## Internship Report on

## Overall Employee Satisfaction of Maritime Entrepreneurs Pte. Ltd.

## Prepared for:

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## BUS 699

Internship

## Date of Submission

13 August 2015

## Letter of Transmittal

## 13 August 2015

Mr. Md. Noman H Chowdhury
Senior Lecturer
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BRAC University

Sub: Submission of the Bus-699 internship report.

Dear Sir
As per requirement of completion of the MBA Program of School of Business, BRAC University, I hereby submit my internship report titled 'Overall Employee Satisfaction of Maritime Entrepreneurs Pte. Ltd.' after completing my internship successfully in Maritime Entrepreneurs Pte. Ltd., Bangladesh.

I will be glad to clarify any discrepancy that may arise. Please wish me luck in my endeavor to success after two years course in BRAC University.

Sincerely Yours,

Name: Richard Aungon Gomes
ID\# 13164076
Course: BUS-699
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## Acknowledgement

First of all I would like to thank the Almighty God for giving me opportunities to complete this research paper properly. Then I am grateful to my parents, especially to my mother who helped me in many ways to prepare this research paper completely. I would like to show my gratitude to my course instructor Mr. Md. Noman H Chowdhury, who gave me the chance to do a research on my desired topic and whose encouragement, guidance and support from the initial to the final level enabled me to develop an understanding of the project part of the report. I am indebted to all the people of Maritime Entrepreneurs Pte. Ltd. especially to Mr. Riyad, Mr. Rashed and Ms. Anjuman to support me in various ways to make this research paper a standard one. I am indebted to my friends also, who helped me, in many ways, to prepare this report. Last but not the least; I am heartily thankful to all of those who participated in the survey of my research. This thesis would have not been possible unless they showed their interests and responses to fill up my survey questionnaires.

## Executive summary

Maritime Entrepreneurs Pte. Ltd. was established in Chittagong in 1982 with some flavors, and fragrances. Now, it is involved in servicing all sectors of food, pharmaceuticals, cosmetics and perfumery industries of Bangladesh. It has several offices in home and abroad. In each office, it has several departments like, Accounts, HR, Commercial, Marketing, etc. People of each department performs various activities like, importing company products, which are raw materials of other industries, storing and then selling those products, collecting payments, meeting all the day to day and other expenses, dealing with people and polices, etc. In this report, it was analyzed that whether people are satisfied with various factor like, working environment, work load, system of work, office timing, PC/laptop, desk/chair, T\&T/mobile phone, software/computer application, behavior and co-operation of the employees, management, culture, rules and policies of the office, salary and other remunerations, etc. After the analysis, it seems that, there are some problems with the environment. The authority should provide proper environment so that the employees can feel better. Secondly, the authority should be more careful about the relationship among the employees as many employees are not satisfied about their relationship with their co-workers. The other factor are somewhat satisfactory. After the research, I found that the employees are actually satisfied with their respective works. Maritime Entrepreneurs Pte. Ltd. is able to motivate its employees and arrange proper facilities for its employees. It seems that Maritime Entrepreneurs Pte. Ltd. is benefiting and adding value to the common wealth of this society through each of its activities.

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## Introduction

## Origin of the Report

This report is an Internship Report prepared as a requirement for the completion of the MBA Program of School of Business, BRAC University. The primary goal of internship is to provide the job exposure to the student and an opportunity to implement theoretical knowledge in real life situation. As a student of MBA program and at a time also an executive of Maritime Entrepreneurs Pte. Ltd., Bangladesh, it was a great opportunity for me to prepare the internship report related to a few services of Maritime Entrepreneurs Pte. Ltd., Bangladesh.

As a regular student of Master of Business Administration program, it requires an internship of four months attachment with an organization followed by writing and submission of a report. This report is, therefore, an end result of an internship attachment with Maritime Entrepreneurs Pte. Ltd. As per the advice and recommendation of the honorable supervisor of BRAC University Senior Lecturer Mr. Md. Noman H Chowdhury, the main concentration of this report is the overall employee satisfaction of Maritime Entrepreneurs Pte. Ltd., Bangladesh.

## Organization of the Report

This report has Two main parts: the 'Organization Part' and the 'Project Part', which are then further divided into chapters. The Organization part of the report includes overview, functions, competitive conditions, strategic, operational and legal issues and problems, strategies and tactics, company's current state of operations and future directions of Maritime Entrepreneurs Pte. Ltd. The Project part presents an overview of the project on the employee satisfaction about sales and purchase process of Maritime Entrepreneurs Pte. Ltd., Bangladesh. This part includes a vast analysis of the topic which discusses the overall satisfaction level of the employees of Maritime Entrepreneurs Pte. Ltd., on their own field of work.

# The Organization Part 

## Introduction

Maritime Entrepreneurs Pte. Ltd. is involved in servicing all sectors of food, pharmaceuticals, cosmetics and perfumery industries of Bangladesh over the last three decades. It links between the world renowned raw materials manufacturers for these industries and the end users. It started with a very small office in Chittagong in 1982 with some flavors, and fragrances. If Founder Mr. Geyashuddin Ahmed always strived to achieve the single most important thing in any business - "The Customer Satisfaction". Today, it handles over 55 million worth of Food Pharma and Cosmetics ingredients across the region of Bangladesh. With its long standing experience, customer focused work team, and local knowledge about these industries, it became leading agent and distributor in Bangladesh.

Its focus is not only on large industries who import directly, but it also stock large quantities of raw materials and specialty chemicals in its warehouse for medium and small size companies. It also provides many value added services, which includes extensive technical support, formulation, inventory management and just-in-time delivery. Its aim is to create established business partnership with its customers and major foreign supplier in Bangladesh.

## Vision

The vision of Maritime Entrepreneurs Pte. Ltd. is to work with the top performing foreign suppliers and become the leading and most admired national distributor.

## Mission Statement

Mission declares the purpose of its company and serves as standard against which it defines its actions and decisions. Its missions are

- To help its existing and prospective clients excellent service in professional disciplines, in accordance with statutory practices, codes of conduct and integrity
- With the technical support from foreign suppliers it wants to instantly help its customers upgrade existing products and develop new products.
- To provide a challenging and rewarding work environment for the professionals in this company.


## General Information

## Establishment : 1982

Core Business : Sales \& marketing of Flavour, Fragrances, API and other ingredients of Food Pharmaceuticals and Cosmetics Industries

Yearly Turnover : 22.8 million USD (year 2014)
Total Employees : 39 (14 people are dedicated to sales and marketing)
Website : www.meplbd.com
Corporate Office : Bay's Building (Level-14), 50 Mohakhali C/A, Dhaka-1212, Bangladesh. Phone: +880 2 9861516-7; Fax:+880 2 9862633; Email: mepl@meplbd.com

Registered Office : Rahman Chanmber 2/F, 12-13 Motijheel C/A, Dhaka-1000, Phone: +880 2955 4478; Email: mepl@meplbd.com

Chittagong Office : IFCO Complex (5/F) 1147/A East Nasirabad, CDA Avenue, Chittagong 4225 Phone: +880 2255 6201;

Distribution Office : 1/1 d.c. Roy Road, Mid Fort, Dhaka 1100, Phone: +880 2731 3448; Email: meplwh@meplbd.com

