

**MANAGEMENT ACCOUNTING & CONTROL SYSTEMS  
PRACTICES: A STUDY OF SELECT STATE LEVEL PUBLIC  
ENTERPRISES IN COMBINED STATE OF ANDHRA PRADESH**

Doctoral thesis submitted to University of Hyderabad in partial fulfillment of the requirements for the award of the degree of

**Doctor of Philosophy  
*in*  
MANAGEMENT**

**By**

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March, 2017

## *Dedication*

**I dedicate this thesis to my parents  
Late Sri . S. Lakssminarayana Murthy  
&Late smt. S. Sundaramma**

## **DECLARATION**

I, S. Parabrahmaiah, hereby declare that the thesis entitled, “**Management Accounting & Control System Practices: A Study of Select State Level Public Enterprises in Combined State of Andhra Pradesh**”, submitted by me under the guidance and supervision of **Dr. S. Mallikharjuna Rao**, is a bona-fide research work which is also free from plagiarism. I also declare that it has not been submitted previously in part or in full, to this University or any other University or Institution for the award of any degree or diploma. I hereby agree that my thesis can be deposited in Shodganga/INFLIBNET.

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Research Supervisor

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## CERTIFICATE

This is to certify that the thesis entitled **Management Accounting and Control Systems Practices: A study of select State Level Public Enterprises in combined State of Andhra Pradesh** submitted by S Parabrahmaiah bearing registration number 05MBPH02 in partial fulfillment of the requirements for award of Doctor of Philosophy in the School of Management is bonafide work carried out by him under our supervision and guidance.

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### Part of this thesis has been:

A. Published in the following publications:

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## **Abbreviations.**

AGFI:	Adjusted Goodness of Fit Index
AGM:	Annual General Body Meeting
APIIC:	Andhra Pradesh Industrial Infrastructure Corporation Limited
APSFC:	Andhra Pradesh State Financial Corporation
APSRTC:	Andhra Pradesh State Road Transport Corporation
AVE:	Average Variance Extracted
BE:	Budget Effectiveness
BUD:	Budgetary Controls
CA:	Competitive Advantage
C&AG:	Comptroller & Auditor General of India
CFA:	Confirmatory Factor Analysis
CFI:	Comparative Fit Index
CIMA:	Chartered Institute of Management Accountants
COPU:	Committee On Public Sector Undertakings
COSO:	Committee of Sponsoring Organizations of the Treading Organisation
CPSUs:	Central Public Sector Undertakings
CR:	Cost Reduction Efforts
DSS:	Decision Support Systems
EFA:	Exploratory Factor Analysis
GFI:	Goodness of Fit Index
HR:	Employee Related Issues
IFRS:	International Financial Reporting Standards
IMF:	International Monetary Fund

MERI:	Marketing Effectiveness Rating Index
MCS:	Management Control Systems
MACS:	Management Accounting and Control Systems
NFI:	Normed Fit index
NNFI:	Non-Normed Fit Index
OEC:	Organization for Economic Cooperation and Development
PER_EFF:	Organizational Performance
PEs:	Public Enterprises
PSEs:	Public Sector Enterprises
PSU:	Public Sector Undertakings
RFD:	Reference Framework Document
RMSEA:	Root Mean Square Error of Approximation
SEM:	Structured Equation Model
SLPEs:	State Level Public Enterprises
WB:	World Bank

# Chapter 1

## Introduction

### 1.1 Introduction

This chapter presents an over view of the thesis. This chapter covers research gap, research questions, research objectives & significance besides an overview. Summary is given at the end of the chapter.

### 1.2 Identification of the problem

The objective worldwide for entering into business and strategic industries by Government through state owned enterprises system is similar with focus on

1. Accelerating the growth of strategic sectors of the economy;
2. To compete with multinationals and private sector in the context of liberalization, privatization and globalization.
3. To discharge social obligations in respect of essential goods of mass consumption to be provided at reasonable rates and
4. To sustain self sufficiency in core sectors.

