YANGON UNIVERSITY OF ECONOMICS

DEPARTMENT OF STATISTICS

FACTOR INFLUENCE ON EMPLOYEES' JOB SATISFACTION OF MYAWADDY BANK LIMITED IN YANGON

This thesis is submitted as a partial fulfillment toward

the Degree of Master of Economics (Statistics).

BY

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M.Econ (Statistics)

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DECEMBER, 2018

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ABSTRACT

The aim of this study is to identify the critical factors that are mainly influence on employees' job satisfaction and then the relationship between the overall employees' job satisfaction and the satisfaction on each of the factors of owned commercial bank named as Myawaddy Bank Limited was analyzed. Factor analysis and multiple regression analysis are used in this study to achieve the respective objectives. This study shows that nine factors are critical factors that are mainly influence on employee's job satisfaction. These nine factors are Working Condition, Working Relationship and Management Practices, Personal Growth and Motivation, Promotion, Stress and Problem, Non-Financial Benefit, Reward and Recognition, Pay and Salary, Employee Commitment and Perceived Opportunity for Change respectively are significantly influence on employees' job satisfaction and these selected nine factors have a positive relationship with the overall employees' job satisfaction.

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LIST OF ABBREVIATIONS

ANOVA	=	Analysis of Variance
ATM	=	Automated Teller Machine
BOD	=	Board of Director
HO	=	Head Office
IT	=	Information Technology
KMO	=	Kasier Meyer Olkin
SPSS	=	Statistical Package for Social Sciences
SRS	=	Simple Random Sampling

CHAPTER I
INTRODUCTION

1.1 Rationale of the Study

Human life has become very complex and completed now-a-days. In modern society the needs and requirements of the people are ever increasing and ever changing. When the people are ever increasing and ever changing and the people needs are not fulfilled they become dissatisfied. Dissatisfied people are likely to contribute very little for any purposes. Employees' job satisfaction has been defined in a variety of ways, with the most widely used definitions in the literature being defined as a pleasurable or positive emotional state resulting from the appraisal of one's job experiences.

In the highly competitive environment, one of the most important factors for every business is employees' motivation accompanied with job satisfaction. Employees' job satisfaction is important to know the level of satisfaction at work. The results of the employees' job satisfaction affect both the worker and the business. Employees' job satisfaction is generally considered as the driver of the employee retention and employee productivity. Satisfied employees are precondition for improvement in productivity, responsibility, and quality of their performance.

Employees' job satisfaction has been studied both as a consequence of many individual and work environment characteristics and as an antecedent to many outcomes. Employees who have higher job satisfaction are usually less absent, less likely to leave, more productive, more likely to display organizational commitment, and more likely to be satisfied with their lives. Employees' job satisfaction is very important because most of the people spend a major portion of their life at working place. Moreover, employees' job satisfaction has it impact on the general life of the employees also, because a satisfied employee is a contented and happy human being. A highly satisfied worker has better physical and mental well being.

The effects of globalization have brought about a significant change in service sector of Myanmar. Much emphasis has been laid on privatizations, which have created employment opportunities for the people. The change has increased income level that transformed

consumption level of the people. This has eventually created a competitive business environment in this sector of Myanmar. Also, the demand for financial services in Myanmar continues to thrive more and more due to its large growing population and other related pressures like direct foreign investment, private investment, marginal propensity to save, government borrowing and export-import development.

As a result, a rapid expansion of private banks has taken place from the mid 1990s till present, which has created a good competition among both the private and public banks in Myanmar. Good financial services of the banks along with their better customer services become important due to this rising competition. It has been realized that bank employees play an important role for the good performance of the bank by delivering good financial services to its constituencies, since it is a services-based business. In such situation, job satisfaction of bank employees is an important issue for the improved financial services to the customers and employees' job satisfaction affects the quality of bank service which in turn affects the degree of customer satisfaction. Therefore, this issue has to be properly taken into account in order to achieve ultimate goals of banks in Myanmar.

This study presents employees' job satisfaction among the employees of Myawaddy Bank Limited in Yangon. There are about 25 private banks in Myanmar operating national scale in Myanmar. Myawaddy Bank Limited is one of these banks that operate full-fledged of banking activities in the national wide in Myanmar. In Myanmar, Myawaddy Bank Limited already are operating and more branches opening. Banking services demand for Myawaddy Bank Limited is increasing. Therefore, Myawaddy Bank Limited is a successful bank in Myanmar.

Nowadays, the new bank enter into the market are highly competitive to achieve their goals and objectives. So the major task of employer is to motivate and satisfy by using appropriate satisfaction factors. These factors are training, work condition and management, job security and salary, fairness, encouragement, promotions, bonus and so on. The employers must understanding about the employee needs, wants, aspirations, attitudes, and so on. By understanding their employee's need, want and attitude, the employers can know how to maintain and motivate their employees for the success of their business. This study is focusing

on employees' job satisfaction of Myawaddy Bank Limited in Yangon by using factor analysis and multiple regression analysis.

1.2 Objectives of the Study

This study will focus on the following objectives:

(1) To identify the critical factors those are mainly influence on employees' job satisfaction.

(2) To investigate the relationship between the overall employees' job satisfaction and the satisfaction on each of the factors.

1.3 Scope and Limitations of the Study

This study mainly deal with the employees' job satisfaction of Myawaddy Bank Limited based on the primary survey data by using factor analysis and multiple regression analysis. In this study, there are two limitations. Firstly, among there are many branches of Myawaddy Bank Limited in Myanmar, this study is only focused on the 11 branches and head office of Myawaddy Bank Limited in Yangon. Second, the selected variables for the respondents can be a limitation because these variables cannot be highly important and the other variables can impact employees' job satisfactions that have not been investigated in this study.

1.4 Method of Study

In this study used both the primary and secondary data. In primary data, the survey data have been used and the population targeted to the employees of Myawaddy Bank Limited in Yangon. In Myawaddy Bank Limited in Yangon, there are 1250 employees. Out of 1250, 302 employees are chosen as the study samples that 24 % of the population by using simple random sampling method. The secondary data and other relevant information were gathered from the library of Yangon University of Economics and downloaded from some internet websites. Factor analysis and multiple regression analysis are applied to analyze the survey data to focus on the employees' job satisfaction of selected Myawaddy Bank Limited in Yangon.

1.5 Organization of the Study

This study is organized with five chapters. Chapter I is the introduction, which presents rationale of the study, objectives of the study, scope and limitation of the study, method of study and organization of the study. Background information of Myawaddy Bank Limited are presented in Chapter II which includes profile of Myawaddy Bank Limited, number of branches of Myawaddy Bank Limited, organizational structure of Myawaddy Bank Limited and then research methodology has been described in Chapter III. Chapter IV has been discussed on the application of factor analysis and multiple regression analysis of employee's job satisfaction in selected Myawaddy Bank Limited based on the survey data. Finally, the conclusion and the findings for this study have been summarized in Chapter V.

CHAPTER II

BACKGROUND INFORMATION OF MYAWADDY BANK LIMITED

2.1 Profile of Myawaddy Bank Limited

Myawaddy Bank Limited is a private company limited formed under the Special company Act, 1950 as a special company and registered under the Myanmar Companies Act and it is a licensed banked under the Financial institution of Myanmar Law 1990, for investment / Development and Commercial Banking.

Myawaddy Bank Limited is a private Bank, whose whole shares are fully subscribed in Myanmar Economic Holdings Limited. It was opened on 4th January, 1993 and having started function on 5th January 1993, has now come into 25 years. In 2018, Myawaddy Bank Limited has many branches at present, Myawaddy Bank Limited have been opened (62) branches including head office. Among them (17) branches in Yangon and (44) branches in other division. Myawaddy Bank Limited is successfully performing financial services, under the guidance and supervision of Myanmar Economic Holding Limited, Board of Directors, the Central Bank of Myanmar, the Ministry of Finance, Myanmar Banks Association etc., where by the public can save and deposit surplus money and the bank can finance the working capital requirement of the entrepreneurs and commercial enterprises among other financial services.

Myawaddy Bank Limited, in order to give its customers the best service possible, has set up in itself the most exacting mottos "Myawaddy Bank for Security", Secure, Secret, "Swift and Correct, Myawaddy Bank Limited" and Deal with Myawaddy Bank Limited for Your Success and Prosperity" and in accord with these mottos, has accepted, without restriction of amount, the savings deposits of the populace and rendered correct services, such as extending loans after systematic appraisal to genuine entrepreneurs etc., to the full satisfaction of its customers.

Product / Services of Myawaddy Bank Limited are saving accounts, current accounts, fixed deposits account, undertaking internal remittance, lending loans and overdrafts, safe deposit locker, hire-purchasing system, foreign currency exchange and ATM card service.

2.2 Number of Branches of Myawaddy Bank Limited

Myawaddy Bank Limited expanded new branches in most of the areas in Myanmar. Myawaddy Bank Limited have been opened (62) branches including head office. Among them (17) branches in Yangon and (44) branches in other division. Foremost, head office of Myawaddy Bank Limited is located in Yangon and later expanded other new Bank branches year by year in Table (2.1).

Table (2.1) Number of Branches of Myawaddy Bank Limited

Year	Number of Increased Branches	Total Number of Branches
1993-1997	2	2
1998-2002	5	7
2003-2007	3	10
2008-2012	13	23
2013-2017	27	50
2017-2018	12	62

Source: Head Office of Myawaddy Bank Limited (2018)

According to Table (2.1), Myawaddy Bank Limited can be opened only two branches in 1993 to 1997. And then 5 branches are opened between 1998 and 2002. Only 3 branches are opened in year 2003 to 2007. Altogether 13 branches can be increasingly opened from 2008 to 2012 and 27 branches are opened in year 2013 to 2017. From 2017 to now, (12) branches are opened along with the whole countries.

2.3 Organizational Structure of Myawaddy Bank Limited

With the bank's following organizational structure, under the guidance and instructions of the BOD, Myawaddy Bank Limited is operating banking function with accelerating momentum with the following 18 departments in Head-Office and 61 bank branches across the country under the advice of advisors, management and control of Managing Directors, Senior General Managers and General Managers and with technical assistance of technicians. The department of Myawaddy Bank Limited as follows:

(1) Accounts Department

(2) IT Department

(3) Card Department

(4) Cyber Security Department

(5) Foreign Banking Department

(6) Foreign Currency Exchange Counter

(7) Human Resources Department

(8) Training Department

(9) Research and Development, Commercial Intelligence and Statistics Department

(10) Marketing Department

(11) Planning Department

(12) Loan Department

(13) Loan Recovery Department

(14) Credit Inspection Department

(15) Administration Department

(16) Cash Department

(17) Internal Audit Department

(18) Bond and Stock Department

CHAPTER III

RESEARCH METHODOLOGY

3.1 Reliability Analysis

Before using the factor analysis, it is very important to test the reliability of the dimensions in the questionnaires. Cronbach's alpha, a statistical test used to examine the internal consistency of attributes, was determined for each dimension in perceptions of banking product and services. This statistical test shows the attributes are related to each other and to the composite score. The composite score for each section of the questionnaires was obtained by summing the scores of individual statements. Cronbach's alpha is defined as

$$\alpha = \frac{K}{K-1}\left[1 - \frac{\sum_{i=1}^{k} S_i^2}{S_T^2}\right]$$

Where

α = Cronbach's alpha,

K = Number of Statements,

S_i^2 = variance of each statement

S_T^2 = variance for sum of all items

Cronbach's alpha can be interpreted as a correlation coefficient, it ranges in value from 0 to 1. Robinson and Shaver (1973) suggested that if Alpha is greater than 0.7, it means high reliability and if Alpha is smaller than 0.3, it means low reliability. Moreover, it is often said that the higher the Cronbach's Alpha is, the more reliability scale has. If alpha value is high, then this suggests that all of the items are reliable and the entire test is internally consistent. If alpha is low, than at least one of items are unreliable and must be identified via item analysis procedure. the Cronbach's alpha value should ideally be above 0.7.

Reliability is the scale construction counterpart of precision and accuracy in physical measurement. Reliability can be thought of as consistency in measurement. To establish the reliability of the bank employee's job satisfaction measurement used in the survey instrument, the reliability coefficient (Cronbach Alpha) was verified.

3.2 Testing for Sampling Adequancy

Kaiser-Meyer-Olkin (KMO) Test is a measure of how suited the data is for Factor Analysis. The test measures sampling adequacy for each variable in the model and for the complete model. The statistic is a measure of the proportion of variance among variables that might be common variance. The lower the proportion, the more suited the data is to Factor Analysis.

KMO return values between 0 and 1. A rule of thumb for interpreting the statistic:

- KMO values between 0.8 and 1 indicate the sampling is adequate.
- KMO values less than 0.6 indicate the sampling is not adequate and that remedial action should be taken.
- KMO values close to zero means that there are large partial correlations compared to the sum of correlations. In other words, there are widespread correlations which are a large problem for factor analysis.

The Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study. For a large sample, Bartlett's test approximates a Chi-square distribution. However, the Bartlett's test compares the observed correlation matrix to the identity matrix. Therefore, the Bartlett's Test forms something of a bottom line test for large samples, but is less reliable for small samples. For factor analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05. In addition to, very small values of significance (below 0.05) indicate a high probability that there are significance relationships between the variables, whereas higher values (0.1 or above) indicate the data is inappropriate for factor analysis.