## Agent and Distributor of Bangladesh

MEPL has a combined professional experience of 30+ years among its Principals. Listed below are some of our principals:

| Agent and Distributor for Bangladesh | Products |
| :--- | :--- |
| Symrise Asia Pacific Pte Ltd. (Singapore) | Flavor, Fragrances, Aroma chemicals and <br> Cosmetics ingredients |
| Barry Callebaut Asia Pacific Pte <br> Ltd.(Singapore) | Cocoa Products |
| Cafosa Gum SA (Spain) | Gum Base |
| Avebe (Netherlands) | Potato Starch |
| Jungbunzlauer (Switzerland) | Citrics, Lactics, Gluconates, Xanthan Gum |
| DSM (Netherlands) | Texturizing Substances |
| Cargill (USA) | Starches |
| Ingredion (USA) | Sucralose |
| Tate \& Lyle (USA) | Anti Oxidant |
| Camlin Fine Science Ltd (India) | Acetic Anhydride |
| Luna Chemicals (India) | API |
| Zhiyu Biotechnology (China) | API |
| Alcaliber S.A. (Spain) | API |
| Inter Labs Pvt. Ltd (India) |  |



## Customers of Flavour Division

| Confectionary | Beverage | Biscuits \& Bakery |
| :--- | :--- | :--- |
|  |  |  |
| ACI Food Ltd. | Abul Khair Con Milk \& Bev | Aziz Food Products Ltd |
| Atlas Food \& Beverage Aziz | Atlas Food \& Beverage Akij | Banaful \& Co. |
| Food Products Ltd. | Food \& Beverage Ltd. | Atlas Food \& Beverage Bengal |
| Banaful \& Co. | BRAC Dairy \& Food Prome | Biscuit Ltd |
| BD Foods Ltd. | Agro Foods Ltd. | PRAN Biscuits \& Bekary BSP |
| Bio Food \& Beverage Ltd. | BD Foods Ltd. | Food Products (Pvt) Chattok |
| BSP Food Products (Pvt) | Cocola Food Products Ltd | Food Products |
| Cocola Food Products Ltd. | PRAN Beverage Ltd | Cocola Food Products Ltd |
| Danish Foods Ltd. | Globe Soft Drinks Ltd | Danish Foods Ltd |
| Dekko Foods Ltd. | Partex Beverage Ltd | Dekko Foods Ltd |
| Doctors Food Ltd. | Kishwan Snacks Ltd | Hoque Brothers Ind. Ltd |
| Eco Food | Nestle Beverage Ltd. | Nabisco Biscuit \& Bread Globe |
| Globe Biscuits \& Dairy Milk | Shajib Corporation | Biscuits \& Bakery Kishwan |
| Ifad Multi Products Ltd. | The ACME Agrovet \& Bev. | Snacks Ltd |
| Kishwan Agro Products |  | Multi Foods Ltd |
| Kishwan Snacks Ltd. |  | Romania Food Ltd |
| Multi Food Ltd. |  | Naicol |
| Nestle Bangladesh Ltd. |  |  |
| Olympic Industries Ltd. |  |  |
| Perfetti Van Melle BD. Pvt. |  |  |
| PRAN Confectionary Ltd. |  |  |
| Prome Agro Foods Ltd. |  |  |



## Customer of Scent and Care Division

| Soap \& Detergent | Household | Personal Care |
| :--- | :--- | :--- |
|  |  |  |
| ACI Ltd. | ACI Ltd. | Square Toiletries Ltd |
| Alom Soap Factory | TLRA Holding Ltd | Keya Cosmetics Ltd |
| Keya Cosmetics Ltd. | Regent Uni Chemicals BD Rifa | Mousumi Enterprises Ltd |
| Kohinoor Chemicals Co. BD | Chemical Ltd | Mousumi Industries Ltd |
| Ltd | Standard Finis Oil Co Ltd | Shajib Chemicals |
| Square Toiletries Ltd. | Prime Cosmetics Ltd | Botanic Herbal Care |
| Mousumi Industries Ltd | Quazi Enterprise Ltd | Ezzy Perfumery |
|  | ACME Pesticides Ltd | Lata Herbal Products Ltd. |
|  | RAK Mosfly (BD)Ltd | Lily Cosmetics Ltd. |
|  | Fann Syndicate | Modern Chemical \& Herbal |
|  | Luna Toiletries Industries | Zam Zam Perfumery |
|  | Sumon's Aroma Bangladesh |  |
|  |  |  |



## Customers of Flavour Division and API

| Pharmaceuticals | Ice Cream | Snacks |
| :--- | :--- | :--- |
| ACI Pharma Limited | Abdul Monem Ltd. | ACI Food Ltd |
| Alco Pharma Ltd | Dhaka Icecream Ind. | Banaful \& Co. |
| Alied Pharma Ltd | Savoy Ice Cream Ind. | PRAN Snacks Ltd |
| Aristopharma Ltd | Sanowara Drinks \& Bev | Cocola Food Products Ltd |
| Beacon Pharma Ltd | Kazi Ice Cream Ind Ltd | Globe Biscuits \& Dairy Milk |
| Beximco Pharmaceuticals |  | Kishwan Snacks Ltd |
| Central Pharma Ltd | Multi Food Ltd |  |
| Concord Pharmaceuticals |  |  |
| Delta Pharma Ltd |  |  |
| Eskayef Bangladesh Ltd. |  |  |
| Essential Drugs Company |  |  |
| Everest Pharma Ltd |  |  |
| General Pharmaceuticals |  |  |
| Globe Pharmaceuticals |  |  |
| GonoShashtho Pharmaceuticals |  |  |
| Health Care Pharmaceuticals |  |  |
| Incepta Pharmaceuticals Ltd. |  |  |
| Jayson Pharmaceuticals Ltd. |  |  |
| Kemiko Pharmaceuticals Ltd. |  |  |
| Labaid Pharmaceuticals Ltd |  |  |
| Leon Pharma Ltd |  |  |
| Medicon Laboratories Ltd. |  |  |
| Modern Pharmaceuticals Ltd. |  |  |
| Monico Pharma Limited |  |  |
| Medimet Pharma Ltd |  |  |
| Navana Pharmaceuticals Ltd. |  |  |
| Novo Healthcare \& Pharma Ltd. |  |  |
| Nipro JMI Pharma Ltd |  |  |

NIP Chemical \& Pharmaceutical Opsonin Pharma Ltd.
Organic Health Care
Orion Pharma Ltd
Pacific Pharmaceuticals Ltd
Pharmadesh Laboratories Ltd
Pharmasia Ltd
Popular Pharmaceuticals Ltd
Renata Limited
RAK Pharma Ltd
Sanofi-Aventis Bangladesh Ltd
Social Marketing Company
Sharif Pharmaceuticals Ltd
Square Pharmaceuticals Ltd.
The Acme Laboratories Ltd.
The Ibn Sina Pharma.Ind.Ltd
Unimed \& Unihealth Pharma
Virgo Pharma Ltd

## Customers of Paper Industries

| Paper Industries |  |  |
| :--- | :--- | :--- |
| Sadeque Paper \& Board Mills |  |  |
| Tanveer Paper Mills Ltd |  |  |
| Capital Paper Mills Ltd |  |  |
| Younus Paper Mills Ltd |  |  |
| Bashundharal Paper Mills Ltd |  |  |
| AL-Noor Paper Mills Ltd |  |  |
| Afil Paper Mills Ltd |  |  |
| Sayma Chemicals |  |  |
| Mack Paper \& Board Mills Ltd |  |  |
| T K Paper Products Ltd |  |  |
| MEB Paper \& Board Mills Ltd |  |  |

# The Project Part 

## Introduction

Maritime Entrepreneurs Pte. Ltd. several offices in home and abroad. In Bangladesh, it has offices in Mohakhali, Motijheel, Mitford and Chittagong. In each office it has several departments like Accounts, Commercial, Marketing, HR etc. In all of these departments, employees perform various types of works. The Commercial people import the products, the Marketing people sell the product and collect the payments, the Accounts people receive the payments and arrange payments for all expenses, the HR people deal with company policy and other employees and the Warehouse people store and supply the products. Most of these works are done by using Oracle software, email and internet. Here, I discussed and analyzed the overall satisfaction level of the employees who perform all of these activities.

