BUDGETING IN MANUFACTURING PUBLIC ENTERPRISES OF NEPAL

(WITH SPECIAL REFERENCE TO REVENUE BUDGETING)

A THESIS

SUBMITTED TO THE FACULTY OF MANAGEMENT TRIBHUVAN UNIVERSITY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

BY ARUN KUMAR THAKUR

FACULTY OF MANAGEMENT TRIBHUVAN UNIVERSITY KATHMANDU, NEPAL 2008

TRIBHUVAN UNIVERSITY FACULTY OF MANAGEMENT KIRTIPUR, KATHMANDU

Date: -	
---------	--

RECOMMENDATION OF THE SUPERVISORS

We certify that the thesis entitled "Budgeting in Manufacturing Public Enterprises of Nepal" (With Special Reference to Revenue Budgeting) submitted by Arun Kumar Thakur to the Faculty of Management, Tribhuvan University for the degree of Doctor of Philosophy was completed under our supervision and guidance. This thesis is the candidate's original research work. We have carefully read his final work and we are fully satisfied with the language and substance of his thesis.

To the best of our knowledge, the candidate has also fulfilled all other requirements of the Ph. D. programme of the Faculty of Management, Tribhuvan University.

We, therefore, recommend that this thesis be considered and approved for the award of the Ph. D. degree.

(Dr. Shalik Ram Koirala)
Professor
Faculty of Management (T.U.)

(Dr. Madhav Raj Koirala)
Professor
Faculty of Management (T.U.)

DECLARATION

I hereby declare that the present study **entitled "Budgeting in Manufacturing Public Enterprises of Nepal" (With Special Reference to Revenue Budgeting)** is based on my original research work. The results presented in the study have not been submitted elsewhere for the award of any degree.

(Arun Kumar Thakur)

ACKNOWLEDGEMENTS

Budgeting is the foundation on which the overall performance of an entity depends. Public enterprises especially manufacturing public enterprises are the backbone of our national economy. As an individual researcher, I must acknowledge the fact that without the support and encouragement of many persons this study might not have been materialized.

Foremost, I would like to express my deep sense of gratitude to my teachers and honorable supervisors, Professor Dr. Salik Ram Koirala, Central Department, Kirtipur, Tribhuvan University and Professor Dr. Madhav Raj Koirala, Faculty of Management, former Dean of Purwanchal University, Biratnagar for their most insightful supervision and guidance in every step of the research work. I am highly indebted to them for their constant guidance with creative suggestions, stimulating encouragement, inspiration, knowledge and vigil in the research work, and their willingness to help in every possible way through all the stages of this study. Without them, this task would have been impossible to accomplish. I will be highly indebted to them forever.

I am deeply indebted to the management of public manufacturing enterprises selected as sample for the study of helping me by responding to questionnaires prepared for top level, middle level and lower level management. I am especially grateful to the account and administrative officers of the public enterprises for providing me necessary data without which it would not have been possible to complete the study.

I am very much grateful to my teacher, Professor Dr. Prem Raj Pant, former Rector of Tribhuvan University, not only for initiating me to research while he was Dean, Faculty of Management, but continuously encouraging me to complete the study.

I acknowledge my deepest sense of gratitude to prof. Dr. Govinda Prasad Acharya, Dean and Asst. Dean Dr. Kamal Das Manandhar faculty of management and my teachers, Prof. Dr. Parashar Koirala, Prof. Dr. Kundan Dutta Koirala, former Dean and Prof. Dr. Sunity Shrestha, T.U. for extending their willing support, cooperation to continue my research work.

I would like to offer my humble debt to my teacher Prof. Dr. Anant Lal Karn for suggesting me to do research on budgeting and Prof. Dr. Pushkar Bajracharya, also my teacher, whose article on public enterprise management motivated me to do research on the topic related to public enterprises.

I am grateful to my teacher Dr. Madhav Bahadur Shrestha, Reader, P.G. Campus, Biratnager for helping and suggesting me for the use of appropriate statistical tools for the study.

I would also like to extend my special thanks to my friend Mr. Ravi Bhattarai, officer, Ministry of Finance, Public Enterprise Division, for providing me required data and information for my study.

I express my best sense of gratitude to my better half (wife) Mamta Kumari Thakur, who not only encouraged me in taking this work but also shared pains at every moment of work. I have no hesitation in admitting that for her kind help in computer typing, I would never have been able to complete this work. I would like to acknowledge the contribution of my daughter Heena Thakur and son Sandeep Thakur whose patience and willing cooperation in typing work have manifested itself in the tangible form of the present work.

I am indebted to the Ratan Tata Library of Delhi, Central Library of Tribhuvan University and Regional Library of M.M.A.C. Biratnagar for allowing me access to their resources. Especially I would like to give thanks to the staffs of the Ratan Tata Library for helping me to search and also providing me sufficient literature related to my study, which was not available in many libraries of Indian universities where I have visited.

