

Chapter-IV

Perceived awareness and uses of financial and management accounting tools and techniques by MSMEs in Tripura –Data analysis and interpretation.

4.1 Introduction:

The main purposes of this chapter are to provide a general description of the schedule responses and to present the findings relating to the first two research objectives listed in Chapter 1 section 1.6. These are (i) To assess the level of perceived awareness of the owner-manager of MSMEs about the tools and techniques of accounting system; and (ii) To examine the pattern of managerial use of the accounting tools and techniques by the micro, small and medium enterprises. Findings are presented systematically in the order of the schedule from section 1 to section 6. This chapter will also examine the hypothesis number 1 and 2 in sections 4.6.1 and 4.6.2 respectively.

4.2 Profile of respondents

General profile information relating to the respondents have been collected in section-1 of the schedule. Ten questions were asked and covered the number of years that the business had been in operation, responsibility of managing the business, gender, age, educational qualification of owners/managers, the type of manufacturing/service activities, investment made in plant and machinery, investment made in equipment, annual sales turnover and number of employees. These information are helpful to know the background of the respondents and also providing data for further statistical analysis. Following tables present the information for the 330 responding MSMEs.

Table: 4.1 Classification of business as per years of operation

| Period of business operations | No. of respondents | Percentage (%) |
|--------------------------------------|---------------------------|-----------------------|
| 1 - 3 Years | 16 | 4.8 |
| 4-10 Years | 207 | 62.7 |
| More than 10 Years | 107 | 32.4 |
| Total | 330 | 100 |

Source: Compiled from collected data

The result shows that an overwhelming majority of the MSMEs (62.7%) have been in business between 4-10 years. This is followed by respondents who have been in the business for more than 10 years (32.4%). In contrast, it is observed that numbers of

newly operating firms (1-3 years) are only 4.8% of respondents. As majority of the responding MSMEs are established business that might reasonably be expected to use financial and management accounting techniques and have developed accounting systems that are suitable for their business needs.

Table: 4.2 Responsibility of managing business

| Business managed by | No. of respondents | Percentage (%) |
|----------------------------|---------------------------|-----------------------|
| Owner | 305 | 92.42 |
| Manager | 20 | 6.06 |
| Both | 1 | 0.30 |
| Member of the family | 4 | 1.21 |
| Total | 330 | 100 |

Source: Compiled from collected data

As shown in the table 4.2 majority of the MSMEs are managed by the owner of the firm (92.42%). This is followed by MSMEs which have been managed by the manager of the MSMEs (6.06%) and the MSMEs managed by the family member of the owner are very few (i. e. 1.21%). Results also show that, there is only one firm (.30%) which has been managed by both owner and manager of the firm.

Table: 4.3 Gender of Respondents

| Gender | No. of respondents | Percentage (%) |
|---------------|---------------------------|-----------------------|
| Male | 275 | 83.33 |
| Female | 55 | 16.67 |
| Total | 330 | 100 |

Source: Compiled from collected data

Table: 4.4 Percentage distribution of enterprises by gender and sector

| Sector | No. of respondents | Female | Male |
|---------------|---------------------------|---------------|--------------|
| Micro | 300 | 17.67 | 82.33 |
| Small | 27 | 11.11 | 88.89 |
| Medium | 3 | 0.00 | 100.00 |
| Total | 330 | 16.67 | 83.33 |

Source: Compiled from collected data

Out of the total MSMEs (330) surveyed for the research, it is found that there is a dominance of male in ownership which is 83.33%. The female ownership is 17.67% of the total respondents. It is interesting to note that this result is very much closer to the 4th all India MSME census (latest MSME census published in May, 2011) for the registered sector where we got the value for the same were male with 86.28% and female with 13.72%. Again, as per table 4.4 sector wise percentage distribution of surveyed enterprise ownership of researcher are in line with the 4th all India MSME census. In the micro category males are 82.33% (national percentage 85.81%) and females are 17.67% (national percentage 14.19%), in the small category males are 88.89% (national percentage 94.94%) whereas females are 17.67% (national percentage 5.06%) and in medium category all enterprise owners are male with 100% ownership (national percentage 95.79%).

Table: 4.5 Age of the Respondents

| Age | No. of respondents | Percentage (%) |
|----------------|--------------------|----------------|
| Up to 20 Years | 2 | 0.61 |
| 21- 40 years | 158 | 47.88 |
| 41-60 Years | 169 | 51.21 |
| 61 or more | 1 | 0.30 |
| Total | 330 | 100 |

Source: Compiled from collected data

The survey result shows that 51.21% of responding MSMEs are aged between 41-60 years. This is followed by respondents who have aged between 21-40 years (47.88%). From the results it is revealed that good number of young entrepreneurs are there within the sample size who can contribute to their state economy for the number of years which would help to achieve long term economic growth of Tripura. As per researcher survey only two (.61%) respondents belong to the age of below 20 years and only one (.30%) respondent comes under the age of 61 years or more category.

Table: 4.6 Educational qualification of Respondents

| Educational qualification | No. of respondents | Percentage (%) |
|----------------------------------|---------------------------|-----------------------|
| 10th Standard | 69 | 20.91 |
| H.S (10+2) | 77 | 23.33 |
| Graduate | 130 | 39.39 |
| Post Graduate | 11 | 3.33 |
| Professional | 3 | 0.91 |
| Others | 40 | 12.12 |
| Total | 330 | 100 |

Source: Compiled from collected data

The result (table 4.6) shows that 39.39% of the responding firm's owners/managers have their graduation degree. This is followed by respondents who have qualified, Higher Secondary examination (10+2 Standard) 23.33% and Madhyamik examination (10th Standard) 20.91%. Respondents having their Post Graduate degree are only 3.33%. Respondents with any professional qualification are quite less in number, 3 out of 330 (.91%), this result may reveal that professional qualified persons are less interested to become an entrepreneur. 12.12% of the responding firm's owner/manager comes under 'others' category, qualification below 10th standard has been considered in this category. Among this category class 8th standard is the dominating one followed by class 4th standard and class two standard.

Table: 4.7 Manufacturing/Service activities (Sector wise)

| Area of business | No. of respondents | Percentage (%) |
|--------------------------------|---------------------------|-----------------------|
| Furniture | 31 | 9.39 |
| Rubber and Plastic | 14 | 4.24 |
| Food Products/Processing | 31 | 9.39 |
| Chemicals & chemical products | 9 | 2.73 |
| Bricks | 17 | 5.15 |
| Handicrafts | 33 | 10.00 |
| Basic Metals | 18 | 5.45 |
| Non- metallic mineral products | 1 | 0.30 |
| Service provider | 71 | 21.52 |
| Others (please specify) | 105 | 31.82 |
| Total | 330 | 100 |

Source: Compiled from collected data

In general, the manufacturing activities of responding MSMEs are concentrated in handicrafts products (10%), wooden furniture and food products having 9.39% share. The next principal areas are basic metals (5.45%), bricks (5.15%) and rubber & plastic with 4.24 %. The lowest responding activity areas are Chemical & chemical products

and non-metallic mineral products having response of 2.73% and .30% respectively. 31.82% of responding MSMEs comes under others category. Readymade garments and jewellery are the dominant components among ‘others’ category with 14.29% and 9.52% respectively. Cement products and steel products come after above two categories of responding firms which are equally important in this category with 5.71% respondents in each, followed by water filter & purifying machine (4.76%), packaged drinking water (3.81%) and rice milling (2.86%).

‘Service provider’ constitute with respondents from various types of service provider namely, repair of motor vehicles (19.72%), beauty parlour (9.86%), decorator services (8.45%), travel agency (5.63%), cycle repairing (4.23%), pathology (4.23%), data processing (4.23%) and computer servicing (4.23%) among the dominating groups under this head and so many other types of service providers with minimum number of responses are also there in this category.

