

INDUSTRIAL TRAINING REPORT

AT

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REPORT

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UNIVARIATE FORECASTING MODEL ON DEMAND OF FORKLIFT

AT PBKSB AND BOX-JENKINS METHODOLOGY

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“In the name of ALLAH the Most Gracious, the Most Merciful”

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ABSTRACT

The purpose of this study was to forecast model for total hour's demands of forklift at Kemaman Supply Base from year January 2003 until April 2013. This is forecast model based on objective in the study. The objectives of this study are to identify and describe the underlying structure and the phenomenon as depicted by the sequence of data, to determine the best model that can be used to forecast the total hours of demand forklift by client at KSB, and to forecast the total hours of demand forklift from KSB's clients for two years forward. The dataset have 132 monthly observations. The dataset is secondary data was collected by SAP System. Forklift is an industry handling vehicle which is refers to various kinds of wheeled cargo handling vehicles to do loading and unloading goods. Port operation process has always uncertain due to the seasonal and fluctuating throughput demand, plus with the delaying in the daily operation, breakdown and maintenance of the equipment. Forklift demand and other heavy machineries are the most important equipment when operating the logistic industries especially at terminal. Demands of forklift at port increase due to the increase the activities of drillings for oil and gas industries. From the analysis, it is found that the data been influenced by trend component and there is seasonal component. Then, comparison has done to test two methods that are Univariate Techniques Modeling and Box-Jenkins Methodology. So, it was found that the best model for forecasting if Holt-Winters' Multiplicative technique. Then, the model has been used to forecast total hours demand of forklift at KSB for twelve month in year May 2014 until April 2015. The future values for demand forklift at KSB keep increasing time by time. All the objectives for this study achieved.

Keywords: forecasting, time series, forklift, SAP

TABLE OF CONTENTS

ACKNOWLEDGEMENT	i
ABSTRACT	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATION	viii
CHAPTER 1: ORGANIZATION BACKGROUND	
1.1 Background of the Industrial Training	1
1.2 Objectives of the Industrial Training	1
1.3 Industrial Training Attachment	
1.3.1 Profile of Organization	2
1.3.2 Vision of the Organization	3
1.3.3 Mission of the Organization	3
1.3.4 Business Overview	4
1.3.5 Organization Chart of Operation Department at PBKSB	5
1.3.6 Activities during Industrial Training	6
CHAPTER 2: RESEARCH PROJECT	
2.1 Introduction	7
2.2 Problem Statement	9
2.3 Objectives of the Study	9
2.4 Significance of the Study	10
2.5 Scope of the Study	10
2.6 Limitation of the Study	10
CHAPTER 3: LITERATURE REVIEW	
3.1 Introduction of Forklift	11
3.2 Market Demand of Forklift	13

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Target Population	16
4.2 The Data	16
4.2.1 Sources of Data	16
4.2.2 Description of Data	16
4.3 Method Analysis	17
4.3.1 Time Series Analysis	17
4.3.2 Univariate Modeling Technique	18
A. Introduction to the Model	18
B. Development of the Model	23
4.3.3 Box-Jenkins Methodology	24
A. The Model	25
B. Stage of the Box-Jenkins	27
4.3.4 Generate Forecast Values	29
4.4 Summary of the Analysis	30

CHAPTER 5: FINDINGS AND DATA ANALYSIS

5.1 Introduction	31
5.2 time Series analysis	31
5.2.1 Identify Outlier Cases by Box-Plot	31
5.2.2 The Pattern of Time Series Data	33
5.3 Univariate Modeling Techniques	34
5.4 Box-Jenkins Methodology	35
5.4.1 Initial Data Investigation	35
5.4.2 Perform the Seasonal Differencing	36
5.4.3 Perform the Non-Seasonal Differencing	38
5.4.4 Model Identification	39
5.4.5 Model Validation and Diagnostics Checking	
Portmanteau Test	40
5.4.6 Evaluation of SARIMA Model	41
5.5 Comparison between Univariate Modeling and Box-Jenkins Methodology	42
5.6 Generate Forecast Using Best Model	