3.3 Factor Analysis

Factor analysis has provoked rather turbulent controversy throughout its history. Its modern beginnings lie in the early 20th century attempts of Karl Pearson. Charles, Spearman, and others to define and measure intelligence. Because of this early association with constructs such as intelligence, factor analysis was nurtured and developed primarily by scientists interested in psychometrics. Arguments over the psychological interpretations of several early studies and the

lack of powerful computing facilities impeded its initial development as a statistical method. The advent of high-speed computers has generated a renewed interest in the theoretical and computational aspects of factor analysis. Most of the original techniques have been abandoned and early controversies resolved in the wake of recent developments. It is still true, however, that each application of the technique must be examined on its own merits to determine its success.

The essential purpose of factor analysis is to describe, if possible, the covariance relationships among many variables in terms of a few underlying, but unobservable, random quantities called factors. Basically, the factor model is motivated by the following argument: Suppose variables can be grouped by their correlations. That is, suppose all variables within a particular group are highly correlated among themselves, but have relatively small correlations with variables in a single underlying construct, or factor, that is responsible for the observed correlations. Factor analysis can be considered an extension of principal component analysis. Both can be viewed as attempts to approximate the covariance matrix **Σ.** However, the approximation based on the factor analysis model is more elaborate.

Factor analysis is a branch of statistical science, but because of its development and extensive use in psychological the technique itself is often mistakenly considered as psychological theory. The method came into being specifically to provide mathematical models for the explanation of psychological theories of human ability and behavior.

Factor analysis is a method of data reduction. It does this by seeking underlying unobservable (latent) variables that are reflected in the observed variables (manifest variables). There are many different methods that can be used to conduct a factor analysis (such as principal axis factor, maximum likelihood, generalized least squares, unweighted least squares). There are also many different types of rotations that can be done after the initial extraction of factors, including orthogonal rotations, such as varimax and equimax, which impose the restriction that the factors cannot be correlated, and oblique rotations, such as promax, which allow the factors to be correlated with one another.

The mathematical techniques inherent in factor analysis certainly are not limited to psychological applications. The principal concern of factor analysis is the resolution of a set of

variables linearly in term of a small number of categories or factors. This resolution can be accomplished by the analysis of the correlations among the variables. A satisfactory solution will yield factors which convey all the essential information of the original set of variables. Thus, the chief aim is to attain scientific parsimony or economy of description.

The application of factor analysis technique has been chiefly in the field of psychology. Factor analysis indicated above are concerned primarily with classification and verification of scientific hypotheses in the particular field of investigation. The best linear function of the variables in each set obtained by factorial methods, and then the correlation between these composites gives what is known as the canonical correlation.

Factor analysis used as a tool in the empirical sciences. In dealing with observed data, of course, there are inherent discrepancies. One of the objectives of statistical theory is to provide a scientific law, or mathematical model, to explain the underlying behavior of the data. Some simple examples include; (1) a linear regression for the prediction of school success from three entrance examinations; (2) a mathematical curve, such as the normal distribution or one of the Pearson family of curves, for the explanation of an observed frequency distribution; (3) a Chi-square test of significance for the independence of such classifications as treated or not treated with a certain serum, and cured or not cured.

Factor analysis is also used to verify scale construction. In such application, the items that make up each dimension are specified upfront. This form of factor analysis is most often used in the context of structural equation modeling and is referred to as confirmatory factor analysis. Factor analysis can also be used to construct an index is to simply sum up all the items in an index. However, some variables that make up the index might have a greater explanatory power than others. A factor analysis could be used to justify dropping questions to shorten questionnaires.

3.4 The Orthogonal Factor Model

The observable random vector $\mathbf{X}$, with p components, has mean $\boldsymbol{\mu}$ and covariance matrix $\boldsymbol{\Sigma}$. The factor model postulates that $\mathbf{X}$ is linearly, dependent upon a few unobservable random variables $\mathbf{F}_1, \mathbf{F}_2, \ldots, \mathbf{F}_m$, called errors or, sometimes, specific factors.

In particular, the factor analysis model is

$$X_1 - \mu_1 = \ell_{11}F_1 + \ell_{12}F_2 + \ldots + \ell_{1m}F_m + \mathcal{E}_1$$

$$X_2 - \mu_2 = \ell_{21}F_1 + \ell_{22}F_2 + \ldots + \ell_{2m}F_m + \mathcal{E}_2$$

$$\vdots \qquad\qquad \vdots$$

$$X_p - \mu_p = \ell_{p1}F_1 + \ell_{p2}F_2 + \ldots + \ell_{pm}F_m + \mathcal{E}_p$$

Or, in matrix notation,

$$\underset{(p \times 1)}{\mathbf{X}} - \underset{(p \times 1)}{\boldsymbol{\mu}} = \underset{(p \times m)}{\mathbf{L}} \; \underset{(m \times 1)}{\mathbf{F}} + \underset{(p \times 1)}{\boldsymbol{\varepsilon}}$$

The coefficient l_{ij} is called the loading of the ith variable on the jth factor, so the matrix **L** is the matrix of factor loadings. Note that the ith specific factor ε_i is associated only with the ith response X_i. The p deviations $X_1 - \mu_1, X_2 - \mu_2, \ldots, X_p - \mu_p$ are expressed in terms of $p + m$ random variables $F_1, F_2, \ldots, F_m, \varepsilon_1, \varepsilon_2, \ldots, \varepsilon_p$ which are unobservable. This distinguishes the factor model from the multivariate regression model in which the dependent variables (whose position is occupied by F) can be observed.

Orthogonal Factor Model With m Common Factors

$$\underset{(p \times 1)}{\mathbf{X}} = \underset{(p \times 1)}{\boldsymbol{\mu}} + \underset{(p \times m)}{\mathbf{L}} \; \underset{(m \times 1)}{\mathbf{F}} + \underset{(p \times 1)}{\boldsymbol{\varepsilon}}$$

μ_i = mean of variable i

ε_i = ith specific factor

F_j = jth common factor

L_{ij} = loading of the ith variable on the jth factor

The unobservable random vectors **F** and $\boldsymbol{\varepsilon}$ satisfy the following conditions:

F and $\boldsymbol{\varepsilon}$ are independent

$\boldsymbol{E}$ **(F) = 0, Cov (F) = I**

$E(\varepsilon) = 0$, $\text{Cov}(\varepsilon) = \Psi$, where Ψ is a diagonal matrix.

Covariance Structure For The Orthogonal Factor Model

1. Cov (X) = LL′ + Ψ

or

$\text{Var}(X_i) = \ell_{i1}^2 + \ldots + \ell_{im}^2 + \psi_i$

$\text{Cov}(X_i, X_k) = \ell_{i1}\ell_{k1} + \ldots + \ell_{im}\ell_{km}$

2. Cov (X, F) = L

or

$\text{Cov}(X_i, F_j) = \ell_{ij}$

The model $\mathbf{X} - \boldsymbol{\mu} = \mathbf{LF} + \boldsymbol{\varepsilon}$ is linear in the common factors. If the p responses **X** are, in fact, related to underlying factors, but the relationship is nonlinear, such as in $X_1 - \mu_1 = \ell_{11}F_1F_3 + \varepsilon_1$, $X_2 - \mu_2 = \ell_{21}F_2F_3 + \varepsilon_2$ and so forth, then the covariance structure $\mathbf{LL'} + \Psi$ may not be adequate. That portion of the variance of the ith variable contributed by the m common factors is called the ith communality. That portion of $\text{Var}(X_i) = \sigma_{ii}$ due to the specific factor is often called the uniqueness, or specific variance. Denoting the ith communality by h_i^2,

$$\underbrace{\sigma_{ii}}_{\text{Var}(X_i)} = \underbrace{\ell_{i1}^2 + \ell_{i2}^2 + \ldots + \ell_{im}^2}_{\text{communality}} + \underbrace{\psi_i}_{\text{specific variance}}$$

or

$$h_i^2 = \ell_{i1}^2 + \ell_{i2}^2 + \ldots + \ell_{im}^2$$

and

$$\sigma_{ii} = h_i^2 + \psi_i, \qquad i = 1, 2, \ldots, p$$

The ith communality is the sum of squares of the loadings of the ith variable on the m common factors.

3.5 Method of Estimation

The sample covariance matrix **S** is an estimator of the unknown population covariance matrix **Σ**. If the off-diagonal elements of **S** are small or those of the sample correlation matrix **R** is essentially zero, the variables are not related, and a factor analysis will not prove. In these circumstances, the specific factors play the dominant role, whereas the major aim of factor analysis is to determine a few important common factors.

If **Σ** appears to deviate significance from a diagonal matrix, then a factor model can be entertained, and the initial problem is one of estimation of the factor loadings ℓ_{ij} and specific variance ψ_i. Two of the most popular methods of parameter estimation, the principal component (and principal factor method) and the maximum likelihood method are considered. The solution from either method can be rotated in order to simplify the interpretation of factors, it is always prudent to try more than one method of solution. If a factor model is appropriate for the problem at hand, the solution should be consistent with one another. Current estimation and rotation methods require iterative calculations.

The Principal Component and Principal Factor Method

The spectral decomposition which is a direct consequence of an expansion for symmetric matrices with one factoring of the covariance matrix **Σ**. Let **Σ** have eigenvalue-eigenvector pairs (λ_i, e_i) with $\lambda_1 \geq \lambda_2 \ldots \lambda_p \geq 0$. Then

$$\Sigma = \lambda_1 e_1 e_1' + \lambda_2 e_2 e_2' + \ldots + \lambda_p e_p e_p'$$

$$= [\sqrt{\lambda_1} e_1 \vdots \sqrt{\lambda_2} e_2 \vdots \ldots \vdots \sqrt{\lambda_p} e_p] \begin{bmatrix} \sqrt{\lambda_1} e_1' \\ \cdots\cdots \\ \sqrt{\lambda_2} e_2' \\ \cdots\cdots \\ \vdots \\ \cdots\cdots \\ \sqrt{\lambda_p} e_p' \end{bmatrix}$$

This fits the prescribed covariance structure for the factor analysis model having as many factors as variables (m = p) and specific variance $\psi_i = 0$ for all i. The loading matrix has jth column given by $\sqrt{\lambda_j}e_j$.That is,

$$\underset{(p\times p)}{\boldsymbol{\Sigma}} = \underset{(p\times p)}{\mathbf{L}}\ \underset{(p\times p)}{\mathbf{L}'} + \underset{(p\times p)}{\mathbf{0}} = \mathbf{LL}'$$

Apart from the scale factor $\sqrt{\lambda_j}$, the factors loadings on the jth factor are the coefficients for the jth principal factor of the population.

Although the factor analysis representation of $\boldsymbol{\Sigma}$ is exact, it is not particularly useful. It employs as many common factors as there are variables and does not allow for nay variation in the specific factors ε. One prefer models that explain the covariance structure in terms of just a few common factors. One approach, when the last p-m eigenvalues are small, is to neglect the contribution of $\lambda_{m+1}e_{m+1}e'_{m+1} + \cdots + \lambda_p e_p e'_p$ to $\boldsymbol{\Sigma}$. Neglecting this contribution, the approximation was obtained

$$\Sigma \doteq [\sqrt{\lambda_1}e_1 \vdots \sqrt{\lambda_2}e_2 \vdots \ldots \vdots \sqrt{\lambda_m}e_m]\begin{bmatrix} \sqrt{\lambda_1}e'_1 \\ \cdots\cdots \\ \sqrt{\lambda_2}e'_2 \\ \cdots\cdots \\ \vdots \\ \cdots\cdots \\ \sqrt{\lambda_m}e'_m \end{bmatrix} = \underset{(p\times m)}{\mathbf{L}}\ \underset{(m\times p)}{\mathbf{L}'}$$

This appropriate representation assumes that the specific factors $\varepsilon$are minor important and can also be ignored in the factoring of $\boldsymbol{\Sigma}$. If specific factors are included in the model, their variances may be taken to be the diagonal elements of $\boldsymbol{\Sigma}$ - $\mathbf{LL}'$.

Allowing for specific factors, the approximation becomes

$$\boldsymbol{\Sigma} \doteq \mathbf{LL}' + \Psi$$

$$= \quad [\sqrt{\lambda_1}e_1 \vdots \sqrt{\lambda_2}e_2 \vdots \ldots \vdots \sqrt{\lambda_m}e_m] \begin{bmatrix} \sqrt{\lambda_1}e_1' \\ \cdots\cdots \\ \sqrt{\lambda_2}e_2' \\ \cdots\cdots \\ \vdots \\ \cdots\cdots \\ \sqrt{\lambda_m}e_m' \end{bmatrix} + \begin{bmatrix} \psi_1 & 0 & \cdots & 0 \\ 0 & \psi_2 & \cdots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \cdots & \psi_p \end{bmatrix}$$

Where $\psi_i = \sigma_{ii} - \sum_{j=1}^{m} \ell_{ij}^2$ for $i = 1, 2, \ldots, p$.

