CHAPTER 9
SUMMARY OF FINDINGS, CONCLUSION AND SUGGESTIONS

9.1 Introduction:

The revolution in information technology has changed the nature of business of small and medium business enterprises. The emergence of e-commerce has made possible cross-border transactions being carried out. These developments in business force to change accounting system of the enterprises to fulfil the demands of current global requirements in timely manner. With proper accounting system only the businessmen could be able to take decisions for their business in this changing environment. In spite of that many SMEs know the importance of computerised accounting to keep up with the information technology age, there is a lack of research in the adoption of computerised accounting system by SMEs and more research is carried out on large scale organisations (chapter 2). Therefore an attempt is made in the present study to assess the computerization of accounting system in SMEs in Mumbai.

SMEs contribute approximately 40 percent of India’s domestic production, almost 50 percent of total exports and 45 percent of industrial employment. More, importantly they are the second largest manpower employer overall after agriculture, employing approximately 19 million people. Various experts, numerous surveys, researchers are investigated various SMEs facets and suggested solution for SME’s development, expansion and overcomes problems faced by SMEs. However they are not addressed problems of CAS in adequate manner.

SMEs’ owner – manager need a good and double entry record keeping system that allows them to maintain control of their finance and the most important use to aid the owner –managers in making decision about the firms and CAS serves here as a good record –keeping system tool or technique. Hence CAS adoption may be decisive factor for an organization to be success and also to survive. A CAS has great potential to increase productivity, streamline workflow, reduce data redundancy and error reconciliation, save time and improve utility, do not need a large IT staff to install and maintain, and help with financial management, operation management, production management, human resource management for SMEs.
In SMEs studies, CEO and the owner-manager was used interchangeable since in most cases CEOs and Owner-manager is the same person. In SMEs, it firms since all decision from daily functions or activities to future investments are made by them, observed that internal factors such as marketing, operation and in particular accounting services may be equally responsible for poor performance of SMEs. Preparing chart of accounts, general ledger, journals and subsidiary journals, maintaining the integrity of an accounting system, types of accounting system, other essential documents and use of software are the elements/components of accounting system and adoption of CAS speeded up preparation of these components of accounting system and through adopting CAS, SMEs certainly improves their development pace to some extent. Therefore, an attempt is made by the researcher to study and investigate the following basic questions/problems.

1. What are the owners’ socio-economic characteristics of small and medium business enterprises of North-East Mumbai area?
2. What are the organizational characteristics of small and medium business enterprises?
3. What is the perception of businessmen towards pattern of keeping and maintaining accounting system in SMEs?
4. What is the perception of businessmen towards CAS awareness, initiation and decision-maker?
5. What is the perception of businessmen towards benefits of CAS adoption to SMEs?
6. What is the perception of businessmen towards role played by CAS adoption in enhancing performance of SMEs?
7. What is the perception of businessmen towards role played by CAS adoption in development of SMEs?
8. To what extent computerisation of accounting system adopted for chart of accounts in SMEs?
9. To what extent computerisation of accounting system adopted for journals and subsidiary journals in SMEs?
10. To what extent computerisation of accounting system adopted for preparing ledgers in SMEs?
11. To what extent computerisation of accounting system adopted for maintaining the integrity of an accounting system in SMEs?
12. To what extent computerisation of accounting system adopted for types of accounting system in SMEs?
13. To what extent computerisation of accounting system adopted for other essential documents preparation in SMEs?
14. To what extent computerisation of accounting system adopted based on use of software in SMEs?
15. Whether CAS is adopted for recording with identification number and journalising chart of accounts related transactions?
16. Whether CAS is adopted for journals and subsidiary journals related transactions?
17. Do you agree that CAS is adopted for preparing ledgers?
18. Do you agree that CAS is adopted for maintaining the integrity of accounting system?
19. Whether CAS is adopted for types of accounting system and other essential documents?
20. Is Computerisation related software is purchased?
21. Is basic requirement for computer accounting framework and operating procedure is followed?
22. Is proper software service and maintenance contracted?

In order to address the above problems, the researcher had set the following main objectives:

1. To study and assess owners’ and organisational characteristics of small and medium business enterprisers.
2. To study and assess the perception of businessmen towards pattern of keeping and maintaining accounting system in small and medium business enterprises.
3. To study and assess the perception of businessmen towards
   a. CAS awareness, initiation and decision- maker
   b. Benefits of computerization of accounting system to small and medium business enterprisers.
c. The role played by computerization of accounting system adoption in enhancing performances and development of small and medium business enterprise.

4. To measure, identify and analyse the extent of CAS adoption in small and medium business enterprises towards (i) chart of accounts, (ii) journals and subsidiary journals, and (iii) ledgers.

5. To measure, identify and assess the extent of CAS adoption in small and medium business enterprises towards (a) maintaining the integrity of an accounting system (b) types of accounting system, (c) preparing other essential documents, and (d) use of software.

6. To know and understand the highest and lowest CAS adoption indicator within the dimension.

7. To study and assess the difference in CAS adoption between small and medium business enterprises and its relationship.

8. To measure and identify extent of computerisation of accounting system adoption in small and medium business enterprises.

In the light of the above objectives the following hypothesis has been set up by the researcher for present study purpose:

Hy1: There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing chart of accounts dimension.

Hy2: There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing journal and subsidiary journal dimension.

Hy3: There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing ledger dimension.

Hy4: There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in maintaining the integrity of an accounting system dimension.

Hy5: There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing types of accounting system dimension.
Hy6: There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing other essential documents dimension.

Hy7: There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in use of software dimension.

Hy8: There is no significant difference between small business enterprises and medium business enterprises on CAS adoption.