## Objectives of the Study

## Major Objective

The major objective of this report is to acquire practical knowledge and experience on the overall functions of a trading company, here, which is Maritime Entrepreneurs Pte. Ltd. The major functions of the employees of various departments include importing company products, which are raw materials of other industries, storing and then selling those products, collecting payments, meeting all the day to day and other expenses, dealing with people and polices and all other activities to run the company.

## Specific Objectives

A) To describe the overall activities conducted in Maritime Entrepreneurs Pte. Ltd., Bangladesh.
B) Identify the overall satisfaction level of employees of all the departments in Maritime Entrepreneurs Pte. Ltd.
C) Find out the actual assessment by the employees towards the process in which they perform.
D) To analyze the results found through survey.
E) To find out the problems behind the overall activities conducted in Maritime Entrepreneurs Pte. Ltd. with regards to the employees' expectation.
F) Suggest ways of improving the efficiency and effectiveness of the functions and process of Maritime Entrepreneurs Pte. Ltd. in order to meet the employees' requirement.

## Significance of the Study

Through this study Maritime Entrepreneurs Pte. Ltd. would be able to understand the current situation and overall satisfaction level of employees who conduct various types of functions in this company. This report would shed light into the areas of the company's different operations where it needs to improve and into areas where it has hidden efficiency.

## Scope of the Report

As the internship has been conducted at Maritime Entrepreneurs Pte. Ltd., the scope of the study is limited within the day to day activities of this company. The report covers some of its general information and overall operations, the overall satisfaction level on this issue, of the company.

## Methodology

The study requires a systematic procedure from selection of the topic to the preparation of the final report. To perform the study, the data sources were to be identified and collected, to be classified, analyzed, interpreted and presented in a systematic manner and key points were to be found. For analyzing the primary data I have used the following statistical tool-
$\checkmark$ MINITAB 13
$\checkmark$ MS Excel
By using MINITAB 13, I have analyzed the data, produced output and also interpreted the output. I used the data to perform- Factor analysis and Multiple Regression analysis. The overall process of methodology has been given bellow.

## Data collection method

The study has been conducted on Maritime Entrepreneurs Pte. Ltd. Bangladesh. For the purpose of analyzing all the information in the study, the information has been incorporated and collected from both the primary, and the secondary sources. To finalize the study along with other methods, observation method is also used.

## a) Primary Data

Primary data was collected through a survey with a carefully prepared questionnaire. The survey conducted on the employees of Maritime Entrepreneurs Pte. Ltd., who carry out all the functions of company. This was conducted on all types of employees working in all the departments including emplo of different positions (e.g. Executives, Senior Executives, Asst. Manager, Manager, Senior Manager, A etc.), so that this research becomes a very good proof of the employees' overall satisfaction level a trading company.

## b) Secondary Data

Some data were collected from secondary sources. The study took place through exploitation of secondary data from the internet. The secondary data also included the company archive, various newspapers, journals, websites, annual report of Maritime Entrepreneurs Pte. Ltd. and also published material supplied by the company.

## Results

For analyzing the satisfaction level of the employees of Maritime Entrepreneurs Pte. Ltd., Bangladesh, who conduct all the functions ot run the company, I took some of the specific factors as independent variables. These factors are:
A) Environment
B) Software and Equipment
C) Co-workers and Culture
D) Remuneration and Benefits
A) Environment includes:

1) working environment
2) Office building (including outlook, location, building facilities, etc.)
3) Overall working process (including work load, system of work, office timing, etc.)
B) Software and Equipment includes:
4) Receiving/sending the materials (that employees sell or purchase) and the documents
5) Equipments provided to the employees for their work (including stationery, PC/laptop, desk/chair, T\&T/mobile phone, internet access, etc.)
6) Software/Computer application used for work
C) Co-workers and Culture includes:
7) Behavior and co-operation of the employees of respective department
8) Behavior and co-operation of the employees excluding respective department
9) Behavior and assistance of the management of the office
10) Culture of the office
D) Remuneration and Benefits includes:
11) Various rules and policies of the office
12) Salary and other remunerations (Including various bonuses, allowances, etc.)
13) Designation of his/her job
14) Reputation of the company

I have asked several questions for each of the factors and collected the information. There were five options in the answers of each of the questions. The options are structured in such a way so that option (a) represents very high satisfaction, option (b) represents high satisfaction, option (c) represents neutrality, option (d) represents low satisfaction, and option (e) represents very low satisfaction. That's why I put for options (a) (b) (c) (d) and (e) the satisfaction level $100 \%, 80 \%, 60 \%, 40 \%$, and $20 \%$ respectively. For example, if a respondent choose option (b) he is marking satisfaction level $80 \%$ on that regard.

The dependent variable is the sole satisfaction level of the employees about the overall activities of this company, which was asked in the last question of the questionnaire. This answer was valued similarly which was mentioned above.

## General Hypothesis

The main concern of this report is the satisfaction level of the employees of Maritime Entrepreneurs Pte. Ltd., who conduct all the functions to run the company. My hypothesis was that 'the activities related with Environment, Software \& Equipment, Co-Workers \& Culture and Remuneration \& Benefits do not affect the Real Satisfaction Level of the employees' before conducting the survey and preparing the report. Now I prepared the report after conducting the survey and found the results. At the interpretation part of the report I will show whether my hypothesis was correct or not.

## Sample of the Questionnaire

| INSTRUCTION: Please place a tick $(\sqrt{ })$ mark against the answer you think should be most appropriate. |  |  |  | T | $\begin{aligned} & \ddot{0} \\ & \stackrel{0}{\#} \\ & \tilde{W} \\ & \stackrel{0}{0} \\ & Z \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Are you satisfied with: |  |  |  |  |  |  |
| 1 | The working environment of your job? |  |  |  |  |  |
| 2 | The office building (including outlook, location, building facilities, etc.)? |  |  |  |  |  |
| 3 | The overall working process (including work load, system of work, office timing, etc.)? |  |  |  |  |  |
| 4 | Receiving/sending the materials (that you sell or purchase) and the documents? |  |  |  |  |  |
| 5 | The equipments provided to you for your work (including stationery, PC/laptop, desk/chair, T\&T/mobile phone, internet access, etc.)? |  |  |  |  |  |
| 6 | The software/computer application you use for your work? |  |  |  |  |  |
| 7 | The behavior and co-operation of the employees of your department? |  |  |  |  |  |
| 8 | The behavior and co-operation of the employees excluding your department? |  |  |  |  |  |
| 9 | The behavior and assistance of the management of your office? |  |  |  |  |  |
| 10 | The culture of your office? |  |  |  |  |  |
| 11 | The various rules and policies of your office? |  |  |  |  |  |
| 12 | The salary and other remunerations (Including various bonuses, allowances, etc.)? |  |  |  |  |  |
| 13 | The designation of your job? |  |  |  |  |  |
| 14 | The reputation of your company? |  |  |  |  |  |
| 15 | Your job (overall)? |  |  |  |  |  |