To apply this approach to a data set $x_1, x_2, \ldots, x_n$, it is customary first to center the observation by subtracting the sample mean x. The centered observations

$$\mathbf{x}_j - \bar{\mathbf{x}} = \begin{bmatrix} x_{j1} \\ x_{j2} \\ \vdots \\ x_{jp} \end{bmatrix} - \begin{bmatrix} \bar{x}_1 \\ \bar{x}_2 \\ \vdots \\ \bar{x}_p \end{bmatrix} = \begin{bmatrix} x_{j1} - \bar{x}_1 \\ x_{j2} - \bar{x}_2 \\ \vdots \\ x_{jp} - \bar{x}_p \end{bmatrix} \quad j = 1, 2, \ldots, n$$

have the same sample covariance matrix **S** as the original observations.

In cases in which the units of the variables are not commensurate, it is usually desirable to work with the standardized variables

$$\mathbf{z}_i = \begin{bmatrix} \frac{(x_{j1} - \bar{x}_1)}{\sqrt{s_{11}}} \\ \frac{(x_{j2} - \bar{x}_2)}{\sqrt{s_{22}}} \\ \vdots \\ \frac{(x_{jp} - \bar{x}_p)}{\sqrt{s_{pp}}} \end{bmatrix} \qquad j = 1, 2, \ldots, n$$

Whose sample covariance matrix is the sample correlation matrix **R** of the observations $\mathbf{x_1}, \mathbf{x_2}, \ldots, \mathbf{x_n}$.

Let m< p be the number of common factors. Then the matrix of estimated factor loadings $(\tilde{\ell}_{ij})$ is given by

$$\tilde{\mathrm{L}} = \left[\sqrt{\hat{\lambda}_1}\hat{e}_1 \vdots \sqrt{\hat{\lambda}_2}\hat{e}_2 \vdots \cdots \vdots \sqrt{\hat{\lambda}_m}\hat{e}_m\right]$$

The estimated specific variances are provided by the diagonal elements of the matrix

S - $\tilde{L}\tilde{L}'$, s

$$\tilde{\Psi} = \begin{bmatrix} \tilde{\psi}_1 & 0 & \cdots & 0 \\ 0 & \tilde{\psi}_2 & \cdots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \cdots & \tilde{\psi}_p \end{bmatrix} \qquad \text{with } \widetilde{\psi_i} = s_{ii} - \sum_{j=1}^{m} \tilde{\ell}_{ij}^2$$

Communalities are estimated as

$$\tilde{h}_i^2 = \tilde{\ell}_{i1}^2 + \tilde{\ell}_{i2}^2 + \ldots + \tilde{\ell}_{im}^2$$

The principal axis factoring of the sample correlation matrix is obtained by starting with **R** in place of **S**. By the definition of $\widetilde{\psi_i}$, the diagonal elements of **S** are equal to the diagonal elements of $\tilde{L}\tilde{L}' + \tilde{\Psi}$. However, the off-diagonal elements of S are not usually reproduced by $\tilde{L}\tilde{L}' + \tilde{\Psi}$.

If the number of common factors is not determined by a prior consideration, such as by theory or the work of other researchers, the choice of m can be based on the estimated eigenvalues. Ideally, the contributions of the first few factors to the sample variances of the variables should be larged.

The correlation to the total sample variance, $s_{11} + s_{22} + \cdots + s_{pp}$ = tr (**S**), from the common factor is then

$$\tilde{\ell}_{11}^2 + \tilde{\ell}_{21}^2 + \ldots + \tilde{\ell}_{p1}^2 = \left(\sqrt{\hat{\lambda}_1}\hat{e}_1\right)'\left(\sqrt{\hat{\lambda}_1}\hat{e}_1\right) = \hat{\lambda}_1$$

Since the eigenvector $\hat{e}_1$ has unit length. In general,

$$\begin{pmatrix} \text{Proportion of total} \\ \text{sample variance} \\ \text{due to jth factor} \end{pmatrix} = \begin{cases} \dfrac{\hat{\lambda}_j}{s_{11} + s_{22} + \cdots + s_{pp}} & \text{for a factor analysis of } \mathbf{S} \\ \dfrac{\hat{\lambda}_j}{p} & \text{for a factor analysis of R} \end{cases}$$

The criterion is frequently used as a heuristic device for determining the appropriate number of common factors. The number of common factors retained in the model is increased until a "suitable proportion" of the total sample variance has been explained. The best approach

is to retain few rather than many factors, assuming that they provide a satisfactory interpretation of the data and yield a satisfactory fit to **S** or **R**.

3.6 Factor Rotation

All factor loadings obtained from the initial loadings by an orthogonal transformation have the same ability to reproduce the covariance (or correlation) matrix. From matrix algebra, an orthogonal transformation corresponds to a rigid rotation (or reflection) of the coordinate axes. For this reason, an orthogonal transformation of the factors loadings, as well as the implied orthogonal transformation of the factors, is called factor rotation.

If $\hat{\mathbf{L}}$ is the $p \times m$ matrix of estimated factor loadings obtained by any method (principal component, maximum likelihood, and so forth) then

$$\hat{\mathbf{L}}^* = \hat{\mathbf{L}}\mathbf{T}, \qquad \text{where } \mathbf{T}\mathbf{T}' = \mathbf{T}'\mathbf{T} = \mathbf{I} \tag{3.6.1}$$

is a $p \times m$ matrix of "rotated" loadings. Moreover, the estimated covariance (or correlation) matrix remains unchanged, since

$$\hat{\mathbf{L}}\hat{\mathbf{L}}' + \hat{\Psi} = \hat{\mathbf{L}}\mathbf{T}\mathbf{T}'\hat{\mathbf{L}} + \hat{\Psi} = \hat{\mathbf{L}}^* \hat{\mathbf{L}}^{*\prime} + \hat{\Psi} \tag{3.6.2}$$

Equation (3.6.2) indicates that the residual matrix, $S_n - \hat{L}\hat{L}' - \hat{\Psi} = S_n - \hat{L}^*\hat{L}^{*\prime} - \hat{\Psi}$, remains unchanged. Moreover, the specific variances $\hat{\psi}_i$, and hence the communalities $\hat{h}_i^2$, are unaltered. Thus, from a mathematical viewpoint, it is immaterial whether $\hat{L}$ or $\hat{L}^*$ is obtained.

Ideally, to see a pattern of loadings such that each variable loads highly on a single factor and has small to moderate loadings on the remaining factors. However, it is not always possible to get this structure, although the rotated loadings for the decathlon data provide a nearly ideal pattern.

Graphical and analytical methods should be concentrated for determining an orthogonal rotation to a simple structure. When m = 2, or the common factors are considered two at a time, the transformation to a simple structure can frequently be determined graphically. The uncorrelated factor loadings $(\hat{\ell}_{i1}, \hat{\ell}_{i2})$ yields p points, each corresponding to a variable. The

coordinate axes can then be visually rotated through an angle_ call it ϕ_ and the new rotated loadings $\hat{\ell}_{ij}^{*}$ are determined from the relationships.

The relationship in equation (3.6.3) is rarely implemented in a two-dimensional graphical analysis. In this situation, clusters of variables are often apparent by eye, and these clusters enable one to identify the common factors without having to inspect the magnitudes of the rotated loadings. On the other hand for m > 2, orientations are not easily visualized, and the magnitudes of the rotated loadings must be inspected to find a meaningful interpretation of the original data. The choice of an orthogonal matrix **T** that satisfies an analytical measure of simple structure will be considered shortly.

3.7 Oblique Rotation

Orthogonal rotations are appropriate for a factor model in which the common factors are assumed to be independent. Many investigators in social sciences consider oblique (nonorthogonal) rotations, as well as orthogonal rotations. The former are often suggested after one views the estimated factor loadings and do not follow from our postulated model. Nevertheless, an oblique rotation is frequently a useful aid in factor analysis.

If the m common factors as coordinate axes, the point with the m coordinates ($\hat{\ell}_{i1}$, $\hat{\ell}_{i2}$, ... , $\hat{\ell}_{im}$) represents the position of the ith variable in the factor space. Assuming that the variables are grouped into non overlapping clusters, an orthogonal rotation to a simple structure corresponds to a rigid rotation of the coordinate axes such that the axes, after rotation, pass as closely to the clusters as possible. An oblique rotation to a simple corresponds to a nonrigid rotation of the coordinate system such that the rotated axes (no longer perpendicular) pass (nearly) through the clusters. An oblique rotation seeks to express each variable in terms of a minimum number of factors preferably, a single factor.

3.8 The Varimax Rotation

When principal components analysis and factor analysis identify the underlying factors they do so using a greedy algorithm. They begin by identifying the first component in such a way that it explains as much variance as possible, and proceed by identifying the next component in such a way that it explains the maximum possible amount of the remaining variance and so on.

In statistics, a varimax rotation is used to simplify the expression of a particular sub-space in terms of judge a few major items each. The actual coordinate system is unchanged, it is the orthogonal basis that is being rotated to align with those coordinates. The sub-space found with principal component analysis or factor analysis is expressed as a dense basis with many non-zero weights which makes it hard to interpret. Varimax is so called because it maximizes the sum of the variances of the squared loadings (squared correlations between variables and factors). In addition to, varimax rotation, where the factor axes are kept at right angles to each other, is most frequently chosen. Ordinarily, rotation reduces the number of complex variables and improves interpretation. Almost all applications of principal component analysis and factor analysis in survey research apply the varimax rotation method.

3.9 The Regression Method in Factor Analysis

Starting again with the original factor model $\mathbf{X} - \boldsymbol{\mu} = \mathbf{LF} + \boldsymbol{\varepsilon}$, one initially treat the loadings matrix $\mathbf{L}$ and specific variance matrix ψ as known. When the common factors $\mathbf{F}$ and the specific factors or errors ε are jointly normally distributed with means $\mathbf{0}$ and covariance, $\mathbf{I}$ and ψ. The linear combination $\mathbf{X} - \boldsymbol{\mu} = \mathbf{LF} + \boldsymbol{\varepsilon}$ has an $N_p(\mathbf{0}, \mathbf{LL}' + \boldsymbol{\Psi})$ distribution. Moreover, the joint distribution of $(\mathbf{X} - \boldsymbol{\mu})$ and $\mathbf{F}$ is $N_{m+p}(0, \boldsymbol{\Sigma}^*)$, where

$$\boldsymbol{\Sigma}^* = \begin{bmatrix} \boldsymbol{\Sigma} = \mathbf{LL}' + \boldsymbol{\Psi} & \mathbf{L}_{(p \times m)} \\ \mathbf{L}'_{(m \times p)} & \mathbf{I}_{(m \times m)} \end{bmatrix}$$

and 0 is an (m+p) × 1 vector of zeros. The conditional distribution of $\mathbf{F} / \mathbf{x}$ is multivariate normal with

$$\text{mean} = E(\mathbf{F} / \mathbf{x}) = \mathbf{L}'\boldsymbol{\Sigma}^{-1}(\mathbf{x} - \boldsymbol{\mu}) = \mathbf{L}' (\mathbf{LL}' + \boldsymbol{\Psi})^{-1} (\mathbf{x} - \boldsymbol{\mu})$$

and

$$\text{covariance} = \text{Cov}(\mathbf{F} / \mathbf{x}) = \mathbf{I} - \mathbf{L}'\boldsymbol{\Sigma}^{-1}\mathbf{L} = \mathbf{I} - \mathbf{L}' (\mathbf{LL}' + \boldsymbol{\Psi})^{-1}\mathbf{L}$$

The quantities $\mathbf{L}'(\mathbf{LL}' + \boldsymbol{\Psi})^{-1}$ are the coefficients in a multivariate regression of the factors on the variables. Estimates of these coefficients produce factor scores that are analogous to the estimates of the conditional mean values in multivariate regression analysis. Consequently, given any vector of observations X_j, and taking the estimates $\hat{\mathbf{L}}'$ and $\hat{\psi}$ as the true values, the j^{th} factor score vector is given by

$$\hat{F}_j = \hat{L}'\hat{\Sigma}^{-1}(x_j - \bar{x}) = \hat{L}'(\hat{L}\hat{L}' + \hat{\Psi})^{-1}(x_j - \bar{x}), \quad j = 1, 2, \ldots, n$$

The calculation of $\hat{F}_j$ can be simplified by using the matrix identity

$$\hat{L}'(\hat{L}\hat{L}' + \hat{\Psi})^{-1} = (I + \hat{L}\hat{\Psi}^{-1}\hat{L})\ \hat{L}'\hat{\Psi}^{-1}$$

Therefore, $\hat{F}_j = (I + \hat{L}\hat{\Psi}^{-1}\hat{L})\ \hat{L}'\hat{\Psi}^{-1}(x_j - \bar{x}), \quad j = 1,2, \ldots, n$

If a correlation matrix is factored,

$$\hat{F}_j = \hat{L}_2'\hat{\rho}^{-2}z_j, \quad j = 1,2, \ldots, n$$

Where,

$$z_j = D^{-1/2}(x_j - \bar{x}) \quad \text{and}$$

$$\hat{\rho} = \hat{L}_2\hat{L}_2' + \hat{\Psi}_2$$

Again, if rotated loadings $\hat{L}^* = \hat{L}\,T$ are used in place of the original loadings, the sequent factor scores $\hat{F}_j^*$ are related $\hat{F}_j$ by

$$\hat{F}_j^* = T'\hat{F}_j, \quad j = 1,2, \ldots, n$$

A numerical measure of agreement between the factor scores generated from two different calculation methods is provided by the sample correlation coefficient between scores on the same factor.