Special appreciation and gratitude goes to Mr. Pradeep 'Dubey,Mr. Sharad, Chandra Thakur, Mr. Madhusudan Yadav, (Reader) and Anil Kumar Jha, Faculty of English T.U. for their suggestions and editing.

I would like to extend my special thanks to Mr. Binod Kamat, Head assistant, M.M.A.C. Biratnagar for providing me valuable instructions for typing this thesis on computer and also for computer setting of final thesis according to the requirement of thesis writing.

Finally, I would like to dedicate this thesis to my late father and mother, Ramanand Thakur and Krishna Devi Thakur respectively, who left heavenly abode.

Date:	
	(Arun Kumar Thakur)

CONTENTS

CHA	APTER – 1: INTRODUCTION	1-10
1.1.	General Introduction/ Background	1
1.2.	Revenue Budgeting	3
1.3.	A Brief Introduction of PEs in Nepal	4
1.4.	Statement of the Problem	6
1.5.	Objectives of the Study	8
1.6.	Need and Importance of the Study	8
1.7.	Scope and Limitations of the study	9
1.8	Organization of the Study	10
CHA	APTER –2: REVIEW OF LITERATURE	11-117
2.	Introduction	11
2.1	Concept of Budgeting and Budget	11
2.2	Concept of Revenue Budgeting	18
2.3	Process of Budgeting	20
	2.3.1 Phase one; The Job of Planning	20
	2.3.2 Phase Two: Actual Preparation of the Budget	23
	2.3.3 Phase Three: Control of Operations	27
2.4	Preparation of Budgets	29
	2.4.1 Sales Budget	29
	2.4.1 1. The Sales Forecast	32
	2.4.1 2. The Marketing Plan	34
	2.4.1 3. The Advertising and Promotion Budget	36
	2.4.1 4. The Selling Expense Budget	36
	2.4.1 5. Preparing Sales Budget Report	38
	2.4.2 Inventory Budgeting	38
	2.4.3 The Manufacturing Manager's Budget	47
	2.4.3.1 Direct Materials Budget	49
	2.4.3.2 Direct Labour Budget	51
	2.4.3.3 Manufacturing Expense Budget	52
	2.4.4. The General and Administrative Budget	59

	2.4.5 Programme Budgets	67
	2.4.5.1 The Research and Development Budget	69
	2.4.5.2 The Public Relations Budget	72
	2.4.6 The Capital Expenditure Budget	76
2.5	Basic Assumptions and Limitations of Profit Plan	79
2.6	Roles of Operational (Revenue) Budgets	80
2.7	Conflicts between Major Roles	83
2.8	Reducing Role Conflict	86
2.9	Budgeting in Non-Manufacturing Company	91
2.10	Budgeting in the Service Company	91
2.11	Budgeting in a Non-profit organization	93
2.13	Budgeting in Government	94
2.14	Seven Signs of Budget Weakness	96
2.15	Budget Administration;	99
2.16	Behavioral Implications of Budgeting	100
2.17	Role of Public Enterprises in Developing Countries	102
2.18	Public Enterprises of Nepal and Budgeting	105
2.19	Performance and Control of PEs in Nepal	107
2.20	Challenges of PEs in Nepal	109
2.21	Riview of Related Studies	110
2.22	Research Gap	116
CHAI	PTER- 3: RESEARCH METHODOLOGY	118-124
3.1.	Research Design;	118
3.2	Population and Sample	118
3.3	Types and sources of data and its collection procedure	118
3.4.	Pretesting	119
3.5	Statements of hypothesis	119
3.6	Techniques of analysis	120
3.7	Statistical toois used	120
CHAI	PTER – FOUR: ASSESSMENT OF BUDGETING PROCESS IN	
MAN	UFACTURING PUBLIC ENTERPRISES OF NEPAL.	125-170
4.1	Agro lime Industry Limited:	125
4.2	Birgunj Sugar Factory Limited:	129
4.3	Dairy Development Corporation	134
4.4	Herbs Production and Processing Company Limited.	139
4.5	Hetauda Cement Industry Limited	144

4.6	Janakpur Cigarette Factory Limited	150
4.7	Nepal Rosin and Turpentine Limited	155
4.8	Royal Drugs Limited	161
4.9	Udayapur Cement Industry Limited	165
CHAPTER- 5: ASSESSMENT OF OPERATIONAL AND BEHAVIOURAL		
ANAL	LYSIS OF MPEs	171-313
5.1	Analysis of Operational Aspects	171
	5.1.1 Agro-lime Industry Limited	173
	5.1.2 Birganj Sugar Factory Limited	185
	5.1.3 Dairy Development Corporation	199
	5.1.4 Hetauda Cement Factory Limited	213
	5.1.5 Herbs Production & Processing Company Limited.	225
	5.1.6 Janakpur Cigarette factory Limited	240
	5.1.7 Nepal Rosin & Turpentine Limited	252
	5.1.8 Royal Drugs Limited	268
	5.1.9 Udaypur Cement Industry Limited	282
	5.2 0 Behavioral Analysis of Budgeting	297
CHAP	TER - 6: SUMMARY, CONCLUSION AND RECOMMENDATION	314-
6.1.	Summary	314
6.2.	Conclusions	315
6.3.	Recommendations	316
Bibliography		
Appendices		