There were 40 respondents in my survey, who work on this issue. The percentage satisfaction levels on each of the factors are presented below:

| Respondents <br> (N) | Satisfaction $(\mathbf{Y})$ | Environment (X1) | Software <br>  <br> Equipment <br> (X2) | Co-workers \& Culture (X3) | Remuneration \& Benefits (X4) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 100 | 93.4 | 90 | 93.4 | 100 |
| 2 | 60 | 23.33 | 73.4 | 80 | 80 |
| 3 | 80 | 80 | 70 | 80 | 40 |
| 4 | 100 | 73.4 | 80 | 80 | 40 |
| 5 | 20 | 66.6 | 40 | 23.33 | 27.5 |
| 6 | 100 | 80 | 90 | 80 | 60 |
| 7 | 80 | 40 | 80 | 66.6 | 80 |
| 8 | 20 | 40 | 23.33 | 27.5 | 22.5 |
| 9 | 80 | 80 | 70 | 66.6 | 40 |
| 10 | 80 | 60 | 90 | 66.6 | 80 |
| 11 | 80 | 86.6 | 80 | 90 | 80 |
| 12 | 100 | 93.4 | 100 | 93.4 | 80 |
| 13 | 80 | 86.6 | 93.4 | 70 | 80 |
| 14 | 80 | 80 | 80 | 93.4 | 80 |
| 15 | 80 | 80 | 70 | 80 | 60 |
| 16 | 80 | 66.6 | 70 | 73.4 | 60 |
| 17 | 100 | 80 | 90 | 80 | 60 |
| 18 | 80 | 40 | 73.4 | 66.6 | 80 |
| 19 | 80 | 80 | 90 | 73.4 | 80 |
| 20 | 80 | 66.6 | 70 | 73.4 | 60 |
| 21 | 80 | 80 | 70 | 80 | 40 |
| 22 | 100 | 73.4 | 80 | 80 | 40 |
| 23 | 80 | 66.6 | 70 | 73.4 | 60 |
| 24 | 100 | 80 | 90 | 80 | 60 |
| 25 | 80 | 40 | 80 | 66.6 | 80 |
| 26 | 80 | 86.6 | 80 | 90 | 80 |
| 27 | 80 | 66.6 | 70 | 73.4 | 60 |
| 28 | 100 | 80 | 90 | 80 | 60 |
| 29 | 80 | 80 | 80 | 93.4 | 80 |
| 30 | 80 | 80 | 70 | 80 | 60 |
| 31 | 80 | 46.6 | 80 | 66.6 | 80 |
| 32 | 80 | 80 | 90 | 73.4 | 80 |
| 33 | 80 | 80 | 70 | 66.6 | 40 |
| 34 | 80 | 60 | 90 | 66.6 | 80 |
| 35 | 80 | 86.6 | 80 | 90 | 80 |
| 36 | 100 | 93.4 | 100 | 93.4 | 80 |
| 37 | 80 | 86.6 | 80 | 90 | 80 |
| 38 | 80 | 66.6 | 70 | 73.4 | 60 |
| 39 | 80 | 80 | 70 | 70 | 40 |
| 40 | 100 | 80 | 90 | 80 | 60 |

We will do all our calculations at $10 \%$ significance level.

## Descriptive Statistics: Satisfaction (Y), Environment (X1), Software \& Equipment (X2),

Co-workers \& Culture (X3), and Remuneration \& Benefits (X4)

| Variable | N | Mean | Median | TrMean | St.Dev | SE Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Satisfaction | 40 | 84.50 | 80.00 | 84.44 | 9.59 | 1.52 |
| Environment | 40 | 74.40 | 80.00 | 75.26 | 13.85 | 2.19 |
| Software \& Equipment | 40 | 80.51 | 80.00 | 80.01 | 9.41 | 1.49 |
| Co-workers \& Culture | 40 | 78.01 | 80.00 | 77.79 | 9.01 | 1.43 |
| Remuneration \& Benefits | 40 | 67.00 | 70.00 | 67.22 | 16.04 | 2.54 |


| Variable | Minimum | Maximum | Q1 | Q3 |
| :--- | :---: | :---: | :---: | :---: |
| Satisfaction | 60.00 | 100.00 | 80.00 | 95.00 |
| Environment | 40.00 | 93.40 | 66.60 | 80.00 |
| Software \& Equipment | 70.00 | 100.00 | 70.00 | 90.00 |
| Co-workers \& Culture | 66.60 | 93.40 | 70.85 | 80.00 |
| Remuneration \& Benefits | 40.00 | 100.00 | 60.00 | 80.00 |

Examination of the mean, the standard deviation and the minimum and maximum indicates the potential application region for the model. The estimated regression model always passes through the mean of the model variables. Predicted values of the dependent variable, Real Satisfaction level, are usable over the range of the independent variables, Environment satisfaction level, Software \& Equipment satisfaction level, Co-workers \& Culture satisfaction level and Remuneration \& Benefits satisfaction level. These Descriptive Statistics also show that there are no unusual high or low values and all the measurements are satisfying.

The correlation matrix and matrix plots for the variables, Real Satisfaction, Environment, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits show the simple relationships between each other. Now, we can determine the strength of the linear relationships (correlation) from the data given below.

# Correlations: Satisfaction, Environment (X1), Software \& Equipment (X2), Co-workers \& Culture (X3) and Remuneration \& Benefits (X4) 

|  | Satisfaction | Environment | Software \& Equipment | Co-workers \& Culture |
| :--- | :--- | :---: | :---: | :---: |
| Environment | 0.298 |  |  |  |
| Software \& Equipment | 0.061 |  |  |  |
|  | 0.579 | 0.283 |  |  |
| Co-workers \& Culture | 0.000 | 0.077 | 0.75 | 0.291 |
|  | 0.029 | 0.000 | 0.069 | 0.265 |
| Remuneration \& Benefits -0.143 | -0.058 | 0.520 | 0.098 |  |

Cell Contents: Pearson correlation
P -Value

Examining the first column of the above correlation matrix we can see that the linear relationship between Satisfaction and Environment is positive but not so strong (0.298). But the p value shows that it is significant at $10 \%$ significance level (0.061). The linear relationship between Satisfaction and Software \& Equipment is quite strong and positive ( 0.579 ). The p value ( 0.000 ) shows that the relationship is true. The linear relationship between Satisfaction and Co-workers \& Culture is positive and little strong (0.345). The p value shows that it is significant ( 0.029 which is smaller than 0.05 ). The linear relationship between Satisfaction and Remuneration \& Benefits is negative and little strong ( -0.143 ). The p value shows that it is insignificant ( 0.378 is much higher than 0.1 ).

Our second task is to determine if there are strong simple relationships between the pairs of possible predictor variables. We can see that there are some strong linear relationships between some of the pairs of independent variables among Environment, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits. The p values also show that most of the relationships are quite significant.

The linear relationship between Environment and Software \& Equipment is not so strong and positive (0.283). The p value shows that it is marginally significant (0.077). The linear relationship between Environment and Co-workers \& Culture is very strong and positive ( 0.715 ). The p value ( 0.000 ) shows that the relationship is true. The linear relationship between Satisfaction and Remuneration \& Benefits is negative and little strong ( -0.143 ). The p value shows that it is insignificant ( 0.378 is much higher than 0.1 ). The linear relationship between Satisfaction and Remuneration \& Benefits is negative and little strong ( -0.143 ). The p value shows that it is insignificant ( 0.378 is much higher than 0.1 ).

