hanaysha, 2016). Employee job satisfaction is a factor among others that are linked to performance (Carvalho et al., 2020). Job satisfaction is also important towards the success of a company. In general, job satisfaction gives a few advantages for both workers and organisations. From the viewpoint of workers, it helps to provide comfort, happiness and workers enjoy their job. Meanwhile, from the organizational viewpoint, job satisfaction helps to produce desired outcome.

2.2 Employee Engagement

Employee engagement is essential to any organization. It is also a main priority for many organizations. Nowadays, one of the ways to retain workers is to have fully engaged workers. According to Ngwenya and Pelser (2020) job satisfaction influenced engagement and employee performance. A study by Abraham (2012) on a private insurance company found that there is a relation between job satisfaction and employee engagement. Similarly, another research conducted by Vorina, Simonic and Vlasova (2017) in Slovenia’s public and private sector also found that employee engagement and job satisfaction are related.

In addition, a study conducted by Kim-soon & Manikayasagam (2017) revealed a positive relationship between employee engagement and job satisfaction. The researcher added that by providing employee the engagement chances, a company would be able to increase job satisfaction among employees. It is believed that engaged workers are more likely to be higher in job satisfaction.

Moreover, these findings were also supported by a research by (Karanika-Murray, Duncan, Pontes & Griffiths, 2015) where there is an indirect via work-engagement and positive effect of organizational identification on job satisfaction. In addition, Yeh (2013) conducted a study

on the relationship between work engagement and job satisfaction, the study was conducted in the hotel industry. The result also found that work engagement was positively related to job satisfaction.

Based on the discussion and to find the relationship, the following hypothesis is proposed:

H1: Employee engagement has positive effect on job satisfaction in Malaysian higher education sector.

2.3 Employee Motivation

In managing human resources, employee motivation at the organisation must be a serious concern. It is important to maintain and manage employee motivation. This is to ensure that they can focus on achieving organizational goals (Carvalho et al., 2020). Employees who are not motivated will not do things optimally. A research conducted by Saleem, Mahmood, Mahmood (2010) discovered that, levels of motivation on job satisfaction are positively related. The research was conducted among employees of telecommunication companies in Pakistan. Prysmakova & Vandenabeele (2019) confirmed that employees with higher level of motivation have higher levels of job satisfaction. The data was obtained from Polish and Belgian police officers. Furthermore, a study on motivation and job satisfaction of employees in private university libraries in Nigeria found that motivation is expected to increase job satisfaction. The researcher further added that satisfied employees are productive employees, and they are willing to work and stay for the attainment of the organization (Idiegbeyan-Ose, Opeke, Aregbesola, Owolabi & Eyiolorunshe, 2019).

Therefore, these arguments help in forming the following hypothesis:

H2: Employee motivation has positive effect on job satisfaction in Malaysian higher education sector.

2.4 Work Environment

Work environment is where the workers do activities on daily basis. Thus, it is crucial to have conducive working environment. This is to help create a sense of security and protection and allows the workers to work optimally (Badrianto & Ekhsan, 2020). A recent study by Kumar (2020) concluded that job characteristics of (work environment) have impacted job satisfaction whereby the data was obtained from 6041 police officers in India. Similarly, a research by Sunarsi (2019) found that the work environment has a positive and significant impact on work satisfaction. Likewise, Akinwale & George (2020) discovered that all variables of work environment influenced job satisfaction. The researchers conducted the study on work environment and job satisfaction among nurses in hospitals in Nigeria.

Furthermore, Al-Hamdan, Manojlovich, & Tanima (2017) concluded that the work environment was positively influenced job satisfaction. The researchers further stressed that more consideration should be given, this is to ensure to establish a positive environment and to enhance job satisfaction among nurses.

Apart from that, a study conducted by Badrianto and Ekhsan (2020) found that work environment and job satisfaction have positive and significant impact on employee performance. Based on the above discussions, the following hypothesis is proposed:

H3: Work environment has positive effect on job satisfaction in Malaysian higher education sector.

2.5 Organizational Learning

Organisational learning can be defined as a process (Chiva & Alegre, 2009; Sun, 2003) meanwhile a learning organization can be defined as the presence of conditions that encourage learning.