LIST OF TABLES

Table N	No. Title	Page
2	Calculation of Seasonal Inventory Buildup.	45
5.1	Budgeted and Actual Production of ALIL	173
5.2	Paired Sample test of Budgeted and Actual Production of ALIL.	174
5.3	Budgeted and Actual Sales, total Operating Income and Expenditure	
	Budget of ALIL.	176
5.4.1.1	Paired Sample Test of Budgeted and Actual Sales, total operating Income	
	and Expenditure of ALIL.	178
5.5	Financial Ratios of ALIL.	180
5.6.1	Communalities of ALIL	182
5.6.2	Total Variance Explained of ALIL	183
5.6.3	Rotated Component Matrix of ALIL.	184
5.7	Budgeted and Actual Production of BSFL.	185
5.8	Paired Sample test of Budgeted and Actual Production of BSFL.	186
5.9	Budgeted and Actual Sales of BSFL.	188
5.10	Paired Sample Test of Budgeted and Actual Sales of BSFL.	189
5.11	Budgeted and Actual total Operating Income and Expenditure Budget	
	of BSFL.	191
5.12	Paired Sample Test of Budgeted and Actual total operating Income and	
	Expenditure of BSFL.	192
5.13	Financial Ratios of BSFL.	194
5.14.1	Communalities of BSFL.	196
5.14.2	Total Variance Explained of BSFL.	197
5.14.3	Rotated Component Matrix of BSFL.	198
5.15	Budgeted and Actual Production of DDC.	199
5.16	Paired Sample test of Budgeted and Actual Production of DDC.	200
5.17	Budgeted and Actual Sales of DDC.	202
5.18	Paired Sample Test of Budgeted and Actual Sales of DDC.	203
5.19	Budgeted and Actual Total Operating Income & Expenditure of DDC	205
5.20	Paired Sample Test of Budgeted and Actual total operating Income and	
	Expenditure DDC	206
5.21	Financial Ratios of DDC	208

5.22.1	Communalities of DDC	210
5.22.2	Total Variance Explained of DDC	212
5.1.4	Budgeted and Actual Production of HCFL	213
5.24	Paired Sample Test of Budgeted and Actual Production of HCFL	214
5.25	Budgeted and Actual, Total Operating Income & Expenditure of HCFL	215
5.26	Paired sample test of Budgeted and Actual of sales, total operating income	
	& Expenditure of HCFL	217
5.27	Financial Ratios of HCFL	219
5.28.1	Communalities of HCFL	222
5.28.2	Total Variance Explained of HCFL	223
5.28.3	Rotated Component Matrix	224
5.29	Budgeted and Actual Production of HPPCL	225
5.30	Paired sample test of Budgeted and Actual of Production of HPPCL	227
5.31	Budgeted and Actual Sales of HPPCL	228
5.32	Paired sample test of Budgeted and Actual Sales of HPPCL	230
5.33	Budgeted and Actual Total Operating Income & Expenditure of HPPCL	231
5.34	Paired sample test of Budgeted and Actual Total Operating Income &	
	Expenditure budget of HPPCL	232
5.35	Financial Ratio of HPPCL	234
5.36.1	Communalities of HPPCL	237
5.36.2	Total Variance explained of HPPCL	238
5.36.3	Rotated Component Matrix of HPPCL	239
5.37	Budgeted and Actual Production of JCF	240
5.38	Paired sample test of Budgeted and Actual of Production of JCF	241
5.39	Budgeted and Actual Sales of JCF	242
5.40	Paired sample test of Budgeted and Actual Sales of JCF	244
5.41	Budgeted and Actual Total Operating Income & Expenditure of JCF	246
5.42.1	Communalities of JCF	249
5.42.2	Total Variance explained of JCF	250
5.42.3	Rotated Component Matrix of JCF	251
5.43	Budgeted and Actual Production of NRTL	252
5.44	Paired sample test of Budgeted and Actual of Production of NRTL	254
5.45	Budgeted and Actual Sales of NRTL	256
5.46	Paired sample test of Budgeted and Actual Sales of NRTL	257

