



De La Salle University – Dasmariñas
GRADUATE PROGRAM

**FORECASTING AND INVENTORY MANAGEMENT
IMPROVEMENT AT JFE SHOJI STEEL
PHILIPPINES INC.**

A Management Research Paper Presented to the
Faculty of the Graduate School of Business
De La Salle University-Dasmariñas
Dasmariñas, City

In Partial Fulfillment of the Requirements for the
Degree Master in Business Administration with
Specialization in Supply Chain Management

RHOMEL A. SORIANO

September 2019



TABLE OF CONTENTS

	Page
TITLE PAGE	i
DEED OF DECLARATION	ii
APPROVAL SHEET	iii
BIOGRAPHICAL SKETCH	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF APPENDICES	xii
EXECUTIVE SUMMARY	xv
INTRODUCTION	1
Global Company Background	1
Business Interest in the Philippines	4
JFE Group of Companies in the Philippines	5
Local Company Background	6
Financial Performance of JSSP	8
RESEARCH DESIGN AND METHODOLOGY	11
Research Design	11



Scope and Limitations	11
Sources of Data	12
Organization and Management of JSSP	12
Key Performance Indicators	21
Different Supply Chain Management Function in JSSP	23
ANALYSIS OF DATA AND FINDINGS	27
Mission Statement	27
Vision Statement	27
Management System Policy	28
Analysis of Data	28
Sales Forecasting	33
Material Planning	35
Ordering of Materials	40
Problems encountered in the current system	41
Proposed Improvement on Supply Chain Management	51
Action Plan	61
Implication of the Proposed Improvement	66
CONCLUSIONS AND RECOMMENDATIONS	69
Conclusion	69
Proposed Balanced Scorecard	70



Recommendations	73
REFERENCES	77
APPENDICES	78





LIST OF TABLES

Table		Page
1	Different Commodities of JSSP	7
2	Financial Statistics of JSSP	9
3	JSSP Current KPI of Purchasing, Logistics and Inventory Control	22
4	Suppliers Delivery Lead Time and MOQ	36
5	5 Why Analysis on High Inventory Level	43
6	Actual vs Forecast	48
7	Summary of Root Causes of High Inventory Level and List of Improvement Proposals	53
8	Proposed KPIs for Marketing Section	55
9	Proposed KPIs for HR/CS Section	58
10	Proposed Additional KPIs for Sales Section	61
11	Financial Statistics of JSSP after the Proposed Improvement	67

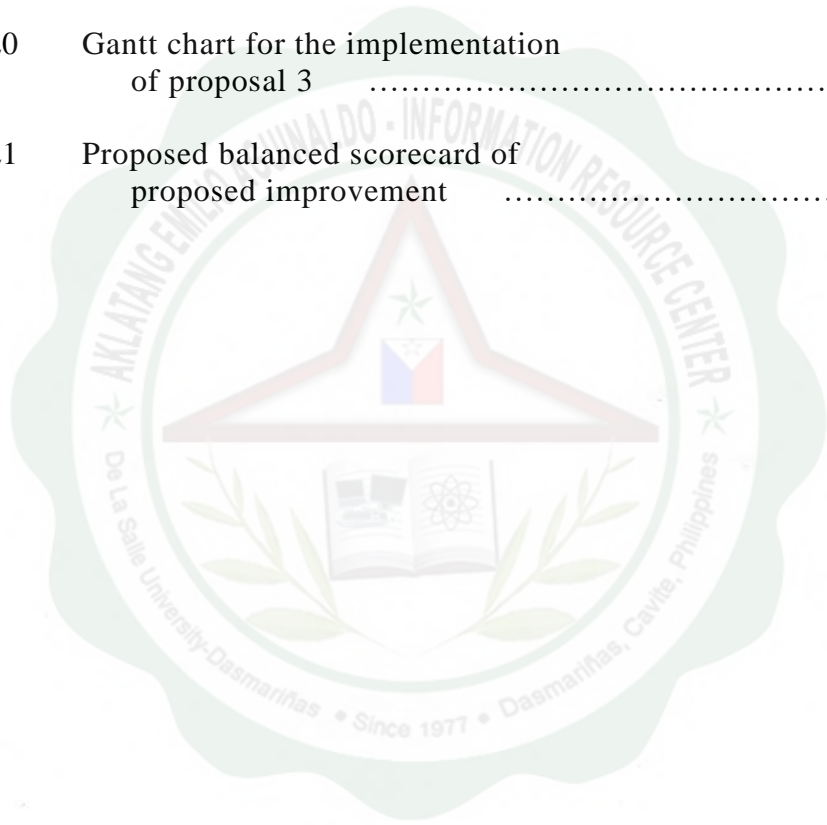


LIST OF FIGURES

Figures		Page
1	JFE holdings structure	2
2	Global network of JFE	4
3	JFE group of companies in the Philippines	6
4	JSSP organizational structure	13
5	Purchasing and sales organizational chart	18
6	JSSP supply chain management	24
7	JSSP reverse logistics	26
8	Stock ratio of JSSP	30
9	Total loss of JSSP due to disposal	31
10	JSSP storage charges at the port	32
11	Sources of information of sales forecasting in JSSP	33
12	Factors being considered during materials planning in JSSP	35
13	UKEBARAI	39
14	Flow of ordering of materials in JSSP	41
15	Fish bone diagram showing the probable causes of high inventory level	42
16	Pareto diagram of top customers	46