Table: 4.8 Investment in Plant & Machinery (in case of manufacturer/preserver of goods)

| Investment | No. of respondents | Percentage (%) |
|--|---------------------------|-----------------------|
| Not exceeding ₹ 25lakhs | 234 | 70.91 |
| More than ₹ 25 lakhs but not exceeding ₹5crore | 22 | 6.67 |
| More than ₹ 5crore but not exceeding ₹10crore | 3 | 0.91 |
| Not applicable | 71 | 21.52 |
| Total | 330 | 100 |

Source: Compiled from collected data

Above table (4.8) has been prepared from the schedule as per the working definition of Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 to categorise the responding MSMEs under micro, small and medium categories on the basis of their investment made in plant & machinery of their respective firms. From the results it is clear that 70.91% of the responding MSMEs comes under micro category as their investment is less than ₹ 25 lakhs. This is followed by the respondents who have invested in their business for more than ₹ 25 lakhs but not exceeding ₹ 5crore with 6.67%. In contrast, number of medium scale enterprises (investment made in business for more than ₹ 5crore but not exceeding ₹ 10crore) are only .91% of respondents. 21.52% of the responding enterprises are not considered for categorising manufacturing enterprises as they come under ‘not applicable’ category, these will be considered as service enterprises and their status will be analysed in the next table.

Table: 4.9 Investment made in Equipment's (in case of a service provider)

| Investment | No. of respondents | Percentage (%) |
|---|---------------------------|-----------------------|
| Not exceeding ₹10 lakhs | 66 | 20.00 |
| More than ₹10 lakhs but not exceeding ₹2crore | 5 | 1.52 |
| More than ₹2crore but not exceeding ₹5crore | 0 | 0.00 |
| Not applicable | 259 | 78.48 |
| Total | 330 | 100 |

Source: Compiled from collected data

Table 4.9 has also been prepared from the schedule to categorise the service enterprises under the heads micro, small, and medium enterprises as per present working definition of MSMED Act, 2006. As this sort of classification has been made for the service enterprises on the basis of investment made in equipment's for their respective enterprises. From the result it is observed that 20% among the whole responding enterprises come under micro category (92.95 % among the service enterprises) whereas 1.52% comes under small category (7.05% among the service enterprises) and there is no medium size service enterprises among the surveyed enterprises in Tripura. 'Not applicable' category in above table are actually manufacturing firms which has been already shown in the previous table.

It would be noteworthy to mention here considering both 4.8 & 4.9 tables (of surveyed firms of Tripura) that the results came out for micro, small and medium enterprises are 90.91%, 8.18% and .91% respectively. These results are very much in line with the national figures of 4th all India MSME census for the registered sectors, which showed that for micro enterprises it was 94.94%, for small enterprises it was 4.89% and for medium enterprises it was .17%.

Table: 4.10 Annual sales turnover

| Sales turnover | No. of respondents | Percentage (%) |
|------------------------|--------------------|----------------|
| Up to ₹1, 00, 000 | 18 | 5.45 |
| ₹ 1, 00,001-₹2, 00,000 | 55 | 16.67 |
| ₹2, 00,001-₹3, 00,000 | 69 | 20.91 |
| ₹3, 00,001-₹4, 00,000 | 22 | 6.67 |
| ₹4, 00,001-₹5, 00,000 | 24 | 7.27 |
| More than ₹5 lakhs | 142 | 43.03 |
| Total | 330 | 100 |

Source: Compiled from collected data

As shown in the table 4.10 highest number of responding firms (43.03%) reported annual sales for more than ₹ 5 lakhs. This is followed by annual sales ranging from ₹ 2, 00,000 to ₹ 3, 00,000 with 20.91% of the respondents and annual sales of ₹ 1, 00,000 to ₹ 2, 00,000 with 16.67% of the respondents. 7.27% of the responding firms reported their annual sales in between ₹ 4, 00,000 to ₹ 5, 00,000 and 6.67% of responding firms reported their sales in between ₹ 3, 00,000 to ₹ 4, 00,000. 5.45% of the responding firms reported their annual sales as below ₹ 1, 00,000. They are mainly engaged with different types of handicrafts products and belong to the micro enterprise category.

Table: 4.11 Number of employees

| Scale of Employment | No. of respondents | Percentage (%) |
|---------------------|--------------------|----------------|
| Up to 10 | 244 | 73.94 |
| 11 to 20 | 48 | 14.55 |
| 21 to 30 | 14 | 4.24 |
| 31 to 40 | 3 | 0.91 |
| 41 to 50 | 0 | 0.00 |
| More than 50 | 21 | 6.36 |
| Total | 330 | 100 |

Source: Compiled from collected data

This result (table 4.11) indicates that the sample is heavily biased towards firms with 'Up to 10 employees' employed in the firms having highest number of respondents (73.94%). This result followed by the firms having employees 11 to 20 with a share of 14.55% respondents. There is a 6.36% of responding firms who have employed more than 50 employees. 4.24% respondents are there those have employees ranging from 21 to 30. Only .91% of responding firms are there who are managing their business by employing 31 to 40 employees.

4.3 Status of financial accounting practices

In section 2 of the schedule there are four major part on financial accounting practices. Part A, consists of person responsible for recording accounting transactions, method of recording financial transaction and compulsion for accounting practices. Part-B discusses the financial accounting practices followed by a firm. In other word accounting tools and techniques are used by the firm for recording financial transactions and to publish different types of accounting results. Part-C discusses accounting tools used to monitor or track financial performance of the business and part-D explores the use of accounting ratios to understand or read the financial statement. From part-B to part-D of the schedule of section 2, there are two aspects for every section, the first one is importance of accounting tools and techniques for any firm and another one at what extent they use these tools and techniques. Perceived awareness has been measured in three point scale and extent of uses has been measured in five point scale. In the following subsections (4.3.4) and (4.3.5) summarize the results.

4.3.1 Part A: Responsibility of keeping accounting records

When designing the research, it was thought that those who wrote up their books themselves might be more in touch with the business. However, it was discovered that owner- managers who know most about their business did not necessarily write up their own books of accounts (Das A. K, 2006)

Table: 4.12 Person responsible for keeping accounting records

| Accounting record keeper | No. of respondents | Percentage (%) |
|--------------------------|--------------------|----------------|
| Owner | 268 | 81.21 |
| Manager | 13 | 3.94 |
| Accountant | 10 | 3.03 |
| Part time accountant | 38 | 11.52 |
| Friends /relatives | 1 | 0.30 |
| Total | 330 | 100 |

Source: Compiled from collected data

According to the study 81.21 % of the responding firms keep their books of accounts by themselves. This results followed by the respondents who maintain their books of accounts with the help of part time accountants (11.52%). Managers are also engaged with keeping books of accounts for 3.94% of the responding firms. Accountants are engaged with full responsibility of recording and publishing different accounting results

for the 3.03% of the responding firms. From the study it is observed that for all the medium enterprises and few of the small categories enterprises, have their own accountant for all the accounting functional areas. Friends and relatives are also involved with maintaining accounting records for.30% of the responding firms.

4.3.2 Methods of recording financial (accounting) information

Table: 4.13 Methods of recording financial (accounting) information

| System of recording financial information | No. of respondents | Percentage (%) |
|--|---------------------------|-----------------------|
| Single entry system | 0 | 0.00 |
| Double entry system | 67 | 20.30 |
| Indigenous /Mahajani system | 11 | 3.33 |
| Keeping in one book/ note book | 252 | 76.36 |
| With the help of memory | 0 | 0.00 |
| Total | 330 | 100 |

Source: Compiled from collected data

Result shows that 76.36% of the responding firms keep their financial records in the note book. 20.30% of the respondents record their financial transactions as per double entry system of recording financial transaction. Indigenous or mahajani system of keeping financial transactions are used by 3.33% of the responding firms. Among the total responding firms there is no one who keeps their books of accounts as per single entry system as well as respondents who keep their accounting records with the help of their memory.

4.3.3 Compulsion for accounting practices

Result shows that among the total surveyed MSMEs 85.76% of the responding firms are doing their accounting practices for knowing their business profit and loss. 10.61% of the responding firms are doing their accounting practices ‘To know the business profit or loss and also to determine the tax liability or to comply with tax department’.

