

**A STUDY OF CASH MANAGEMENT IN NEPALESE
PUBLIC ENTERPRISES**

(A Case Study of Nepal Electricity Authority)

By:

SHEKHAR KHADKA

Shanker Dev Campus

T.U. Regd. No. : 7-2-271-587-99

Campus Roll No. : 1298/2060

A Thesis Submitted to:

Office of the Dean

Faculty of Management

Tribhuvan University

*In partial fulfillment of the requirement for the Degree of
Master of Business Studies (M.B.S)*

Kathmandu, Nepal

October, 2009

RECOMMENDATION

This is to certify that the Thesis

Submitted by:

SHEKHAR KHADKA

Entitled:

**A STUDY OF CASH MANAGEMENT IN NEPALESE
PUBLIC ENTERPRISES**

(A Case Study of Nepal Electricity Authority)

*has been prepared as approved by this Department in the prescribed format of the
Faculty of Management. This thesis is forwarded for examination.*

.....
Shanker Raj Joshi
(Thesis Supervisor)

.....
Prof. Bishweshor Man Shrestha
(Head of Research Department)

.....
Prof. Dr. Kamal Deep Dhakal
(Campus Chief)

VIVA-VOCE SHEET

We have conducted the viva –voce of the thesis presented

by

SHEKHAR KHADKA

Entitled:

**A STUDY OF CASH MANAGEMENT IN NEPALESE
PUBLIC ENTERPRISES
(A Case Study of Nepal Electricity Authority)**

*And found the thesis to be the original work of the student and written
according to the prescribed format. We recommend the thesis to
be accepted as partial fulfillment of the requirement for the
Degree of Master's in Business Studies (M.B.S.)*

Viva-Voce Committee

Head, Research Department

Member (Thesis Supervisor)

Member (External Expert)

TRIBHUVAN UNIVERSITY

Faculty of Management

Shanker Dev Campus

DECLARATION

I hereby declare that the work reported in this thesis entitled "**A STUDY OF CASH MANAGEMENT IN NEPALESE PUBLIC ENTERPRISES (A Case Study of Nepal Electricity Authority)**" submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the Master's Degree in Business Study (M.B.S.) under the supervision of **Shanker Raj Joshi** of Shanker Dev Campus.

.....

Researcher

Shekhar Khadka

Shanker Dev Campus

T.U. Regd. No. : 7-2-271-587-99

Campus Roll No. : 1298/2060

ACKNOWLEDGEMENT

The present study “*A Study of Cash Management in Nepalese Public Enterprises (A Case Study of Nepal Electricity Authority)*”, has been prepared for the partial fulfillment of the requirement for Master Degree in Business Studies. Public enterprise is an independent legal entity which provides goods or services of an economic character on behalf of government and is equipped on the other hand with the commercial attributes of the commercial enterprise. The majority of Nepalese public enterprises are suffering from poor performance. So, “*Cash Management*” is the most and important approach of today's management system which can considerably contribute to improve performance and to achieve goal of an entity

Throughout my study period, I received generous support and thoughtful advices from thesis supervisor Shanker Raj Joshi of Shanker Dev Campus. I am profoundly grateful for their intellectual suggestions and encouragements. I would like to express my sincere gratitude to my respected teachers and staffs of Nepal Electricity for their enthusiastic support and encouragements in collection of data.

I would like to express hearty thanks towards all the members of my family who provided regular inspiration and continuous contribution for my success. Many of my friends, colleagues and relatives encouraged me to undertake this venture. In course of preparing this research I got an opportunity to discuss and debate with them. I have been benefited from such a dialogue and acknowledge the help of them whom I would always be grateful for their valuable suggestions, sincere cooperation and for providing various information for the study.

Shekhar Khadka

Researcher

TABLE OF CONTENTS

Acknowledgement

Table of Contents

List of Tables

List of Figures

Abbreviations

Page No.