To accelerate the growth for national building activities, the Central Government is entrusted with the responsibility for the establishment of Central Public Sector Enterprises (CPSEs). “Further State Level Public Enterprises (SLPEs) were setup across the states through various Five Year Plans under Article 246 of Constitution of India as an instrument of public policy to fulfill socio-economic objectives”. The public utilities operation is vested with the respective state governments. Besides these, state governments inherited industrial or commercial entities which were setup by princely

states. These were setup during pre independence era and were taken over by the respective state government to continue and maintain the development activities for furtherance of regional development. There were 849 SLPEs in India as on 31-03-2012 with human resources strength of 18 lakhs. Kerala state occupies with highest number of 117 SLPEs as against 77 in combined state of Andhra Pradesh. Out of these 77 SLPEs, 55 are working and the rest 22 are categorized as non-working SLPEs. The sectors included Agricultural & Allied, Manufacturing, Infrastructure, Power, Finance and Services. The Andhra Pradesh state was bifurcated and new “Telangana “ state was carved out on June2,2014 by Government of India through an Act of Parliament. **The present study covers the period up to 31-3-2014, i.e. before bifurcation.**

In spite of best efforts to put SLPEs on track by the policy makers, professional bodies and Constitutional authorities, “about 30% of the operating 849 SLPEs in India are incurring losses” as per Reserve Bank of India(RBI) report on State Finances –“ A Study of Budgets of 2015-16 (chapter IV – Issues and Perspectives)”. This had an adverse impact since loss making SLPEs are depending up on the respective State Governments for budgetary support, there by impacting the state finances, which were already in bad financial condition. Hence there is an urgent need for SLPEs to improve operational efficiency through generation of increased profits in order to wipe out the losses and also to improve the organizational performance. This could be possible only by adopting various components of Management Accounting & Control Systems (MACS) practices in its strategic processes and procedures. (Anthony & Govindarajan (2007).

### **1.3 Relevance of the Research Study**

Management Accounting & Control Systems (MACS) are affected by and effect the strategy processes, thus making available information for further strategy development and implementation. If the Management Accounting & Control Systems are followed, they would influence the implementation and monitoring of strategies, providing feedback for learning and information to be used interactively to formulate strategy further. Management Accounting and Control Systems (MACS) is a sub-set of Management Control Systems (MCS). A relationship can be drawn between strategy and Management Accounting & Control System variables, which will impact the organizational performance. It is also assumed that combination of performance driven behavior and continuous usage of MACS practices will lead to improved results. On the whole large numbers of SLPEs are not performing well, excepting few SLPEs which are performing well. To make them economically viable and profit making, new strategies are to be adopted. In this context the use of Management Accounting & Control Systems may facilitate improving the SLPEs performance especially in the context of liberalized Indian Economy.

### **1.4 Research Gaps**

The research study fills the gap by conducting a comprehensive study using Management Accounting & Control Systems (MACS) practices in State Level Public Enterprises. Thus it can be indicated as follows.

- There are few studies on State Level Public Enterprises in Andhra Pradesh (AP) in the context of liberalized Indian Economy.
- The studies on Management Accounting & Control System Practices in SLPEs in AP are found to be scarce in the existing literature.

### **1.5 Expected Contributions from the Research Study**

Chenhall (2003) observes that “the framing of Management Accounting & Control Systems will depend on factors like external environment, technology up-gradation, organizational culture, restructuring of organization, adoption of new strategies and competitiveness”. The researcher observes that these factors may be useful in the context of the study. Hence, this research study contributes not only motivating all stake holders ,besides the development of literature but also helps the working managers who are in need of solutions for their day to day problems and challenges for improving their performance through qualitative decisions in their zone/division’s activities. Thus this research facilitates for bringing an improvement in organizational performance of SLPEs in Andhra Pradesh through use of MACS practices.