Table: 4.14 Compulsion for accounting practices among the Respondents

| Compulsion for record keeping | No. of respondents | Percentage (%) |
|--|---------------------------|-----------------------|
| To know the business profit or loss | 283 | 85.76 |
| To know the business financial position | 2 | 0.61 |
| To determine the tax burden/comply with tax department | 3 | 0.91 |
| To satisfy the bankers | 0 | 0.00 |
| To meet the statutory audit requirement | 0 | 0.00 |
| To take future business decision | 0 | 0.00 |
| To know the business profit or loss and also to determine the tax liability/comply with the tax department | 35 | 10.61 |
| All the above | 7 | 2.12 |
| Others | 0 | 0.00 |
| Total | 330 | 100 |

Source: Compiled from collected data

2.12% of the responding firms maintain their accounts for all the reasons mentioned in the table. There is only .91% of the responding firms maintains their accounts ‘to determine tax burden or to comply with the tax departments whereas it is only .61% for ‘to know the financial position of the business’. There is no one who maintains their accounts to satisfy the bankers, to meet the statutory audit requirement, to take future business decision and for other reasons.

4.3.4 Perceived awareness and usage financial accounting practices:

This section will investigate the frequency of use of 33 financial accounting tools and techniques using a five point Likert-type scale (S1 indicating never S5 indicating very often). They were also asked to know the perceived awareness about the accounting tools and techniques using either ‘not important’, ‘moderately important’ or ‘important’ (in symbol these are NI, MI & I respectively). The 33 financial accounting tools were classified into three groups: Financial accounting practices, accounting tools used to monitor/ track financial performance and profitability of the business and uses of accounting ratios. The following three subsections are discussed in details.

4.3.4.1 Part B: Perceived awareness and usage of financial accounting system:

This part will investigate in details use of tools & techniques of financial accounting practices and also judged the perceived awareness about each tools & techniques of accounting practices among the responding firms. Table 4.15 shows summary of statistics for financial accounting practices by percentage of respondents of surveyed MSMEs of Tripura. Table 4.16 shows the descriptive results for the uses and importance of tools & techniques of financial accounting system at this detailed level. In this table, the ranking of techniques for the usage is based on mean value, which shows the average score of each individual technique based on five-point Likert scale (S1 to S5). Ranking of importance for the accounting tools & techniques had been done also in a same fashion as usage but by using three point scale (NI: not important=1, MI: moderately important =2, I: important=3). The standard deviations are also provided for the cases to show the extent of diversity of responses.

Table: 4.15 Financial accounting practices: summary of statistics shown by percentage of respondents

| Perceived Awareness | | | | Financial Accounting Practices | How often used? | | | | | |
|---------------------|-------|------|-------|---|-----------------|-------|-------|-------|-------|------|
| n | NI | MI | I | | n | S1 | S2 | S3 | S4 | S5 |
| 330 | 19.09 | 4.24 | 76.67 | Cash book | 330 | 26.06 | 14.85 | 45.15 | 13.03 | 0.91 |
| 330 | 35.15 | 3.03 | 61.82 | Sales books | 330 | 45.76 | 17.58 | 23.94 | 12.12 | 0.61 |
| 330 | 50.00 | 5.76 | 44.24 | Purchase books | 330 | 61.52 | 12.73 | 15.45 | 9.70 | 0.61 |
| 330 | 51.21 | 6.36 | 42.42 | Expenses books | 330 | 61.82 | 12.42 | 16.36 | 8.79 | 0.61 |
| 330 | 71.21 | 6.67 | 22.12 | Provision for depreciation | 330 | 79.39 | 6.06 | 8.18 | 6.06 | 0.30 |
| 330 | 70.30 | 5.76 | 23.94 | Fixed asset register | 330 | 77.58 | 5.45 | 9.39 | 6.97 | 0.61 |
| 330 | 60.30 | 3.33 | 36.36 | Stock book for materials | 330 | 67.88 | 7.27 | 13.33 | 10.61 | 0.91 |
| 330 | 15.45 | 1.52 | 83.03 | Debtors book | 330 | 17.88 | 0.91 | 31.21 | 47.88 | 2.12 |
| 330 | 16.97 | 1.52 | 81.52 | Creditors book | 330 | 19.39 | 1.21 | 31.21 | 46.36 | 1.82 |
| 330 | 12.42 | 1.82 | 85.76 | Profit & Loss Account | 330 | 13.33 | 2.42 | 61.21 | 22.42 | 0.61 |
| 330 | 27.58 | 2.73 | 69.70 | Balance sheet | 330 | 31.21 | 7.27 | 41.82 | 19.09 | 0.61 |
| 330 | 90.00 | 3.64 | 6.36 | Cash flow analysis | 330 | 93.33 | 1.52 | 2.73 | 2.42 | 0.00 |
| 330 | 82.12 | 3.03 | 14.85 | Computer for recording business transaction | 330 | 86.97 | 1.52 | 5.76 | 5.45 | 0.30 |

n:number of respondents, NI: not important=1, MI: moderately important =2, I:important=3, S1:never, S2: rarely, S3: sometimes, S4: often and S5: very often. **Source:** *Compiled from collected data*

Table: 4.16 Descriptive statistics for financial accounting practices

| Financial Accounting Practices | n | Perceived Awareness ^a | | | Usage ^b | | |
|---|-----|----------------------------------|----------|------|--------------------|----------|------|
| | | Mean | Std. Dev | Rank | Mean | Std. Dev | Rank |
| Debtors book | 330 | 2.68 | 0.73 | 2 | 3.15 | 1.12 | 1 |
| Creditors book | 330 | 2.65 | 0.75 | 3 | 3.10 | 1.15 | 2 |
| Profit & Loss Account | 330 | 2.73 | 0.67 | 1 | 2.95 | 0.90 | 3 |
| Balance sheet | 330 | 2.42 | 0.89 | 5 | 2.51 | 1.14 | 4 |
| Cash book | 330 | 2.58 | 0.79 | 4 | 2.48 | 1.04 | 5 |
| Sales books | 330 | 2.27 | 0.95 | 6 | 2.04 | 1.11 | 6 |
| Purchase books | 330 | 1.94 | 0.97 | 7 | 1.75 | 1.07 | 7 |
| Expenses books | 330 | 1.91 | 0.96 | 8 | 1.74 | 1.06 | 8 |
| Stock book for materials | 330 | 1.76 | 0.95 | 9 | 1.69 | 1.11 | 9 |
| Fixed asset register | 330 | 1.54 | 0.85 | 10 | 1.48 | 0.96 | 10 |
| Provision for depreciation | 330 | 1.51 | 0.83 | 11 | 1.42 | 0.90 | 11 |
| Computer for recording business transaction | 330 | 1.33 | 0.72 | 12 | 1.31 | 0.83 | 12 |
| Cash flow analysis | 330 | 1.16 | 0.51 | 13 | 1.14 | 0.57 | 13 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I:important=3)

^b Based on 5-point scale (S1:never=1, S2: rarely=2, S3: sometimes=3, S4: often=4 and S5: very often=5).

Source: Compiled from collected data

As per the descriptive statistics shown in the table 4.16 debtors book got the highest preference on usage, over the other tools and techniques of accounting. It is observed that 50% of MSMEs owner/manager maintains debtors book to keep credit sales information (considering response percentage of options often and very often). This result is followed by creditors book with 48.18%, profit & loss account with 23.03%, balance sheet with 19.70% and cash book with 13.94% response rate. Though sales book, stock books for materials and purchase book are among the important books of accounts but their usage rate are very less among the responding MSMEs of Tripura. Their usage rate are 12.73%, 11.52% and 10.30% respectively. Accounting tools with less than 10% usage rate are expenses book, fixed asset register, provision for depreciation, computer for recording business transaction and cash flow analysis (2.42%).

It is interesting to note that importance of these accounting tools and techniques are rated quite differently by the owner/manager of responding MSMEs of Tripura. As per

importance profit & loss accounting got the 1st rank with 87.58% response rate, this result followed by debtors book, creditors book, cash book and balance sheet with 2nd rank (84.58%), 3rd rank (83.08%), 4th rank (80.91%) and 5th rank (72.42%) respectively, for this reason it can be concluded that respondents are well aware about these techniques. Importance of the remaining accounting tools and techniques are in similar line with the usage rate of these techniques.

