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Significant Factors of Motivational Needs that Influence Job Satisfaction through Regression Analysis

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ABSTRACT

Motivation is an important life skill. Each person has purposes and to steward their purposes, it must be motivated to work towards their goals which can help their dreams become to reality. The higher the level of motivation needs, the higher the level of their job satisfaction. The main objective of this research is to identify motivational needs that influence the job satisfaction among respondents involved in this study. Specifically, to identify the relationship and significant variables between job satisfaction and five factors of motivational needs namely physiological needs, safety and security needs, love and belonging needs, self-esteem needs, and self-actualization needs. A sample of respondents who were working and doing part-time study was taken from public and private universities in Malaysia using convenience sampling. Therefore, the result of this research cannot be inferred to the population as a whole and only valid to the respondents involved in this research. The data was analyzed by using Statistical Package Social Science (SPSS) software. Preliminary analysis was conducted such as reliability analysis. Furthermore, correlation analysis was used to quantify the associations between motivational needs and job satisfaction. Multiple linear regression was used to identify significant variables in the model. The results indicated that there was a significant positive linear relationship between motivational needs towards job satisfaction. Furthermore, safety and security, self-esteem and self-actualization made statistically significant contribution to the job satisfaction in the model.

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1. Introduction

Motivation is a general and common word used in business world. However, it is countless to clarify it in a logical manner. It is acquiring extraordinary thought and idea on its concept as every

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individual has a diversity of motivation which inspire their path. Previous study [1] found an organization can enhance its productivity without any substantial cost addition through employees motivation to contribute their best in accomplish organizational tasks. The higher the empowerment and recognition of employees in an organization, the more the motivation to work will enhance [2]. Motivation allows people to perform better as a person and let them produce a better work. Therefore, people need motivation from the surrounding to support them.

According to Maslow's Hierarchy of Needs by [3] stated that there are five types of needs that must be fulfilled by organization to motivate employees; physiological, safety and security, love and belonging, self-esteem and self-actualization. Nowadays, this theory becomes prominent. Maslow introduced a five-tier model through the pyramid of human needs consist of physiological, safety and security, love and belonging, self-esteem and self-actualization needs. The five-tier model starts with the lowest needs level in the hierarchy known as physiological needs, where everyone must fulfill before the highest level of needs. According to [4], people should fulfill all the requirements from the bottom of the hierarchy of needs (physiological, safety and security, love and belonging) to the top of the hierarchy (self-esteem and self-actualization).

Physiological needs indicate the lowest of needs which everyone needs to fulfill as to survive on their life such as air, food, drink, cloth and sleep. Safety and security needs indicate once people have satisfied and fulfill on their physiological need, people will start to find the safety and security needs in which to feel safe for themselves. For example, emotional security, financial security, law and order, freedom from fear, social stability, property, health and well-being. Subsequently, love and belonging needs is a desire to be loved and belonged in their life. The interpersonal relationships will motivate individual behavior such as, friendship, intimacy and trust. Furthermore, self-esteem needs demand people to be respected and appreciated with surrounding people in their life.

Due to the demand increment of employment, part-time study mode becomes ever most popular as people try to fix between earning and learning. Essentially, part-time study involves spreading a full-time course over a longer period. Research by [5] found that a part-time student is different from a full-time student in which full-time student needs to study harder than part-time student and only partially agreed to the previous research that stated it is easier becoming a part-time student due to being economically stable to support their life. Thus, it was found that motivation needs are important among the part-time students for the education and career performance.

Therefore, there is a vital need to conduct a research upon the motivation needs on part-time students' job satisfaction as they are students and also employees to their employers. This research has two objectives. Fistly, to identify the relationship between job satisfaction and five factors of motivational needs namely physiological needs, safety and security needs, love and belonging needs, self-esteem needs, and self-actualization needs. Secondly, to identify the significant factors of motivational needs; physiological needs, safety and security needs, love and belonging needs, self-esteem needs, and self-actualization needs towards job satisfaction in the model. At the end, the findings will manage to achieve the research objectives either psychological, safety and security, love and belonging, self-esteem and self-actualization are significant correlate and influence on job satisfaction among part-time students or not.