CHAPTER – I INTRODUCTION

1.1 Background of the Study 1

1.1.1 A brief introduction to Public Enterprises 2

1.1.2 Public Enterprises in Nepal 3

1.1.3 Necessities of Public Enterprises 6

1.2 Historical Background of the Development of Electricity
Service in Nepal 7

1.3 Background of Nepal Electricity Authority 8

1.4 Cash Management Practice of Nepal Electricity Authority 9

1.4.1 Finance and Accounts Department 9

1.4.2 Financial Performance 12

1.1 1.4.3 *Sources of Financing for NEA's Investment Plan*
14

1.2 1.4.4 *NEA Tariff and Financial Covenants*
15

1.4.5 Financial Projection and Required Tariff Level for NEA 17

1.3 1.4.6 *Strategies for Improving NEA's Corporate Financial Performance*
18

1.5 Statement of the Problem 19

1.6 Objectives of the Study 20

1.7 Scope and Limitation of the Study 21

1.8 Organization of the Study	21
-------------------------------	----

CHAPTER – II REVIEW OF LITERATURE

2.1 Conceptual Review	23
2.1.1 Meaning of Cash Management	23
2.1.2 Significance of Cash Management	24
2.1.3 Functions of Cash Management	26
2.1.4 Objectives of Cash Management	26
2.1.5 Efficiency of Cash Management	27
2.1.6 Different Techniques of Cash Management	29
2.1.7 Determining the Optimum Cash Balance	31
2.1.7.1 Optimum Cash Balance under Certainty; Baumol's Model	32
2.1.7.2 Optimum Cash Balance under Uncertainty; The Miller-Orr Model	34
2.1.8 Motives for Holding Cash	34
2.2 Introduction and Purpose	35
2.2.1 Review of Thesis/Dissertations	36
2.3 Research Gap	42

CHAPTER – III RESEARCH METHODOLOGY

3.1 Introduction	44
3.2 Research Design	44
3.3 Data Collection Procedure	45
3.3.1 The Population and Sample	45
3.4 Sources of data and Collection Procedure	45
3.5. Financial and Statistical Tools for Analysis of Data	46
3.5.1 Ratio Analysis	46
3.5.1.1 Analysis of Cash Turnover	46
3.5.1.2 Analysis of Current Ratio or Current Assets to	

Current Liabilities	46
3.5.1.3 Analysis of Quick Ratio or Acid Test Ratio	47
3.5.1.4 Receivables/ Debtors Turnover Ratio	47
3.5.1.5 Inventory (or Stock) Turnover Ratio	47
3.5.1.6 Cash and Bank Balance to Account Receivable	48
3.5.1.7 Cash and Bank Balance to Current Assets	48
3.5.1.8 Cash and Bank Balance to Current Liabilities	48
3.5.1.9 Gross Profit Margin Ratio	49
3.5.1.10 Net Profit Margin Ratio	49
3.5.1.11 Total Assets Turnover Ratio	49
3.5.1.12 Interest Coverage Ratio	49
3.5.1.13 Basic Earning Power Ratio	50
3.5.1.14 Return on Working Capital Ratio	50
3.5.1.15 Net Profit After Tax to Quick Assets Ratio	50
3.5.2 The Statistical Analytical Tools Used for the Quantitative Analysis of Secondary Data are as follows	50
3.5.2.1 The Least Square Method, Straight Line Trend,	50
3.5.2.2 Karl Pearson's Coefficient of Correlation	51
3.5.2.3 Standard Deviation, (S.D)	54
3.5.2.4 Regression Analysis and Regression Line	55

CHAPTER – IV DATA PRESENTATION AND ANALYSIS

4.1 Analysis of the Data by “Financial Tools”	58
4.1.1 Analysis of Cash and Bank Balance	58
4.1.2 Analysis of Cash Turnover Ratio	60
4.1.3 Analysis of Current Ratio	61
4.1.4 Analysis of Quick Ratio	63
4.1.5 Analysis of Receivables Turnover Ratio	64
4.1.6 Analysis of Inventory Turnover Ratio	65