Comparison of results with those of previous studies

Large number of small and tiny business units do not maintain even proper books of accounts, which are necessary for proper control of the business. Past experience and intuition plays important role in financial decision making. Among the other factors, the non-use of financial tools and techniques for financial decision making has resulted in a variety of financial problems, which the small unit faces (Vinayak, 1987).

The result obtained for the use of accounting tools & techniques among the owner/manager of MSMEs of Tripura are very much in line with the previous researcher. For example study result of Das, A. K. (2006) shows that awareness level for accounting tools & techniques among the small business owner/managers of north-eastern region of India is very low. Except cash book, debtors book and creditors book (where awareness level is 100%) the awareness level for other techniques were very low. This result is followed by profit & loss account (34%), balance sheet (34%), purchase ledger (20%), depreciation (15.7%), store ledger (11.5%), sales ledger (11%) and bank reconciliation statement (5.2%). In case of uses of these tools & techniques the awareness level and uses rate are very much similar for cash book, debtors book and creditors book but for the other tools and techniques result differs significantly. In case of profit & loss account, balance sheet, purchase book and sales book usage rate among the respondents were 24.6%, 10.5%, 12.5% and 9.4% respectively.

Das and Dey (2010) conducted study about the uses of financial accounting tools techniques among the small business owner/managers of North-Eastern region of India. They discovered that only 12 out of 27 financial & management accounting tools and techniques were known to owner/ managers. Out of these 12 known instruments excepting cash book, creditors book and debtors book (100% aware), the awareness level on other techniques were very low.

Research work on small business at West Midland, U.K. (Nayak and Greenfield, 1994) shows that firms which do not do well, is not because of lack of business records and lack of awareness of key business factors, but due the lack of adequate accounting knowledge and proper financial records.

The result of the study in Papua, New Guinea (Siop and Ahmed, 2000) regarding financial accounting practices by owner/manager of small enterprises shows that an overwhelming majority (between 84% and 92%) of owner/managers are aware of keeping and preparation of financial statements. However, a materially lower proportion of them actually use/apply those practices, except for the preparation of cash book (95%) and bank reconciliation statements (77%). It is surprising that only 60% indicate that they prepare financial statements for their enterprises.

Conclusion

Overall it can be concluded that most of the respondents in this present study, make less use of tools and techniques comes under the heading 'financial accounting system'. Debtors book is the most used books of accounts, followed by creditors book, profit & loss account, and balance sheet. Cash flow analysis is the least preferred techniques among owner/manager of the responding MSMEs of Tripura.

Perceived awareness for the above set (shown in tables 4.15 & 4.16) of financial accounting tools and techniques is satisfactory as good number of respondents consider these techniques as either moderately important or important. These are profit & loss account, debtors book, creditors book, cash book, balance sheet and sales books. For the remaining set of tools and techniques overall perceived awareness is low though it is reasonably higher than its uses, as rated by the respondents.

4.3.4.2 Part C: Perceived awareness and usage of accounting tools to monitor/track financial performance and profitability of the firm.

The use of accounting tools to monitor/track financial performance and profitability was investigated using following seven tools of accounting. Table 4.17 shows summary of statistics for accounting tools used to track/monitor financial performance and profitability by percentage of respondents. Table 4.18 shows the descriptive results for the uses and importance of tools to monitor/track financial performance and profitability at this detailed level. In this table also, the ranking of tools has been done

in the same manner as discussed earlier. The standard deviations are also provided for the cases to show the extent of diversity of responses.

Table: 4.17 Accounting tools used to monitor/track financial performance and profitability: summary of statistics shown by percentage of respondents

| Perceived Awareness | | | | Accounting tools to monitor/track financial performance and profitability | How often used? | | | | | |
|---------------------|-------|------|-------|---|-----------------|-------|-------|-------|------|------|
| n | NI | MI | I | | n | S1 | S2 | S3 | S4 | S5 |
| 330 | 26.36 | 8.18 | 65.45 | Cash & bank balance | 330 | 30.91 | 33.33 | 30.61 | 4.55 | 0.61 |
| 330 | 30.00 | 6.67 | 63.33 | Profit & Loss account | 330 | 36.06 | 34.55 | 24.55 | 4.24 | 0.61 |
| 330 | 61.21 | 5.15 | 33.64 | Balance sheet | 330 | 67.88 | 11.21 | 16.36 | 3.94 | 0.61 |
| 330 | 93.94 | 2.12 | 3.94 | Cash flow analysis | 330 | 95.45 | 1.21 | 2.12 | 1.21 | 0.00 |
| 330 | 98.48 | 0.91 | 0.61 | Fund flow analysis | 330 | 99.39 | 0.30 | 0.30 | 0.00 | 0.00 |
| 330 | 98.18 | 1.21 | 0.61 | Comparative financial statement analysis | 330 | 98.48 | 0.30 | 0.91 | 0.30 | 0.00 |
| 330 | 97.58 | 1.21 | 1.21 | Trend analysis | 330 | 97.58 | 0.00 | 1.82 | 0.61 | 0.00 |

n: number of respondents, NI: not important=1, MI: moderately important =2, I: important=3, S1: never, S2: rarely, S3: sometimes, S4: often and S5: very often. *Source: Compiled from collected data*

Table: 4.18 Descriptive statistics for accounting tools used to monitor/track financial performance and profitability

| Accounting tools to monitor/track financial performance and profitability | n | Perceived Awareness ^a | | | Usage ^b | | |
|---|-----|----------------------------------|----------|------|--------------------|----------|------|
| | | Mean | Std. Dev | Rank | Mean | Std. Dev | Rank |
| Cash & bank balance | 330 | 2.39 | 0.87 | 1 | 2.11 | 0.90 | 1 |
| Profit & Loss account | 330 | 2.33 | 0.91 | 2 | 1.99 | 0.92 | 2 |
| Balance sheet | 330 | 1.72 | 0.93 | 3 | 1.58 | 0.96 | 3 |
| Cash flow analysis | 330 | 1.10 | 0.41 | 4 | 1.09 | 0.44 | 4 |
| Trend analysis | 330 | 1.04 | 0.24 | 5 | 1.05 | 0.35 | 5 |
| Comparative financial statement analysis | 330 | 1.02 | 0.19 | 7 | 1.03 | 0.26 | 6 |
| Fund flow analysis | 330 | 1.02 | 0.18 | 6 | 1.01 | 0.12 | 7 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I: important=3)

^b Based on 5-point scale (S1: never=1, S2: rarely=2, S3: sometimes=3, S4: often=4 and S5: very often=5). *Source: Compiled from collected data*

From the previous table 4.16 of descriptive statistics, researcher concluded very low uses of accounting tools and techniques among the owner/manager of MSMEs. Descriptive statistics table 4.18 is all about the uses of accounting tools to monitor/track financial performance and profitability. As the use of accounting tools & techniques is low, it can be expected that use of accounting tools to monitor/track financial performance and profitability will also be low among the responding firms. It can be seen that 5.16% (4.55%+.61%) of the responding firms either often or very often uses cash & bank balance to monitor/track financial performance and profitability of their firms. The importance of this tool was acknowledged by 73.64% of respondents rating it as either moderately important or important. By contrast only a minimum number of respondents indicated high usage of the two techniques (profit & loss account 4.85% and balance sheet 4.55%) for monitoring financial performance, however these techniques seems to have considerable perceived importance; 70% and 38.79% of respondents rated these techniques in two forms either moderately important or important. There is a very minimum uptake for cash flow analysis (1.21%), trend analysis (.61%), comparative financial statement analysis (.30%) and finally no firm is using fund flow analysis for tracking their firm's financial performance. Perceived awareness of these four tools & techniques are also low as in the case of usage among the owner/manager of responding MSMEs of Tripura.

Comparison of results with those of previous studies

Results of the present study on usage rate for these particular set of accounting tools to monitor/track financial performance of the business are very much similar with those of previous studies conducted in North- eastern region of India. From importance aspects also good number of respondents do not consider these tools are important for the said purpose.