5.47	Budgeted and Actual Total Operating Income & Expenditure of NRTL	259	
5.48	Paired Sample Test of Budgeted and Actual Total operating Income &		
	Expenditure of NRTL	260	
5.49	Financial Ratio of NRTL	262	
5.50.1	Communalities of NRTL	265	
5.50.2	Total Variance explained of NRTL	266	
5.50.3	Rotated Component Matrix of JCF	267	
5.51	Budgeted and Actual Production of RDL	268	
5.52	Paired sample test of Budgeted and Actual of Production of RDL	270	
5.53	Budgeted and Actual Sales of RDL	272	
5.54	Paired sample test of Budgeted and Actual Sales of RDL	274	
5.55	Financial Ratio of RDL	276	
5.56.1	Communalities of RDL	279	
5.56.2	Total Variance explained of RDL	280	
5.56.3	Rotated Component Matrix of RDL	281	
5.57	Budgeted and Actual Production of UCFL	282	
5.58	Paired sample test of Budgeted and Actual of Production of UCFL	283	
5.59	Budgeted and Actual Sales of UCFL	284	
5.60	Paired sample test of Budgeted and Actual Sales of UCFL	286	
5.61	Financial Ratio of UCFL	288	
5.62.1	Communalities of UCFL	294	
5.62.2	Total Variance explained of UCFL	295	
5.62.3	Rotated Component Matrix of UCFL	296	
5.63	Behavioural Analysis of Top-Level Management	297	
5.64	Behavioural Analysis of Middle-Level Management	303	
5.65	Behavioural Analysis of Lower Level Management	308	
5.66	Comparative Chart Showing Operating results and principal Components	of	
	MEPs		

LIST OF FIGURES

Figure	Title	Page No.
4.1	Organizational Chart of ALIL	126
4.2	Budget Cycle of ALIL.	127
4.3	Organizational Chart of BSFL.	130
4.4	Budget Cycle of BSFL.	132
4.5	Organizational Chart of DDC.	135
4.6	Budget Cycle of DDC.	137
4.7	Organizational Chart of HPPCL.	141
4.8	Budget Cycle of HPPCL.	143
4.9	Organizational Chart of HCIL.	146
4.10	Budget Cycle of HCIL.	147
4.11	Organizational Chart of JCF.	151
4.12	Budget Cycle of JCF.	153
4.13	Organizational Chart of NRTL.	158
4.14	Budget Cycle of NRTL.	159
4.15	Organizational Chart of RDL.	162
4.16	Budget Cycle of RDL.	164
4.17	Organizational Chart of UCIL.	167
4.18	Budget Cycle of UCIL.	169

LIST OF ABBREVIATIONS

Act. : Actual.

AGO : Auditor Generals Office
ALIL : Agro-Lime Industry Limited.
AOR : Administrative Overhead ratio.

ATR : Asset Turnover ratio.

B. S. : Bikram sambat.

BSFL: Birgunj Sugar Factory Limited.

Bud. : Budgeted.

C.A. : Current Assets.

C.B.S. : Central Bureau of Statistics.

C.L. : Current liabilities.

C.V. : Coefficient of variation.CITs : Countries in Transitions

Co. : Company.

d.f. : degree of freedom.

D.G.M. : Deputy General Manager

D.G.M.(A) : Deputy General Manager (Administration).

D.G.M.(T) : Deputy General Manager (Technical)

DDC. : Dairy Development Corporation.

Dept. : Department.

DER : Debt-equity Ratio.

Dist. : District. **Div.** : Division

E : Expected frequencies.

EOQ : Economic order quantity. **EPR** : Employee productivity ratio

F.Y. : Fiscal year.

G&A : General and administrative.

G.M. : General Manager.

GDP : Gross domestic product.

GMJ : General Manager's Judgment

H.C.C. : Health care centre.

H.P.P. : Herbs processing programme.

HCIL : Hetauda Cement Industry Limited.

HMG/N : His Majesty's Government of Nepal.

H_O : Null hypothesis

HPPCL: Herbs Production and Processing Company Limited.

i.e. : that is

JCF : Janakpur Cigarette factory .

Mgmt. : Management.

MPEs : Manufacturing PEs

No. : Number.
NP : Net Profit

NRTL : Nepal Rosin and Turpentine Limited.

O : Observed frequencies.

OCP : Operating cost percentage.

OP : Operating profit **PEs** : Public enterprises.

Prod. : Production.

R : Correlation.

R&D : Research and development.R.C.C : Rosin Collection Centre.

R² : Coefficient of determination.

RDL : Royal Drugs Limited.
ROI : Return on investment

RONCE : Return on net capital employed.

ROP : Re-order point.
ROS : Return on sales.

Rs. : Rupees.

S.E. : Standard error.
S.L. : Significance level.

Sec. : Section

Sig. : Significance.

SS Loadings : Some of squares of loadings

STR : Stock turnover ratio.

UCIL : Udaypur Cement Industry Limited.

V.S. : versus \overline{X} : Mean

t² : Chi-square