Chiva & Alegre (2009) suggested that organizational learning and job satisfaction were strongly linked. Furthermore, Egan, Yang and R. Bartlett (2004) found that learning organization was associated with job satisfaction. The study was on information technology (IT) employees in the United States. Another study conducted by Jolodar & Jolodar (2012) concluded that there is a positive relationship between organizational learning and job satisfaction. It was also discovered that organizational learning was positively influenced by job satisfaction, a study among academic staff in a private university in Malaysia by Moradi, Almutairi, Idrus and Emami (2013).

Therefore, these arguments help in forming the following hypothesis:

H4: Organizational learning has positive effect on job satisfaction in Malaysian higher education sector.

2.6 Supportive Culture

Culture is the most vital factor towards the continuation of the participation and core values of the workers with minimum resistance.

A previous study conducted by Saha & Kumar (2017) has obtained information from Indian public sector enterprises. Consequently, it is found in this study as the results demonstrated that supportive culture moderated the relationship between affective commitment and employee satisfaction. Furthermore, a study by Pawirosumarto et al., (2017) confirmed that organizational culture has the positive and significant impact on job satisfaction. This topic was also researched by Verma (2020) whereby in this research, Indian women employees in call centres were selected as respondents. It was revealed that supportive culture is significant to enhance employee satisfaction.

To add on, Liou, Tu, & Chang (2012) who conducted a study to examine the mediating effect between supportive culture and job satisfaction at universities in Taiwan has found that supportive culture is directly linked to job satisfaction. Another study has found similar finding. Alsada, Al-Esmael & Faisal (2017) confirmed that there is a significant positive relationship between supportive culture and job satisfaction.

Therefore, the following hypothesis has been formed:

H5: Supportive culture has a positive effect on job satisfaction in Malaysian higher education sector.

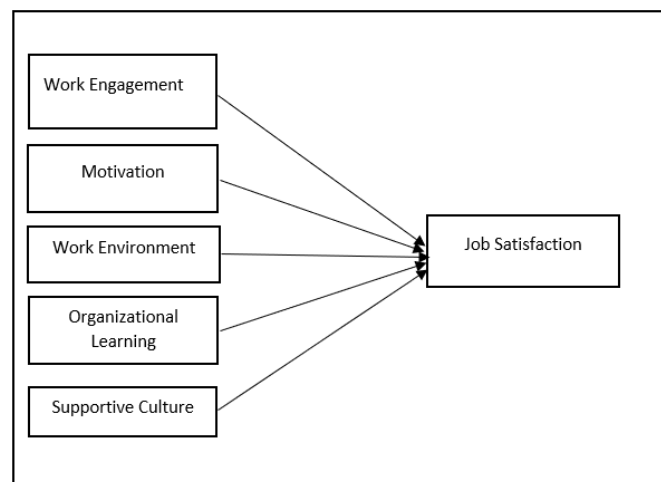


Figure 1. Research Framework of the study

3. Methodology

This study used quantitative approach to collect data from respondents. Specially, an online survey was used to collect the data from 169 respondents. Selection of sample size was based on recommendations by these researchers where minimum sample size should be 100 participants (Bisits-Bullen, 2014; Alshibly, 2018). By considering the rule of thumb by these researchers, thus in this study responses were collected from 169 employees in Malaysian higher education sector. This study was conducted to examine the effects of work engagement, motivation, supportive culture, work environment and organizational learning on job satisfaction. This study focused on higher education sector. The measurement scales of constructs were adapted and modified from (Hanaysha, 2016) and (Saha & Kumar, 2018). All items were analysed using five-point Likert scale ranging “1=strongly disagree” to “5=strongly agree”. According to Poškus (2014) by using a 5-point Likert Scale, the respondents can better understand what option he or she should choose for the answer, the researcher further added that a 5-point Likert scale is suitable for a larger study where the sample size is more than 100. The details of the construct are available in Table 1. In addition, based on the recommendation given by expert, this item has been modified to “receive supervisor’s help with my personal problems”. The word “supervisor” has been changed to “superior”. This is to ensure that the respondents who were employees at universities can easily understand the context of the question. The data was further analysed by using a software package, the Statistical Package for the Social Sciences (SPSS).