The linear relationship between Software \& Equipment and Co-workers \& Culture is positive and little strong (0.291). The p value shows that it is marginally significant (0.069). The linear relationship between Software \& Equipment and Remuneration \& Benefits is quite strong and positive (0.520). The p value shows that it is highly significant (0.001).

The linear relationship between Co-workers \& Culture and Remuneration \& Benefits is little strong and positive ( 0.265 ). The p value ( 0.098 ) shows that it is significant at $10 \%$ significance level.

Here, we can see that except one pair, almost all the pairs of independent variables have true and strong linear relationship between them. We know the correlation between independent variables always increase the coefficient standard error. It hampers the effectiveness of the model. We can check this effect while examining the multiple regression models for these variables.

## Multiple Regression Model

Now we will estimate the first multiple regression model. I assumed that the satisfaction level of the employees of Maritime Entrepreneurs Pte. Ltd. directly on some specific factors like Environment, Coworkers \& Culture, Software \& Equipment and Remuneration \& Benefits. Therefore I selected Satisfaction as dependent variable and Environment, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits as independent variables. The multiple regression analysis is shown below.

## Hypotheses:

Null: All the four variables, Environment, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits do not affect the Real Satisfaction level.

Alternative: Those four variables affect the Real Satisfaction level.

Regression Analysis: Satisfaction (Y) versus Environment (X1), Software \& Equipment (X2), Co-workers \& Culture (X3) and Remuneration \& Benefits (X4)

The regression equation is,

Satisfaction $(Y)=11.4-0.323$ Environment $(X 1)+0.985$ Software \& Equipment (X2)
+0.659 Co-workers \& Culture (X3) - 0.501 Remuneration \& Benefits (X4)

Coef
11.374
$-0.32274$
0.9850
0.6586
$-0.50060$
0.06770
$-7.39$
$\underline{\underline{x}}$

| Constant | 11.374 | 8.998 | 1.26 | 0.215 |
| :--- | :--- | :--- | :--- | :--- |
| Environment | -0.32274 | 0.09541 | -3.38 | 0.002 |
| Software \& Equipment | 0.9850 | 0.1088 | 9.05 | 0.000 |
| Co-workers \& Culture | 0.6586 | 0.1437 | 4.58 | 0.000 |
| Remuneration \& Benefits | -0.50060 | 0.06770 | -7.39 | 0.000 |

Analysis of Variance:

| Source | $\underline{\text { DF }}$ | $\underline{\text { SS }}$ | $\underline{\text { MS }}$ | $\underline{\mathbf{F}}$ | $\underline{\mathbf{P}}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Regression | 4 | 2707.22 | 676.80 | 26.83 | 0.000 |
| Residual Error | 35 | 882.78 | 25.22 |  |  |
| Total | 39 | 3590.00 |  |  |  |
|  |  |  |  |  |  |


| Source | DF | Seq SS |
| :--- | :--- | :--- |
| Environment | 1 | 319.80 |
| Software \& Equipment | 1 | 956.07 |
| Co-workers \& Culture | 1 | 52.23 |
| Remuneration \& Benefits | 1 | 1379.12 |

## Unusual Observations

| Obs | Environment | Satisfac | Fit | SE Fit | Residual | St Resid |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1}$ | 93.4 | 100.000 | 81.339 | 2.258 | 18.661 | 4.16 R |
| $\mathbf{2}$ | 80.0 | 60.000 | 70.498 | 1.833 | -10.498 | -2.25 R |

R denotes an observation with a large standardized residual

## Analyzing the Multiple Regression Model:

Here, the estimated slope intercept is +11.4 , estimated slope coefficient of percentage satisfaction level on Environment is -0.323 , estimated slope coefficient of percentage satisfaction level on Software \& Equipment is +0.985 , and estimated slope coefficient of percentage satisfaction level on Co-workers \& Culture is +0.659 and estimated slope coefficient of percentage satisfaction level on Remuneration \& Benefits is -0.501 .

For the model, the F value is 26.83 and p value is 0.000 . We know a model will be acceptable if the p value is below 0.05 . It seems that the model is highly acceptable, which means at least one variable is significant for all possible values of Alpha.
$S=5.022$ is a measure of the variation of the observed percentage Real Satisfaction values from the regression line. Here, $S=5.022$ is moderately small relative to percentage Real Satisfaction value range.

From above, we can see that the value of R square is $75.4 \%$. We know that in theory, R square compares the amount of the error explained by the model as compared to the amount of error explained by averages. The higher the R-Square, the better the model is. An R-Square above $50 \%$ is generally considered quite well. So, without any doubt R square=75.4\% ensures that it's a fine model.

Now, here adjusted R-Square is $72.6 \%$. It means that truly, $72.6 \%$ of the dependent variable, percentage of Real Satisfaction, is explained by the independent variables percentage satisfaction level on

Environment, percentage satisfaction level on Software \& Equipment, percentage satisfaction level on Coworkers \& Culture and percentage satisfaction level on Remuneration \& Benefits.

The Degrees of Freedom for each coefficient is $n-k-1=40-4-1=35$.

So, Critical $\mathrm{t}=1.684$ at Alpha $=10 \%$.

For Environment, the t value is $|-3.38|>1.684$. P value is $0.002<0.01$. So, this variable is significant. The Standard Error of this variable, 0.09541 , is smaller compared to variable coefficient $|-0.32274|$. For Software \& Equipment, the t value is $9.05>1.684$. P value is $0.000<0.01$. So, this variable is significant. The Standard Error of this variable, 0.1088 is smaller compared to variable coefficient 0.9850 . For Coworkers \& Culture, the t value is $4.58>1.684$. P value is $0.000<0.01$. So, this variable is also significant. The Standard Error of this variable, 0.1437 is smaller compared to variable coefficient 0.6586 . For Remuneration \& Benefits, the t value is $|-7.39|>1.684$. P value is $0.000<0.01$. So, this variable is significant too. The Standard Error of this variable, 0.06770, is smaller compared to variable coefficient $\mid-$ $0.50060 \mid$.

From the above discussions, I can determine that all independent variables are explaining the dependent variable and all are highly significant.

## Interpretations:

Now, I can interpret in this way:

As, P value is 0.000 so, we reject the null hypothesis that all the four variables, Environment, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits do not affect the Real Satisfaction level. So, those four variables affect the Real Satisfaction level.

Each unit increase in satisfaction level on Environment, results in a 0.323 decrease in percentage Real Satisfaction level. Each unit increase in satisfaction level on Software \& Equipment, results in a 0.985 increase in percent in Real Satisfaction level. Each unit increase in satisfaction level on Co-workers \& Culture, results in a 0.659 increase in percentage Real Satisfaction level. Each unit increase in satisfaction level on Remuneration \& Benefits, results in a 0.501 decrease in percent in Real Satisfaction level.

The estimated intercept is 11.4 increases in percent in Real Satisfaction level. It is not explained by percentage Environment satisfaction, percentage Software \& Equipment satisfaction, percentage Co-workers \& Culture satisfaction and percentage Remuneration \& Benefits satisfaction, but by some other variables not included here.