2. Literature Review

Job satisfaction can be defined as one that positively affects the emotions and environment [6] where job satisfaction is divided into three important elements: effective, cognitive and job focused. It can be argued that employee satisfaction is very important and have a significant impact on the employee's effectiveness [7]. Furthermore, employee satisfaction varies for each employee, depending on their individual characteristics including demand for personal needs, values, feelings and expectations [8]. According to [9], job satisfaction represents one of the most crucial areas faced by managers when it comes to managing their employees. Many studies have demonstrated an unusually large impact on the job satisfaction on the motivation of workers, while the level of motivation has an impact on productivity, and hence also on performance of organization. There are many measures that support employee satisfaction consists of employee motivation, employee goal achievement and positive employee morale in the work place [10].

As a human being, [11] has mentioned in his theory that physiological needs are the humankind of basic need that individual should fulfill to survive biologically. The basic needs such as eating, drinking, getting enough rest and so on are mentioned in Maslow's theory on the lowest of hierarchy of needs. Individual will achieve their physiological need if people really fulfill their basic

needs, and people will further to next level of need if they are really satisfied on the lower needs [12] as people are motivated to fulfill basic needs before moving on to other more advanced needs.

Subsequently, individual will further to achieve their safety and security needs in order to secure and maintain themselves after feeling fulfilled with their physiological needs. According to [13] there is a determinant either job satisfaction has an impact on employees' safety and security needs or nor. Safety culture plays a key function in determining an organization's success [14]. Previous finding by [15] provides evidence that the perceived level of fairness in an organization is closely associated with workplace safety perception and other organizational factors which are important for safety.

Once the basic needs are complete, individual will desire with love and belonging or social needs. According to [16], there is a significant relationship between sense of love and belonging and employees' performance. It is natural for a human being to be born with feelings to be loved or loved. Previous research has mentioned that high job satisfaction in workplace are related with the social being [17]. Being a social person will derive people to have the time to express love and affection to those around them such as family and friends. Therefore, it is a need of organization to creating a spiritual atmosphere through several ways such as organizing group events and teams. This can also help to create a sense of mutual support between employees and organization [18].

There are huge numbers by different studies who have studied the association between job satisfaction and self-esteem. The need of self-esteem is the need for self-respect, recognition by others, confidence and achievement. Furthermore, self-esteem is part of its associations with important life outcomes, such as psychological adjustment, academic success, physical health, and relationship satisfaction [19]. Other study by [20], found the empirical evidence of a relationship between self-esteem and job satisfaction as well as job performance.

Self-actualization is the highest level in Maslow Hierarchy motivation needs. The first study on self-actualization was executed in the year 1943. A company's path to self-actualization is through its employees. Thus, an organization that invests in helping employees recognize their challenges will gain high achieve employees to achieve goals.

3. Methodology

This research used primary data by conducting online survey to obtain data conducive to measure respondent's motivational needs that influence their job satisfaction. The questionnaire consists of forty questions that have been split into three parts which are part A, part B and part C. Part A consists of eight categorical questions regarding demographic factors. Meanwhile, part B consists of twenty-five questions separated by five factors of motivational needs recognized as B(1), B(2), B(3), B(4) and B(5). Furthermore, part C contained seven questions regarding the job satisfaction, which are dependent variable. This study used 5 Likert-scale, with measuring intensity of strongly disagree, disagree, neither disagree nor agree, agree, strongly agree.

This research used cross – sectional design conducted between February until June 2020. The research used a quantitative method to establish the association and significant factors between job satisfaction (Y) as dependent variable and physiological needs (X_1), safety and security needs (X_2), love and belonging needs (X_3), self-esteem (X_4) and self-actualization needs (X_5) as independent variables. The target respondents in this research are respondents who are currently working and being a part-time student at public and private universities at the same time. The research hypothesize that there is a positive association between independent variables and dependent variable.

Due to some constraint, this research applied non-probability sampling involving non-random selection based on convenience sampling that allowed researcher to easily collect initial and sufficient data. Convenience sampling is the procedure where the selection of respondents is at the convenience of a researcher. The process of selecting sample from population is without using probability theory. Therefore, the result from this research will provide summaries and conclusion about the respondent involved and cannot be inferred to the population as a whole. Table 1 indicated the method of analysis used to attain research objective and research hypothesis.