In order to study and assess the CAS adoption status in North- East Mumbai zone, all types of SMEs’ entrepreneurs/ businessmen/ units who are running business are selected as sample of the study. Mulund, Bhandup, Vikhroli, Ghatkopar, and Mankhurd of North- East Mumbai zone belongs from Mumbai Suburban district are chosen as sample for this study. Male and female owners of SMEs, who are running business in the selected area, are also considered the sample of the study and selected 5 locations are selected to represent Mumbai as samples. For selecting samples, a pilot survey was conducted. Few visits were paid to Merchant’s associations and government agencies that are looking after SMEs development affairs. A list of SMEs was collected from above segments. From this actual sample size is finalised after administrating questionnaire. Finally 288 SMEs are selected, consisting of 258 small and 30 medium registered units/ enterprises in Mulund, Bhandup, Vikhroli, Ghatkopar and Mankhurd from North- East Mumbai zone of Mumbai suburban district as sample.

The study is based on primary and secondary data. The questionnaire, observations, personal discussion along with interview, mobile dialogue, internet etc. are used for collecting data for this study. The data was also collected from secondary sources like books, journals, articles, periodicals etc. The data was interpreted and analysed with the help of frequency, percentage, average, tables, graphs, figures, charts, correlation, comparison, and chi- square test. The entire study is divided into 9 chapters as under.

1. Introduction
2. Review of Literature
3. Research methodology
4. Owners' and organisational characteristics of the small and medium business enterprises
5. Perception of businessmen towards accounting system and computerization of accounting system in small and medium business enterprises

6. Adoption of computerization of accounting system in preparing chart of accounts, journals and subsidiary journals and ledgers

7. Adoption of computerization of accounting system in maintaining integrity of an accounting system, types of accounting system, preparing other essential documents and use of software

8. Extent of computerisation of accounting system adoption in small and medium business enterprises and testing of hypothesis

9. Summary of findings, conclusion and suggestions

Chapter 1 introduces conceptual framework of CAS along with meaning and importance of small and medium enterprises in Indian economy. CAS related literature was reviewed in chapter 2nd and research methodology of the study was presented in chapter 3. In all, 110 studies are reviewed, consisting of 37 general studies on CAS, 30 studies on extent of CAS, 24 studies on factors influencing CAS, and 19 studies on accounting theories and CAS. Majority studies are on cross-borders (globalised studies) and review of literature show that the majority domestic studies fail to capture the CAS in SMEs in Maharashtra and particularly in Mumbai. Most of the literature reviewed here shows that most of studies are related to Information technology adoption by Indian small and medium business enterprises. These literatures discussed what problems SMEs of India face to adopt new innovations in information technology, very few are discussing extent and factors of CAS and problems faced by Indian SMEs in adoption of computerized accounting system in their business. Even Mumbai University and SNDT Women’s University and to some extent all other university in Maharashtra experts have not addressed CAS extensively. There exist many studies on implementation/adoption of computer and IT in SMEs business but very few studies almost negligible on computerization of accounting system. In general even few studies are found on manual accounting system and very few on CAS. Empirical studies on CAS are non-existent in studied area. Hence present study is very much necessary. Therefore for filling up some research gap in existing studies, the present study is needed and hence undertaken.

For the study purpose SMEs definition given by MSME Act 2006, is accepted. Using computer for preparing chart of accounts, preparing journals and subsidiary journals,
preparing ledgers, keeping and maintaining integrity of an accounting system, preparing types of accounting system, preparing other essential documents, and purchasing and using software is called extent of computerisation of accounting system. In simple words, using and applying computer in keeping and maintaining accounting system is referred computerization of accounting system in the present study. In other words in the present study computerised accounting system referred to use of computers in chart of accounts, in journals and subsidiary journals, in preparation of ledgers, in maintaining the integrity of accounting system, in types of accounting system, in preparation of other essential documents. Recording, processing, analysing, monitoring and evaluating 7 dimensions as per accounting principles, rules and procedures by using computer is referred adoption of CAS in SMEs. Practicing CAS means adoption of CAS. It is 3 stage process - initiation, adoption and implementation. Adoption and implementation stage is treated here one and same.

The summary of findings of the study are highlighted as under.

9.2 Summary of findings on owners’ and organisational characteristics of small and medium business enterprises:

The main purpose of chapter 4 was to understand the owners and organisational characteristics of SMEs. The profile of the respondents was analyzed on the basis of owners’ characteristics like gender, age, religion, marital status, educational qualification, responsibility taken by him /her to run business, computer literacy and computer experience as well as organisational characteristics like ownership structure, size of business, location, nature of business, number of employees working and turnover of the enterprises. From the analysis following findings are drawn in respect owners’ and organisational characteristics of SMEs:

9.2.1 Summary of findings on owners’ characteristics of small and medium business enterprises:

1. Out of total sample respondents majority 96.9 percent are male. The involvement of female in small and medium business is negligible.
2. Majority 57.3 percent of sample respondents belong to 30- 40 years age group.
3. Out of total sample respondents, majority 75.3 percent are Hindu.
4. Majority 83.3 percent sample respondents are married.
Education level indicates that majority 73.6 percent of sample respondents are degree holders (graduates).

Majority of sample respondents 91.7 percent are taking full responsibility of controlling their business.

75 percent of sample respondents are not professionally qualified.

Majority of owner respondents 81.6 percent have computer knowledge.

43.4 percent sample respondents have computer experience, they learned computer at work place.

9.2.2 Summary of findings on organizational characteristics of small and medium business enterprises:

This study also interested to investigate what are the organisational characteristics of North- East Mumbai zone SMEs. Hence in chapter 4 an attempt made to focus on to study and assess the organizational characteristics of SMEs in North- East Mumbai zone. The findings are summarised as under.