From pervious discussion, we saw that, except one pair, almost all the pairs of independent variables have true and strong linear relationship between them. So, it is increasing the coefficient standard error and hampering the effectiveness of the model. Therefore I excluded one independent variable after another and ran various multiple regression models and check for the effectiveness.

## Regression Analysis: Excluding Independent Variable X1 (Environment)

## Hypotheses:

Null: Excluding the variable Environment, the rest three variables Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits do not affect the Real Satisfaction level

Alternative: Those three variables affect the Real Satisfaction level

The regression equation is,

Satisfaction $(Y)=19.1+0.855$ Software \& Equipment (X2) + 0.291 Co-workers \& Culture (X3)

- 0.390 Remuneration \& Benefits (X4)

| Predictor | $\underline{\text { Coef }}$ | $\underline{\text { SE Coef }}$ | $\underline{\text { T }}$ | $\underline{\text { P }}$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Constant | 19.075 | 9.887 |  | 1.93 | 0.062 |
| Software \& Equipment | 0.8548 | 0.1156 |  | 7.40 | 0.000 |
| Co-workers \& Culture | 0.2914 | 0.1070 |  | 2.72 | 0.010 |
| Remuneration \& Benefits | -0.38985 | 0.06730 | -5.79 | 0.000 |  |
|  |  |  |  |  |  |
| S = 5.704 | R-Sq $=67.4 \%$ | R-Sq $(\mathrm{adj})=64.7 \%$ |  |  |  |

Analysis of Variance

| Source | DF | SS | MS | F | P |
| :--- | :---: | :---: | :--- | :--- | :--- |
| Regression | 3 | 2418.63 | 806.21 | 24.78 | 0.000 |
| Residual Error | 36 | 1171.37 | 32.54 |  |  |
| Total | 39 | 3590.00 |  |  |  |
|  |  |  |  |  |  |

## Source DF Seq SS

Software \& Equipment 1205.30

Co-workers \& Culture 121.57
Remuneration \& Benefits 1091.76

## Unusual Observations

| Obs | Software \& Equipment | Satisfac | Fit | SE Fit | Residual | St Resid |
| :---: | :---: | :--- | :--- | :--- | :--- | :--- |
| 1 | 90 | 100.000 | 84.235 | 2.373 | 15.765 | 3.04 R |
| 2 | 73 | 60.000 | 73.938 | 1.732 | -13.938 | -2.56 R |

$R$ denotes an observation with a large standardized residual

## Analyzing the Multiple Regression Model \# 2:

Here, excluding the independent variable Environment (X1), the estimated slope intercept is +19.1 , estimated slope coefficient of percentage satisfaction level on Software \& Equipment is +0.855 , and estimated slope coefficient of percentage satisfaction level on Co-workers \& Culture is +0.291 and estimated slope coefficient of percentage satisfaction level on Remuneration \& Benefits is -0.390 .

For the model, the F value is 24.78 and p value is 0.000 . It seems that the variables are significant.

R square $=67.4 \%$ tells that this model is OK. Adjusted R-Square is $64.7 \%$ means truly, $64.7 \%$ of the dependent variable, percentage of Real Satisfaction, is explained by the independent variables percentage satisfaction level on Software \& Equipment, percentage satisfaction level on Co-workers \& Culture and percentage satisfaction level on Remuneration \& Benefits. $S=5.704$ is moderately small relative to percentage Real Satisfaction value range.

The Degrees of Freedom for each coefficient is $n-k-1=40-3-1=36$.

So, Critical $\mathrm{t}=1.684$ at Alpha $=10 \%$.

For Software \& Equipment, the t value is $7.40>1.684$. P value is $0.000<0.01$. So, this variable is true. The Standard Error of this variable, 0.1156 is smaller compared to variable coefficient 0.8548 . For Co-
workers \& Culture, the t value is $2.72>1.684$. P value is $0.000<0.01$. So, this variable is also true. The Standard Error of this variable, 0.1070 is smaller compared to variable coefficient 0.2914 . For Remuneration \& Benefits, the t value is $|-5.79|>1.684$. P value is $0.000<0.01$. So, this variable is true too. The Standard Error of this variable, 0.06730 , is smaller compared to variable coefficient |-0.38985|.

From the above discussions, I can say that except first independent variable Environment, the rest three independent variables are explaining the dependent variable correctly and are highly significant.

## Interpretations:

As, P value is 0.000 so, we reject the null hypothesis that the three variables, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits do not affect the Real Satisfaction level. So, those three variables affect the Real Satisfaction level.

Each unit increase in satisfaction level on Software \& Equipment, results in a 0.855 increase in percent in Real Satisfaction level. Each unit increase in satisfaction level on Co-workers \& Culture, results in a 0.291 increase in percentage Real Satisfaction level. Each unit increase in satisfaction level on Remuneration \& Benefits, results in a 0.390 decrease in percent in Real Satisfaction level.

The estimated intercept is 19.1 increase in percent in Real Satisfaction level. It is not explained by percentage Software \& Equipment satisfaction, percentage Co-workers \& Culture satisfaction and percentage Remuneration \& Benefits satisfaction, but by some other variables not included here.

Now, I ran the third multiple regression model excluding the second independent variable Software \& Equipment Satisfaction level.

## Regression Analysis: Excluding Independent Variable X2 (Software \& Equipment)

## Hypotheses:

Null: Excluding the variable Software \& Equipment, the rest three variables Environment, Co-workers \& Culture and Remuneration \& Benefits do not affect the Real Satisfaction level Alternative: Those three variables affect the Real Satisfaction level

The regression equation is,

Satisfaction $(Y)=60.4-0.017$ Environment $(X 1)+0.459$ Co-workers \& Culture (X3)

- 0.155 Remuneration \& Benefits (X4)

| Predictor | $\underline{\text { Coef }}$ | $\underline{\text { SE Coef }}$ | $\underline{\text { T }}$ | $\underline{\text { P }}$ |
| :--- | :--- | :--- | :--- | :--- |
| Constant | 60.36 | 12.96 | 4.66 | 0.000 |
| Environment | -0.0171 | 0.1608 | -0.11 | 0.916 |
| Co-workers \& Culture | 0.4588 | 0.2560 | 1.79 | 0.081 |
| Remuneration \& Benefits | -0.1549 | 0.1008 | -1.54 | 0.133 |
|  |  |  |  |  |
| S = 9.052 | R-Sq $=17.8 \%$ | R-Sq $(\mathrm{adj})=11.0 \%$ |  |  |
|  |  |  |  |  |

Analysis of Variance

| Source | DF | SS | MS | F | P |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Regression | 3 | 640.11 | 213.37 | 2.60 | 0.067 |
| Residual Error | 36 | 2949.89 | 81.94 |  |  |
| Total | 39 | 3590.00 |  |  |  |


| Environment | 1 | 319.80 |
| :--- | :--- | :--- |
| Co-workers \& Culture | 1 | 126.56 |
| Remuneration \& Benefits | 1 | 193.74 |

## Unusual Observations

| Obs | Environment | Satisfac | Fit | SE Fit | Residual | St Resid |
| :---: | :--- | :--- | :---: | :---: | :---: | :--- |
| 2 | 80.0 | 60.00 | 83.30 | 2.10 | -23.30 | -2.65 R |

R denotes an observation with a large standardized residual

## Analyzing the Multiple Regression Model \# 3:

Here, excluding the independent variable Software \& Equipment (X2), the estimated slope intercept is +60.4 , estimated slope coefficient of percentage satisfaction level on Environment is -0.017 , and estimated slope coefficient of percentage satisfaction level on Co-workers \& Culture is +0.459 and estimated slope coefficient of percentage satisfaction level on Remuneration \& Benefits is -0.155 .