Table 1. Method of analysis

Research objective	Research hypothesis	Method of analysis
To identify the relationship between job satisfaction and five factors of motivational needs; physiological needs, safety and security needs, love and belonging needs, self-esteem needs, and self-actualization needs.	H_1: Physiological needs has a positive relationship on job satisfaction. H_2: Safety and security needs has a positive relationship on job satisfaction. H_3: Love and Belonging needs has a positive relationship on job satisfaction. H_4: Self-Esteem needs has a positive relationship on job satisfaction. H_5: Self-Actualization needs has a positive relationship on job satisfaction.	Correlation analysis 1) Parametric test Pearson product moment correlation 2) Nonparametric test Spearman's rank order correlation
To identify the significant factors of motivational needs; physiological needs, safety and security needs, love and belonging needs, self-esteem needs, and self-actualization needs towards job satisfaction	H_6:Physiological needs, safety and security needs, love and belonging needs, self-esteem needs, and self-actualization needs are positive influence and significant affect to job satisfaction.	Multiple Linear Regression

2.1 Correlation analysis

The purpose of correlation analysis is to identify the linear correlation between two quantitative variables simultaneously. Pearson product-moment correlation required both variables to be quantitative and normally distributed. Whereas, the Spearman's rank-order correlation is an alternative to the Pearson product-moment correlation, known as nonparametric version of the correlation.

(1) Pearson product-moment correlation, r:

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left[\sum x^2 - \frac{\left(\sum x\right)^2}{n}\right]\left[\sum y^2 - \frac{\left(\sum y\right)^2}{n}\right]}} \quad (1)$$

(2) Spearman's rank-order correlation, ρ :

$$\rho = 1 - \frac{6\sum_i d_i^2}{n\left(n^2 - 1\right)} \quad (2)$$

2.2 Regression analysis

Multiple linear regression describes the relationship between the dependent variable and independent variables in the model. The general regression model is shown below:

$$y = \beta_0 + \beta_i X_i + \varepsilon \quad (3)$$

The specific regression model for this research is shown below:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 \quad (4)$$

3. Results and Analysis

The main focus of this section is to report the findings that correspond to motivational needs that influence job satisfaction among part time students. The discussions will cover the reliability analysis, correlation analysis and regression analysis

3.1 Reliability Analysis

The reliability test was conducted in order to assess the consistency of the questions used in the research. This test was divided into two parts; pilot study and fieldwork. Pilot study was conducted to verify either the questionnaires are effective or not, as well as to reduce unnecessary costs and time consumed by piloting questionnaire to a small number of respondents. Basically, the purpose is to determine whether the respondents understood what the questions required, and evaluate how the respondents perceived and answered the questions. For each test, the reliability analysis was carried out by measuring the Cronbach's alpha. The alpha-reliability coefficient Cronbach was determined to estimate the internal consistency of both instruments.

Table 2 summarized the result of Cronbach alpha coefficient for both pilot study and fieldwork for all variables. Cronbach alpha for pilot study reported (α = 0.937) consists of variable Physiological (α = 0.868), Safety and security (α = 0.795), Love and belonging (α = 0.848), Self-esteem (α = 0.824), Self-actualization (α = 0.782) and Job satisfaction (α = 0.917). Thus, the result of reliability analysis for pilot study was high indicate the items in the questionnaire were reliable to be used for a real fieldwork.

Moreover, result shows the Cronbach alpha coefficient for all variables during fieldwork (α = 0.946) consists of variable Physiological (α = 0.785), Safety and security (α = 0.800), Love and belonging (α = 0.826), Self-esteem (α = 0.845), Self-actualization (α = 0.670) and Job satisfaction (α = 0.894). Thus, the result of reliability analysis for this research was acceptable which indicate the items in the questionnaire were reliable.

Table 2. Cronbach alpha coefficient

Item	Number of Items	Cronbach alpha, *α*	
		Pilot research, n=30	Fieldwork, n=100
Overall	**32**	**0.937**	**0.946**
Physiological	5	0.868	0.785
Safety and security	5	0.795	0.800
Love and belonging	5	0.848	0.826
Self-esteem	5	0.824	0.845
Self-actualization	5	0.782	0.670
Job satisfaction	7	0.917	0.894

3.2 Correlation analysis

Correlation analysis was used to determine the association between five independent variables and the job satisfaction in this research. Pearson product moment correlation required both variables to be quantitative and normally distributed. Whereas, the Spearman's rank order correlation is an alternative to the Pearson product moment correlation, known as nonparametric version of the Pearson product moment correlation.