3.10 Perspective and a Strategy for Factor Analysis

There are many decisions that must be made in any factor analytic study. Probably the most important decision is the choice of m, the number of common factors. Although a large sample test of the adequacy of a model is available for a given m, it is suitable only for data that are approximately normally distributed. Moreover, the test will most assuredly reject the model for small m if the number of variables and observations is large. This is the situation when factor analysis provides a useful approximation. Most often, the final choice of m, is based on some combination of (1) the proportion of the sample variance explained, (2) subject-matter knowledge, and (3) the " reasonableness" of the results.

The choice of the solution method and type of rotation is a less crucial decision. In fact, the most satisfactory factor analyses are those in which rotations are tried with more than one method and all the results substantially confirm the same factor structure. At the present time, factor analysis still maintains the flavor of an art, and no single strategy should yet be "chiseled into stone." We suggest and illustrate one reasonable option:

1. Perform a principal component factor analysis. This method is particularly appropriate for a first pass through the data. (It is not required that **R** or **S** be nonsingular.)
    a. Look for suspicious observations by plotting the factor scores. Also calculate standardized scores for each observation and squared distances.
    b. Try a varimax rotation.
2. Perform a maximum likelihood factor analysis, including a varimax rotation.
3. Compare the solutions obtained from the two factor analyses.
    a. Do the loadings group in the same manner?
    b. Plot factor scores obtained for principal components against scores from the maximum likelihood analysis.
4. Repeat the first three steps for other numbers of common factors m. Do extra factors necessarily contribute to the understanding and interpretation of the data?
5. For large data sets, split them in half and perform a factor analysis on each part. Compare the two results with each other and with that obtained from the complete data set to check the stability of the solution. (The data might be divided at random or by replacing the first half of the cases in one group and the second half of the cases in the other group.

3.11 Multiple Linear Regression Model

Multiple regression analysis is one of the most widely used of all statistical tools to describe simultaneously a statistical relation among variables known as independent and dependent variables. A multiple regression is used to examine the relationship between one dependent variable and a set of independent variables when two or more independent variables are used in making estimates of the dependent variable. The equation which describes how the dependent variable Y is related to the independent variables X_1, X_2, ..., X_k and an error e is called the multiple regression model.

In the linear equation that represents the multiple linear regression model is

$$Y_i = \beta_0 + \beta_1 X_{1i} + \ldots + \beta_k X_{ik} + e_i,\ i = 1,2, \ldots, n$$

Where; Y_i = value of the dependent variable in the i^{th} trial, of observation

β_0 = constant in the regression equation

$\beta_1, \ldots, \beta_k$ = regression coefficients associated with each of the independent variable

X_{ij} = value of the j^{th} independent variable in the i^{th} trial

e_i = the random error in the i^{th} trial or observation

The value of $\beta_0, \beta_1, \beta_2, \ldots, \beta_k$ are unknown and will have to estimate them from sample data.

Test for the Overall Multiple Regression Model

To test whether there is a regression relation between the response variable Y and the set of X variables $X_1, X_2, \ldots, X_k$, i.e., to choose between the alternatives.

Null Hypothesis H_0; $\beta_1 = \ldots = \beta_k = 0$

Alternative Hypothesis H_a; not all β_i ($i = 1, \ldots, k$) equal zero

The ratio of test statistics;

$$F^* = \frac{MSR}{MSE}$$

The decision rule for this test,

If $F^* > F(1-\alpha, k, n-k-1)$, Reject H_0

If $F^* \leq F(1-\alpha, k, n-k-1)$, Do not reject H_0

The existence of a regression relation by itself does not ensure that useful predictions can be made by using it.

3.11.1 The Coefficient of Multiple Determination R^2

The coefficient of multiple determination, denoted by R^2, is defined as follows:

$$R^2 = \frac{SSR}{SSTO} = 1 - \frac{SSE}{SSTO}$$

The coefficient of multiple determination, what proportion of the total variability in Y, the dependent variables, is explained by the independent variables. That is the percentage of the total variation of the dependent variables that can be explained by the explanatory variable. The value of R^2 will be between zero and one, where $R^2 = 0$, the regression model cannot explained anything about the variation in the dependent variable or the estimated model does not fit the data. The case of $R^2 = 1$ represents a perfect fit of the estimated model of the data. A high value of R^2 shows good fit and a low value of R^2 shows a poor fit.

3.11.2 The Adjusted Coefficient of Multiple Determination R^2_{adj}

A measure that recognized the number of independent variables in the regression model is called the adjusted coefficient of multiple determination and is denoted by R^2_{adj}.

$$R^2_{adj} = \frac{\Sigma(Y_i - \hat{Y})^2}{(n-k-1)} \Big/ \frac{\Sigma(Y_i - \bar{Y})^2}{(n-1)}$$

Reporting the adjusted R^2 is extremely important in comparing two or more regression models that predict the same dependent variable but have a different number of independent variables.

CHAPTER IV

ANALYSIS OF FACTORS ON EMPLOYEES' JOB SATISFACTION OFMYAWADDY BANK LIMITTED

Any organization provide consultancy to its clients in the different areas of management. The employees are treated well by the organization and ensured that they are comfortable at each stage. Therefore, employees' job satisfaction is one of the important factors of organizational growth. Therefore, the employees' job satisfaction and also look at the needs of the employees is needed to be measured to obtain the organization success. In this chapter, employees' job satisfaction levels of Myawaddy Bank Limited are analyzed. And then significant factors contributing to employees' job satisfaction of Myawaddy Bank Limited are identified by using factor analysis to reduce the data and identify the critical factors and multiple regression analysis are applied for analyzing survey data. Demography study has been carried along with frequency and percentage distribution.

4.1 Research Method

This section describes a detailed presentation of methodology and procedures which have been followed in conducting the study about employees' job satisfaction by using factor analysis and multiple regression analysis.

Analytical descriptive method has been used to sustain quantitative measurement and analysis. Data has been collected through structured questionnaires as a main tool for the study. The structure questionnaire has been designed especially for this study and contains two parts. First part of the questionnaires is the primary information about the demographic specifications for the sampled employees of Myawaddy Bank Limited. Second part is descried a set of 43 statements regarding the employees' job satisfaction. Every question in this part assigns the weight dependent on the type of statement (either positive or negative). A question that measures a positive construct will have the order of weight 1 (strongly agree), 2 (moderately agree), 3 (Neither agree nor disagree), 4 (moderately disagree), and 5 (strongly disagree) and vice visa. The questions of this part depend on the working conditions and hygiene issue; salary, interpersonal relations, works itself, achievement and recognition, growth and advancement.

Each of them are measured based on different variables. The questionnaires that are mainly used in this study can be seen in Appendix A.

To identify the critical factors of employees' job satisfaction, both primary data and secondary data are used in this study. In primary data, the survey method has been used and the population targeted to the staff of Myawaddy Bank Limited in Yangon. The population of this study is 1250 employees of Myawaddy Bank Limited in Yangon including head office and other branches are Bo Aung Kyaw, Thanlyin, Botahtaung, Yankin, Yuzana, North Okkalapa, Theinphyu, Thingangyun, Bayint Naung, Insein and Kamayut branch. The study sample has been selected by using simple random sampling method. Out of 1250, 302 employees are chosen as the study samples that 24% of the target population. Questionnaire will be used in sample unit of 302 staff out of total staff in selected branches.

Table (4.1)

The Number of Employees (Population and Sample Size) of the Selected Myawaddy Bank Limited

No.	Name of Branch	Population	Sample
1.	Bo Aung Kyaw	28	18
2.	Kamayut	25	16
3.	Insein	35	25
4.	Bayint Naung	57	20
5.	Thingangyun	30	15
6.	Thein Phyu	37	10
7.	North Okkalapa	28	15
8.	Yuzana	27	10
9.	Yankin	30	14
10.	Botahtaung	42	23

Table (4.1) Continued

The Number of Employees (Population and Sample Size) of the Selected Myawaddy Bank Limited

No.	Name of Branch	Population	Sample
11.	Head Office	692	115
12	Thanlyin	29	21
Total		1060	302

Source: Head Office of Myawaddy Bank Limited

This study would use quantitative data analysis methods. In this study, the statistical tools such as: Descriptive Analysis, Cronbach's Alpha for Reliability Statistics, Kaiser-Meyer-Olkin Measure of Sampling Adequacy, Bartlett's Test of Sphericity, Exploratory Factor Analysis and Multiple Regression Analysis are applied. The secondary data and other relevant information were gathered from the library of YUEco and downloaded from some internet websites.

4.2 Demographic Characteristics of Respondents

This section covers the demographic and background characteristics of respondents and the data on the socio-economic factors are also presented in this study. Descriptive analysis on demographic characteristics such as gender, age, marital status, working experience, level of education, salary, name of branch and department that respondents are working in are presented in Table (4.2).

Table (4.2)

Characteristics of Respondents

No.	Characteristics of Respondents	No. of Respondents	Percentage (%)
1.	**Gender**		
	Male	58	32
	Female	244	68
Total		**302**	**100.0**
2.	**Age (in Years)**		
	Below 30 years	190	62.9
	31-40 years	99	32.8
	41-50 years	11	3.6
	51 and above	2	0.7
Total		**302**	**100.0**
3.	**Marital Status**		
	Single	207	68.5
	Married	95	31.5
Total		**302**	**100.0**
4.	**Education**		
	College/University Level	282	93.4
	Master Level	15	5.0
	Ph.D Level	5	1.7
Total		**302**	**100.0**
5.	**Working Experience in Current Bank**		
	Below 5 years	168	55.6
	6 – 10 years	105	34.8
	11 – 15 years	22	7.3
	15 years and above	7	2.3
Total		**302**	**100.0**

Table (4.2) Continued

Characteristics of Respondents

No.	Characteristics of Respondents	No. of Respondents	Percentage (%)
6.	**Salary**		
	Below 200000 Ks	13	4.3
	Ks 200000 – below 300000	235	77.8
	Ks 300000 - below 400000	41	13.6
	Ks 400000 – below 500000	9	3.0
	Ks 500000 and above	4	1.3
Total		**302**	**100.0**
7.	**Name of Branch**		
	Bo Aung Kyaw	18	6.0
	Kamayut	16	5.3
	Insein	25	8.3
	Bayint Naung	20	6.6
	Thingangyun	15	5.0
	Theinphyu	10	3.3
	North Okkalapa	15	5.0
	Yuzana	10	3.3
	Yankin	14	4.6
	Botahtaung	23	7.6
	Head Office	115	38.1
	Thanlyin	21	7.0
Total		**302**	**100.0**
8.	**Department**		
	Accounting	134	44.4
	IT	21	7.0
	Card	1	0.3
	Foreign Banking	1	0.3
	Human Resources	9	3.0

Table (4.2) Continued

Characteristics of Respondents

No.	Characteristics of Respondents	No. of Respondents	Percentage (%)
	Research and Development	6	2.0
	Loan	20	6.6
	Administration	33	10.9
	Cash	64	21.2
	Internal Audit	2	0.7
	Manager	3	1.0
	Assistant Manager	7	2.3
	Assistant General Manager	1	3
Total		**302**	**100.0**

Source: Survey Results 2018

According to the Table (4.2), 19.2% of the respondents are males while 80.8% are females. Therefore, respondents of female respondents are more than male respondents through survey results.

The age groups of the respondents are divided into four groups. Depending on age level, the employees' job satisfaction may differ. According to the Table (4.2), it was found that majority of respondents are age below 30 years which is 62.9% of the total sampled respondents. .The remaining age between 31 and 40 years are 32.8%, 41 to 50 years are 3.6% and 51 and above are 0.7.

Marital status of employees are divided into two groups as single, and married. In the Table (4.2), it is found that majority are single which 68.5% of the total sampled respondents. The remaining 31.5% of the total sampled respondents are got married.

Education level is also an influential factor on employee's expectation and perception upon their job satisfaction. According to Table (4.2), it is found that majority of respondents are got the bachelor degrees at university which are 93.4% of the total sampled respondents. The remaining the master level are 5% and Ph.D are 1.7% of the total sampled respondents.

Regarding the working experience in current work, most of the respondents are below 11 years with cumulative percentage of 90.4%. The remaining 9.6 cumulative percentage are above 10 years of experience. There is no reason to prove that income level creates the better financing power and using qualified commodities or services and it may be lead to employee's job satisfaction accruing to motivational theory. In this study, employee's job satisfaction levels are divided by five groups. Among this group, most of the respondents are earning 2000000 and below 300000 Ks which is 77.8% of the total sampled respondents. The remaining; below 200000 are 4.3%, 300000 and below are 13.6%, 400000 and below are 3% and 500000 and above are 1.3% of the total sampled respondents of the study.

As a regard of name of branch and department of respondents that they are working in, the majority of respondents are work in head office which is 38.1%. And work in accounting department which is 44.4% of the total sampled respondents of the study.