For the model, the F value is 2.60 and p value is 0.067 . It seems that some variables are significant at $10 \%$ significance level and others may not.

The value of R square $=17.8 \%$ tells that it is not a good model. Adjusted R-Square $=11.0 \%$ means that only $11.0 \%$ of the dependent variable, percentage of Real Satisfaction, is explained by the independent variables percentage satisfaction level on Environment, percentage satisfaction level on Co-workers \& Culture and percentage satisfaction level on Remuneration \& Benefits. $\mathrm{S}=9.052$ is not small relative to percentage Real Satisfaction value range.

The Degrees of Freedom for each coefficient is $n-k-1=40-3-1=36$.

So, Critical $\mathrm{t}=1.684$ at Alpha $=10 \%$.
For Environment, the $t$ value is $|-0.11|<1.684$. P value, 0.916 means, the variable is not significant at all. The Standard Error of this variable, 0.1608 is higher compared to variable coefficient $|-0.0171|$. For Coworkers \& Culture, the t value is $1.79>1.684$. P value is $0.081<0.10$. So, this variable is marginally significant. The Standard Error of this variable, 0.2560 is little smaller compared to variable coefficient 0.4588. For Remuneration \& Benefits, the t value is $\quad|-1.54|<1.684$. P value is $0.133<0.10$. So, this variable is not significant. The Standard Error of this variable, 0.1008, is slightly smaller compared to variable coefficient $|-0.1549|$.

## Interpretations:

As, P value is 0.067 so, we reject the null hypothesis that the three variables, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits do not affect the Real Satisfaction level. So, those three variables affect the Real Satisfaction level. But as two of three variables are not significant, so the model is not that much significant.

From the above discussions, I can say that except second independent variable Software \& Equipment, the rest three independent variables are not explaining the dependent variable correctly and are not actually significant. Moreover the estimated intercept is 60.4 increase in percent in Real Satisfaction level is not explained by percentage Environment satisfaction, percentage Co-workers \& Culture satisfaction and percentage Remuneration \& Benefits satisfaction, but by some other variables. So, this model, having the three independent variable Environment, Co-workers \& Culture and Remuneration \& Benefits, is not a good model at all.

Now, I ran the forth multiple regression model excluding the third independent variable, Co-workers \& Culture Satisfaction level.

## Regression Analysis: Excluding Independent Variable X3 (Co-workers \& Culture)

## Hypotheses:

Null: Excluding the variable Co-workers \& Culture, the rest three variables Environment, Software \& Equipment and Remuneration \& Benefits do not affect the Real Satisfaction level

Alternative: Those three variables affect the Real Satisfaction level

The regression equation is,

Satisfaction $(\mathrm{Y})=35.1+0.0075$ Environment $(\mathrm{X} 1)+0.908$ Software \& Equipment (X2)

- 0.362 Remuneration \& Benefits (X4)

| Predictor | Coef | $\underline{\text { SE Coef }}$ | $\underline{T}$ | $\underline{\text { P }}$ |
| :--- | :---: | :--- | :--- | :---: |
| Constant | 35.084 | 9.181 | 3.82 | 0.001 |
| Environment | 0.00751 | 0.07798 | 0.10 | 0.924 |
| Software \& Equipment | 0.9085 | 0.1341 | 6.77 | 0.000 |
| Remuneration \& Benefits | -0.36241 | 0.07559 | -4.79 | 0.000 |
| S = 6.264 $\quad$ R-Sq $=60.7 \%$ | R-Sq $(\operatorname{adj})=57.4 \%$ |  |  |  |

## Analysis of Variance

| Source | DF | SS | MS | F | P |
| :--- | :--- | :--- | :--- | :---: | :---: |
| Regression | 3 | 2177.62 | 725.87 | 18.50 | 0.000 |
| Residual Error | 36 | 1412.38 | 39.23 |  |  |
| Total | 39 | 3590.00 |  |  |  |


| Source | DF | Seq SS |
| :--- | :--- | :---: |
| Environment | 1 | 319.80 |
| Software \& Equipment | 1 | 956.07 |
| Remuneration \& Benefits | 1 | 901.74 |

## Unusual Observations

| Obs | Environment | Satisfac | Fit | SE Fit | Residual | St Resid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | 93.4 | 100.000 | 81.309 | 2.816 | 18.691 | 3.34 R |
| $\mathbf{2}$ | 80.0 | 60.000 | 73.376 | 2.148 | -13.376 | -2.27 R |

R denotes an observation with a large standardized residual

## Analyzing the Multiple Regression Model \# 4:

Here, excluding the independent variable Co-workers \& Culture (X3), the estimated slope intercept is +35.1 , estimated slope coefficient of percentage satisfaction level on Environment is +0.0075 , and estimated slope coefficient of percentage satisfaction level on Software \& Equipment is +0.908 and estimated slope coefficient of percentage satisfaction level on Remuneration \& Benefits is -0.362 .

For the model, the F value is 18.50 and p value is 0.000 . It seems that the variables are significant.

R square $=60.7 \%$ tells that this model is OK. The Adjusted R-Square is $57.4 \%$ means truly, $57.4 \%$ of the dependent variable, percentage of Real Satisfaction, is explained by the independent variables percentage satisfaction level on Environment, percentage satisfaction level on Software \& Equipment and percentage satisfaction level on Remuneration \& Benefits. $\mathrm{S}=6.264$ is moderately small relative to percentage Real Satisfaction value range.

The Degrees of Freedom for each coefficient is $\mathrm{n}-\mathrm{k}-1=40-3-1=36$.

So, Critical $\mathrm{t}=1.684$ at Alpha $=10 \%$.

For Environment, the t value is $0.10<1.684$. P value is $0.924>0.01$. So, this variable is not significant at all. The Standard Error of this variable, 0.07798 is higher compared to variable coefficient 0.00751. For Software \& Equipment, the t value is $6.77>1.684$. P value is $0.000<0.01$. So, this variable is
significant. The Standard Error of this variable, 0.1341 is smaller compared to variable coefficient 0.9085 . For Remuneration \& Benefits, the t value is $|-4.79|>1.684$. P value is $0.000<0.01$. So, this variable is also significant. The Standard Error of this variable, 0.07559 , is smaller compared to variable coefficient $\mid-$ 0.36241 |.

## Interpretations:

As, P value is 0.000 so, we reject the null hypothesis that the three variables, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits do not affect the Real Satisfaction level. So, those three variables affect the Real Satisfaction level. But as one of three variables is not significant, so the model is marginally significant.

Here, I excluded the third independent variable Co-workers \& Culture. Now, among the rest three independent variables, two variables are significant and the other one is not significant. The estimated intercept is 35.084 increase in percent in Real Satisfaction level. It is not explained by percentage Environment satisfaction, percentage Software \& Equipment satisfaction and percentage Remuneration \& Benefits satisfaction, but by some other variables not included here. Therefore, this model is marginally good model.

Now, I ran the fifth multiple regression model excluding the last independent variable, Satisfaction level on Remuneration \& Benefits.

