BUSINESS FEASIBILITY STUDY OF FACTORY EXPANSION OF OLYMPIC GROUP IN SURABAYA

THESIS

HOTMAN SAUT NAINGGOLAN 0706170021



UNIVERSITY OF INDONESIA FACULTY OF ECONOMICS MAGISTER OF MANAGEMENT MASTER OF BUSINESS ADMINISTRATION PROGRAM STUDY MM-MBA JAKARTA FEBRUARY 2009

Business feasibility..., Hotman Saut Nainggolan, FE UI, 2009

BUSINESS FEASIBILITY STUDY OF FACTORY EXPANSION OF OLYMPIC GROUP IN SURABAYA

THESIS

Submitted to fulfill one of the requirements to obtain degree of Magister Management

HOTMAN SAUT NAINGGOLAN 0706170021



UNIVERSITY OF INDONESIA FACULTY OF ECONOMICS MAGISTER OF MANAGEMENT MASTER OF BUSINESS ADMINISTRATION PROGRAM STUDY MM-MBA JAKARTA FEBRUARY 2009

Business feasibility..., Hotman Saut Nainggolan, FE UI, 2009

STATEMENT OF ORIGINALITY

This final paper represents my own effort,

any idea or excerpt from other writers in this final paper, either in form of publication or in other form of publication, if any, have been acknowledged in this paper in accordance to the academic standard or reference procedures

Name	: Hotman Saut Nainggolan
Student Number	: 0706170021
Signature	the states
Date	: February 26, 2009

HALAMAN PENGESAHAN

:

Tesis ini diajukan oleh Nama NPM Program Studi Judul Tesis

Hotman Saut Nainggolan
0706170021
MM-MBA
Business Feasibility Study of Factory Expansion of Olympic Group in Surabaya

Telah berhasil dipertahankan di hadapan Dewan Penguji dan diterima sebagai bagian persyaratan yang diperlukan untuk memperoleh gelar Magister Management pada Program Studi Magister Management – Master of Business Administration, Fakultas Ekonomi, Universitas Indonesia.

	DEWAN PENGUJI
Pembimbing	: Dr. Andreas Raharso (Uulu)
Ketua	: Avanti Fontana, Ph.D (want)
Penguji	: Dr. Firmanzah ()

Ditetapkan di: Jakarta

Tanggal: 26 Februari 2009

PREFACE

Hallelujah, Great Glory in Jesus Christ for His Blessed in all my activities to complete my study in this MM-MBA dual degree of University of Indonesia and Grenoble University France.

In finishing my final paper, I would like to say sincerest appreciation to all parties for his encouragement, advice, direction, support, availability and patience and greatness thanks to :

- 1. Dr. Andreas Raharso, my lecturer advisor. I do respect his inspiration, motivation and his friendship. I will not forget for his high dedication in finalizing my final paper.
- 2. Rhenald Khasali, Ph.D. as Chief of MM Program of University of Indonesia.
- 3. Avanti Fontana, Ph.D as Coordinator of MM-MBA Program of University of Indonesia.
- 4. Dr. Firmanzah who gives me direction, suggestion to improve my final paper.
- 5. My love big family, special for my father Pdt. Pasu SH Nainggolan (Praeses HKBP District IBT Surabaya) and my mother Karolina br Sihaloho, my wife, my son and all my brothers and sisters.
- 6. My thanks to all librarians, academic and administrative staff of the University of Indonesia Master of Management Program for providing the resources needed for the completion of this final paper.
- 7. Mr. Edy Gunawan (CEO Olympic Group) who help me by providing scholarship program and also to Mrs. Esther Kurniawan as Managing Director, Mr. Suryadi as Chief Operating Officer who support me in beginning study till completing the MM-MBA program.

8. All my college in MM-MBA 07 for friendship, support for me.

Hopely, May our Lord God will give His Blessing for all kindness from all parties who help me. Finally, the author is expecting that this thesis could be useful for us.