4.1.7 Analysis of Cash and bank Balance to Account Receivable	66
4.1.8 Analysis of Cash and Bank Balance to Current Assets	68
4.1.9 Analysis of Cash and Bank Balance to Current Liabilities	70
4.1.10 Analysis of Gross Profit Margin Ratio	72
4.1.11 Analysis of Net Profit Margin Ratio	73
4.1.12 Analysis of Total Assets Turnover Ratio	74
4.1.13 Analysis of Interest Coverage Ratio	75
4.1.14 Analysis of Basic Earning Power Ratio	76
4.1.15 Analysis of Return on Working Capital	77
4.1.16 Analysis of Net Profit after Tax to Quick Assets	78
4.2 Analysis of the Data by "Statistical Tools"	79
4.2.1 Analysis of Dispersion in Cash and Bank Balance	79
4.2.2 Fitting the Straight Line Trend by Least Square Method for Variations in Cash and Bank Balance	81
4.2.3 (A): Analysis of Karl Pearson's Coefficient of Correlation (r) between Sales and Cash Balance	82
4.2.3 (B) Regression Analysis	84
4.2.4 (A) Analysis of Karl Pearson's Coefficient of Correlation (r) between Account Receivables and Cash Balance	86
4.2.4 (B): Regression Analysis	88
4.2.5 Analysis of Karl Pearson's Coefficient of Correlation (r) between 'Current Assets and Cash Balance	89
4.2.6 Analysis of Karl Pearson's Coefficient of Correlation (r) between 'Current Liabilities and Cash Balance'	91
4.3 Analysis of "Cash Flow Statement"	93
4.3.1 Analysis of Operating Activities	95
4.3.2 Analysis of Investing Activities	95
4.3.3 Analysis of Financing Activities	96
4.4 Major Finding of the Study	96

CHAPTER – V SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary	100
5.2 Conclusions	102
5.3 Recommendations	107

Bibliography

Appendix

LIST OF TABLES

Table No.	Title	Page No.
4.2	Analysis of Cash Turnover Ratio	60
4.3	Analysis of Current Ratio	62
4.4	Analysis of Quick Ratio	63
4.5	Analysis of Receivables Turnover Ratio	64
4.6	Analysis of Inventory Turnover Ratio	66
4.7	Analysis of Cash and Bank Balance to Account Receivable	67
4.8	Analysis of Cash and Bank Balance to Current Assets	69
4.9	Analysis of Cash and Bank Balance to Current Liabilities	71
4.10	Analysis Gross Profit Margin Ratio	72
4.11	Analysis of Net Profit Margin Ratio	73
4.12	Analysis of Asset Turnover Ratio	74
4.13	Analysis of Interest Coverage Ratio	76
4.14	Analysis of Basic Earning Power Ratio	77
4.15	Analysis of Return on Working Capital	78
4.16	Analysis of Net Profit after Tax to Quick Assets	79
4.17	Analysis of Dispersion in Cash and Bank Balance	80
4.18	Fitting the Straight Line Trend by Least Square Method for Variations in Cash Balance	81
4.19	Analysis of Karl Pearson's Coefficient of Correlation (r) between Sales and Cash Balance	82
4.20	Analysis of Karl Pearson's Coefficient of Correlation between Account Receivables and Cash Balance	86
4.21	Analysis of Karl Pearson's Coefficient of Correlation (r) between Current Assets and Cash Balance	90
4.22	Analysis of Karl Pearson's Coefficient of Correlation (r) between Current Liabilities and Cash Balance	92

LIST OF FIGURES

Figure No.	Title	Page No.
2.1	Determination of Optimum Cash Balance	32
2.2	Baumol's Model for Cash Balance	33
2.3	Relationship between Average Cash Balance and Cash Maintain	33
4.1	Cash and Bank Balance	59
4.2	Cash Turnover Ratio	61
4.3	Cash and Bank Balance to Account Receivable	68
4.4	Cash and Bank Balance to Current Assets	70
4.5	Cash and Bank Balance to Current Liabilities	72
4.6	Trend Line for the Variation in Cash Balance	82

ABBREVIATIONS

A/C	:	Account
ADB	:	Asian Development Bank
C.A	:	Current Assets
C.L	:	Current Liabilities
C.V	:	Coefficient of Variation
EBIT	:	Earning Before Interest and Tax
FY	:	Fiscal Year
GW	:	Giga Watt
KW	:	Kilo Watt
MW	:	Mega watt
N	:	Number of Observation
NEA	:	Nepal Electricity Authority
NPAT	:	Net Profit After Tax
P.E	:	Probable Error
PEs	:	Public Enterprises
ROR	:	Rate of return
SFR	:	Self Financing ratio