1. Partnership is the majority (49 percent) SMEs ownership, followed by sole trading ownership(47.9 percent) structure.
2. The majority business enterprises of study are from small business enterprises (89.6 percent).
3. Majority of sample business enterprises (60.4 percent) are from Ghatkopar area.
4. 59.4 percent and 40.6 percent of total sample business enterprises are running manufacturing and service activities.
5. 85.1 percent of total sample respondent business enterprises have employed less than 20 employees for their core day-to-day activities.
6. 42.4 percent sample respondents business enterprises’ annual turnover is between Rs. 26 lakhs to 50 lakhs.
7. In 69.8 percent of total small and medium business enterprises respondents, administration department is computerised.
8. 60 percent accounts, 54.2 percent marketing, 65.3 percent human resource, 54.9 percent productions and 69.8 percent administrative departments of SMEs are computerised and using computer for their operational purpose.
9.3 Summary of findings on perception of businessmen towards pattern of keeping and maintaining accounting system and computerisation of accounting system in SMEs:

An endeavour was made in chapter 5 to assess and understand the perception of businessmen towards accounting system and computerisation of accounting system on the basis of their responses towards (i) pattern of keeping and maintaining accounting system, (ii) CAS adoption awareness, initiation, and decision- maker, (iii) benefits and importance of CAS adoption, and (iv) role played by CAS adoption in enhancing performance and overall development of SMEs. On the basis of analysis, the following were found out.

9.3.1 Summary of findings on perception of businessmen towards pattern of keeping and maintaining accounting system in SMEs:

1. The majority respondents of small business enterprises (49.6 percent), medium business enterprises (66.7 percent) and overall (51.4 percent) adopt computerised accounting system.

2. Majority 72.9 percent of small business enterprises, 60 percent of medium business enterprises, and 71.5 percent of overall small and medium business enterprises are writing their accounts annually.

3. 47.7 percent of small business enterprises, 56.7 percent of medium business enterprises and 48.6 percent of overall small and medium business enterprises have partial knowledge on keeping and maintaining accounting system.

4. Majority of small business enterprises checking on accounting system operations as per accounting system norms is on annually basis (60 percent), medium business enterprises checking on accounting operation as per accounting norms is half yearly (56.7 percent) and SMEs checking on accounting system operations as per accounting norms on annually basis.

5. 78.3 percent of small business enterprises, 63.3 percent of medium business enterprises and 76.7 percent of overall small and medium business enterprises owners are controlling the keeping and maintaining accounting system themselves.
6. Majority 68.6 percent in small business enterprises, 50 percent in medium business enterprises and 66.7 percent in overall enterprises are not using double entry system in accounting.

7. 82.2 percent respondents of small business enterprises, 90 percent of medium business enterprises and 83 percent of overall enterprises are using English language in accounting writing.

8. Majority of small business enterprise 87.2 percent, medium business enterprises 83.3 percent and overall 86.8 percent sample respondents in this study are not appointed qualified accounting head for keeping and maintaining accounting system.

9. Majority of small business enterprises 74.4 percent, 83.3 percent of medium business enterprises and 75.3 percent of overall enterprises are not conducting audit for their books of accounts.

10. 51.9 percent of small business enterprises, 66.7 percent of medium business enterprises and 53.5 percent of small and medium business enterprises give importance for keeping and maintaining accounting system. Overall 46.5 percent businessmen respondents are not giving due importance to keeping and maintaining accounting system.

9.3.2 Summary of findings on perception of businessmen towards CAS awareness, initiation and decision –maker:

What is a perception of businessmen towards CAS awareness, initiation and decision maker was studied and assessed in section 5.3 of chapter 5, on the basis of primary data. Following were found out after analysis.

1. Out of overall 288 small and medium business enterprises’ businessmen, 166 (57.6 percent) agreed and 122 (42.4 percent) disagreed that they are aware of CAS process. It shows that majority (57.6 percent) of businessmen are aware of CAS process.

2. Majority of small business enterprises (71.3 percent), medium business enterprises (63.3 percent) and small and medium business enterprises (70.5 percent) are initiated the process of CAS since less than 3 years.

3. Majority small business enterprises (63.2 percent), medium business enterprise (56.7 percent) and small and medium business enterprise
businessmen (62.5 percent) think that CAS adoption decision maker is owner of the enterprises.

9.3.3 **Summary of findings on perception of businessmen towards benefits of CAS adoption to SMEs:**

Perception of businessmen towards benefits of CAS adoption to SMEs is studied in chapter 5, section 5.4 in terms of (1) Reduces fraud, (2) improves quality of accounts and accounting system, (3) improves accounting information system, (4) improves quality of reports and reporting, (5) provides flexibility in information generation, (6) saves time and cost of keeping and maintaining accounting system, (7) eliminates duplication of efforts. The findings are summarised as below.

1. 63.6 percent businessmen of small business enterprises, 66.7 percent businessmen of medium business enterprises and 63.9 percent businessmen of small and medium business enterprises are of opinion that adoption of CAS is beneficial to SMEs.
2. 36.4 percent of businessmen from SBEs, 33.3 percent of businessmen from MBEs and 36.1 percent business from SMEs are disagreed that adoption of CAS is not beneficial to SMEs.