Das, A. K. (2006) in his study found that nearly 43% of the respondents assess their business performance on the basis of profit. It was also observed that 24.6% of the small business units prepare profit & loss account, as a result more than 75% of the respondents assess their business performance on observation or by guesswork. It was also discovered during their study that small businesses whose turnover is more than ₹ 1 lakh, all of them (100%) prepare profit & loss account for their business. This findings signifies that majority of the smaller units most likely, not preparing profit & loss

accounts. This ultimately may give wrong signal to the business owner/managers as they are doing their business without knowing the present profitability position of the business. This implies that profit & loss account has little/no utility/relevance for the owner-manager to take profit & loss account as an information base to take future decisions.

Conclusion

From the descriptive statistics table it can be concluded that majority of the responding MSMEs in Tripura, are making very less use of the above mentioned tools to monitor/track financial performance for their firms. Cash and bank balance is the most used tools for this purpose followed by profit & loss account and balance sheet. Nobody is using fund flow analysis as a tool for monitoring firms' performance though there is a minimum user for cash flow analysis, trend analysis and comparative financial statement analysis.

From the awareness aspect, first three tool's perceived importance among the respondents are very good they are cash & bank balance (73.64%), profit & loss account (70%) and balance sheet (38.79%), though for the remaining techniques the perceived awareness level is significantly less.

4.3.4.3 Part D: Perceived awareness and usage of accounting ratios:

Ratio analysis is a powerful tool of financial analysis. In financial analysis, a ratio is used as a benchmark for evaluating the financial position and performance of a firm. The complete accounting figures reported in the financial statements do not provide a meaningful insight of the performance and financial position of a firm. An accounting figure conveys meaning when it is related to some other relevant information. Ratios help to summarise large quantities of financial data and to make qualitative judgement about the firm's financial performance.

In North Eastern region of India, lack of understanding of the benefits of using ratio analysis, the ability to interpret financial statements and capital investment appraisal techniques thereby apply them to management decision making was highly constrained. (Das A. K, 2006).

To find out the extent to which practitioners of Tripura applied ratio analysis to provide more accurate financial information for decision making purposes, respondents were

asked to indicate how often and how important are thirteen techniques of ratio analysis to them. Table 4.19 shows summary of statistics for usage of accounting ratios for analysing financial results by percentage of respondents. Table 4.20 shows the descriptive results for the uses (prepared on the basis of five point Likert type scale where S1 indicating never S5 indicating very often) and importance of ratio analysis (prepared on the basis of three point Likert type scale where NI indicating not important, MI indicating moderately important and I indicating important) to read/understand financial statement for decision making purposes at this detailed level. The ranking of tools has been done in the same manner as discussed earlier. The purpose of calculating standard deviations from the responses are very much similar with earlier reasons that is to show the extent of diversity of responses.

Table: 4.19 Accounting ratios: summary of statistics shown by percentage of respondents

| Perceived Awareness | | | | Accounting ratios | How often used? | | | | | |
|---------------------|-------|------|-------|---------------------------------|-----------------|-------|------|------|------|------|
| n | NI | MI | I | | n | S1 | S2 | S3 | S4 | S5 |
| 330 | 84.85 | 1.52 | 13.64 | Gross profit ratio | 330 | 88.18 | 2.42 | 7.88 | 1.21 | 0.30 |
| 330 | 85.45 | 1.21 | 13.33 | Operating profit ratio | 330 | 88.48 | 2.12 | 6.67 | 2.12 | 0.61 |
| 330 | 91.82 | 0.30 | 7.88 | Net profit before and after tax | 330 | 93.94 | 1.52 | 3.33 | 0.91 | 0.30 |
| 330 | 96.36 | 0.00 | 3.64 | Return on equity | 330 | 98.18 | 0.61 | 0.91 | 0.30 | 0.00 |
| 330 | 94.55 | 0.00 | 5.45 | Return on capital employed | 330 | 96.36 | 1.21 | 2.12 | 0.30 | 0.00 |
| 330 | 91.82 | 0.61 | 7.58 | Current ratio | 330 | 93.94 | 0.91 | 3.64 | 1.21 | 0.30 |
| 330 | 94.85 | 0.91 | 4.24 | Acid test ratio | 330 | 96.97 | 0.61 | 2.12 | 0.30 | 0.00 |
| 330 | 92.42 | 0.61 | 6.97 | Average collection period | 330 | 95.15 | 0.61 | 3.94 | 0.30 | 0.00 |
| 330 | 93.33 | 0.91 | 5.76 | Average payment period | 330 | 96.06 | 0.61 | 3.03 | 0.30 | 0.00 |
| 330 | 96.06 | 0.30 | 3.64 | Days stock held | 330 | 97.58 | 0.30 | 1.82 | 0.30 | 0.00 |
| 330 | 95.15 | 1.21 | 3.64 | Circulation of working capital | 330 | 97.58 | 0.30 | 1.52 | 0.30 | 0.30 |
| 330 | 98.79 | 0.30 | 0.91 | Gearing ratio | 330 | 99.39 | 0.00 | 0.30 | 0.30 | 0.00 |
| 330 | 98.18 | 0.61 | 1.21 | Interest coverage ratio | 330 | 99.09 | 0.00 | 0.61 | 0.30 | 0.00 |

n: number of respondents, NI: not important=1, MI: moderately important =2, I: important=3, S1: never, S2: rarely, S3: sometimes, S4: often and S5: very often. **Source:** Compiled from collected data

Table: 4.20 Descriptive statistics for accounting ratios

| Accounting ratios | n | Perceived Awareness ^a | | | Usage ^b | | |
|---------------------------------|-----|----------------------------------|----------|------|--------------------|----------|------|
| | | Mean | Std. Dev | Rank | Mean | Std. Dev | Rank |
| Operating profit ratio | 330 | 1.28 | 0.68 | 2 | 1.24 | 0.72 | 1 |
| Gross profit ratio | 330 | 1.29 | 0.69 | 1 | 1.23 | 0.67 | 2 |
| Current ratio | 330 | 1.16 | 0.53 | 3 | 1.13 | 0.54 | 3 |
| Net profit before and after tax | 330 | 1.16 | 0.54 | 4 | 1.12 | 0.51 | 4 |
| Average collection period | 330 | 1.15 | 0.51 | 5 | 1.09 | 0.43 | 5 |
| Average payment period | 330 | 1.12 | 0.47 | 6 | 1.08 | 0.39 | 6 |
| Acid test ratio | 330 | 1.09 | 0.41 | 8 | 1.06 | 0.34 | 7 |
| Return on capital employed | 330 | 1.11 | 0.45 | 7 | 1.06 | 0.35 | 8 |
| Days stock held | 330 | 1.08 | 0.38 | 9 | 1.05 | 0.32 | 9 |
| Circulation of working capital | 330 | 1.08 | 0.39 | 10 | 1.05 | 0.37 | 10 |
| Return on equity | 330 | 1.07 | 0.37 | 11 | 1.03 | 0.26 | 11 |
| Gearing ratio | 330 | 1.02 | 0.20 | 13 | 1.02 | 0.20 | 12 |
| Interest coverage ratio | 330 | 1.03 | 0.23 | 12 | 1.02 | 0.23 | 13 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I:important=3)

^b Based on 5-point scale (S1:never=1, S2: rarely=2, S3: sometimes=3, S4: often=4 and S5: very often=5).

Source: *Compiled from collected data*

Table 4.20 indicates that the majority of MSMEs of Tripura are not using ratios for analysing their financial results for decision making purposes. Mean value for the above set of ratio analysis tools are very low which indicates low uses of these techniques by the owner/manager of responding MSMEs of Tripura. It can be seen that only 2.73% (2.12%+.61%) of the MSMEs either often or very often uses operating profit ratio for analysing the financial results for decision making purposes. The importance of this ratio was acknowledged by 14.55% of responding MSMEs rating it as either moderately important or important. The usage result is followed by gross profit ratio (1.52%), current ratio (1.52%) and net profit before and after tax (1.21%). Respondents acknowledged the importance of gross profit ratio (15.15%), current ratio (8.18%) and net profit before and after tax (8.18%) as either moderately important or important. The uses of remaining ratios of the table is significantly less either there is no user or used by only one firm out of 330 surveyed firm. From awareness aspects, majority of the

respondents rated the remaining set of ratios of the table as 'not important' and very few of them rated as moderately important.