4.3 Reliability Test

Table (4.3)

Reliability Analysis Results

No.	Factor	Crobanch's Alpha	Number of items
1	Working Condition, Working Relationship and Management Practices	0.887	9
2	Personal Growth and Motivation	0.787	8
3	Promotion	0.857	5
4	Stress and Problem	0.742	4
5	Non-Financial Benefit	0.653	3
6	Reward and Recognition	0.682	3
7	Pay and Salary	0.690	3
8	Employee Commitment	0.686	3
9	Perceived Opportunity for Change	0.687	3
Total	All items	0.935	41

Source: Survey Results 2018

In Table (4.3), the Cronbach's alpha for all items is 0.935; which is higher than the normal value 0.70. Therefore, it can be concluded that higher reliability of the items measuring the employees'job satisfaction. Therefore, the contrast reliability for all items is deemed to be acceptable. The reliability analysis of the selected factors show that the Cronbach's alpha ranged from 0.653 to 0.887 that are more than the minimum value for accepting the reliability, 0.50.

4.4 Testing For Sampling Adequacy

The result of KMO and Bartlett's Test are shown in Table (4.4).

Table (4.4)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.903
Bartlett's Test of Sphericity	Approx. Chi-Square	6798.088
	Degree of Freedom	903
	Significant	.000

Source: Survey Results 2018

As a results of Table (4.4), KMO measure of sampling adequacy is 0.903 which value are greater than 0.6, therefore the sample can be considered as adequate to conduct the factor analysis. In Bartlett's test of sphericity, it is desired to have a p-value less than the level of significance 0.05, so that the null hypothesis that the correlations are insignificant is rejected and this confirms that the correlations between variables are significant.

4.5 Factor Analysis

There are 43 variables which are related to the employees' job satisfaction. By using factor analysis, these variables are reduced to 9 components from original variables. Therefore, it is necessary to rename or label these 9 factors by representing variables concerned.

4.5.1 Communalities

In this subsection is to observe the communalities. These communalities indicate the proportion of variance in each variable explained by the factors extracted. If any variable has communality less than 0.5, it is advised to remove that variable from the analysis as the amount

of variance explained by the factors is less than 50%. This is similar to R-square in regression analysis. The result of communalities is shown in Table (4.5).

Table (4.5)

Communalities

Variable	Initial	Extraction	Variable	Initial	Extraction
Sat1	1	0.535	Sat23	1	0.689
Sat2	1	0.612	Sat24	1	0.685
Sat3	1	0.584	Sat25	1	0.638
Sat4	1	0.739	Sat26	1	0.613
Sat5	1	0.554	Sat27	1	0.585
Sat6	1	0.707	Sat28	1	0.572
Sat7	1	0.686	Sat29	1	0.528
Sat8	1	0.599	Sat30	1	0.636
Sat9	1	0.622	Sat31	1	0.590
Sat10	1	0.554	Sat32	1	0.734
Sat11	1	0.732	Sat33	1	0.751
Sat12	1	0.615	Sat34	1	0.750
Sat13	1	0.544	Sat35	1	0.678
Sat14	1	0.573	Sat36	1	0.644
Sat15	1	0.654	Sat37	1	0.745
Sat16	1	0.754	Sat38	1	0.701
Sat17	1	0.551	Sat39	1	0.700
Sat18	1	0.513	Sat40	1	0.758
Sat19	1	0.520	Sat41	1	0.572
Sat20	1	0.580	Sat42	1	0.595
Sat21	1	0.649	Sat43	1	0.658
Sat22	1	0.556			

Extraction Method: Principal Component Analysis

Sources: Survey Results 2018

According to Table (4.5), it observed that all communalities are more than 0.5 for current case. Thus, over 50% of the variance in all variables is accounted for by the extracted factors.

4.5.2 Total Variance Explained

The total variance extracted by the components from all the variables put together in this section. It is expected a good factor analysis will give at least 60% of the variance extracted. The

following Table (4.6) shows the actual factors that were extracted. At the section labeled "Rotation Sums of Squared Loadings," it shows only those factors that met the cut-off criterion (extraction method).

From the Table (4.6), it very evident that variance explained is about 63% and the analysis has extracted 9 components by using the principal component analysis (PCA) that considers the linear combination of the variables and groups those variable which has maximum relation between them and the second one has next level of variance but lower than the previous one and the second one has next level of variance but lower than the previous one so on.

Sometimes the direction of the data measured for the variables may be different and the direction of the factor extracted may be slightly different. In other words, loading of each variable in a factor can be improved. This problem arise because, some variables loads higher on some factors and load lower on some other. To overcome this, rotation method, which improves loading of the variables on each of the factors has been used. In Table (4.6) gives the rotated components matrix by using "Varimax".

Table (4.6) can be shown by graphic form namely called screen plot. Screen plot is a graph of eigenvalues or singular values that demonstrates the portion of total variance represented by the principal component. A scree plot shows the eigenvalues on the y-axis and number of components on the x-axis. It always displays a downward curve. The screen plot is shown in Figure (4.1).

Table (4.6)

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.341	31.026	31.026	13.341	31.026	31.026	5.730	13.327	13.327
2	2.942	6.842	37.868	2.942	6.842	37.868	4.498	10.461	23.788
3	2.701	6.282	44.150	2.701	6.282	44.150	4.261	9.908	33.696
4	1.863	4.333	48.483	1.863	4.333	48.483	2.746	6.385	40.081
5	1.459	3.394	51.877	1.459	3.394	51.877	2.563	5.961	46.042
6	1.248	2.902	54.779	1.248	2.902	54.779	2.250	5.233	51.275
7	1.186	2.757	57.536	1.186	2.757	57.536	2.070	4.815	56.090
8	1.135	2.638	60.174	1.135	2.638	60.174	1.504	3.497	59.587
9	1.083	2.519	62.693	1.083	2.519	62.693	1.336	3.106	62.693
10	.984	2.287	64.981						
11	.968	2.252	67.233						
12	.910	2.116	69.349						
13	.861	2.002	71.352						
14	.797	1.854	73.206						
15	.738	1.717	74.923						
16	.688	1.599	76.522						
17	.665	1.546	78.067						
18	.632	1.470	79.538						
19	.601	1.397	80.935						
20	.574	1.334	82.269						
21	.556	1.292	83.561						
22	.529	1.229	84.791						
23	.489	1.138	85.929						
24	.476	1.107	87.035						

Table (4.6) Continued

Total Variance Explained

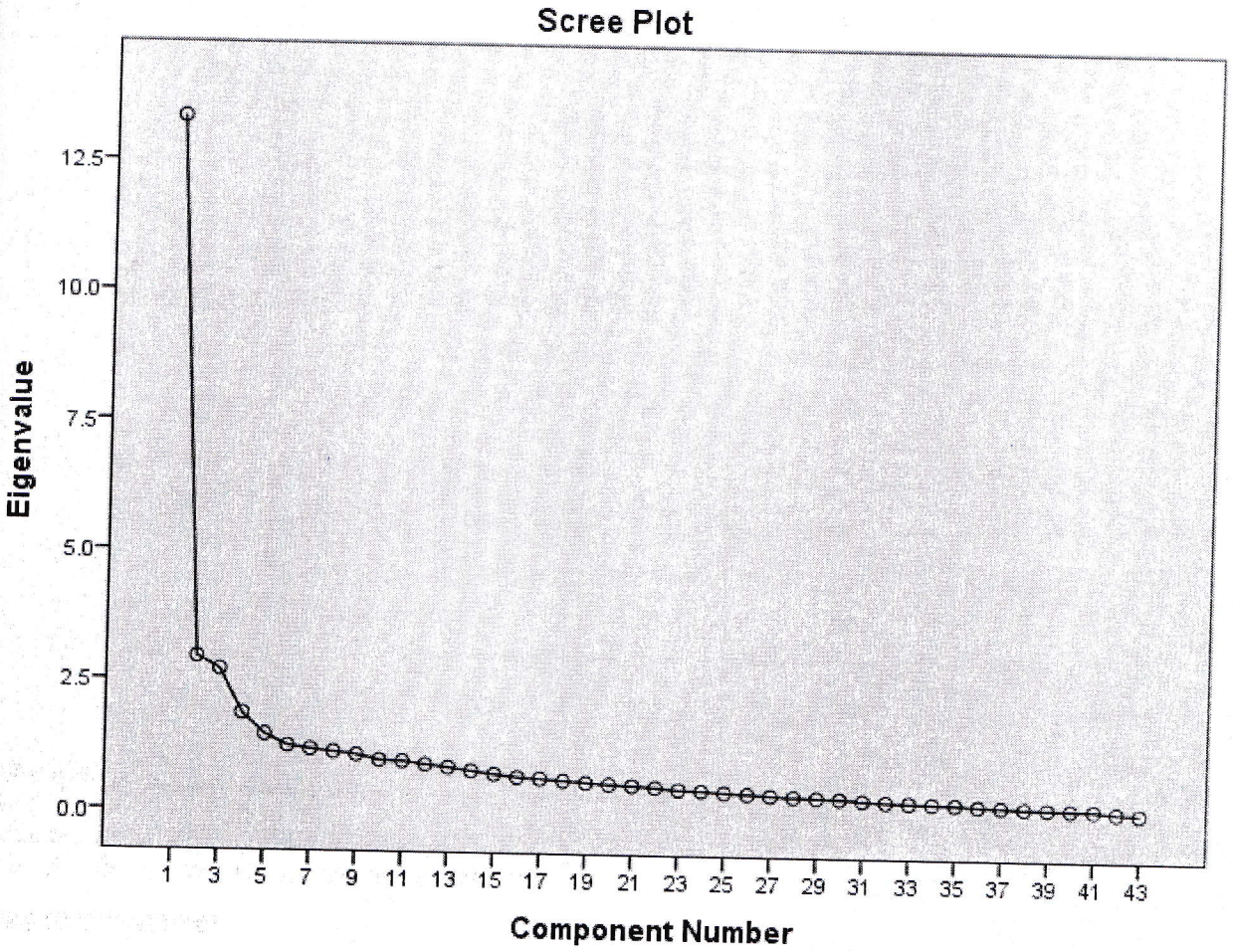
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
25	.449	1.045	88.080						
26	.427	.993	89.073						
27	.403	.937	90.010						
28	.388	.901	90.911						
29	.373	.868	91.780						
30	.363	.843	92.623						
31	.334	.776	93.399						
32	.314	.731	94.130						
33	.302	.702	94.831						
34	.288	.671	95.502						
35	.280	.652	96.154						
36	.255	.593	96.747						
37	.242	.562	97.310						
38	.227	.529	97.838						
39	.218	.506	98.345						
40	.209	.485	98.830						
41	.205	.476	99.306						
42	.162	.377	99.683						
43	.136	.317	100.000						

Extraction Method: Principal Component Analysis.

Sources: Survey Results 2018

Figure (4.1)

Scree Plot



Sources: Survey Results 2018

According to scree plot, the first nine factors were obtained in Table (4.6), because of their eigenvalues are greater than 1. Factor loadings are those values which explain how closely the variables are related to each one of the factors discovered. It is the absolute (rather than the signs, plus or minus) of the loading that is important in the interpretation.

Table (4.7)

Rotated Component Matrix

	Component								
	1	2	3	4	5	6	7	8	9
Sat1									
Sat2		.609							
Sat3		.590							
Sat4									-.528
Sat5	.583								
Sat6	.697								
Sat7	.681								
Sat8	.615							0.599	
Sat9	.536				.512				0.506
Sat10	.639								
Sat11	.795								
Sat12	.651								
Sat13									
Sat14		.582							
Sat15		.702							
Sat16							.757		
Sat17									
Sat18		.531							
Sat19									
Sat20	.631							0.628	
Sat21							.517		
Sat22									
Sat23		.537							
Sat24					.563				
Sat25		.556							
Sat26						0.632			
Sat27									
Sat28							0.588		
Sat29									
Sat30					.604				
Sat31						.539			
Sat32						.807			
Sat33			.713						

Table (4.7) Continued

Rotated Component Matrix

	Component								
		2	3	4	5	6	7	8	9
Sat34			.756						
Sat35									.737
Sat36			.656						
Sat37			.672						
Sat38			.745						
Sat39				.811					
Sat40				.808					
Sat41				.585					
Sat42				.537					
Sat43								.669	

Extraction Method: Principal Component Analysis.
a. Rotation converged in 12 iterations.
Sources: Survey Results 2018

Table (4.7) represents the rotated component matrix with suppressing the values less than 0.5. It is found that the variables sat5, sat6, sat7, sat8, sat9, sat10, sat11, sat12, and sat20 are substantially loaded on Factor (Component) 1, the variables sat2, sat3, sat4, sat5, sat8, sat23 and sat25 are substantially loaded on Factor (Component) 2, the variables sat33, sat34, sat36, sat37 and sat38 are substantially loaded on Factor (Component) 3, the variables sat39, sat40, sat41 and sat42 are substantially loaded on Factor (Component) 4, the variables sat9, sat24 and sat30 are substantially loaded on Factor (Component) 5, the variables sat26, sat31 and sat32 are substantially loaded on Factor (Component) 6, the variables sat21, sat26 and sat28 are substantially loaded on Factor (Component) 7, the variables sat8, sat20 and sat43 are substantially loaded on Factor (Component) 8 and the variables sat4, sat9 and sat 35 are substantially loaded on Factor (Component) 9.