Table 1. The Scope of variables in this study

No	Variable		Sources
1)	Work Engagement	9 items	Hanaysha (2016)
	Motivation	6 items	
	Work Environment	5 items	
	Organizational Learning	5 items	

Job Satisfaction	4 items	
2) Supportive culture	8 items	(Saha & Kumar, 2018)
Total 37 items		

4. Analysis of Results

Based on the summarized demographic profiles of the respondents as shown in Table 2, it is indicated that male respondents reported for 37.3% and female respondents, 62.7%. Meanwhile, for their age group most of the respondents fell within this age range 31 – 40 years old reported for 58.6%, followed by 41 – 50 years old (24.3%), 21 – 30 years old (11.8%) and 51 years old and above reported for 7.1%. Remarkably, most of the respondents (88.2%) have at least a master's degree specifically (Bachelor's, 5.9%; Master's, 49.7% and doctorate degree, 38.5%). Interestingly, the demographic results indicated that most of the respondents were lecturers with the percentage of 81.7%, followed by officers at universities with 5.9% and supporting staff 5.3%. Moreover, most of the respondents (67.5%) were earning more than RM5000 per month, 32% were earning more than RM7000 per month. Remarkably for area of residence, most of the respondents were from the east coast of Malaysia 38.5% (Pahang, Terengganu & Kelantan), followed by the central region of Malaysia consists of Selangor, Negeri Sembilan, Kuala Lumpur and Putrajaya (29.6%), Northern Region (Perlis, Kedah & Pulau Pinang) and Southern Region (Melaka & Johor) with 15.4 and 16% respectively. Lastly, for years of experience at the current organization, 50.9% have more than 5 years of work experience, 18.3% of the respondents had less than 2 years of experience at the current organization, 2 – 3 years (13%) and 4 – 5 years (16%).

Table 2. Demographic statistics (N=169)

	Demographic	Percentage%
Gender	Male	37.30
	Female	62.7
Age group	21-30 years	11.8
	31-40 years	56.8
	41-50 years	24.3
	51 and above	7.1
Highest Education Level	SPM	0.6
	Diploma	5.3
	Bachelor's	5.9
	Master's	49.7
	A Doctorate Degree	38.5
Occupation	A lecturer at private university	52.1
	A lecturer at a public university	29.6
	An officer at a private university	4.1
	An officer at a public university	1.8
	A supporting staff at a private university	4.7

	A supporting staff at a public university	0.6
	Others	7.1
Income range	RM1000 – RM2000	3
	RM2100 – RM3000	5.9
	RM3100 – RM4000	11.2
	RM4100 – RM5000	12.4
	RM5001 – RM6000	18.3
	RM6001 – RM7000	17.2
	More than RM7000	32
Current Area of Residence	Northern Region (Perlis, Kedah, Pulau Pinang)	15.4 16
	Southern Region (Melaka, Johor)	
	Central Region (Selangor, Negeri Sembilan, Putrajaya, Kuala Lumpur)	29.6
	East Coast (Pahang, Terengganu, Kelantan)	38.5
	East Malaysia (Sarawak, Sabah)	0.6
Years of experience at the current organization	Less than 2 years	18.3
	2 – 3 years	13
	4 – 5 years	16
	More than 5 years	50.9
	Others	1.8

4.1 Reliability Assessment

Subsequently, normality of the data was conducted using SPSS. Once the normality was attained for the data, the items were further tested for reliability using Cronbach's alpha. The reliability of the measurement items for all the variables are as indicated in Table 3, the measurement was assessed by an internal consistency check. The Cronbach Alpha from the test shows figures between 0.846 – 0.941, suggesting that the instrument was stable and consistent.

Table 3. Reliability test of the measurement items

	No of items	Cronbach's Alpha
Work Engagement	9	0.846
Motivation	6	0.894
Work Environment	5	0.894
Organizational Learning	5	0.941
Supportive Culture	8	0.937
Job Satisfaction	4	0.923
Overall (total)	37 items	0.972

4.2 Descriptive Statistics

This section presents descriptive analysis on the variables of the study which are work engagement, motivation, work environment, organizational learning, supportive culture, and job satisfaction. The results regarding employees of higher education sector based on Malaysia's perceptions are presented in *Appendix 1*.