Jakarta, February 2009

Author

Sebagai sivitas akademik Universitas Indonesia, saya yang bertanda tangan di bawah ini:

Nama : Hotman Saut Nainggolan NPM : 0706170021 Program Studi : MM – MBA Fakultas : Ekonomi Jenis karya : Tesis

Demi pengembangkan ilmu pengetahuan, menyetujui untuk memberikan kepada Universitas Indonesia **Hak Bebas Royalti Noneksklusif** (*Non-exclusive Royalty-Free Right*) atas karya ilmiah saya yang berjudul:

> Business Feasibility Study of Factory Expansion of Olympic Group in Surabaya

beserta perangkat yang ada (jika diperlukan). Dengan Hak Bebas Royalti Noneksklusif ini Universitas Indonesia berhak menyimpan, mengalihmedia / formatkan, mengelola dalam bentuk pangkalan data (*database*), merawat, dan memublikasikan tugas akhir saya tanpa meminta izin dari saya selama tetap mencantumkan nama saya sebagai penulis/pencipta dan sebagai pemiliki Hak Cipta.

Demikian pernyataan ini saya buat dengan sebenarnya.

Dibuat di : Jakarta Pada Tanggal : 26 Februari 2009 Yang menyatakan (Hotman Saut Nainggolan)

ABSTRACT

Name: Hotman Saut NainggolanConcentration: MM-MBATitle: Business Feasibility Study of Factory Expansion
of Olympic Group in Surabaya

The purpose of this thesis is to analyze feasibility study based marketing and financial analysis of factory expansion of Olympic Group in Surabaya. Nowadays Olympic has more and more order from customer both domestic market and international market. Now the capacity of production has been already 720,000 units per year or value 250 M per year but it is still not enough to cover the orders. In order to fulfil the order and to reduce delivery cost from manufacturing Bogor to customers in Surabaya, Olympic has to increase the production capacity by expansion factory in several cities around in Indonesia. One of the city is Surabaya.

In these thesis, I would like to examine the profitability in commencing the expansion of new factory in Surabaya and the feasibility of the business through the use of financial tools namely Payback Period, Profitability Index, Net Present Value (NPV) and Internal Rate of Return (IRR). Criteria for a project to be accepted is where Net Present Value is positive, Internal Rate of Return exceed the cost of capital and Profitability Index exceed 1.

The project has result positive Net Present Value as Rp. 231,000,000.00; Internal Rate of Return (IRR) as 26 % which is exceed the cost of capital; Profitability Index exceeding to 1 as 2.47; Payback period is 2.06 years which is less than the period of project 10 years. Based on real option analysis, this factory expansion have positive Net Present Value as Rp 293,500,000. It means that there is no option to expand to some other location both of the optimistic and pessimistic forecast. Based on analysis, the project is feasible.

The marketing mix strategy used to serve Olympic target market is SIVA (Solution, Information, Value, Access) model. The SIVA model take into account both buyers and sellers objectives by focusing primarily on the buyer . that adapted by combination between the 4Ps and 4Cs model, where 4Ps is a product – centric approach while 4Cs is customer – centric approach.

When valuing capital budgeting project, firstly, it is recommended better to use real option analysis. Because from a valuation standpoint, these options are valuable because they allow decision makers to react to favorable or unfavorable new situations by dynamically adjusting the capital budgeting decision process for flexibility associated with the project. And secondly, it is recommended for marketing strategy should focus comprehensively on customer orientation by SIVA (Solution, Information, Value and Access) for all activities in Strategic Business Unit (SBU) rather than 4 Ps which on product-centric orientation.