The Shapiro-Wilk test is more appropriate for small sample sizes which is less 50 samples throughout sample sizes as large as 2000 [21]. For this reason, this research used the Shapiro-Wilk test for assessing normality. The normality test shown in Table 3 indicates the distribution of the variable satisfaction is normally distributed (SW=0.978, p–value=0.091 > 0.05), whereas variable physiological (SW=0.968, p–value=0.015 < 0.05), safety and security (SW=0.962, p–value=0.005 < 0.05), love and belonging (SW=0.942, p–value=0.000 < 0.05), self-esteem (SW=0.961, p–value = 0.005 < 0.05) and self-actualization (SW=0.965, p–value = 0.009 < 0.05) were not normally distributed.

Table 3. Test of Normality (Shapiro Wilk)

Variable	Statistic	Degree of freedom	p–value	Interpretation
Job Satisfaction	0.978	100	.091	Normally distributed
Physiological	0.968	100	.015	Not normally distributed
Safety and Security	0.962	100	.005	Not normally distributed
Love and Belonging	0.942	100	.000	Not normally distributed
Self-Esteem	0.961	100	.005	Not normally distributed
Self-Actualization	0.965	100	.009	Not normally distributed

Table 4 summarized the decision for correlation analysis. Parametric test required both variables to be quantitative and normally distributed. Based on the Shapiro-Wilk test in Table 3, this research used nonparametric test; Spearman's rank-order correlation to determine the correlation between physiological needs, safety and security needs, love and belonging needs, self-esteem and self-actualization needs towards job satisfaction.

Table 4. Decisions for correlation analysis

Role	Variable	Requirement		Decision
		Quantitative	Normal distribution	
DV	Job satisfaction	yes	yes	Nonparametric test
IV	Physiological	yes	no	Spearman's rank-order correlation
DV	Job satisfaction	yes	yes	Nonparametric test
IV	Safety and Security	yes	no	Spearman's rank-order correlation
DV	Job satisfaction	yes	yes	Nonparametric test
IV	Love and Belonging	yes	no	Spearman's rank-order correlation
DV	Job satisfaction	yes	yes	Nonparametric test
IV	Self-esteem	yes	no	Spearman's rank-order correlation
DV	Job satisfaction	yes	yes	Nonparametric test
IV	Self-Actualization	yes	no	Spearman's rank-order correlation

DV = Dependent variable
IV = Independent variable

Table 5 shows the Spearman's rank-order correlation revealed that there is a positive linear relationship between variable physiological ($\rho = 0.632$, p-value = 0.000 < 0.05), safety and security ($\rho = 0.729$, p-value = 0.000 < 0.05), love and belonging ($\rho = 0.597$, p-value = 0.000 < 0.05), self-esteem ($\rho = 0.702$, p-value = 0.000 < 0.05) and self-actualization ($\rho = 0.660$, p-value = 0.000 < 0.05) towards job satisfaction. Therefore, it is concluded that there was a significant positive linear relationship between independent variables towards job satisfaction. Positive relationship supported the higher the level of motivational needs, the higher the level of their job satisfaction and vice versa.

Table 5. Spearman's rank-order correlation

		Physiological	Safety and Security	Love and Belonging	Self Esteem	Self Actualization	Satisfaction
Physiological	ρ	1.000					
	p-value	–					
	N	100					
Safety and Security	ρ	0.603**	1.000				
	p-value	0.000	–				
	N	100	100				
Love and Belonging	ρ	0.379**	0.562**	1.000			
	p-value	0.000	0.000	–			
	N	100	100	100			
Self-Esteem	ρ	0.589**	0.641**	0.672**	1.000		
	p-value	0.000	0.000	0.000	–		
	N	100	100	100	100		
Self-Actualization	ρ	0.538**	0.567**	0.540**	0.596**	1.000	
	p-value	0.000	0.000	0.000	0.000	–	
	N	100	100	100	100	100	
Job Satisfaction	ρ	**0.632****	**0.729****	**0.597****	**0.702****	**0.660****	1.000
	p-value	0.000	0.000	0.000	0.000	0.000	–
	N	100	100	100	100	100	100

** Correlation is significant at the 0.01 level (2-tailed)

3.3 Multiple Linear Regression

Based on ANOVA table in Table 6, the model was fit [F (5,94) = 39.463, p–value = 0.000 < 0.05] with independent variables in the model explaining about 67.70% of the variation in job satisfaction. Other 32.3% may be explained by other variable.