In general, the results implied that majority of respondents in this study rated most items at "agree". In addition, the mean values of the entire items for all variables exhibited score below 4.00, except work engagement but above 3 or close to 4. Therefore, it can be concluded that all items in the study obtained a score close to agree. *Appendix 1* revealed the mean score for all variables and items.

The results indicated that the highest mean for engagement construct is (Time flies when I am working = 4.44) followed by (I am proud on the work that I do = 4.43; I am passionate about my job = 4.31). The item that exhibits the lowest mean is (I can continue working for very long period at a time = 3.74). In addition, the grand mean score of 4.19 showed that participants perceived their engagement as being good.

Furthermore, for motivation "Working in this institution is interesting" had the highest mean score of 3.83, "My institution provides me with a job security" had a mean score of 3.71 and "The management of the institution show gratitude for a job well done" had the lowest mean of 3.2364.

Meanwhile, for work environment "My workplace is very clean" scored a mean score of 4.23 and (My work environment is quiet = 3.62). Also for organizational learning, the item "Our institution encourages knowledge sharing among the staff" had the highest mean score of 3.82, followed by "Our institution creates continuous learning opportunities" with a mean score of 3.79 and the lowest mean score was "Our institution connects the staff to the environment through various programs" with a mean score of 3.59.

The results revealed that, "My organization is a safe place" had the highest mean score for supportive culture, followed by (People are very sociable in my organization = 3.82). Meanwhile, "The management style is characterized by personal freedom" scored the lowest mean score of 3.33.

The respondents' level of job satisfaction is also presented in *Appendix 1*. "I like doing the things that I do at my workplace" had the highest mean score of 4.01, "Overall, I am satisfied with my current job" had a mean score of 3.91, followed by "I am extremely glad that I chose this institution to work for, over other institutions" = 3.82 and the lowest mean score was "I am satisfied with my earning from my current job" = 3.56. The grand mean showed that the respondents perceived job satisfaction as good.

4.3 Regression Summary Among Variables

Regression summary among engagement, motivation, work environment, organizational learning, supportive culture, and job satisfaction is 0.914; R square equals 0.836 while the

adjusted R square is 0.831. The results indicated that, the five variables studied contributed 91.4% to the variation of job satisfaction.

4.4 Results of Hypothesis Testing

The hypotheses (H1, H2, H3, H4 & H5) namely engagement, motivation, work environment, organizational learning, supportive culture on job satisfaction were tested using multiple regression analysis. According to the results in Table 5, it was indicated that the hypotheses H1, H2, H3 & H5 were supported, engagement ($\beta = 0.174$; $t = 3.718$; $p < 0.05$), motivation ($\beta = 0.351$; $t = 5.4$; $p < 0.05$), work environment ($\beta = 0.156$; $t = 3.497$; $p < 0.05$) and supportive culture ($\beta = 3.37$; $t = 4.726$; $p < 0.05$). The result is consistent with Vorina et al., (2017) who found that engagement has significantly influenced job satisfaction. The result agrees with the results from Prysakova & Vandenabeele (2019) who reported that employees with higher levels of motivation have higher levels of job satisfaction.

In addition, the result agrees with the assertion of Kumar (2020) who found that job characteristics of (work environment) have impacted job satisfaction. To add on, a research by Sunarsi (2019) has also found that the work environment has a positive and significant impact on work satisfaction. Similarly, Akinwale & George (2020) discovered that all variables of work environment influenced job satisfaction. Al-Hamdan, Manojlovich, & Tanim (2017) concluded that the work environment was positively associated with job satisfaction. Additionally, a study conducted by Badrianto and Ekhsan (2020) has also found that work environment and job satisfaction led to positive and significant effect on employee performance. The result is also supported by Anasi (2020) who found that there is a significant linear relationship between work environment and job satisfaction.

This result also agrees with Verma (2020) where supportive culture is significant to enhance employee satisfaction. Similarly, Alsada et al., (2017) confirmed the significant positive relationship between supportive culture and job satisfaction.

However, Table 4 shows that organizational learning is not statistically a significant predictor to job satisfaction to employees of Malaysian higher education sector ($\beta = 0.023$; $t = 0.327$; $p > 0.05$).