Keywords: Feasibility Study, Financial Analysis, Marketing Mix Strategy

TABLE OF CONTENTS

Title		i
Statement of	Originality	ii
Validation St	atement	iii
Preface		iv
Publication A	Agreement Statement	V
Abstract		vi
Table of Con	tents	vii
Lists of Table	25	X
Lists of Figur	res	xi
Lists of Appe	ndix	xii
	1: INTRODUCTION	
1.1.	Background	1
1.2.	Formulation of The Problem	3
1.3.	The Goal of Theses	3
1.4.	Methodology	4
1.5.	The Systematic of Writing	4
	2 : THEORITICAL FRAMEWORK	
2.1.	Feasibility Study	6
2.2.	Marketing Strategy	7
	2.2.1. Analyzing the 4Cs	7
	2.2.1.1. Context	7
	2.2.1.2. Company	8
	2.2.1.3. Customer	8
	2.2.1.4. Competitor	9
	2.2.2. Analyzing 4Ps	9
	2.2.2.1. Product Decision	12
	2.2.2.2. Pricing Decision	12
	2 2 2 3 Place/Distribution Decision	13

		2.2.2.4. Promotion Decision	14
2.	.3.	Relation Between 4Cs and 4 Ps	14
2.	.4.	Capital Budgeting	16
		2.4.1. Criteria of Investment Assessment	17
		2.4.2. Payback Method	17
		2.4.3. Discounted Payback Period	18
		2.4.4. Net Present Value Method	18
		2.4.5. Internal Rate of Return	19
		2.4.6. Weighted Average Cost of Capital	21
		2.4.7. Real Option	22
2.	.5.	Sensitivity Analysis	25
		: ORGANIZATION OVERVIEW	~-
	.1.	Company Background	27
	.2.	Philosophy, Vision and Mission	29
	.3.	Organization Structure	30
	.4.	Company Product	32
3.	.5.	Production Flow Process	35
CHAPTI	ER 4	: ANALYZING	
4.	.1.	Investment Requirement Planning	40
4.	.2.	Revenue Projection	41
4.	.3.	Operational Cost	42
		4.3.1. Manpower Requirement	42
		4.3.2. Operating Expense	44
4.	.4.	Capital Budgeting	45
4.	.5.	Assumption	46
		4.5.1. Depreciation	46
		4.5.2. Project Period and Preparation	46
4.	.6.	Profit (Loss) Projection	47
4.	.7.	Cash Flow Projection	47
4.	.8.	Real Option	49
4.	.9.	Sensitivity Analysis	52

4.10.	Marketing Strategy	
	4.10.1. Analyzing the 4Cs	57
	4.10.1.1. Context	57
	4.10.1.2. Company	58
	4.10.1.3. Customer	60
	4.10.1.4. Competitor	60
	4.10.2. Analyzing the 4Ps	63
	4.10.2.1. Product	63
	4.10.2.2. Price	64
	4.10.2.3. Place	65
	4.10.2.4. Promotion	65
	4.10.3. Relation Between 4Cs and 4Ps	65
	4.10.4. SIVA Model	67
	4.10.4.1. Solution (Product)	67
	4.10.4.2. Information (Promotion)	67
	4.10.4.3. Value (Price)	68
	4.10.4.4. Access (Place)	68
CHAPTER 5: CONCLUSION AND RECOMMENDATIO N		

5.1.	Conclusion	69
5.2.	Recommendation	70

BIBLIOGRAPHY

LIST OF TABLES

Table 4.1.	The expense for factory expansion	40
Table 4.2.	Manpower Planning	42
Table 4.4.	Operating Expense	44
Table 4.4	The summary of NPV, IRR,	
	Payback Period and Profitability Index	48
Table 4.5.	Calculation of Cash flow if production	
	order increase up to 8 % yearly	49
Table 4.6.	Calculation of Cash flow if production	
	order increase only at 4% yearly	50
Table 4.7.	Summary of NPV, IRR ,	
	Payback Period dan Profitability Index	52
Table 4.8.	Summary of NPV, IRR ,	
	Payback Period dan Profitability Index	53
Table 4.9.	Summary NPV, IRR,	
	Payback Period dan Profitability Index	54
Table 4.10.	Sensitivity Analysis the change of production capacity	56
Table 4.11.	The Competitor of Olympic	62
Table 4.12.	Product type	63
Table 4.13.	Production Cost	64