9.3.4 **Summary of findings on perception of businessmen towards role played by CAS adoption in enhancing performance and overall development of SMEs:**

1. 67.1 percent businessmen of small business enterprises, 73.3 percent businessmen of medium business enterprises and 67.7 percent businessmen of small and medium businessmen enterprises perceived that CAS adoption is playing role in enhancing performance of SMEs.
2. Majority respondents of SBEs (67.1 percent), MBEs (73.3 percent) and SMEs (67.7 percent) are agreed that CAS played role in enhancing performance of SMEs.
3. Out of 258 small business enterprises businessmen 169 (65.5 percent), out of 30 medium business enterprises 21 (70 percent) and out of 288 small and medium business enterprises 190 (66 percent) businessmen agreed that CAS adoption plays an important role in the development of SMEs.
9.4 Summary of findings on extent of CAS adoption in preparing chart of accounts, journals and subsidiary journals and ledgers:

An attempt was made in Chapter 6 to study and assess the extent of CAS adoption in SMEs in the dimension of chart of accounts, journals, and subsidiary journals and ledgers. The specific objectives of the chapter 6 were as under:

1. To measure, identify, analyse and compare the extent of CAS adoption in small and medium business enterprises towards chart of accounts, journals and subsidiary journals and ledger.
2. To study and assess the extent of CAS adoption in chart of accounts dimension.
3. To study and assess the extent of CAS adoption in journal and subsidiary journals dimension.
4. To study and assess the extent of CAS adoption in ledgers dimension.
5. To know the highest and lowest CAS adoption indicator within the dimensions.
6. To study and assess the difference in CAS adoption between small and medium business enterprises and its relationship.

The extent of CAS adoption is measured and identified by taking 6, 5 and 5 indicators for chart of accounts, journals and subsidiary journals and ledgers. The chapter is depends on entirely primary data collected through questionnaire. Assuming that higher the ‘Yes’ responses to indicator higher the extent of CAS adoption. The findings are summarised in section 9.4.1 to 9.4.4.

9.4.1 Summary of findings on extent of CAS adoption in preparing chart of accounts dimension:

1. The chart of accounts is a list of each item which the accounting system tracks. Accounts are divided into 5 categories, consisting of (1) assets, (2) liabilities, (3) net assets or fund, (4) revenues and (5) expenses. Each account is assigned an identifying number for use within the accounting system. Researcher intends to know whether computer is used for assigning an identifying number in respect of assets, liabilities, net assets balance, revenues and expenses. It means to examine usage of computerization in chart of accounts. In other words, in order to measure, identify and assess to what
extent CAS is adopted in Chart of accounts (i.e. assets, liabilities, net assets balance, revenues and expenses giving folio number as per accounting principles, rule and procedures) researcher had used six indicators / attributes.

2. 42.6 percent small business enterprises (SBEs), 60 percent medium business enterprises (MBEs) and 44.4 percent small and medium business enterprises (SMEs) are adopted CAS for recording with identification number and journalising personal, real, and nominal accounts. CAS adoption of medium business enterprises is higher than that of small business enterprises in this respect.

3. 31.8 percent small business enterprises and 70 percent medium business enterprises and 35.8 percent SMEs are adopted CAS for recording with identification number and journalising the assets related transactions. Comparison between SMEs shows that CAS adoption in medium business enterprises is higher than that of small business enterprises on recording with identification number and journalising the assets related transactions.

4. CAS is adopted by 55 percent small business enterprises, 90 percent medium business enterprises and 58.7 percent SMEs in North-East Mumbai zone. Further it is concluded that CAS adoption for liabilities recording and journalising in medium business enterprises (90 percent) is higher than that of small business enterprises (55 percent).

5. 19 percent of small business enterprises, 40 percent medium business enterprises and 21.2 percent SMEs are adopted CAS in recording with identification number and journalising the net assets related transaction.

6. 38.4 small business enterprises, 56.7 percent medium business enterprises and overall 40.3 percent SMEs adopted CAS for recording with identification number and journalising the revenues related transactions. Further it can be inferred that as compared to CAS adoption in small business enterprises, CAS adoption in medium business enterprises is higher, as far as this indicator is concerned.

7. 71.7 percent and 93.3 percent and 74 percent small business enterprises, medium business enterprises and SMEs are adopted CAS in recording with identifications. The CAS adoption in medium business enterprises is higher than that of small business enterprises in this indicator is concern.
8. 43 percent of small business enterprises, 66.7 percent of medium business enterprises and 45.5 percent of SMEs have adopted CAS for chart of accounts. CAS adoption of medium business enterprises is higher than that of CAS adoption of small business enterprises in respect of chart of accounts dimension.

9. CAS adoption in chart of accounts is to the extent of 43 percent and 66.7 percent in small business enterprises and medium business enterprises, the highest and lowest CAS adoption is in expenses and net assets, CAS adoption in medium business enterprises is higher than that of small business enterprises in all 6 indicators of chart of accounts and hence CAS adoption in chart of accounts in medium business enterprises is higher than that of CAS adoption in chart of accounts in small business enterprises. The CAS adoption differences between small business enterprises and medium business enterprises in chart of accounts dimension is 23.7 percent.

10. There is no significant difference in small and medium business enterprises on CAS adoption in Chart of accounts dimension.

9.4.2 Summary of findings on extent of CAS adoption in preparing Journals and subsidiary journals dimension:

The journal and subsidiary journal is a list which the accounting system tracks. The researcher has taken into consideration five different types of journals like (1) cash disbursement, (2) cash receipts, (3) inventory, (4) payroll and (5) accounts payable or receivable to study the CAS adoption.

1. 45 percent small business enterprises (SBEs), 73.3 percent medium business enterprises (MBEs) and 47.9 percent small and medium business enterprises (SMEs) are adopted CAS for cash disbursement journals. Cash adoption of medium business enterprises is higher than that of small business enterprises in this respect.

2. 29.1 percent of small business enterprises 56.7 medium business enterprises and 31.9 percent SMEs are adopted CAS for cash receipt journal. Comparison between small and medium business enterprises shows that CAS adoption is higher in medium business enterprises compare to small business enterprises in cash receipt journal.
3. 34.1 percent of small business enterprises 56.7 medium business enterprises and 36.5 percent SMEs are adopted CAS for inventory journal. Comparing small and medium business enterprises, it shows that CAS adoption is higher in medium business enterprises than that of small business enterprises in inventory journal.