Table 4. Results of hypotheses

Variable	Unstandardized coefficients		Standardized coefficients		Sig.	Result
	B	Standard Error	Beta	t		
(Constant)	-.625	.232		-2.696	.008	
Engagement	.289	.078	.174	3.718	.000	Supported
Motivation	.348	.064	.351	5.411	.000	Supported

Work environment	.172	.049	.156	3.497	.001	Supported
Organizational Learning	.021	.065	.023	.327	.744	Rejected
Supportive Culture	.353	.075	.337	4.726	.000	Supported

Note: Dependent Variable: Job Satisfaction

5. Conclusions and Recommendations

This study has discovered that there is a significant relationship among engagement, motivation, work environment, supportive culture, and job satisfaction.

It is found that in this study, motivation and supportive culture are among the strongest factors that could influence job satisfaction. Hence, if these factors are taken care of by the management of universities, there will be an increase in job satisfaction and reduced turnover rate. The management of universities should implement strategies that will improve motivation level such as reward and recognition programmes and it is important to enhance supportive culture by providing psychological and social environment that could boost employees' safety, well-being and health.

In addition, the management of higher education sector needs to understand the importance of work environment for example social features, work-setting and physical environments. These elements are vital to increase job satisfaction. Furthermore, it is believed that these elements are factors that could impact the feelings, wellbeing, workplace relationships among staff, efficiency, and collaborations and most importantly their health.

Moreover, engagement is another factor that needs special attention towards job satisfaction and positive outcomes. Engagement can be defined as a constructive or positive behaviour. The management of higher education sector needs to encourage flexibility, promote work life balance, appreciate feedbacks, foster social gatherings, and clarify goals, as this study found that workers with high levels of engagement are more dedicated and satisfied with their work.

Nevertheless, among the variables studied, organizational learning is not a statistically significant predictor of job satisfaction. A study conducted by Picho (2014) indicated that there was a weak positive relationship between training & development and job satisfaction. Besides, the researcher further explained that the weak relationship intended a small change in training was related to a small influence on job satisfaction. To add on, in this study organizational learning was found to be unimportant towards job satisfaction due to the nature of the organizations. In addition, learning opportunities, knowledge sharing, and learning-support seem to be the common practices in higher education sector, particularly

universities. Thus, these practices are not viewed by the employees as factors that would increase job satisfaction.

This study was derived from the data set of employees in Malaysian higher education sector and it was not excused from a few limitations. This study was limited to employees of higher education in Malaysia in which future research should consider other industries or sectors.

Moreover, this study focused on Malaysian higher education sector. However, the conclusion made from this research cannot be generalized to the entire population of Malaysian higher education sector because there was only 1 respondent from the East of Malaysia (Sarawak, Sabah).

Future studies can be directed in specific organizational settings or industries for example the private universities or public universities. This is important to identify the differences and comparison among industries.

In conclusion, it is hoped that that the results of this study will be useful for other researchers especially to understand the job satisfaction among employees in higher education sector by examining other variables such as leadership styles, work load, work relationship and innovative culture might be investigated relatively to job satisfaction.

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Appendix 1

Descriptive statistics for work engagement, motivation, work environment, organizational learning, supportive culture, and job satisfaction.

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Engagement						
At this institution, I feel energetic to do my work.	4(2.4%)	8(4.7%)	30 (17.8%)	69 (40.8%)	58 (34.3%)	3.9818
At this institution, I feel strong and capable to do my work.	2(1.2)	10 (5.9)	21(12.4)	74(43.8)	62(36.7)	4.0848
I can continue working for very long period at a time.	8(4.7)	14(8.3)	34(20.1)	67(39.6)	46(27.2)	3.7455
I find the work that I do full of meaning and purpose.	3(1.8)	4(2.4)	26(15.4)	72(42.6)	64(37.9)	4.1091
I am passionate about my job.	0	4(2.4)	24(14.2)	54(32)	87(51.5)	4.3152
I am proud on the work that I do.	0	1(0.6)	19(11.2)	55(32.5)	94(55.6)	4.4303
To me, my job is challenging.	1(0.6)	2(1.2)	30(17.8)	55(32.5)	81(47.6)	4.2545
Time flies when I am working.	1(0.6)	3(1.8)	13(7.7)	54(32)	98(58)	4.4424
I have a lot of work	1(0.6)	1(0.6)	18(10.7)	75(44.4)	74(43.8)	4.3030