## Regression Analysis: Excluding Independent Variable X4 (Remuneration \& Benefits)

## Hypotheses:

Null: Excluding the variable Remuneration \& Benefits, the rest three variables Environment, Software \& Equipment and Co-workers \& Culture do not affect the Real Satisfaction level

Alternative: Those three variables affect the Real Satisfaction level

The regression equation is,

Satisfaction $(Y)=25.9+0.018$ Environment $(X 1)+0.531$ Software \& Equipment (X2)

+ 0.185 Co-workers \& Culture (X3)

| Predictor | Coef | SE Coef | T | $\underline{P}$ |
| :---: | :---: | :---: | :---: | :---: |
| Constant | 25.91 | 13.86 | 1.87 | 0.070 |
| Environment | 0.0184 | 0.1318 | 0.14 | 0.889 |
| Software \& Equipment | 0.5313 | 0.1418 | 3.75 | 0.001 |
| Co-workers \& Culture | 0.1852 | 0.2031 | 0.91 | 0.368 |
| $\mathrm{S}=7.927 \quad \mathrm{R}-\mathrm{Sq}=37.0 \%$ | $(\mathrm{adj})=3$ | .7\% |  |  |

Analysis of Variance

| Source | DF | SS | MS | F | P |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Regression | 3 | 1328.10 | 442.70 | 7.05 | 0.001 |
| Residual Error | 36 | 2261.90 | 62.83 |  |  |
| Total | 39 | 3590.00 |  |  |  |

Source DF Seq SS

Environment 11319.80
Software \& Equipment $1 \quad 956.07$
Co-workers \& Culture $1 \quad 52.23$

## Unusual Observations

| Obs | Environment | Satisfac | Fit | SE Fit | Residual | St Resid |
| :---: | :--- | :--- | ---: | :--- | :--- | :--- |
| $\mathbf{2}$ | 80.0 | 60.00 | 81.20 | 1.78 | -21.20 | -2.74 R |

R denotes an observation with a large standardized residual.

## Analyzing the Multiple Regression Model \# 5:

Here, excluding the independent variable Remuneration \& Benefits (X4), the estimated slope intercept is +25.9 , estimated slope coefficient of percentage satisfaction level on Environment is +0.018 , and estimated slope coefficient of percentage satisfaction level on Software \& Equipment is +0.531 and estimated slope coefficient of percentage satisfaction level on Co-workers \& Culture is +0.185 .

For the model, the F value is 7.05 and p value is 0.001 . It seems that variables are significant at $1 \%$ significance level. The value of R square $=37.0 \%$ tells that it is partially good model. Adjusted R -Square $=$ $31.7 \%$ means that $31.7 \%$ of the dependent variable, percentage of Real Satisfaction, is explained by the independent variables percentage satisfaction level on Environment, percentage satisfaction level on Software \& Equipment and percentage satisfaction level on Co-workers \& Culture. $\mathrm{S}=7.927$ is not so small relative to percentage Real Satisfaction value range.

The Degrees of Freedom for each coefficient is $n-k-1=40-3-1=36$.

$$
\text { So, Critical } \mathrm{t}=1.684 \text { at Alpha }=10 \%
$$

For Environment, the t value is $0.14<1.684$. P value, 0.889 means, the variable is not significant. The Standard Error of this variable, 0.1318 is higher compared to variable coefficient 0.0184 . For Software \& Equipment, the $t$ value is $3.75>1.684$. P value is $0.001<0.01$. So, this variable is significant. The Standard Error of this variable, 0.1418 is smaller compared to variable coefficient 0.5313 . For Co-workers \& Culture, the $t$ value is $0.91<1.684$. P value is $0.368>0.10$. So, this variable is not significant. The Standard Error of this variable, 0.2031 is higher than the variable coefficient 0.1852 .

## Interpretations:

As, P value is 0.001 so, we reject the null hypothesis that the three variables, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits do not affect the Real Satisfaction level. So, those three variables affect the Real Satisfaction level. But as one of three variables is not significant, so the model is marginally significant.

From the above discussions, I can say that excluding forth independent variable Remuneration \& Benefits, the rest three independent variables are not explaining the dependent variable correctly and two of
them are not significant. So, this model, having the three independent variable Environment, Co-workers \& Culture and Software \& Equipment, is not a good model at all.

As, we saw that the four independent variables, Environment, Software \& Equipment, Co-workers \& Culture and Remuneration \& Benefits affect the dependent variable Real Satisfaction level, so, the model \# 1 is very significant. But for two independent variables Software \& Equipment and Remuneration \& Benefits are significantly related with the dependent variable Real Satisfaction, excluding those two variables may hamper the acceptability of the model.

## Recommendations:

From the findings of the survey based on the employees' response it has been seen that most of the employees' said that the overall procedure of activities of Maritime Entrepreneurs Pte. Ltd. is satisfactory. Almost in every part of the procedure the company shows greater efficiency. Though Maritime Entrepreneurs Pte. Ltd. is providing effective and efficient system, it needs to improve its process in some of the parts. Here I have recommended some scope that might lead to increase the employees' satisfaction thus enhance the profitability of the company:

1. First of all the Maritime Entrepreneurs Pte. Ltd. should emphasis on the environment of the company. As many employees are dissatisfied with this issue. They do not feel good in that environment. Therefore they face many problems. The authority should provide proper environment so that the employees can feel better.
2. Secondly, the authority should be more careful about the relationship among the employees as many employees are not satisfied about their relationship with their co-workers. The Human Resource Department should take necessary steps to solve any problem among employees if arises and keep friendly environment in the company.
3. The company should also put attention on the software system. Many employees are bothered while working with the software because if more works are done at the same time the system becomes very slow. So the authority should improve the IT system to solve this problem.
4. The employees remain very busy most of the time. When someone does not show up one day it leaves a lot of pressure on the rest, who already have enough work of their own and then they have to also do the work of their absent colleague. So the company can hire some people to reduce the pressures of its employees.

## Limitations of the Study:

Some of the limitations faced in preparing this report are:

- It was very difficult to collect the necessary information from the company officials because of the time constraints faced by them.
- There were not enough employees working on this issue to make the sample size larger, while conducting the survey, to make this report a very good one.
- Some employees were not willing to give their opinions due to their privacy.
- There were difficulties in understanding some activities due to not being relevant to the theoretical knowledge.


## Conclusion

Maritime Entrepreneurs Pte. Ltd., Bangladesh is conducting its business of supplying raw materials for the food pharmaceuticals and cosmetics industries of the Bangladesh. It has been working very effectively and efficiently. It is one of the leading trading companies of Bangladesh. It is very committed to preserve a healthy and pollution-free environment. There are very well designed systems in all the sectors inside the company.

I worked in Maritime Entrepreneurs Pte. Ltd. as an executive in the Finance and Accounts Department. Here I learned the different procedures of the functions of this department. I prepared a report on the procedure of some specific functions of this department. The subject of my report was 'Overall Employee Satisfaction of Maritime Entrepreneurs Pte. Ltd.' My hypothesis was that 'the employees were satisfied with their activities' before conducting the survey and preparing the report. Now I prepared the report after conducting the survey and found the results. I found that my hypothesis was correct and the employees are actually satisfied with their respective works.

Therefore it is clear that Maritime Entrepreneurs Pte. Ltd. is able to motivate its employees and arranged proper facilities for its employees. It seems that Maritime Entrepreneurs Pte. Ltd. is benefiting and adding value to the common wealth of this society through each of its activities. Maritime Entrepreneurs Pte. Ltd. believes that, it is accountable to each of the constituents with whom it interacts; namely: its employees, its customers, its business associates, its fellow citizens and its shareholders.

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Appendix