4. 48.1 percent of small business enterprises 63.3 medium business enterprises and 49.7 percent SMEs are adopted CAS for payroll journal. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises in payroll journal.

5. 39.9 percent of small business enterprises 63.3 medium business enterprises and 42.4 percent SMEs are adopted CAS for accounts payable and accounts receivable journal. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises in accounts payable and accounts receivable journal.

6. 39.5 percent of small business enterprises 63.3 medium business enterprises and 42 percent SMEs are adopted CAS for journals and subsidiary journals. CAS adoption is higher in medium business enterprises than that of small business enterprises in respect of journals and subsidiary journals dimension.

7. CAS adoption in journals and subsidiary journals dimension is to the extent of 39.5 percent and 63.3 percent in small business enterprises and medium business enterprises, the highest and lowest CAS adoption in small business enterprises is in payroll (48.1 percent) and cash receipt (29.1 percent), whereas the highest and lowest of CAS adoption in medium business enterprises is in cash disbursement journal (73.3 percent) and inventory and cash receipt journal (56.7 percent), CAS adoption in medium business enterprises is higher than that of small business enterprises in all 5 indicators of journal and subsidiary journals and hence CAS adoption in journals and subsidiary journals in medium business enterprises is higher than that of CAS adoption in journals and subsidiary journals in small business enterprises. The CAS adoption differences between small business enterprises and medium business enterprises in journals and subsidiary journals dimension is 23.8 percent.
8. There is no significant difference in small and medium business enterprises on CAS adoption in journals and subsidiary journal dimension.

9.4.3 **Summary of findings on extent of CAS adoption in preparing ledger dimension:**

1. Preparation of general ledgers is divided into five parts, consisting of (1) posting, (2) relevant numbers to general ledger, (3) preparation of debtors and creditors ledgers, (4) preparation of cash ledger, and (5) balancing ledger. Each part is assigned an identifying number for use within the accounting system. Researcher investigated that whether computer is used for posting general ledgers, relevant numbers to general ledgers, preparing debtors or creditor’s ledger, preparing cash ledger and balancing ledgers. On the basis of above mentioned 5 indicators, the extent of CAs adoption for preparing general ledger dimension is studied and examined.

2. 55 percent of small business enterprises, 70 medium business enterprises and 56.6 percent SMEs are adopted CAS for posting journal entries into general ledger and ledgers. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises.

3. 65.5 percent small business enterprises and 80 percent medium business enterprises and 67 percent SMEs are adopted CAS for code/ relevant numbers to each ledger. Comparison between SMEs shows that CAS adoption in medium business enterprises is higher than that of small business enterprises on code/ relevant numbers to each ledger.

4. 48.1 percent small business enterprises (SBEs), 56.7 percent medium business enterprises (MBEs) and 49 percent small and medium business enterprises (SMEs) are adopted CAS for preparing debtors and creditors ledger. CAS adoption of medium business enterprises is higher than that of small business enterprises in this respect.

5. 34.5 percent of small business enterprises, 50 percent medium business enterprises and 36.1 percent SMEs are adopted CAS in preparation of cash ledger. In comparison between small and medium business enterprises, medium business enterprises are higher than that of small business enterprises in respect of preparation of cash ledger.
6. 64.3 percent small business enterprises, 70 percent medium business enterprises and overall 64.9 percent SMEs adopted CAS for balancing ledgers. Further it can be inferred that as compared to CAS adoption in small business enterprises, CAS adoption in medium business enterprises is higher.

7. 53.5 percent of small business enterprises 66.7 medium business enterprises and 54.9 percent SMEs are adopted CAS for preparing ledger dimension. On comparing between small and medium business enterprises it is found that, CAS adoption is higher (66.7 percent) in medium business enterprises than that of small business enterprises (53.5 percent) in preparing ledger dimension.

8. CAS adoption in preparing ledger dimension is to the extent of 53.5 percent and 66.7 percent in small business enterprises and medium business enterprises, the highest and lowest CAS adoption is in relevant numbers and cash ledger, CAS adoption in medium business enterprises is higher than that of small business enterprises in all 5 indicators of preparing ledger dimension and hence CAS adoption in preparing ledgers in medium business enterprises is higher than that of CAS adoption in preparing ledgers in small business enterprises. The CAS adoption difference between small business enterprises and medium business enterprises in preparing ledger dimension is 13.2 percent.

9. There is no significant difference in small and medium business enterprises on CAS adoption in preparing ledgers dimension.

9.5 **Summary of findings on extent of CAS adoption for maintaining the integrity of an accounting system, preparing types of accounting system, other essential documents and using software:**

The specific objectives of chapter 7 were as under:

1. To measure, identify, analyse and compare the extent of CAS adoption in small and medium business enterprises towards maintaining the integrity of an accounting system, types of accounting system, other essential documents preparation and use of software dimension.

2. To study and assess the extent of CAS adoption in maintaining integrity of accounting system dimension.
3. To study and assess the extent of CAS adoption in types of accounting system dimension.
4. To study and assess the extent of CAS adoption in preparation of other essential documents dimension.
5. To study and assess the extent of CAS adoption in use of software dimension.
6. To know the highest and lowest CAS adoption indicator within the dimensions.
7. To study and assess the difference in CAS adoption between small and medium business enterprises and its relationship.

An attempt was made in this chapter 7 to study and assess the extent of CAS adoption in maintaining integrity of an accounting system, types of accounting system, other essential documents preparation, and use of software in small and medium business enterprises based on primary data collected for 258 SMEs (258 small and 30 medium) in North- East Mumbai Zone of Mumbai Suburban district. 5, 6, 5 and 3 indicators were used to measure and identify the extent of CAS. Findings are summarised in section 9.5.1 to 9.5.4 respectively, which are as under.