to do every day.						
Grand mean = 4.19						
Motivation						
My institution provides me with a job security.	12(7.1)	10(5.9)	37(21.9)	65(38.5)	45(26.6)	3.7091
I receive superior's help with my personal problems.	21(12.4)	19(11.2)	41(24.3)	62(36.7)	26(15.4)	3.3030
In my institution, I receive good wages.	10(5.9)	19(11.2)	38(22.5)	59(34.9)	43(25.4)	3.6182
Working in this institution is interesting.	7(4.1)	11(6.5)	33(19.5)	69(40.8)	49(29)	3.8303
In this institution, I get promotion or career development for good achievements.	28(16.6)	12(7.1)	46(27.2)	54(32)	29(17.2)	3.2424
The management of the institution show gratitude for a job well done.	24(14.2)	20(11.8)	47(27.8)	46(27.2)	32(18.9)	3.2364
Grand mean = 3.49						
Work Environment						
I am satisfied with the space allocated for me to do my work.	11(6.5)	6(3.6)	35(20.7)	62(36.7)	55(32.5)	3.8485
My workplace is very clean.	1(0.6)	4(2.4)	18(10.7)	79(46.7)	67(39.6)	4.2303
There is adequate space between me and my nearest colleague.	7(4.1)	10(5.9)	19(11.2)	74(43.8)	59(34.9)	3.9818
My work environment is quiet.	15(8.9)	17(10.1)	22(13)	76(45)	39(23.1)	3.6182
Overall, my work environment is pleasant and	6(3.6)	11(6.5)	30(17.8)	70(41.4)	52(30.8)	3.8970

visually appealing.						
Grand mean = 3.92						
Organizational Learning						
Our institution creates continuous learning opportunities.	13(7.7.)	7(4.1)	33(19.5)	64(37.9)	52(30.8)	3.7939
Our institution encourages knowledge sharing among the staff	6(3.6)	12(7.1)	33(19.5)	71(42)	47(27.8)	3.8182
The leader of our institution supports learning at the individual, team, and organization levels.	12(7.1)	15(8.9)	38(22.5)	60(35.5)	44(26)	3.6242
Our institution establishes systems to capture and share learning.	8(4.7)	14(8.3)	34(20.1)	66(39.1)	47(27.8)	3.7576
Our institution connects the staff to the environment through various programs.	10(5.9)	22(13)	33(19.5)	63(37.3)	41(24.3)	3.5939
Grand mean = 3.72						
Supportive Culture						
The management style is characterized by collaboration and teamwork.	13(7.70)	21(12.4)	38(22.5)	60(35.5)	37(21.9)	3.5030
My organization is relationship oriented/like an extended family.	18(10.7)	18(10.7)	36(21.3)	63(37.7)	34(20.1)	3.4545
Encouraging new	8(4.7)	17(10.1)	39(23.1)	69(40.8)	36(21.3)	3.6303

things and prospecting for opportunities are valued.							
People are very sociable in my organization.	5(3)	6(3.6)	47(27.8)	67(39.6)	44(26)		3.8242
The management style is characterized by personal freedom.	16(9.5)	22(13)	52(30.8)	48(28.4)	31(18.3)		3.3333
My organization is nurturing and equitable for employees.	11(6.5)	22(13)	50(29.6)	56(33.1)	30(17.8)		3.4121
My organization is a safe place.	2(1.2)	11(6.5)	26(15.4)	69(40.8)	61(36.1)		4.0364
Mutual trust and loyalty are the glue that holds my organization together.	16(9.5)	13(7.7)	37(21.9)	68(40.2)	35(20.7)		3.5455
Grand mean = 3.6							
Job Satisfaction							
I like doing the things that I do at my workplace.	5(3)	6(3.6)	30(17.8)	69(40.8)	59(34.9)		4.0121
I am satisfied with my earning from my current job.	11(6.5)	22(13)	38(22.5)	55(32.5)	43(25.4)		3.5576
I am extremely glad that I chose this institution to work for, over other institutions.	12(7.1)	5(3)	35(20.7)	65(38.5)	52(30.8)		3.8182
Overall, I am satisfied with my	3(1.8)	12(7.1)	31(18.3)	72(42.6)	51(30.2)		3.9091

current job.						
						Grand mean = 3.82

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