Comparison of results with those of previous studies

Result of the present study are in line with the previous studies, minimum use or no use of ratios by owners/managers of MSMEs in Tripura for their business decision making. Majority of the respondents do not consider all these ratios are important for their business decision making.

Rice and Hamilton (1979) in their study found that small businessman employed a multidimensional, stochastic, non-quantitative decision process, which are primarily informal in nature. All the theories governing business operational decision making presume that the owner/manager is a rational, cogent and calculating individual and he should use "scientific decision making". However the findings was that for a majority of small businessmen decisions were the result of 'experience', 'intuition', or 'guesswork'. This implies that in small business units scientific decision making process does not take place.

It has been observed that there is wide gap between theory and practice of management accounting in case of small business. On the other hand financial accounting system is based on the traditional 'Mahajani' system and is incomplete in nature. No systematic form of financial statement analysis were noticed (Soral and Jain, 1994)

Das A. K, (2006) in his study found that in the North-eastern region of India, owner/manager of small business are not using any financial ratios for analysing their financial results. He concluded as in North Eastern region of India, lack of understanding of the benefits of using ratio analysis, the ability to interpret financial statements and capital investment appraisal techniques thereby apply them to management decision making was highly constrained. His findings also tends to confirm the findings of Grablowsky and William (1980) that small businesses owner-managers, do not use this techniques of business financial appraisal because they find these highly quantitative.

Das and Dey (2010) in their study found that there is no user of accounting ratios for analysing their financial results among the owner-manager of small business in North-

eastern region of India. Findings of their study confirm the findings of Das A. K, (2006) in the North-eastern region of India, owner/manager of small business are not using any financial ratios for analysing their financial results. In North Eastern region of India, lack of understanding of the benefits of using ratio analysis, the ability to interpret financial statements and capital investment appraisal techniques thereby apply them to management decision making was highly constrained.

Conclusion

From the descriptive statistics it can be concluded that there is a very low users of accounting ratios for analysing their financial results among the responding MSMEs of Tripura. In other way it can be interpreted that respondents do not consider accounting ratios as an information base for taking future decisions of MSMEs in Tripura.

Overall perceived awareness level is very poor about the ratios, though for gross profit ratio and operating profit ratio awareness level is 13.64% and 13.33% respectively. For the remaining ratios respondent do not consider these ratios as important for their business. Lot of initiatives are required to improve the awareness and usability of these ratios.

4.4 Perceived awareness and usage management accounting practices

This section (Section-3) will investigate the perceived awareness and frequency of use of 58 specific management accounting practices (MAPs) among the responding MSMEs of Tripura, under the different broad headings. Respondents were asked to indicate the frequency of use of 58 MAPs using five point Likert-type scale (1 indicating *never* and 5 indicating *very often*). They were also asked to rate the importance (to know the perceived awareness level) of each technique/practice using either 'not important', 'moderately important' or 'important'. The 58 MAPs were classified in six parts: Part-A consists of cost collection techniques, Part-B costing system used, Part-C budgeting system, Part-D deals with performance evaluation, Part-E consists of information used for decision making and Part-F deals with the use of accounting for strategic analysis.

4.4.1 Part-A Perceived awareness and usage of cost collection techniques

Table 4.21 shows the summary of statistics for cost collection techniques shown by percentage of respondents. Table 4.22 shows the descriptive results for the extent of use of cost collection techniques at this detailed level. In this table ranking of techniques used is based on mean value, which shows the average score of each individual technique based on five point Likert-type scale (S1 to S5). On the other hand, ranking of importance of these techniques is also based on mean value but using three point Likert-type scale (NI, MI & I). To break the tie value of mean among the different techniques, value of standard deviation has been used by using the principle of lesser is the value of standard deviation lesser is the deviation from mean value. In general, the standard deviations are also provided for each techniques to show the extent of diversity of responses.

Table: 4. 21 Cost collection techniques: summary of statistics shown by percentage of respondents

| Perceived Awareness | | | | Cost collection techniques | How often used? | | | | | |
|---------------------|-------|------|------|--|-----------------|-------|------|------|------|------|
| n | NI | MI | I | | n | S1 | S2 | S3 | S4 | S5 |
| 330 | 98.48 | 0.91 | 0.61 | Job costing | 330 | 98.79 | 0.00 | 0.30 | 0.30 | 0.61 |
| 330 | 97.27 | 0.61 | 2.12 | Batch costing | 330 | 97.27 | 0.00 | 1.52 | 0.61 | 0.61 |
| 330 | 99.09 | 0.61 | 0.30 | Contract costing | 330 | 99.70 | 0.00 | 0.00 | 0.30 | 0.00 |
| 330 | 96.97 | 1.52 | 1.52 | Process costing | 330 | 98.79 | 0.00 | 0.30 | 0.61 | 0.30 |
| 330 | 97.27 | 0.30 | 2.42 | A separation is made between variable/ incremental costs and fixed/non-incremental costs | 330 | 96.97 | 0.00 | 1.52 | 0.61 | 0.91 |
| 330 | 98.18 | 0.91 | 0.91 | Using plant- wide overhead rates | 330 | 99.09 | 0.00 | 0.61 | 0.30 | 0.00 |
| 330 | 98.79 | 0.91 | 0.30 | Departmental or multiple plant wide overhead rates | 330 | 99.09 | 0.00 | 0.30 | 0.61 | 0.00 |

n:number of respondents, NI: not important=1, MI: moderately important =2, I:important=3, S1:never, S2: rarely, S3: sometimes, S4: often and S5: very often. **Source:** *Compiled from collected data*

Table: 4.22 Descriptive statistics for Cost collection techniques

| Cost collection techniques | n | Perceived Awareness ^a | | | Usage ^b | | |
|--|-----|----------------------------------|----------|------|--------------------|----------|------|
| | | Mean | Std. Dev | Rank | Mean | Std. Dev | Rank |
| A separation is made between variable/ incremental costs and fixed/non-incremental costs | 330 | 1.05 | 0.31 | 3 | 1.08 | 0.50 | 1 |
| Batch costing | 330 | 1.05 | 0.30 | 2 | 1.07 | 0.45 | 2 |
| Process costing | 330 | 1.05 | 0.27 | 1 | 1.04 | 0.34 | 3 |
| Job costing | 330 | 1.02 | 0.18 | 6 | 1.04 | 0.37 | 4 |
| Using plant- wide overhead rates | 330 | 1.03 | 0.21 | 4 | 1.02 | 0.23 | 5 |
| Departmental or multiple plant wide overhead rates | 330 | 1.02 | 0.14 | 5 | 1.02 | 0.26 | 6 |
| Contract costing | 330 | 1.01 | 0.13 | 7 | 1.01 | 0.16 | 7 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I:important=3)

^b Based on 5-point scale (S1:never=1, S2: rarely=2, S3: sometimes=3, S4: often=4 and S5: very often=5). **Source:** *Compiled from collected data*

Mean value for both importance and usage is low for the above set of cost collection techniques which indicates importance of these techniques are very less and also there is a low usage of cost collection techniques among the responding MSMEs of Tripura. It can be seen that only 1.52% (.61%+.91%) of the MSMEs either often or very often made a separation between variable/ incremental costs and fixed/non-incremental costs for cost collection purposes. The importance of this techniques was acknowledged by only 2.73% of responding MSMEs rating it as either moderately important or important. The usage result followed by batch costing (1.21%), process costing (.91%) and job costing (.91%) with a very minimum response rate. Respondents acknowledged the importance of batch costing (2.73%), process costing (3.03%) and job costing (1.52%) as either moderately important or important. The usage of the remaining cost collection techniques of the table is insignificant, less than one percent. From importance aspects, majority of the respondents rated the remaining set of cost collection techniques of the table as ‘not important’. Their response percentage value considering both ‘moderately important’ and ‘important’ lies within 1 to 2.