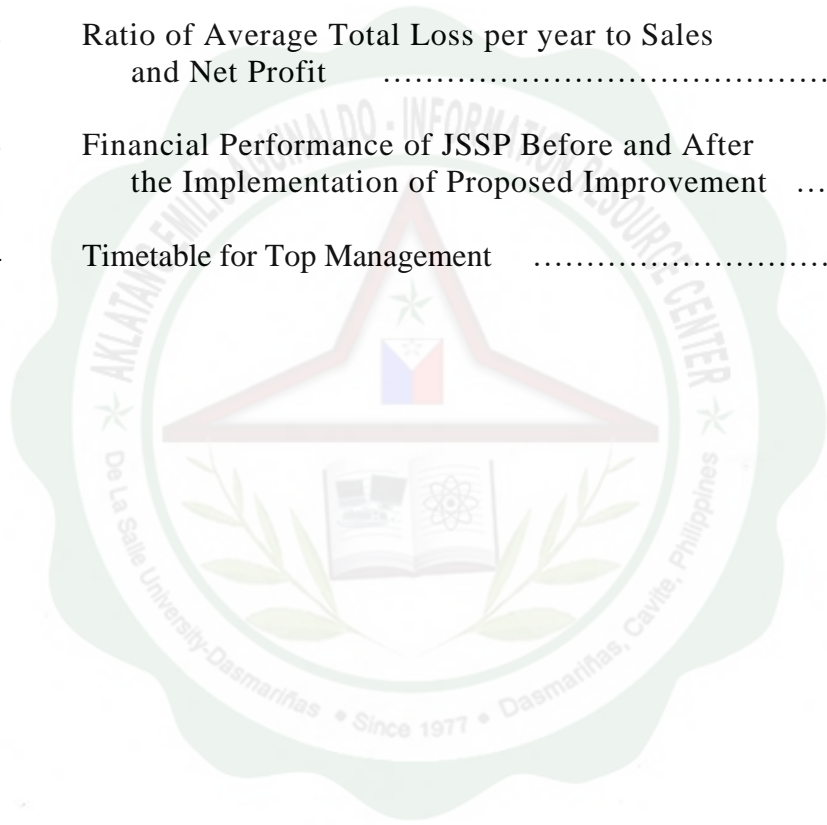
17	Proposed re-structuring of sales and purchasing department	54
18	Proposed training programs for sales, purchasing and marketing department	57
19	Gantt chart for re-structuring sales and purchasing department	63
20	Gantt chart for the implementation of proposal 3	66
21	Proposed balanced scorecard of proposed improvement	71





LIST OF APPENDIX TABLES

Appendix Tables	Page
1 Raw Data of Storage Charges and Disposal Loss	79
2 Ratio of Average Total Loss per year to Sales and Net Profit	80
3 Financial Performance of JSSP Before and After the Implementation of Proposed Improvement	81
4 Timetable for Top Management	82





LIST OF APPENDIX FIGURES

Appendix Figures	Page
1 JSSP company	85
2 JSSP slitting machines	86
3 JSSP shearing machines	87
4 JSSP products	88
5 AS400 program	89
6 Fishbone diagram	90
7 5 WHY analysis	91
8 Pareto diagram	92
9 Balanced scorecard	93
10 Inventory turnover ratio	94



LIST OF APPENDICES

Appendix		Page
A	Curriculum Vitae	95
B	Certification of English Editor	97





EXECUTIVE SUMMARY

JSSP has problems on forecasting and inventory management that resulted to high inventory level. The research aimed to improve the forecasting and inventory management of JSSP to solve additional costs in terms of storages charges and loss due to disposal of aging inventories. This improvement will standardize the process of ordering of materials, improve inventory level, minimize loss due disposal and storage charges, and maximize the utilization of warehouse space.

The activities of purchasing and sales department which is the focus of this study were evaluated and discussed in detailed considering the flow in supply chain management. The sales and purchasing manager will play a big role for the realization of the proposed improvement as the leader for proper implementation, monitoring, and evaluation.

The best way to address the problem is to make necessary actions once the root causes has been identified. Fishbone (Ishikawa) diagram and 5 why analysis was used to identify and analyze possible causes of the problem. Three major factors that resulted to high inventory level were identified, namely, a) lack of market research, b) lack of training, and c) unreliable forecast. This high inventory level resulted to not enough space in the warehouse resulting to storage charges at the port and huge loss due to high disposal of aging inventory.



Pareto diagram was used to further analyze and confirm that unreliable forecast led to high inventory level. Historical data from 2014 to 2018 was tabulated to identify top customers and check the discrepancy between actual sales and forecasted demand.

The proposed improvement includes restructuring the organization to add a new unit which is the marketing section; formal training the sales, purchasing and marketing department; and establish a standard sales forecast error. It is expected that the target inventory stock level of 2.5 months will be met in order to eliminate or incur only minimal storage charges at the port as well as disposal of aging inventories. A balance scorecard will help to monitor the implementation of the plan and to further evaluate the performance of the sales and purchasing department. This also ensures that corrective actions to problems are made and inventory management contributes to increase the profitability of the company with the support of the management.