4.6 Determining the Critical Factors

As evident from Table (4.6), it is found that 9 factors extracted together account for 62.693% of the total variance (information contained in the original 43 variables). Hence, the number of variables has been reduced from 43 to 9 underlying factors.

In Table (4.7), it is seen that the variables sat5, sat6, sat7, sat8, sat9, sat10, sat11, sat12 and sat20 have factor loadings of 0.583, 0.697, 0.681, 0.615, 0.536, 0.639, 0.795, 0.651 and 0.631 respectively indicating that factor 1 is a combination of these 9 variables. Therefore, that variables coded as sat5, sat6, sat7, sat8, sat9, sat10, sat11, sat12 and sat20 are grouped as one component.

According to the results of Table (4.7), the first component is a combination of 9 variables. In that analysis, influencing factors of employee's job satisfaction of Myawaddy Bank Limited are properly interpreted and give an appropriate name through component 1. The following Table gives the variables in first component.

Table (4.8)

Variables for the First Component

No.	Variable	Variable Name	No.	Variable	Variables Name
1.	Sat5	Respecting the Subordinates	6.	Sat10	Good Relation
2.	Sat6	Working Environment	7.	Sat11	People Oriented
3.	Sat7	Quality of Management	8.	Sat12	Working Equipment
4.	Sat8	Leadership Style	9.	Sat20	Communication
5.	Sat9	Participation in Decision			

Sources: Survey Results 2018, (Based on data analysis)

Therefore, this factor can be interpreted as **"Working Condition, Working Relationship and Management Practices"**.

In component 2 in Table (4.7), it is clearly see that the variables sat2, sat3, sat4, sat5, sat8, sat23 and sat25 have factor loadings of 0.609, 0.590, 0.582, 0.702, 0.531, 0.537 and 0.556 respectively indicating that factor 2 is a combination of these 7 variables. Therefore, that variables coded as sat2, sat3, sat4, sat5, sat8, sat23 and sat25 are grouped as one component. A few variables also have loading in other components by theoretical closeness.

According to the results of Table (4.7), the second component is a combination of 7 variables. In that analysis, influencing factors of employee's job satisfaction of Myawaddy Bank Limited are properly interpreted and give an appropriate name through component 2. The following Table gives the variables in second component.

Table (4.9)

Variables for the Second Component

No.	Variable	Variable Name	No.	Variable	Variables Name
1.	Sat2	Welfare Facilities	5.	Sat8	Suggestion
2.	Sat3	Working Condition	6.	Sat23	Fair Promotion
3.	Sat4	Training and Retraining	7.	Sat25	Fair Competition
4.	Sat5	Respecting the Subordinates			

Sources: Survey Results 2018, (Based on data analysis)

Therefore these variables can be grouped into a single factor called **"Personal Growth and Motivation".**

In component 3 in Table (4.7), it is clearly see that the variables sat33, sat34, sat36, sat37 and sat38 have factor loadings of 0.713, 0.756, 0.656, 0.672 and 0.745 respectively indicating that factor 3 is a combination of these 5 variables. Therefore, these variables coded as sat33, sat34, sat36, sat37 and sat38 are grouped as one component.

According to the results of Table (4.7), the third component is a combination of 5 variables. In that analysis, influencing factors of employee's job satisfaction of Myawaddy Bank Limited are properly interpreted and give an appropriate name through component 3. The following Table gives the variables in third component.

Table (4.10)

Variables for the Third Component

No.	Variable	Variable Name	No.	Variable	Variables Name
1.	Sat33	Clearing Promotion Rule	4.	Sat37	Promotion Policy
2.	Sat34	Promotion Depend on Work Performance	5.	Sat38	Promotion Depend on Work Attitude
3.	Sat36	Promotion Depend on Opportunity			

Sources: Survey Results 2018, (Based on data analysis)

Therefore, in this above factor consists of 5 variables that relating the promotion. As a result, it can be termed as "**Promotion**".

In component 4 in Table (4.7), it is clearly see that the variables sat39, sat40, sat41, and sat42 have factor loadings of 0.811, 0.808, 0.585, and 0.537 respectively indicating that factor 4 is a combination of these 4 variables. Therefore, these variables coded as sat39, sat40, sat41, and sat42 are grouped as one component.

According to the results of Table (4.7), the fourth component is a combination of four variables. In that analysis, influencing factors of employee's job satisfaction of Myawaddy Bank Limited are properly interpreted and give an appropriate name through component 4. The following Table gives the variables in fourth component.

Table (4.11)

Variables for the Fourth Component

No.	Variable	Variable Name	No.	Variable	Variables Name
1.	Sat39	Stressor on Crown Branch	3.	Sat41	Stressor on Aged and Hurried Customer
2.	Sat40	Stressor on Lack of Liquidity	4.	Sat42	Stressor on Foreign Customer

Sources: Survey Results 2018, (Based on data analysis)

As the results of Table (4.11), four variables can be grouped into a single factor that relating about the stressful situation in their work. So, fourth factor can be named as "**Stress and Problem**".

Table (4.12)

Variables for the Fifth Component

No.	Variable	Variable Name
1.	Sat9	Participation in Decision
2.	Sat24	Providing Equal Benefit
3.	Sat30.	Making for Motivition

Sources: Survey Results 2018, (Based on data analysis)

As for factor 5, it is seen that variable sat9, sat24, and sat30 have a high loading of 0.512, 0.563, and 0.604 respectively. This factor consisting of the above 3 variables, these variable can be grouped into a single factor terms **"Non-Financial Benefit"**.

Table (4.13)

Variables for the Sixth Component

No.	Variable	Variable Name
1.	Sat26	Reward Depend on Quality of Effort
2.	Sat31	Bank Recognition
3.	Sat32	Bank Bonus

Sources: Survey Results 2018, (Based on data analysis)

As for factor 6, it is evident that the variables sat26, sat31 and sat32 have high loadings of 0.632, 0.539 and 0.807 respectively. This factor consists of reward depend on quality of effort, bank recognition and bank bonus, as a fact, factor 6 can be termed as "**Reward and Recognition**".

Table (4.14)

Variables for the Seventh Component

No.	Variable	Variable Name
1.	Sat16	Basic Salary
2.	Sat21	Receiving the Same Salary by Same Employees
3.	Sat28	Salary Increase by Work Experience

Sources: Survey Results 2018, (Based on data analysis)

As a regard of factor 7, it is evident that the variables sat16, sat21 and sat 28 have a high loadings of 0.757, 0.517 and 0.588 respectively. This factor consisting of only two variables that is employees are satisfied their basic salary providing their bank, same level of employee received the same salary and salary increase by work experience. It is clearly seen that these variables are based on salary of employees. So, factor 7 can be named as "**Pay and Salary**".

Table (4.15)

Variable for the Eighth Component

No.	Variable	Variable Name
1.	Sat8	Satisfying on Leadership Style
2.	Sat20	Satisfying on Communication
3.	Sat43	Satisfying on Working

Sources: Survey Results 2018, (Based on data analysis)

As for factor 8, it is evident that the variables sat8, sat20 and sat43, have high loadings of 0.599, 0.628 and 0.669. This factor consisting of above three variables that are satisfying on leadership style, satisfying on communication and employees are satisfied the working with this bank. As a fact, factor 8 can be termed as "**Employee Commitment**".

Table (4.16)

Variables for the Ninth Component

No.	Variable	Variable Name
1.	Sat4	Training and Retraining
2.	Sat9	Participation in Decision
3.	Sat35	Promotion Depend on Manager Decision

Sources: Survey Results 2018, (Based on data analysis)

As for factor 9, it is evident that the variables sat4, sat9 and sat35 have high loadings of 0.528, 0.506 and 0.737 respectively. This factor consisting of the variables that is training and retraining, participation in decision and promotion depend on manager decision. As a fact, factor 9 can be termed as "**Perceived Opportunity for Change**".

In summary, there are 43 variables of study which are related to the employee's job satisfaction of Myawaddy Bank Limited. After using factor analysis, these variables are reduced to 9 components or 9 factors from original variables. These are working condition, working relationship and management practices, personal growth and motivation, promotion, stress and problem, non-financial benefit or psychological benefit, reward and recognition, pay and salary, employee commitment and perceived opportunity for change. Finally, these nine factors are critical factors of employee's job satisfaction based on the results of factor analysis.

4.7 Multiple Regression Analysis

The multiple regression analysis is used to examine employees' overall level of job satisfaction. The dependent variable (employees' overall level of job satisfaction) is regressed against each of the factor scores of the independent variables (Working Condition, Working Relationship and Management Practices, Personal Growth and Motivation, Promotion, Stress and Problem, Non-Financial Benefit, Reward and Recognition, Pay and Salary, Employee Commitment and Perceived Opportunity for Change) derived from the factor analysis. These nine independent variables are expressed in terms of the standardized factor score (beta coefficients). The dependent variable, employees' overall level of job satisfaction, is measured

by averaging on each of the satisfaction survey results and is used as a substitute indicator of employees' job satisfaction of Myawaddy Bank Limited in Yangon.

The Multiple Linear Regression Equation for employees' overall level of job satisfaction can be written as

$$Y_i = \beta_0 + \beta_1 F_1 + \beta_2 F_2 + \beta_3 F_3 + \beta_4 F_4 + \beta_5 F_5 + \beta_6 F_6 + \beta_7 F_7 + \beta_8 F_8 + \beta_9 F_9$$

Where,

Y_i = employees' overall level of job satisfaction

β_0 = constant (coefficient of intercept)

F_1 = Working Condition, Working Relationship and Management Practices

F_2 = Personal Growth and Motivation

F_3 = Promotion

F_4 = Stress and Problem

F_5 =Non-Financial Benefit

F_6 =Reward and Recognition

F_7 =Pay and Salary

F_8 =Employee Commitment

F_9 =Perceived Opportunity for Change

$\beta_1, .., \beta_9$ = regression coefficient of Factor 1 to Factor 9

u_i = residual terms

Diagnosing Multicollinearity

In collinearity statistics, there are two widely used measurements, Variance Inflationary Factor (VIF) and Tolerance, are given in Table (4.17).

Tolerance = $1-R_j^2$, $VIF_j = \frac{1}{1-R_j^2}$

where, R_j^2 is the coefficient of multiple determination of the independent variable, X_j with all other X variable. If a set of independent variables is uncorrelated, each VIF_j is equal to 1. If a set of independent variables is highly correlated, then a VIF_j might even exceed 10.

Table (4.17)

Coefficients of Factor Score for the Selected Nine Factors

Model	Unstandardized Coefficients		Standardized Coefficients	t	Significance	Collinearity Statistics	
	B	Standard Error	Beta			Tolerance	VIF
(Constant)	2.641	0.012		201.053	0.000		
Factor 1	0.235	0.012	0.524	29.130	0.000	1.000	1.000
Factor 2	0.211	0.022	0.471	26.311	0.000	1.000	1.000
Factor 3	0.191	0.020	0.427	24.274	0.000	1.000	1.000
Factor 4	0.118	0.020	0.263	18.976	0.000	1.000	1.000
Factor 5	0.137	0.023	0.306	13.640	0.000	1.000	1.000
Factor 6	0.116	0.023	0.259	16.598	0.000	1.000	1.000
Factor 7	0.103	0.023	0.230	13.603	0.000	1.000	1.000
Factor 8	0.081	0.025	0.180	10.44	0.000	1.000	1.002
Factor 9	0.029	0.025	0.065	36.799	0.000	1.000	1.00

Dependent variable: Overall Satisfaction

In table (4.17), the value of VIF for each factor is not greater than 10. Therefore, it is not serious problem of multicollinearity.

Table (4.18) shows the model summary of the multiple regression analysis. To predict the goodness-of-fit of the regression model, the multiple correlation coefficient (R), coefficient of determination (R^2) and F ratio are examined. Firstly, the multiple correlation coefficient (R) of independent variable (nine factors, F_1 to F_9) on the dependent variable (employees' overall level

of job satisfaction, or Y_i) is 0.935, which shows that the employees had positive and high overall satisfaction levels with the nine factors. Secondly, the coefficient of determination (R^2) is 0.875, suggesting that 88% of the variation of employees' overall level of job satisfaction is explained by the nine factors.

Table (4.18)

Multiple Regression Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	0.935[a]	0.875	0.898	0.179

a. Predictors: (Constant), REGR factor score 9 for analysis 2, REGR factor score 8 for analysis 2, REGR factor score 7 for analysis 2, REGR factor score 6 for analysis 2, REGR factor score 5 for analysis 2, REGR factor score 4 for analysis 2, REGR factor score 3 for analysis 2, REGR factor score 2 for analysis 2, REGR factor score 1 for analysis 2

In Table (4.19), F-ratio, which explains whether the results of the regression model could whether by chance, had a value of 298.316 ($p = 0.000$) and is significant at 1% level. In other words, at least one of the nine factors is important in contribution to employees' overall level of job satisfaction.