### **1.6 Statement of the problem**

From the review of existing literature, it is observed that there are limited numbers of research studies in Indian context. There appears to be less number of studies covering

all aspects of MACS in holistic manner in the context of SLPEs covering budgetary control, financial control, competitiveness, internal controls, cost accounting controls, management accounting controls and Employees related (human resources) concerns. There were studies on individual control basis. Hence, it is felt that the study of all components of MACS practices might be relevant to better the SLPEs functioning & its performance. The performance of an organization depends as to how effectively its MACS strategies are implemented in achieving the set objectives. The problem statement emerges as: “Existence of Management Accounting & Control Systems in SLPEs in A.P are inadequate to achieve the goals of organization, hence it is essential to implement MACS practices more effectively in the present competitive environment.

### **1.7 Research Questions**

In the light of above discussions and designing the conceptual framework presented later in chapter -IV, this research study proposes to answer the following questions.

1. Whether SLPEs in Andhra Pradesh are operating in competitive environment in the context of liberalized Indian economy?
2. Has the organization implemented various factors in reducing costs?
3. What procedures are followed with regard to framing of budgets in SLPEs in A.P?
4. How effective are the budgetary control activities in SLPEs in A.P?
5. What practices are followed in SLPEs in AP towards financial controls?
6. What practices are followed to measure the performance other than finance related parameters?

7. Whether the decision support systems help in improving organizational performance of SLPEs in A.P?
8. What is the extent of usage of management accounting measures to improve performance of SLPEs in A.P?
9. What is the extent of usage of cost accounting control measures to enhance performance of SLPEs in AP?
10. How the employee related concerns are dealt with to enhance the division/section performance in SLPEs in A.P?
11. What are the monitoring and review practices existing in SLPEs in A.P?
12. How performance gaps are dealt with in SLPEs in A.P?
13. Whether the internal control systems available are helpful in reducing risk in SLPEs in A.P?

### **1.8 Objectives of the Research Study**

The objectives of the research study are as under:

1. To understand the role of the following MACS practices towards achieving organization performance.
  - a) Efforts on cost reduction
  - b) Focus on competitive advantage
  - c) Budgetary Control
  - d) Financial control
  - e) Performance management accounting and control
  - f) Cost Accounting Control

g) Employee related concerns

2. To find out the implication of MACS on Organizational Performance.
3. To suggest viable measures for improvement of performance of SLPEs in AP.

### **1.9 Framing of Hypothesis**

Taking into account the objectives mentioned above, the following hypothesis were framed.

H1: The cost reduction efforts will positively influence the organizational performance.

H2: Selective factors of competitive advantage will facilitate organizational performance.

H3: Systematic following of procedures of budgetary activity will positively influence the organizational performance.

H4: Existence of financial performance parameters will positively influence the Organizational performance.

H5: Existence of performance management accounting & control systems positively influence organizational performance.

H6: Use of cost accounting controls will positively influence the organizational performance..

H7: Presence of facilities for handling employees related concerns will positively Influence organizational performance.

### **1.10 Significance of the Research study**

From theoretical & empirical studies conducted as seen from the review of literature, the present study identifies that there is a lot of scope to improve the performance of SLPEs in combined Andhra Pradesh. The common problems for the present state of affairs existing in SLPEs might be due to not taking adequate care of new concepts like the competitive factors such as technology up gradation, reduction in input costs, high overhead costs and administered price mechanisms. The other common problems might be 'lack of competition within and outside the SLPEs, weak market orientation, low capacity utilization, indifferent attitude towards customer needs, high interest rates and more manpower than needed resulting in huge pay bills and high administrative costs etc.

The Study Group Report of Planning Commission, Government of India (2002) on Reforms in State Public Sector Undertakings *inter alia* suggested to take steps to retain, restructure or privatize the state PSUs keeping in view the criterion prescribed by the Disinvestment Commission i.e. serving the public purpose by the PSUs. It was also recommended as a part of the report that Manufacturing & Trading service sector should be privatized, welfare & promotional sector should be retained and financial & utility sector should be restructured, if these organizational are running in losses. The other recommendations include the following.

- Creation of Disinvestment Commission in each state
- Setting up of State Renewal Fund.
- Setting up of a Social Safety Net (SSN) in each state to take care of welfare of employees where the organization is to be privatized.