**9.5.1 Summary of findings on extent of CAS adoption for maintaining the integrity of an accounting system:**

1. Maintaining the integrity of accounting system is a list of each item that the accounting system tracks. The key tasks for maintaining the integrity of an accounting system include (1) bank reconciliation statement, (2) Trial Balance, (3) Trading, Profit and Loss account, (4) Balance sheet, and (5) Financial statement. Researcher has selected these five attributes/ indicators for measuring and identifying the extent of CAS adoption in maintaining the integrity of accounting system.

1. 84.1 percent of small business enterprises, 90 percent medium business enterprises and 84.7 percent SMEs are adopted CAS in preparation of bank reconciliation. In comparison between small and medium business enterprises, medium business enterprises are higher than that of small business enterprises in respect of preparation of bank reconciliation.

2. 64.3 percent small business enterprises (SBEs), 76.7 percent medium business enterprises (MBEs) and 65.6 percent small and medium business enterprises (SMEs) are adopted CAS for preparing Trial balance. CAS adoption of
medium business enterprises is higher than that of small business enterprises in this respect.

3. 72.1 percent of small business enterprises and 72.9 percent SMEs are adopted CAS for preparing Trading, Profit and Loss account. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises in preparing Trading, Profit and Loss account.

4. 75.2 small business enterprises, 83.3 percent medium business enterprises and overall 76 percent SMEs adopted CAS for preparing Balance Sheet. It is also observed that compared to CAS adoption in small business enterprises (75.2 percent), CAS adoption in medium business enterprises (83.3 percent) is higher.

5. 57.4 percent of small business enterprises, 63.3 percent medium business enterprises and 58 percent SMEs are adopted CAS in analysing and interpreting of financial statement. In comparison between small and medium business enterprises, medium business enterprises are higher than that of small business enterprises in respect of analysing and interpreting of financial statement.

6. 70.9 percent of small business enterprises, 80 percent medium business enterprises and 71.9 percent SMEs have adopted CAS for maintaining integrity of an accounting system. CAS adoption is higher in medium business enterprises compared to small business enterprises in respect of maintaining integrity of an accounting system.

7. CAS adoption in maintaining the integrity in an accounting system is to the extent of 70.9 percent and 80 percent in small business enterprises and medium business enterprises, the highest and lowest CAS adoption is in bank reconciliation and financial statement, CAS adoption in medium business enterprises is higher than that of small business enterprises in all 5 indicators of maintaining the integrity in an accounting system and hence CAS adoption in maintaining the integrity in an accounting system in medium business enterprises is higher than that of CAS adoption in maintaining the integrity in accounting system in small business enterprises. The CAS adoption difference
between small business enterprises and medium business enterprises in maintaining the integrity in an accounting system dimension is 9.1 percent.

8. There is no significant difference in small and medium business enterprises on CAS adoption in maintaining integrity of accounting system dimension.

9.5.2 Summary of findings on extent of CAS adoption in preparing types of accounting system:


2. 12.4 percent of small business enterprises 33.3 medium business enterprises and 14.6 percent SMEs are adopted CAS for standard cost accounting system. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises in standard cost accounting system.

3. 91.9 percent small business enterprises (SBEs), 96.7 percent medium business enterprises (MBEs) and 92.4 percent small and medium business enterprises (SMEs) are adopted CAS for marginal cost accounting system. CAS adoption of medium business enterprises is higher than that of small business enterprises in this respect.

4. 27.9 percent small business enterprises (SBEs), 76.7 percent medium business enterprises (MBEs) and 33 percent small and medium business enterprises (SMEs) are adopted CAS for management accounting system. CAS adoption of medium business enterprises is higher than that of small business enterprises in this respect.

5. 43 percent of small business enterprises 70 percent medium business enterprises and 45.8 percent SMEs are adopted CAS for human resource accounting system. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises in human resource accounting system.

6. 48.1 percent of small business enterprises, 66.7 percent medium business enterprises and 50 percent SMEs are adopted CAS in taxation accounting.
system. In comparison between small and medium business enterprises, medium business enterprises are higher than that of small business enterprises in respect of taxation accounting system.

7. 8.1 percent of small business enterprises 23.3 medium business enterprises and 9.7 percent SMEs are adopted CAS for environmental accounting system. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises in environmental accounting system.

8. 38.4 percent of small business enterprises, 60 percent of medium business enterprises and 40.6 percent of SMEs have adopted CAS for types of accounting system. CAS adoption of medium business enterprises is higher than that of CAS adoption of small business enterprises in respect of types of accounting system dimension.

9. CAS adoption in types of accounting system is to the extent of 38.4 percent and 60 percent in small business enterprises and medium business enterprises, the highest and lowest CAS adoption is in marginal cost accounting and environmental accounting respectively in small business enterprises whereas highest and lowest CAS adoption is in marginal cost accounting and environmental accounting respectively in medium business enterprises, CAS adoption in medium business enterprises is higher than that of small business enterprises in all 6 indicators of types of accounting system and hence CAS adoption in types of accounting system in medium business enterprises is higher than that of CAS adoption in types of accounting system in small business enterprises. The CAS adoption differences between small business enterprises and medium business enterprises in types of accounting system dimension is 21.6 percent.

10. There is a significant difference in small and medium business enterprises on CAS adoption in types of accounting dimension.

9.5.3 Summary of findings on extent of CAS adoption in preparing various other essential documents:

1. Researcher had selected five indicators like, (1) budget (2) vat, (3) cash flow statement, (4) source documents, and (5) original entry books, for knowing to
know what extent computer is used in preparation of budget, vat, cash flow statement, source documents, original entry books.