Table (4.19)

Analysis of Variance (ANOVA) for Multiple Regression Model

Model	Sum of Squares	Degree of Freedom (d.f)	Mean Square	F	P-value
Regression	284.598	9	31.622	298.316	.000***
Residual	40.560	292	0.105		
Total	325.158	301			

Dependent variable: Overall Satisfaction

*** is significant at the 1% level

The estimated Multiple Linear Regression Equation for employees' overall level of job satisfaction is

$$\hat{Y}_i = 2.641 + .235\,F_1 + .211\,F_2 + .191\,F_3 + .118\,F_4 + .137\,F_5 + .116\,F_6 + .103\,F_7 + .081\,F_8 + .029F_9$$

Each slope coefficient in this multiple regression, a partial slope coefficient, is given in Table (4.17) and measures the employees' overall level of job satisfaction for a unit change in the value of the given factor. The intercept $\beta_0 = 2.641$ means that employees' overall level of job satisfaction is moderate when all of the factors are held constant.

Thus, the Working Condition, Working Relationship and Management Practices (Factor 1) coefficient of 0.235 means with other factors held constant, that if the factor score of the Working Condition, Working Relationship and Management Practices is 1, the employees' overall level of job satisfaction is more than the moderate satisfaction because the estimated employees' overall job satisfaction is 2.876. Obviously, the Working Condition, Working relationship and Management Practices has the highest influence on employees' overall job satisfaction.

The coefficient of Personal Growth and Motivation (Factor 2) is 0.211 which means that the employees' overall level of job satisfaction is more than the intermediate satisfaction (the estimated employees' overall job satisfaction is 2.852) when the factor score of the Personal Growth and Motivation is 1 with the other factors are held constant.

The coefficient of Promotion (Factor 3) is 0.191 which means that the employees' overall level of job satisfaction is more than the intermediate satisfaction (the estimated employees' overall job satisfaction is 2.832) when the factor score of the Promotion is 1 with the other factors are constant.

The Stress and Problem (Factor 4) coefficient of 0.118 means with other factors held constant, that if the factor score of the Stress and Problem is 1, the employees' overall level of job satisfaction is more than the moderate satisfaction because the estimated employees' overall job satisfaction is 2.759.

The coefficient of Non-Financial Benefit (Factor 5) is 0.137 means with other factors held constant, that if the factor score of the Non-Financial Benefit is 1, the employees' overall level of job satisfaction is more than the moderate satisfaction because the estimated employees' overall job satisfaction is 2.778.

Then, the coefficient of Reward and Recognition (Factor 6) is 0.116 which means that the employees' overall level of job satisfaction is more than the moderate satisfaction (the estimated employees' overall job satisfaction is 2.757) when the factor score of Reward and Recognition is 1 with the other factors are held constant.

And then, the coefficient of Pay and Salary (Factor 7) is 0.103 which means that the employees' overall level of job satisfaction is more than the moderate satisfaction (the estimated employees' overall job satisfaction is 2.744) when the factor score of the Pay and Salary is 1 with the other factors are held constant.

After that, the coefficient of Employee Commitment (Factor 8) is 0.081 means with other factors held constant, that if the factor score of the Employee Commitment is 1, the employees' overall level of job satisfaction is more than the moderate satisfaction because the estimated employees' overall job satisfaction is 2.722.

Finally, the coefficient of Perceived Opportunity for Change (Factor 9) is 0.029 which means that the employees' overall level of job satisfaction is more than the moderate satisfaction (the estimated employees' overall job satisfaction is 2.67) when the factor score of the Perceived Opportunity for Change is 1 with the other factors are held constant. Perceived Opportunity for Change (Factor 9) has the lowest influence on employees' overall job satisfaction.

CHAPTER V

CONCLUSION

The banking industry is the backbone of a country's economy. This sector is like the brain of a country's economy. Myanmar had a banking sector before 1962. At that time, there were 14 foreign banks, 10 privately-run local banks and a state-owned bank supported the country's economy. Nationalization of the banks stifled development of the sector. Today, there are about 25 private banks in Myanmar operating national scale in Myanmar. Myawaddy Bank Limited is one of these banks that operate full-fledge of banking activities in the national wide in Myanmar. Nowadays, the new bank enter into the market are highly competitive to achieve their goals and objectives. So the major task of employer is to motivate and satisfy by using appropriate motivation and satisfaction factors. In this study, to identify the critical factors of employees' job satisfaction and major influencing factors are worked unit by factor analysis and multiple regression analysis.

In Myanmar, there are many branches of Myawaddy Bank Limited. Among them, this study focuses on the branches of Myawaddy Bank Limited in Yangon including head office. In this study, the population is 1250 employees, 302 employees are chosen as the study samples that 24 % of the population by using simple random sampling method.

Initially, the result of the respondents by demographic and background characteristics have been studied. 19.2 % of the respondents are males and 80.8 % of the respondents are females. Almost 62.9% of the respondents tend to be below 30 years old, the remaining, age between 31 and 40 years are 32.8 %, 41 to 50 years are 3.6% and 51 and above are 0.7 %. In marital status of employees, it is seen that majority are single which 68.5% of the total sampled employees and 31.5% are married. Almost 93.4% of the respondents hold at least the bachelor degrees at university and 5% are master level and remaining 1.7% are Ph.D level. Most of the employees are earning 2000000 and below 300000 Ks which is 77.8%. The majority of employees are work in head office which is 38.1%. And work in accounting department which is 44.4% of the total sampled employees of the study.

In the reliability analysis, the Cronbach's alpha is 0.935; which is higher than the normal value 0.70 level. Therefore, it can be concluded that higher reliability of the items measuring the employees' job satisfaction. Therefore, the contrast reliability for all items is deemed to be

acceptable. The reliability analysis of the selected nine factors show that the Cronbach's alpha ranged from 0.653 to 0.887 that are more than the minimum value for accepting the reliability, 0.50. The results are reliable for accepting the reliability test.

According to the KMO and Bartlett's Test, KMO measure of sampling adequacy is 0.903 which value are greater than 0.6 and the significant of Bartlett's Test of Sphericity is 0.000, that is p-value less than the level of significance 0.05. Therefore, the sample can be considered as adequate to conduct factor analysis. In the scree plot, the first nine factors were obtained because their eigenvalues are greater than 1.

In factor analysis, 9 factors extracted together account for 62.693% of the total variance (information contained in the original 43 variables). Hence, the numbers of variables have been reduced from 41 to 9 underlying factors. These nine factors are Working Condition, Working Relationship and Management Practices, Personal Growth and Motivation, Promotion, Stress and Problem, Non-Financial Benefit, Reward and Recognition, Pay and Salary, Employee Commitment and Perceived Opportunity for Change respectively.

First factor was labeled as Working Condition, Working Relationship and Management Practices contains nine variables: respecting the subordinates, working environment, quality of management, leadership style, participation in decision, good relation, people oriented, working equipment and communication. The second factor (Personal Growth and Motivation) contains welfare facilities, working condition, training and retraining, respecting the subordinates, suggestions, fair promotion and fair competition. Third factor (Promotion) contains clearing promotion rule, promotion depend on work performance, promotion depend on opportunity, promotion policy, and promotion depend on work attitude. Fourth factor (Stress and Problem) contains stressor on crown branch, stressor on lack of liquidity, stressor on aged and hurried customer, stressor on foreign customer. Fifth factor consisting of the 3 variables, these variable can be grouped into a single factor terms "Non-Financial Benefit" because it include the variables manager use their employee knowledge to participate in decision, provide equal benefit for employee, and making for motivation. Sixth factor (Reward and Recognition) contains reward depend on quality of effort, bank recognition and bank bonus. Seventh factor (Pay and Salary) consisting of three variables that are employees are satisfied their basic salary providing their bank, same level of employees received the same salary and salary increase by work

experience. Eighth factor (Employee Commitment) contains three variables that are satisfying on leadership style, satisfying on communication and the employees are satisfy the working with this bank and ninth factor(Perceived Opportunity for Change) also contains three variable that are training and retraining, participation in decision and promotion depend on manager decision.

This study was conducted with the aim of identifying the critical factors that are mainly job satisfaction among employees working in Myawaddy Bank Limited. The result indicated that nine factors are critical factors that are relevant for this study. Among nine factors, satisfaction with Working Condition, Working Relationship and Management Practices was found to highest contribute employees' job satisfaction accounting for 31.026 % of variance followed by satisfaction with Personal Growth and Motivation, Promotion, Stress and Problem, Non-Financial Benefit, Reward and Recognition, Pay and Salary, Employee Commitment and Perceived Opportunity for Change with 6.842, 6.282, 4.333, 3.394, 2.902, 2.757, 2.638 and 2.519 % of variance, respectively.

According to multiple linear regression analysis, the R^2 value was 0.875, it means that 88% of the variation of employees' overall satisfaction is explained by the satisfaction on each of the selected nine factors. Then, multiple regression analysis reveals that Working Condition, Working Relationship and Management Practices (Factor 1) have the highest influence on employees' job satisfaction. The second highest influence on employees' job satisfaction is Personal Growth and Motivation (Factor 2). The third highest influence on employees' job satisfaction is Promotion (Factor 3). The fourth highest influence on employees' job satisfaction is Non-Financial Benefit (Factor 5). The fifth highest influence on employees' job satisfaction is Stress and Problem (Factor 4). The sixth highest influence on employees' job satisfaction is Reward and Recognition) (Factor 6). The seventh highest influence on employees' job satisfaction is Pay and Salary (Factor 7). The eighth highest influence on employees' job satisfaction is Employee Commitment (Factor 8). The last influence on employees' job satisfaction is Perceived Opportunity for Change (Factor 9). In diagnosing multicollinearity, there is no relationship among factors because the value of VIF for each factor is not greater than 10.

The results in this study reveals that the selected nine factors: Working Condition, Working Relationship and Management practices, Personal Growth and Motivation, Promotion,

Stress and Problem, Non-Financial Benefit, Reward and Recognition, Pay and Salary, Employee Commitment and Perceived Opportunity for Change should consider into important factors by the bank supervisor to improve satisfying their job within this bank. Then, there is a positive relationship between the selected nine factors and employees' overall job satisfaction.

According to this result, it can be interpreted that employees' job satisfaction of Myawaddy Bank Limited was largely depend on working condition, working relationship and management practices. This finding were found supervisors relationship with to be significantly related to employees' job satisfaction as indicated by when immediate supervisor treats employees' as important person being friendly, encourage to seek educational difficulties, encourage to make suggestions have ability to foster good relations with work force, employees' job satisfaction increases. In other words, the role of subordinates are nearly always defined by supervisor will trust his/her subordinates with more important. Subordinates are more likely to accept enhanced responsibilities, thereby employees obtain opportunities for using their decision and skill and achievement, recognition, advancement, responsibility and growth can be expected and ultimately their job satisfaction may result.

Bank employees' job satisfaction become an important role in accordance with banks play a fundamental role in the transformation of market economies and the banking industry is the backbone of a country's economy. Therefore, in this study, the critical factors that are mainly influence on employees' job satisfaction in Myawaddy Bank Limited are studied. For the further study, should examine the bank employees' satisfaction with the other different variables and further studies should include satisfaction of back office employees and qualitative investigating should be performed and it will contribute a more in-depth understanding of how employees view their job.

APPENDICES

APPENDIX A

Survey Questionnaire

Questionnaire for Myawaddy Bank Employees in Yangon

This survey only relates to the thesis component of a Master of Economics (Statistics) which I am completing at Yangon University of Economics. The information provided will be used only for this research and for no other objective. Your participation is highly appreciated. Thank you for your time and participation.

Part I– Personal Information

Please tick the appropriate box that corresponds to your answer.

1. What is your gender?
   Male [ ]
   Female [ ]

2. How old are you?
   Below 30 years [ ]
   30- 39 years [ ]
   40- 50 years [ ]
   51-60 years [ ]

3. What is your marital status?
   Married [ ]
   Single [ ]

4. How long have you been working with the bank?
   Below 5 years [ ]
   6-10 years [ ]
   11-15 years [ ]
   15 years and above [ ]

5. What is your level of education?
   College/University level [ ]
   Master level [ ]
   Ph. D level [ ]
   Other (please specify)
   .....

6. What is the range of your salary?
   Below 200,000 Ks [ ]
   Ks 200,001-300,000 [ ]
   Ks 300,001-400,000 [ ]
   Ks 400,001-500000 [ ]
   Ks 500,001 and above [ ]

7. Please indicate the branch name of bank (or head office).

.....

8. Please described your department within the bank where you re employed.

.....

Part II- Job Satisfaction Section

Please circle to the response number.
1=highly satisfy or agree. 2=satisfy or agree. 3=neutral.
4=dissatisfy or disagree. 5=highly dissatisfy or disagree.