- Setting up of Nodal Agency to coordinate the work of SLPEs.
- Introducing effective Internal Audit Systems in SLPEs.
- Timely completion of Audits.
- Strengthening of Middle Level Management cadres and enhancement of their professional skills through periodical training programmes.
- Introduction of Memorandum of Understanding on the similar lines of the pattern existing in Central Public Sector Enterprises (CPSEs).
- Making the Management accountable for the decisions.

A strategy paper on Public Sector Reform & Privatization of State owned Enterprises in Andhra Pradesh, brought out by Public Enterprises Department (PED), Govt. of Andhra Pradesh (2002) concluded that the return on investment made by Government in SLPEs is negligible because of huge loss that these SLPEs are incurring year after year. Some SLPEs are depending on Government for budgetary support for their current operation or expansion of business, as they are not able to generate sufficient resources. The conversion of debt into equity without a matching physical asset base has not resulted in enhancing the financial performance of some of the SLPEs.

To overcome the above said problems the Government has considered the following options based on the above study group recommendations.

- Privatizing those manufacturing & trading SLPEs where private sector has requisite expertise, resources and technical skills to turnaround the companies and operate in a competitive market environment.

- Encouraging the market forces to play in the areas which are considered socially relevant but so far the private sector did not evince interest to enter into.
- The areas where public interest is indispensable such SLPEs should be restructured and managed by a professional Board of Directors.

The total investment as on 31<sup>st</sup> March, 2014 is Rs. 76,239.06 crore in the 77 SLPEs in Andhra Pradesh. This investment has grown by 88.39% from Rs. 40,469.51 crores in 2008-09. Further the total outgo from the budget of Government of Andhra Pradesh was Rs. 14,704.94 crores of which equity capital outgo was Rs. 27.33 crore, loans outgo Rs. 1726.53 crores and grants / subsidiaries Rs. 12,951.08 crore. The accumulated losses as on 31<sup>st</sup> March, 2014 is Rs. 15,901.53 crore for 17 SLPEs which have finalized their annual accounts and Rs. 5813.03 crores for 60 SLPEs which have not finalized their annual accounts. (Source C & AG Audit Report No. 4 of 2015, Government of A.P).

The problems relating to SLPEs are mainly non finalization of accounts in time by majority of the SLPEs and also the consequential delay in conduct of the audit by the statutory auditors and also incurring of huge losses year after year have prompted for conducting the research on SLPEs in combined state of Andhra Pradesh. This signifies the fact that the control systems are weak and lacks proper handling in implementation of standard accounting policies in SLPEs. It is believed that a small contribution of the thesis will help SLPEs for improving organizational performance. It appears that there are no holistic studies related to Management Accounting & Control Systems practices in combined state of Andhra Pradesh. In the Management Accounting & Control

System literature the implementation of strategies to achieve desired organizational performance is well established. The study gets relevance in the context of strategies to be devised at top level, middle level and operational level in tune with external market environment. All along SLPEs being considered as State Government run organizations, they need to come out of the bureaucratic style of functioning and become competitive in the context of liberalized economy. Historically, the decision making powers in SLPEs are characterized by high degree of formalities & centralization with a legacy of resistance to change.

### **1.11 Scope of the Study**

The Scope of the study is limited to the study of SLPEs in erstwhile Andhra Pradesh. From 2-6-2014 onwards the state of Andhra Pradesh was bifurcated and new state “Telangana” was carved out with 10 districts. The erstwhile Andhra Pradesh was retained with 13 districts. The bifurcation of SLPEs among two states was under process. However the study covers the period up to 2013-14 i.e. the status of SLPEs in combined state of Andhra Pradesh. 55 working SLPEs were considered for the study. The details are given at **Annexure – 1**. There were 22 SLPEs which have been declared as Non-Working and hence these have not been considered for the study. The details of Non-Working SLPEs are given in **Annexure -2**.