2. 26 percent small business enterprises (SBEs), 76.7 percent medium business enterprises (MBEs) and 31.3 percent small and medium business enterprises (SMEs) are adopted CAS for budget preparation. Cash adoption of medium business enterprises is higher than that of small business enterprises in this respect.

3. 55 percent of small business enterprises, 60 percent medium business enterprises and 55.6 percent SMEs are adopted CAS in vat preparation. In comparison between small and medium business enterprises, medium business enterprises are higher than that of small business enterprises in respect of vat preparation.

4. 31.4 percent of small business enterprises, 40 percent medium business enterprises and 32.3 percent SMEs are adopted CAS in cash flow statement. In comparison between small and medium business enterprises, medium business enterprises are higher than that of small business enterprises in respect of cash flow statement.

5. 51.9 percent of small business enterprises, 66.7 percent medium business enterprises and 53.5 percent SMEs are adopted CAS for source documents preparation. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises in source documents preparation.

6. 77.5 percent of small business enterprises, 83.3 percent medium business enterprises and 78.1 percent SMEs are adopted CAS for preparing original entry books. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises in preparing original entry books.

7. 48.1 percent of small business enterprises, 63.3 percent medium business enterprises and 49.7 percent SMEs are adopted CAS for other essential documents preparation. On comparing between small and medium business enterprises it is found that, CAS adoption is higher in medium business enterprises than that of small business enterprises in other essential documents preparation.

8. CAS adoption in respect of other essential documents preparation is to the extent of 48.1 percent and 63.3 percent in small business enterprises and
medium business enterprises, the highest and lowest CAS adoption is original entry books and budget respectively in small business enterprises whereas highest and lowest CAS adoption is original entry books and cash flow statement in medium business enterprises, CAS adoption in medium business enterprises is higher than that of small business enterprises in all 5 indicators of other essential documents preparation and hence CAS adoption in other essential documents preparation in medium business enterprises is higher than that of CAS adoption in other essential documents preparation in small business enterprises. The CAS adoption difference between small business enterprises and medium business enterprises in other essential documents preparation dimension is 15.2 percent.

9. There is a significant difference in small and medium business enterprises on CAS adoption in other essential documents dimension.

9.5.4 Summary of findings on extent of adoption based on use of software:

1. Use of software is one of the measures, was used for measuring and identifying the extent of CAS adoption. The researcher had selected three indicators/attributors for this purpose, like (1) software purchased, (2) arrangement of basic requirement, (3) proper service and maintenance arrangement contract. Based on these, researcher had assessed the extent of CAS adoption.

2. 63.2 percent of small business enterprises, 70 percent medium business enterprises and 63.9 percent SMEs are adopted CAS by purchasing required software. Comparison between small and medium business enterprises show that medium business enterprises CAS adoption is higher than that of small business enterprises as per software purchased criteria is concerned.

3. 45.7 percent of small business enterprises, 60 percent medium business enterprises and 47.2 percent SMEs adopted CAS based on arrangement of basic requirement. In comparison between small and medium business enterprises, CAS adoption in medium business enterprises is higher than that of small business enterprises in respect of arrangement of basic requirement.

4. 52.7 percent of small business enterprises, 63.3 percent medium business enterprises and 53.8 percent SMEs are adopted CAS based on proper service and maintenance arrangement contracted for software. In comparison between
small and medium business enterprises, medium business enterprises are higher than that of small business enterprises in respect of proper service and maintenance arrangement contracted for software.

5. 53.5 percent of small business enterprises, 63.3 percent medium business enterprises and 54.5 percent SMEs are adopted CAS by way of using software. In terms of purchase and use of software, CAS adoption in MBEs higher than that of SBEs.

6. CAS adoption in respect of use of software is to the extent of 53.5 percent and 63.3 percent in small business enterprises and medium business enterprises, highest and lowest CAS adoption is software purchased and arrangement in basic requirements respectively in both small and medium enterprises, CAS adoption in medium business enterprises is higher than that of small business enterprises in all 3 indicators of use of software and hence CAS adoption in use of software in medium business enterprises is higher than that of CAS adoption in use of software in small business enterprises. The CAS adoption difference between small business enterprises and medium business enterprises in use of software dimension is 9.8 percent.

7. There is no significant difference in small and medium business enterprises on CAS adoption in use of software dimension.

9.6 Extent of CAS adoption in SMEs:

Extent of CAS adoption in SMEs is studied and assessed in chapter 8 after measuring and identifying CAS adoption by taking 35 indicators divided into 7 dimensions. The average of 35 indicators or 7 dimensions is the overall extent of CAS adoption in SMEs. Findings are summarised as under:

1. CAS adopted by small business enterprises in North-East Mumbai zone is to the extent of 43.0 percent in preparing chart of accounts, 39.5 percent in preparing journals and subsidiary journals, 53.5 percent in preparing ledgers, 70.9 percent in keeping and maintaining integrity of an accounting system, 38.4 percent in preparing types of accounting system, 48.1 percent in preparing other essential documents and 53.5 percent in purchasing and using software respectively. Overall 49.6 percent CAS is adopted in SBEs in North-East Mumbai zone.
2. CAS adoption in medium business enterprises (MBEs) shows that CAS adoption by medium business enterprises in North-East Mumbai zone is to the extent of 66.7 percent in preparing chart of accounts, 63.3 percent in preparing journals and subsidiary journals, 66.7 percent in preparing ledgers, 80.0 percent in keeping and maintaining the integrity of an accounting system, 60.0 percent in preparing types of accounting system, 63.3 in preparing other essential documents and 63.3 in purchasing and using software respectively. Overall CAS adoption in medium business enterprises in North-East Mumbai zone is to the extent of 66.7 percent.