4.4.2 Part-B Perceived awareness and usage of costing system

Table 4.23 shows the summary of statistics for costing system used shown by percentage of respondents. Table 4.24 shows the descriptive results for the extent of use of costing system used at this detailed level. In this table also ranking of techniques used is based on mean value, which shows the average score of each individual technique based on five point Likert-type scale (S1 to S5). On the other hand, ranking of importance of these techniques is also based on mean value but using three point Likert-type scale (NI, MI & I). To break the tie value of mean among the different techniques of costing system used, value of standard deviation has been used by using the principle of lesser is the value of standard deviation lesser is the deviation from mean value. In general, the standard deviations are also provided for each techniques to show the extent of diversity of responses.

Table: 4.23 Costing system: summary of statistics shown by percentage of respondents

| Perceived Awareness | | | | Costing system | How often used? | | | | | |
|---------------------|-------|------|------|---------------------------------|-----------------|-------|------|------|------|------|
| n | NI | MI | I | | n | S1 | S2 | S3 | S4 | S5 |
| 330 | 94.55 | 0.61 | 4.85 | Absorption costing | 330 | 95.45 | 0.30 | 2.73 | 1.21 | 0.61 |
| 330 | 97.88 | 0.61 | 1.52 | Variable costing | 330 | 97.58 | 0.00 | 0.91 | 1.21 | 0.30 |
| 330 | 98.48 | 0.30 | 1.21 | Variable and absorption costing | 330 | 98.18 | 0.00 | 0.61 | .91 | 0.30 |
| 330 | 100 | 0.00 | 0.00 | Target cost | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |
| 330 | 100 | 0.00 | 0.00 | Activity- based costing(ABC) | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |
| 330 | 100 | 0.00 | 0.00 | The cost of quality | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |

n:number of respondents, NI: not important=1, MI: moderately important =2, I:important=3, S1:never, S2: rarely, S3: sometimes, S4: often and S5: very often. **Source:** Compiled from collected data

Table: 4.24 Descriptive statistics for costing system

| Costing system | n | Perceived Awareness ^a | | | Usage ^b | | |
|---------------------------------|-----|----------------------------------|----------|------|--------------------|----------|------|
| | | Mean | Std. Dev | Rank | Mean | Std. Dev | Rank |
| Absorption costing | 330 | 1.10 | 0.44 | 1 | 1.12 | 0.55 | 1 |
| Variable costing | 330 | 1.03 | 0.23 | 2 | 1.07 | 0.44 | 2 |
| Variable and absorption costing | 330 | 1.04 | 0.26 | 3 | 1.05 | 0.39 | 3 |
| Target cost | 330 | 1.00 | 0.00 | 4 | 1.00 | 0.00 | 4 |
| Activity- based costing(ABC) | 330 | 1.00 | 0.00 | 4 | 1.00 | 0.00 | 4 |
| The cost of quality | 330 | 1.00 | 0.00 | 4 | 1.00 | 0.00 | 4 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I:important=3)

^b Based on 5-point scale (S1:never=1, S2: rarely=2, S3: sometimes=3, S4: often=4 and S5: very often=5).

Source: Compiled from collected data

Result shows that (table 4.24) overall mean value for both importance and usage is low for the above set of costing system used which indicates importance of these systems are insignificant and at the same time usage of costing system among the responding MSMEs of Tripura are very less. It can be seen that only 1.82% (1.21%+.61%) of the MSMEs of Tripura either often or very often uses absorption costing as their costing system. The importance of this system was acknowledged by only 5.45% of responding MSMEs rating this system as either moderately important or important. The usage result followed by variable costing (1.52%) and variable and absorption costing (1.21%) with a very minimum response rate. Respondents acknowledged the importance of variable costing (2.12%) and variable and absorption costing (1.52%) as either moderately important or important. There is no one among the responding MSMEs of Tripura who consider the remaining three costing system as moderately important or important. Similarly, in the case of usage no one among the responding MSMEs is using these system as their costing system.

Comparison of results (For Part-A and Part-B) with those of previous studies

Comparison of results will be made for two sections (Part-A: Cost collection techniques and Part-B: costing system used) here as it is difficult to get separate set of literature for these two different sections.

Use of cost collection techniques as well as costing systems are not satisfactory among the owner/manager of MSMEs of Tripura. Interesting things to be mentioned here, the use of cost collection techniques as well as costing systems by the medium category firms are in a well and good position. They considered few of the above mentioned techniques are very important for their firm. Though the overall result of the study are very much in line with the previous studies conducted in this region.

Das A. K, (2006) in his study in north-east India found that there is only one among the responding small businesses who were using job costing and process costing as their costing techniques. Only 1.6% of the respondents have the idea about difference between direct cost and indirect cost. In his study it was also found that only one unit among the responding firms follow the practice of making difference between direct and indirect cost. Another interesting findings was no one among the responding firms were making any difference between fixed cost and variable cost.

Das and Dey (2010) conducted similar study in the same region of India after four years of the first study which was conducted by Das A. K in the year 2006, it was found that absolutely there is no improvement of usage rate among the owner/manager of small businesses.

The use of process costing among respondents in the present study is significantly lower than the previous studies. For example Shields et al. (1991) and Wijewardena and De Zoysa (1999) who studied among Japanese and Australian firms respectively discovered that over 50% of respondents employed this technique and Lukka and Granlund (1996) found a marginally lower rate which is more than 40% of Swedish companies having implemented process costing. The different results may be due to the mix of firms (variety of sectors covered under micro, small and medium category) surveyed in Tripura, where they did not require process costing as a cost collection

techniques. Again, where general financial practice is significantly low, it can be expected that other form of accounting practice will also be low and this happens in case of surveyed MSMEs of Tripura.

Ahmad K (2012), in her study conducted in Malaysian small firm found that process costing is frequently and very frequently used by almost two third of its users followed by job costing with 53% respondents. Contract costing was lowest with just 34%. When this uptake is compared to all respondents irrespective of whether or not they used a costing system, the data shows that only 50% frequently or very frequently use process costing compared with just over 30% for job costing. Meanwhile only a small minority of all respondents (17%) frequently or very frequently apply contract costing.

Abdel-Kader and Luther (2006) indicated 48% of the companies either often or very often distinguish between variable/incremental costs and fixed/non-incremental cost for decision making. The importance of this separation was acknowledged by 83% of responding firms. By contrast only a small number indicated high use of three techniques (plant-wide, multiple plant-wide overhead rate & ABC) for allocation of overhead to cost objects. They found that variable costing is much more common using costing tools than various forms of absorption costing.

Concerning to the type of costing system, the resultss show that absorption costing and variable costing dominate among respondents to the present study. Previous studies also noting the dominant use of absorption costing include Shields et al. (1991), Ask and Ax (1992) and Drury et al. (1993). Similarly the significant use of variable costing was also reported by Firth (1996), who indicated that more than 70% of Chinese firms were using this technique. In the meantime both in India and Thailand the use of variable costing was found in more than 50% of firms (Joshi, 2001; Phadoongsitthi, 2003).

The lower (or no use) use of ABC is consistent with most of the previous studies. As instance, both studies by Armitage and Nicholson (1993) and Innes and Mitchell (1995) found that the adoption of ABC only up to 20% among respondents to their studies. A higher adoption of ABC is reported by a few U.S based studies. Studies by Green and Amenkhienan (1992) and Hrisak (1996) claimed that around 50% of survey

respondents firms used ABC to some extent. Ernst and Young (1995) and Groot (1997) reported that ABC was applied in 18% and 20% respectively in food sector companies in the US and Holland.

Conclusion

Overall there are low user of cost collection techniques and costing system among the responding MSMEs of Tripura. Majority of the respondents do not consider these cost collection techniques as well as costing system as perceived to be important tools for running their small business. Traditional absorption costing has been considered as the best system for cost accounting by the respondents (though response rate is very poor). A separation is made between variable/ incremental costs and fixed/non-incremental costs by the 1.52% of respondents and got the first rank as per usability. This techniques got the third rank as per perceived importance with 2.52% of response rate.

4.4.3 Part-C Perceived awareness and usage of budgeting techniques:

A *budget* is (a) the quantitative expression of a proposed plan of action by management for a specified period and (b) an aid to coordinate what needs to be done to implement that plan. A budget generally includes both financial and non-financial aspects of the plan, and it serves as a blueprint for the company to follow in an upcoming period (Horngren et al, 2009).