Table 6. Analysis of variance [a]

	Sum of Squares	df	Mean Square	F	p–value
Regression	33.239	5	6.648	39.463	0.000
Residual	15.835	94	0.168		
Total	49.073	99			

R-squared = 0.677

The collinearity statistics indicated that all tolerance values were more than 0.10 and Variance Inflation Factor (VIF) values of less than 10 indicated that there were no multicollinearity problems exist (Table 7).

Table 7. Collinearity Statistics

Variable	Collinearity Statistics	
	Tolerance	Variance Inflation Factor
Physiological	0.508	1.967
Safety and Security	0.403	2.483
Love and Belonging	0.431	2.321
Self-Esteem	0.421	2.376
Self-Actualization	0.535	1.869

Multiple linear regression was used to identify the significant variables that contribute to the job satisfaction in the model. Based on the regression unstandardized coefficients in Table 8, the estimated coefficient value was $\beta_0 = 0.103$, $\beta_1 = 0.119$, $\beta_2 = 0.253$, $\beta_3 = 0.136$, $\beta_4 = 0.259$ and $\beta_5 = 0.196$. The specific regression model for this research is shown below:

$$y = 0.103 + 0.119X_1 + 0.253X_2 + 0.136X_3 + 0.259X_4 + 0.196X_5 \quad (5)$$

Job satisfaction = 0.103+ 0.119 Physiological need + 0.253 Safety and Security need + 0.136 Love and Belonging need + 0.259 Self-Esteem need + 0.196 Self-Actualization need

Among the five independent variables entered into the model, three independent variables (Safety and Security, t = 3.073, p–value = 0.003 < 0.05), (Self-Esteem, t = 2.942, p–value = 0.004 < 0.05) and (Self-Actualization, t = 2.257, p–value = 0.026 < 0.05) made statistically significant contribution to the job satisfaction in the model. In addition, these three variables made a positive relationship with job satisfaction. Variable safety and security recorded the highest standardized coefficient (Beta = 0.284). Therefore, variable safety and security revealed the most motivational needs toward job satisfaction among respondents in this research. Safety and security needs including emotional security, financial security, law and order, freedom from fear, social stability, property, health and well-being.

Table 8. Regression Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	t	p–value
	B	Std. Error	Beta		
(Constant)	0.103	0.277		0.370	0.712
Physiological	0.119	0.073	0.134	1.632	0.106
Safety and Security	0.253	0.082	0.284	3.073	0.003
Love and Belonging	0.136	0.091	0.134	1.498	0.137
Self-Esteem	0.259	0.088	0.266	2.942	0.004
Self-Actualization	0.196	0.087	0.181	2.257	0.026

Dependent variable: Job Satisfaction

4. Conclusion

The results indicated that there was a significant positive linear relationship between independent variables towards job satisfaction. Based on Spearman's rank-order correlation, there is a positive linear relationship between variable physiological (ρ = 0.632, p-value = 0.000 < 0.05), safety and security (ρ = 0.729, p-value = 0.000 < 0.05), love and belonging (ρ = 0.597, p-value = 0.000 < 0.05), self-esteem (ρ = 0.702, p-value = 0.000 < 0.05) and self-actualization (ρ = 0.660, p-value = 0.000 < 0.05) towards job satisfaction. Positive relationship supported as the level of motivation needs increased, the level of their job satisfaction also increased.

Furthermore, safety and security (t = 3.073, p–value = 0.003 < 0.05), self-esteem (t = 2.942, p–value = 0.004 < 0.05) and self-actualization (t = 2.257, p–value = 0.026 < 0.05) made statistically significant contribution to the job satisfaction in the model. In addition, these three variables made a positive relationship with job satisfaction. These needs are aligned with Maslow's hierarchy needs of safety and security (such as health and secure employment and property), self-esteem (such as

respect of and by others) and self-actualization (such as morality, creativity, problem-solving, and acceptance of facts). Variable safety and security were the most motivational needs toward job satisfaction as recorded the highest standardized coefficient (Beta = 0.284) in the model.

Due to time and sampling frame constraint, this research applied non-probability sampling involving non-random selection based on convenience sampling that allowed researcher to easily collect initial and sufficient data. Further study suggested to increase the number of sample size for better result. A large sample size is more representative of the population, limiting the influence of outliers or extreme observations.

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