3. CAS adoption in SMEs in North-East Mumbai zone is to the extent of 45.5 percent, 42.0 percent, 54.9 percent, 71.9 percent, 40.6 percent, 49.7 percent and 54.5 percent in preparing chart of accounts, journals and subsidiary journals, ledgers, maintaining the integrity of an accounting system, types of accounting system, other essential documents and use of software respectively. Overall CAS adoption in SMEs in North-East Mumbai zone is to the extent of 51.4 percent.

4. CAS adoption by SBE, MBE and SMEs in North-East Mumbai zone is to the extent of 49.6 percent, 66.7 percent and 51.4 percent.

5. All the seven dimension shows that CAS adoption in medium business enterprises is higher than that of small business enterprises.

6. Overall CAS adoption difference between small and medium business enterprises is to the extent of 17.1 percent.

7. CAS adoption (overall) is medium business enterprises (66.7 percent) is higher than that of small business enterprises (49.6 percent). It is higher by 17.1 percent.

8. Hypothesis 1,2,3,4 and 7 are accepted, whereas hypothesis 5 and 6 are rejected.

9. Hypothesis 8 that “There is no significant difference between SBEs and MBEs on CAS adoption”, is accepted.
9.7 Conclusions:

9.7.1 Extent of CAS adoption on SMEs:

Figure 9.1 is the conclusion of empirical study undertaken on computerisation of accounting system in small and medium business enterprises (SMEs) in North- East Mumbai Zone based on primary data collected from 288 SMEs respondents consisting of 258 small and 30 medium business enterprises.

Figure 9.1

Conclusion of extent of CAS adoption in SMEs in North- East Mumbai Zone

1. Chart of accounts
   - S=43.0% M=66.7% SME=45.5%

2. Journals and subsidiary journals
   - S=39.5% M=63.3% SME=42.0%

3. Ledgers
   - S=53.5% M=66.7% SME=54.9%

4. Keeping and maintaining integrity of an accounting
   - S=70.9% M=80.0% SME=71.9%

5. Types of accounting systems
   - S=38.4% M=60.0% SME=40.6%

6. Other essential documents preparation
   - S=48.1% M=63.3% SME=49.7%

7. Use of software
   - S=53.5% M=63.3% SME=54.5%

(S= small business enterprises; M= Medium business enterprises; SME= small and medium business enterprises)
Overall CAS adoption in SBEs, MBEs and SMEs is the extent of 49.6 percent, 66.7 percent, and 51.4 percent respectively.

9.7.2 Hypotheses testing:

On the basis of testing hypothesis following is concluded.

Chart 9.1
Conclusion of hypothesis testing

<table>
<thead>
<tr>
<th>Hypothesis No.</th>
<th>Hypotheses</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hy1</td>
<td>There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing chart of accounts dimension.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hy2</td>
<td>There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing journal and subsidiary journal dimension</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hy3</td>
<td>There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing ledger dimension</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hy4</td>
<td>There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing ledger dimension</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hy5</td>
<td>There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing types of accounting system dimension.</td>
<td>Rejected</td>
</tr>
<tr>
<td>Hy6</td>
<td>There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in preparing other essential documents dimension</td>
<td>Rejected</td>
</tr>
<tr>
<td>Hy7</td>
<td>There is no significant difference between small business enterprises and medium business enterprises on CAS adoption in use of software dimension.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hy8</td>
<td>There is no significant difference between small business enterprises and medium business enterprises on CAS adoption.</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

9.8 Suggestions:

1. Study of survey responses regarding characteristics of owners of SMEs from North-East Mumbai zone reveals that majority (57.3 percent) are relatively young, majority (73.6 percent are graduates, majority (91.7 percent) take complete responsibility of controlling their business, majority (81.6 percent)
have computer knowledge and 43.4 percent have experience in using computers but still overall adoption of CAS in SMEs from North-East Mumbai zone is only 51.4 percent. It is in the interest of these businesses, their dependents (employees) and ultimately the nation that percentage of CAS adoption increases significantly.

2. Government of Maharashtra and Government of India should implement strategies towards achieving this goal, like:
   a. Cheaper loans from financial institutions for purchase of Hardware
   b. Currently loans for purchase of software are not legally allowed. This leads to use of pirated software that leads to a number of technical issues. Government should take steps to finance at least some part of software cost through financial institutions.
   c. SME owners who do not understand accounts, find it difficult to use CAS even if they are tech savvy. Education Ministries through various Universities and affiliated colleges or Commerce Ministries through institutions like District Industries Centers or various Chambers of Commerce should arrange regular seminars, training courses on subjects like ‘Finance for non-finance managers’, ‘Using computers in business management’, ‘Using CAS effectively and completely’, etc.

3. Software development companies / software developers should establish communication / dialog with actual users like these SMEs under consideration, to:
   a. understand why users find their software complex and so the extent of adoption is less
   b. understand how they can make their software user friendly and precisely aligned with business needs of these SMEs.

Software development companies / software developers should study whether providing user interface in regional languages will help in increasing extent of adoption of CAS.

4. Study of survey responses regarding perception of businessmen towards pattern of keeping and maintaining accounting system reveals that majority (74 percent) do not conduct audit of their books of accounts, substantial (46.5 percent) do not give due importance to keeping and maintaining accounting
system and majority (71.5 percent) write their accounts once in a year (annually). This means, majority of SMEs in North-East Mumbai zone do not have proper control on their accounts and are probably sitting ducks for frauds and losses due to over-sight or negligence. It is in their interest that they gain strong and proper control on their accounts by regular and frequent recording of transactions and analysis thereof.

5. Governments, through their institutions like District Industries Centres should engage services of qualified CAs / accountants cluster wise to visit these SMEs on a monthly basis and guide and help them to adopt CAS and use it completely and effectively on a regular basis.