### **1.12 Organizational Performance**

Organizational Performance is a multi-dimensional construct consisting of financial performance (Baker and Sinkula, 2005) and other parameters like business

performance, market share, superiority of technology and customer loyalty etc. Organizational performance should satisfy the needs of its stakeholders and its own needs for survival (Griffin, 2003). Market orientation improves a firm's performance by providing differentiation and cost advantages (Li and Zhou, 2010).

Organizational performance is concerned with the overall productivity in an organization in terms of turnover, customer satisfaction, profitability and employee motivation. The concept of organizational performance is core to business and the major objective of business is to make profits. Iravo.et. al (2013) states that “one of the important questions in business has been why some organizations succeed and why others fail and this has influenced a study on the drivers of organizational performance”. There are substantial empirical evidences which have indicated the relation between market orientations with business performance that have linked market orientation with business performance. (Kumar et. al. (2011)).

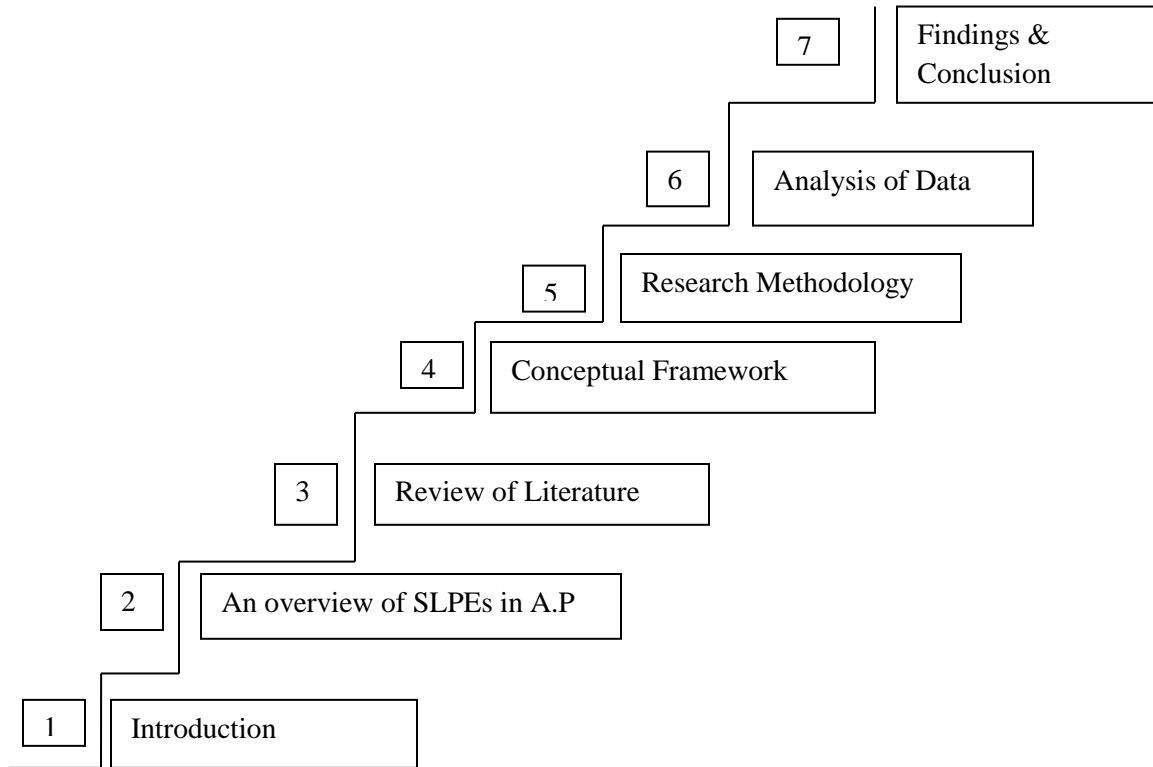
### **1.13 Management Accounting and Control Systems (MACS)**

Management Accounting and Control Systems generally include budgetary control, financial control, internal controls, competitiveness, employee related concerns (HR), performance management accounting, cost accounting controls and monitoring & review practices. There is an impact of these practices for achieving organizational goals. In the SLPEs context, in the changed economy scenario these practices if applied, might help to improve profitability.