How are you satisfied with the following

I am satisfied with the working environment.	1	2	3	4	5
I am satisfied with the welfare facilities provided to the employees by the bank.	1	2	3	4	5
I am satisfied with the physical working condition in the bank.	1	2	3	4	5
I am satisfied with the training and retraining in the bank.	1	2	3	4	5
Bank supervisor respect the subordinates.	1	2	3	4	5
The Bank is good quality of work environment.	1	2	3	4	5
The Bank is best quality of management	1	2	3	4	5
Management looks to me for suggestions and leadership.	1	2	3	4	5
Our manager uses our knowledge perfectly.	1	2	3	4	5
The Bank employees under good relations.	1	2	3	4	5
The Bank manager always help employees.	1	2	3	4	5
The Bank provides good work equipment.	1	2	3	4	5
I am satisfied with my opportunity to get a better job in this Bank.	1	2	3	4	5
I am satisfied with the insurance.	1	2	3	4	5
My job security let me to have a long term program in my life.	1	2	3	4	5
I am satisfied with the Bank basic salary.	1	2	3	4	5
My salary is accordance with my working hours.	1	2	3	4	5
Bank has fair evaluation system.	1	2	3	4	5
I get respect from other employees.	1	2	3	4	5
Bank manager fairs to communicate with employee.	1	2	3	4	5
Same level of employees received the same salary in Bank.	1	2	3	4	5
Bank exist different work hour for different employee.	1	2	3	4	5
Promotion is fair in Bank.	1	2	3	4	5
Bank provides equal benefits for every employee.	1	2	3	4	5
Bank emphasizes fair competition in work place.	1	2	3	4	5
I am rewarded for the quality of my efforts.	1	2	3	4	5
My organization recognize and acknowledge my work.	1	2	3	4	5
Salary increase, motivates me more	1	2	3	4	5
Leave motivates me more	1	2	3	4	5
Motivational talk motivates me more	1	2	3	4	5
Recognition motivates me more	1	2	3	4	5
Bank bonus motivates me more	1	2	3	4	5

Promotion rule very clear in Bank.	1	2	3	4	5
Promotion depend on employees work performance.	1	2	3	4	5
Promotion depend just manager decision.	1	2	3	4	5
Every employee has opportunity to get promotion in Bank.	1	2	3	4	5
I am satisfied with the Bank promotion policy.	1	2	3	4	5
Promotion can be improved my work attitude	1	2	3	4	5
The crown branch make me stressful	1	2	3	4	5
Lack of liquidity make me stressful	1	2	3	4	5
Aged and hurried customers make me stressful	1	2	3	4	5
Foreign customers make me stressful	1	2	3	4	5
I am satisfied the working with this bank	1	2	3	4	5

Thank you in advance for your time, cooperation and complete questionnaire.

APPENDIX B

Name_of_Branch

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bo Aung Kyaw	18	6.0	6.0	6.0
	Kamayut	16	5.3	5.3	11.3
	Insein	25	8.3	8.3	19.5
	Bayint Naung	20	6.6	6.6	26.2
	Thingangyun	15	5.0	5.0	31.1
	Theinphyu	10	3.3	3.3	34.4
	North Okkalapa	15	5.0	5.0	39.4
	Yuzana	10	3.3	3.3	42.7
	Yankin	14	4.6	4.6	47.4
	Botahtaung	23	7.6	7.6	55.0
	Head Office	115	38.1	38.1	93.0
	Thanlyin	21	7.0	7.0	100.0
	Total	302	100.0	100.0	

Department

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Accounts	134	44.4	44.4	44.4
	IT	21	7.0	7.0	51.3
	Card	1	.3	.3	51.7
	Foreign Banking	1	.3	.3	52.0
	Human Resources	9	3.0	3.0	55.0
	Research and Development, Commercial Intelligence and Statistics	6	2.0	2.0	57.0
	Loan	20	6.6	6.6	63.6
	Administration	33	10.9	10.9	74.5
	Cash	64	21.2	21.2	95.7
	Internal Audit	2	.7	.7	96.4
	Manager	3	1.0	1.0	97.4
	Assistant General Manager	1	.3	.3	97.7
	Assistant Manager	7	2.3	2.3	100.0
	Total	302	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 30 years	190	62.9	62.9	62.9
	31-40 years	99	32.8	32.8	95.7
	41-50 years	11	3.6	3.6	99.3
	51 and above	2	.7	.7	100.0
	Total	302	100.0	100.0	

Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	207	68.5	68.5	68.5
	Married	95	31.5	31.5	100.0
	Total	302	100.0	100.0	

Working years in current Bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 5 years	168	55.6	55.6	55.6
	6-10 years	105	34.8	34.8	90.4
	11-15 years	22	7.3	7.3	97.7
	15 years and above	7	2.3	2.3	100.0
	Total	302	100.0	100.0	

Level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	College/University level	282	93.4	93.4	93.4
	Master level	15	5.0	5.0	98.3
	Ph.D level	5	1.7	1.7	100.0
	Total	302	100.0	100.0	

Salary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 200,000 Ks	13	4.3	4.3	4.3
	Ks. 200,000-below 300,000	235	77.8	77.8	82.1
	Ks. 300,000-below 400,000	41	13.6	13.6	95.7
	Ks. 400,000-below 500,000	9	3.0	3.0	98.7
	Ks. 500,000 and above	4	1.3	1.3	100.0
	Total	302	100.0	100.0	

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	302	100.0
	Excluded[a]	0	.0
	Total	302	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.943	42

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.907
Bartlett's Test of Sphericity	Approx. Chi-Square	6798.088
	df	903
	Sig.	.000

Total Variance Explained

	Initial Eigenvalues			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.341	31.026	31.026	5.730	13.327	13.327
2	2.942	6.842	37.868	4.498	10.461	23.788
3	2.701	6.282	44.150	4.261	9.908	33.696
4	1.863	4.333	48.483	2.746	6.385	40.081
5	1.459	3.394	51.877	2.563	5.961	46.042
6	1.248	2.902	54.779	2.250	5.233	51.275
7	1.186	2.757	57.536	2.070	4.815	56.090

Total Variance Explained Continued

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
8	1.135	2.638	60.174	1.504	3.497	59.587
9	1.083	2.519	62.693	1.336	3.106	62.693
10	.984	2.287	64.981			
11	.968	2.252	67.233			
12	.910	2.116	69.349			
13	.861	2.002	71.352			
14	.797	1.854	73.206			
15	.738	1.717	74.923			
16	.688	1.599	76.522			
17	.665	1.546	78.067			
18	.632	1.470	79.538			
19	.601	1.397	80.935			
20	.574	1.334	82.269			
21	.556	1.292	83.561			
22	.529	1.229	84.791			
23	.489	1.138	85.929			
24	.476	1.107	87.035			
25	.449	1.045	88.080			
26	.427	.993	89.073			
27	.403	.937	90.010			
28	.388	.901	90.911			
29	.373	.868	91.780			
30	.363	.843	92.623			
31	.334	.776	93.399			
32	.314	.731	94.130			
33	.302	.702	94.831			
34	.288	.671	95.502			
35	.280	.652	96.154			
36	.255	.593	96.747			
37	.242	.562	97.310			
38	.227	.529	97.838			
39	.218	.506	98.345			

Total Variance Explained Continued

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
40	.209	.485	98.830			
41	.205	.476	99.306			
42	.162	.377	99.683			
43	.136	.317	100.000			

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component								
	1	2	3	4	5	6	7	8	9
sat1	.290	.193	-.014	.210	.326	.070	.486	.123	-.081
sat2	.389	.609	.158	.121	-.020	-.003	.114	.147	-.128
sat3	.405	.590	.012	.157	-.006	.008	.186	.102	-.053
sat4	.268	.390	.233	.326	.056	.123	.238	.043	-.528
sat5	.583	.090	.056	.029	.138	.085	.417	.040	.029
sat6	.697	.142	.194	-.056	-.194	.300	.163	.062	-.042
sat7	.681	.269	.365	.055	-.041	-.062	.073	.015	-.056
sat8	.615	.076	.151	.080	.316	.009	.262	.599	-.112
sat9	.536	.074	-.111	.073	.512	.186	.090	.063	.506
sat10	.639	.185	-.042	.046	.104	.285	.080	.072	-.057
sat11	.795	.206	.166	.061	.131	.025	.090	.028	.003
sat12	.651	.353	-.012	-.090	.133	.058	-.104	.164	.010
sat13	.425	.468	.174	.185	.140	.134	.169	.017	.116
sat14	.328	.582	.241	.049	.010	.168	.018	.110	-.160
sat15	.254	.702	.250	.079	.049	.080	-.103	.017	-.091
sat16	.173	.179	.212	.107	.042	.185	.757	-.148	.074
sat17	.182	.496	.220	-.041	.009	.203	.277	.227	.227
sat18	.216	.531	.136	.158	.226	.120	.166	.016	.216
sat19	.309	.131	.045	.149	.179	.454	.158	.345	-.008
sat20	.631	.182	.146	.068	.108	.035	-.017	.628	.202
sat21	.184	-.018	-.051	.190	.225	.114	.517	.478	.127
sat22	.198	.144	.180	.079	.236	.314	.066	.429	.122
sat23	.001	.537	.471	-.056	.376	-.091	.038	.133	-.080
sat24	.213	.420	.237	-.145	.563	-.059	.229	.106	-.042

Rotated Component Matrix Continued

	Component								
	1	2	3	4	5	6	7	8	9
sat25	.104	.556	.166	.061	.436	.285	.057	-.057	.096
sat26	.459	.344	.356	.212	.283	.632	.013	-.167	.059
sat27	.442	.295	.365	.131	.123	.139	-.022	-.087	.098
sat28	.271	.114	.371	.257	.454	.210	.588	.060	.122
sat29	-.030	.017	.211	.266	.448	.354	.171	.164	-.172
sat30	.209	.060	.243	.200	.604	.278	.170	.028	.136
sat31	.219	.113	.357	.194	.260	.539	.050	-.001	-.063
sat32	.133	.121	.032	.130	.085	.807	.112	-.007	.116
sat33	.045	.205	.713	.190	.170	.024	.226	-.165	.233
sat34	.080	.316	.756	.003	.146	.020	-.154	.159	.034
sat35	.043	.020	.284	.118	.059	.115	.130	.069	.737
sat36	.182	.034	.656	.002	.079	.311	.192	.199	.026
sat37	.182	.395	.672	-.094	.259	-.095	-.056	-.002	.129
sat38	.194	.070	.745	-.015	-.077	.156	.159	.215	-.030
sat39	.083	.035	.061	.811	.022	-.009	-.085	.149	-.032
sat40	.002	-.084	.050	.808	.073	.164	.241	.037	-.064
sat41	.144	.378	-.081	.585	.055	.058	.047	.079	.211
sat42	-.037	.268	.007	.537	.172	.265	.166	.029	.072
sat43	.147	.211	.274	.230	-.029	-.050	-.109	.669	-.036

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 12 iterations.

Component Transformation Matrix

Component	1	2	3	4	5	6	7	8	9
1	.558	.487	.414	.222	.305	.248	.221	.160	.044
2	-.052	-.312	-.471	.607	.167	.391	.343	.101	.032
3	-.686	-.044	.599	.244	.219	.131	-.029	.004	.207
4	-.204	.569	-.186	.552	-.200	-.315	-.264	.010	-.293
5	.240	-.394	.371	.284	-.621	.050	-.170	.377	-.098
6	.133	-.066	-.181	.048	.351	.102	-.778	.292	.345
7	.172	.009	-.008	.250	-.229	-.332	.107	-.363	.776
8	-.244	.423	-.198	-.264	-.441	.469	.092	.333	.345
9	-.093	-.031	-.061	-.066	.186	-.572	.330	.703	.136

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.935[a]	.875	.898	.179	1.846

a. Predictors: (Constant), REGR factor score 9 for analysis 2, REGR factor score 8 for analysis 2, REGR factor score 7 for analysis 2, REGR factor score 6 for analysis 2, REGR factor score 5 for analysis 2, REGR factor score 4 for analysis 2, REGR factor score 3 for analysis 2, REGR factor score 2 for analysis 2, REGR factor score 1 for analysis 2
b. Dependent Variable: Overall Satisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	284.598	9	31.622	298.316	.000[b]
	Residual	40.560	292	0.105		
	Total	325.158	301			

a. Dependent Variable: Overall Satisfaction
b. Predictors: (Constant), REGR factor score 9 for analysis 2, REGR factor score 8 for analysis 2, REGR factor score 7 for analysis 2, REGR factor score 6 for analysis 2, REGR factor score 5 for analysis 2, REGR factor score 4 for analysis 2, REGR factor score 3 for analysis 2, REGR factor score 2 for analysis 2, REGR factor score 1 for analysis 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.641	.012		201.053	.000		
	REGR factor score 1 for analysis 2	.235	.012	.524	29.130	.000	1.000	1.000
	REGR factor score 2 for analysis 2	.211	.022	.471	26.311	.000	1.000	1.000
	REGR factor score 3 for analysis 2	.191	.020	.427	24.274	.000	1.000	1.000
	REGR factor score 4 for analysis 2	.118	.020	.263	18.976	.000	1.000	1.000
	REGR factor score 5 for analysis 2	.137	.023	.306	13.640	000	1.000	1.000
	REGR factor score 6 for analysis 2	.116	.023	.259	16.598	.000	1.000	1.000
	REGR factor score 7 for analysis 2	.103	.023	.230	13.603	.000	1.000	1.000
	REGR factor score 8 for analysis 2	.081	.025	.180	10.44	.000	1.000	1.002
	REGR factor score 9 for analysis 2	.029	.025	.065	36.799	.000	1.000	1.000

a. Dependent Variable: Overall Satisfaction