LIST OF FIGURES

Figure 1.1.	Furniture sales trends in Surabaya	2
Figure 2.1.	Decision within the four elements of the marketing mix	11
Figure 2.2.	The SIVA Model	16
Figure 2.3.	Net Present Value Profile	20
Figure 3-1	PT. Cahaya Sakti Furintraco Organization Structure	31
Figure 3-2	Brand Albatros product	34
Figure 3-3	Brand Olympic & Solid Product	35
Figure 3.4 :	Production Flow Process	36
Figure 3-5	Laminating process	37
Figure 3-6	Shaping Process	38
Figure 3-7	Edge banding Process	38
Figure 3-8	Packing Process	39
Figure 4.1.	Furniture Sales Trends	58
Figure 4.2	Olympic Customer Value	59
Figure 4.3.	Design Process	61

LIST OF APPENDIX

Appendix 1	: Risk Free	A 1
Appendix 2	: Market Risk Premium	A 2
Appendix 3	: Beta Coefficient	A 3
Appendix 4	: Depreciation	A 4
Appendix 5	: General & Administration Cost 2009	A 5
Appendix 6	: General & Administration Cost 10 years	A 6
Appendix 7	: Production Cost year 2009	A 7
Appendix 8	: Profit (Loss) year 2009	A 8
Appendix 9a	: The summary of NPV, IRR, P.Period and Profit)	A 9
	(Output increase 6 % yearly)	
Appendix 9b	: Cash Flow Projection	A 10
Appendix 9c	: Profit (Loss) 10 years (2009 – 2018)	A 11
Appendix 9d	: Production Cost 10 years (2009 – 2018)	A 12
A 1' 10		4 10
Appendix 10a	: The summary of NPV, IRR, P. Period and Profit)	A 13
	(Output increase 8 % yearly)	
Appendix 10b	: Cash Flow Projection	A 14
Appendix 10c	: Profit (Loss) 10 years (2009 – 2018)	A 15
Appendix 10d	: Production Cost 10 years (2009 – 2018)	A 16
Appendix 11a	: The summary of NPV, IRR, P. Period and Profit)	A 17
	(Output increase 4 % yearly)	
Appendix 11b	: Cash Flow Projection	A 18
Appendix 11c	: Profit (Loss) 10 years (2009 – 2018)	A 19
Appendix 11d	: Production Cost 10 years (2009 – 2018)	A 20
Appendix 12a	: The summary of NPV, IRR, P. Period and Profit)	A 21
	(Scenario 1)	
Appendix 12b	: Cash Flow Projection	A 22

Appendix 12c	: Profit (Loss) 10 years (2009 – 2018)	A 23
Appendix 12d	: Production Cost year 2009	A 24
Appendix 12e	: Production Cost 10 years (2009 – 2018)	A 25
Appendix 13a	: The summary of NPV, IRR, P. Period and Profit) (Scenario 2)	A 26
Appendix 13b	: Cash Flow Projection	A 27
Appendix 13c	: Profit (Loss) 10 years (2009 – 2018)	A 28
Appendix 13d	: Production Cost year 2009	A 29
Appendix 13e	: Production Cost 10 years (2009 - 2018)	A 30
Appendix 14a	: The summary of NPV, IRR, P. Period and Profit) (Scenario 3)	A 31
Appendix 14b	: Cash Flow Projection	A 32
Appendix 14c	: Profit (Loss) 10 years (2009 – 2018)	A 33
Appendix 14d	: Production Cost year 2009	A 34
Appendix 14e	: Production Cost 10 years (2009 – 2018)	A 35
Appendix 15	: Investment Projection	A 36