## 1.14 Outlines of the thesis

**Table 1: Outlines of thesis**

<b>Chapter</b>	<b>Outlines of thesis</b>
I	Briefly gives the introduction delving upon the background of the problem, gaps in research, indicating the problems, research questions, significance and scope of the research and outlines of the thesis.
II	Deals with SLPEs in A.P profile i.e. An Overview of SLPEs in combined State of Andhra Pradesh with focus on issues & challenges.
III	Provides the Review of Literature pertaining to State Level Public Enterprises in India in general and in combined State of Andhra Pradesh in particular.
IV	Provides Conceptual framework
V	Provides the details of Methodology, Research Approach, Procedures for data collection, Population size, Selection of Sample, Sample Size, Measurement of each variable, Statistical Tools & Techniques used for data validity & reliability and Analysis of Data.
VI	Provides details of Results and Discussion of the Statistical Analysis.
VII	Provides findings, conclusions, suggestions, implications, limitations and scope for future research.



**Figure 1: Diagrammatic Presentation of Thesis**

### **1.15 Chapter Summary**

A brief overview has been given about the thesis. This chapter started with an Introduction to the State Level Public Enterprises Andhra Pradesh and the applicability of Management Accounting & Control Systems (MACS) to these organizations for improving Organizational Performance. The outlines of the chapters are provided in the introduction chapter. The next chapter focuses on “An Overview of SLPEs in combined state of Andhra Pradesh”.

## **Chapter – 2**

### **An Overview of SLPEs in Combined State of Andhra Pradesh**

#### **2.1 Introduction**

State Level Public Sector Enterprises (SLPEs) in India were set up on historical and pragmatic grounds and some of these were taken over from the erstwhile princes who were operating these before the formation of the states (Gopal Ganesh, 2010). The primarily states operated transport, electricity and other essential goods for the people, which were considered to be life line of economic activity. The SLPEs were established during Five Year Plans as per the provisions contained in Article 246 of Constitution of India.

Some SLPEs were created by the State governments to access funds from financial institutions, for departmental economic activities. The first few public sector enterprises created in the state sector pertained to electricity and transport, both of which were absolutely essential to the state's development and vital for the people. As in the case of the central public sector enterprises, state level enterprises also proliferated, moving from core areas to areas that complemented private sector economic activity.

“Operational autonomy is necessary for the Public Sector Undertakings (PSUs) in order to fulfill their strategic objectives – Bhaskar Chatterjee, IAS (Retd), Secretary,

Department of Public Enterprise (DPE)” – (Economic Times dated 27.7.2011). The Maharatna and Navaratna PSUs have been accorded considerable commercial freedom including fast track investment decisions. The Memorandum of Understanding (MoU) scheme also enabled PSUs set clear performance targets for them and achieve in order to get and keep autonomy. PSUs are working in a competitive environment. Though most of these are competing with private sector, there is a compelling public service element included. Corporate Social responsibility (CSR) is another key strength of PSUs.

Arun Maira, Member (Industry), Planning Commission, Government of India, while speaking at the PSU summit 2017 – Quest for Excellence organized by AIMA at New Delhi had mentioned that “Public sector enterprises in India are first to open a triple bottom line of accountability as their own and be transparent. The core theme of the summit was to deliberate as to how the PSUs can ensure excellence while competing with the world outside.

“There is no set formula for a success of an enterprise. There are no formulae to bring in change. It is the people, employees, who bring in change in an organization” – Arup Roy Choudhury, Chairman, SCOPE and CMD, NTPC Ltd.

“The future belongs to more compact and more individualistic but better networked companies. And a mission driven management will drive this to future” – Abhay Kumar Jain, CMD, Bahrat Pumps & Compressors Ltd.

Venkitaramanan (1999) former Governor, RBI, Mumbai in his speech at the Lal Bahadur Shastri Memorial Lec