Management accounting literature emphasises that budgeting is an essential technique for planning and controlling the activities of an organisation (Drury et al, 1993)

Ghosh and Kai Chan (1997) examined management accounting practices in Singaporean large companies operating in the manufacturing and service sectors. The results revealed a high level of adoption of budgeting and capital budgeting (more than 80%), moderate use, ranging from 56% to 80% of long range planning, breakeven point analysis, return on investment and standard costing and a very low uptake (11%) of ABC.

Table 4.25 shows the summary of statistics for budgeting system used shown by percentage of respondents. Table 4.26 shows the descriptive results for the extent of use of budgeting system used at this detailed level. In this table also ranking of techniques used is based on mean value, which shows the average score of each individual budgeting technique based on five point Likert-type scale (S1 to S5). On the

other hand, ranking of importance of these techniques is also based on mean value but using three point Likert-type scale (NI, MI & I). As similar to the previous tables to break the tie value of mean among the different techniques of budgeting system used, value of standard deviation has been used by using the principle of lesser is the value of standard deviation lesser is the deviation from mean value. In general, the standard deviations are also provided for each techniques to show the extent of diversity of responses.

Table: 4.25 Budgeting Techniques: summary of statistics shown by percentage of respondents

| Perceived Awareness | | | | Budgeting Techniques | How often used? | | | | | |
|---------------------|-------|------|-------|--|-----------------|-------|------|-------|------|------|
| n | NI | MI | I | | n | S1 | S2 | S3 | S4 | S5 |
| 330 | 77.58 | 1.82 | 20.61 | Sales budget | 330 | 78.79 | 3.94 | 13.94 | 3.33 | 0.00 |
| 330 | 84.55 | 4.24 | 11.21 | Purchase budget | 330 | 86.36 | 5.76 | 6.97 | 0.91 | 0.00 |
| 330 | 76.67 | 1.82 | 21.52 | Production budget | 330 | 77.88 | 3.33 | 15.15 | 3.64 | 0.00 |
| 330 | 96.97 | 0.91 | 2.12 | Cash flow budget | 330 | 98.48 | 1.21 | 0.00 | 0.30 | 0.00 |
| 330 | 96.67 | 1.82 | 1.52 | Monthly budget | 330 | 97.27 | 1.82 | 0.61 | 0.30 | 0.00 |
| 330 | 72.42 | 2.12 | 25.45 | Annual budget | 330 | 73.33 | 2.73 | 17.58 | 6.36 | 0.00 |
| 330 | 98.79 | 1.21 | 0.00 | Continuous /rolling budget | 330 | 99.70 | 0.30 | 0.00 | 0.00 | 0.00 |
| 330 | 98.79 | 0.61 | 0.61 | Flexible budget | 330 | 99.70 | 0.00 | 0.00 | 0.30 | 0.00 |
| 330 | 100 | 0.00 | 0.00 | Activity- based budgeting | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |
| 330 | 99.70 | 0.30 | 0.00 | Incremental budgeting | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |
| 330 | 100 | 0.00 | 0.00 | Zero-based budgeting | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |
| 330 | 99.09 | 0.00 | 0.91 | Budgeting for planning | 330 | 99.70 | 0.00 | 0.30 | 0.00 | 0.00 |
| 330 | 99.09 | 0.61 | 0.30 | Budgeting for controlling cost | 330 | 99.09 | 0.00 | 0.30 | 0.61 | 0.00 |
| 330 | 100 | 0.00 | 0.00 | Budgeting for long term(strategic plans) plans | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |

n:number of respondents, NI: not important=1, MI: moderately important =2, I:important=3, S1:never, S2: rarely, S3: sometimes, S4: often and S5: very often. **Source:** *Compiled from collected data*

Table: 4.26 Descriptive statistics for Budgeting Techniques

| Budgeting Techniques | n | Perceived Awareness ^a | | | Usage ^b | | |
|--|-----|----------------------------------|----------|------|--------------------|----------|------|
| | | Mean | Std. Dev | Rank | Mean | Std. Dev | Rank |
| Annual budget | 330 | 1.53 | 0.87 | 1 | 1.57 | 0.99 | 1 |
| Production budget | 330 | 1.45 | 0.82 | 2 | 1.45 | 0.88 | 2 |
| Sales budget | 330 | 1.43 | 0.81 | 3 | 1.42 | 0.85 | 3 |
| Purchase budget | 330 | 1.27 | 0.65 | 4 | 1.22 | 0.61 | 4 |
| Monthly budget | 330 | 1.05 | 0.28 | 5 | 1.04 | 0.26 | 5 |
| Cash flow budget | 330 | 1.05 | 0.30 | 6 | 1.02 | 0.20 | 6 |
| Budgeting for controlling cost | 330 | 1.01 | 0.13 | 10 | 1.02 | 0.26 | 7 |
| Budgeting for planning | 330 | 1.02 | 0.19 | 8 | 1.01 | 0.11 | 8 |
| Flexible budget | 330 | 1.02 | 0.17 | 7 | 1.01 | 0.16 | 9 |
| Continuous /rolling budget | 330 | 1.01 | 0.11 | 9 | 1.00 | 0.05 | 10 |
| Activity- based budgeting | 330 | 1.00 | 0.00 | 12 | 1.00 | 0.00 | 11 |
| Incremental budgeting | 330 | 1.00 | 0.05 | 11 | 1.00 | 0.00 | 11 |
| Zero-based budgeting | 330 | 1.00 | 0.00 | 12 | 1.00 | 0.00 | 11 |
| Budgeting for long term(strategic plans) plans | 330 | 1.00 | 0.00 | 12 | 1.00 | 0.00 | 11 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I:important=3)

^b Based on 5-point scale (S1:never=1, S2: rarely=2, S3: sometimes=3, S4: often=4 and S5: very often=5). **Source:** Compiled from collected data

Result shows that except first four budgeting techniques of the table 4.26, mean value for all the other budgeting techniques are low from both importance and usage aspects. It signifies non-importance of budgeting techniques to the respondents and at the same time less uses of budgeting techniques by the responding MSMEs of Tripura. It has been observed that only 6.36% (6.36%+0%) of the MSMEs of Tripura *often* uses annual budget as their budgeting technique. The importance of this techniques was acknowledged by 27.58% of responding MSMEs rating this technique as either moderately important or important. The usage result followed by production budget (3.64%), sales budget (3.33%) and purchase budget (.91%) with a very minimum uptake rate. Respondents acknowledged the importance of production budget (23.33%), sales budget (22.42%) and purchase budget (15.45%) as either moderately important or important. There is a very minimum user for budgeting for controlling cost (.61%), cash flow budget (.30%), flexible budget (.30%) and monthly budget (.30%). Perceived importance for these budgeting techniques are also low, .91%, 3.03%, 1.21% and 3.33%

respectively considering the response value of moderately important and important. There is no one among the responding MSMEs of Tripura who consider the remaining four budgeting techniques, namely activity- based budgeting, incremental budgeting, zero-based budgeting and budgeting for long term (strategic plans) plans as moderately important or important. Similarly, result follows the same path in the case of usage of these techniques, no one among the responding MSMEs who are using these techniques as their budgeting techniques.

Comparison of results with those of previous studies

Result obtained from the present study are in line with those of studies conducted in north-eastern region of India (see for example Das A. K, 2006) and Das and Dey, (2010). Other important studies conducted in Indian context by Joshi, P.L. in 2001, but the study conducted by him was all about the large firms. Previous study results from the other countries by the different researchers differ significantly with the present study result of surveyed MSMEs of Tripura.

Abdel-Kader and Luther (2006), in their study found that budgeting for planning and controlling costs are among the highest used two techniques of budgeting and their usage rate were 84% and 73% respectively. Taken together, budgeting for planning and controlling costs was considered either important or moderately important by more than 90% of respondents. A significant portion (32%) use flexible budgeting often or very often and consider it important.

Das A. K, (2006) in his study in north-east India found that there were no user for sales budget, purchase budget and capital budgeting techniques.

Das and Dey (2010) conducted similar study after four years in the north-east region of India and they got the very much similar result with the earlier study conducted by Das A. K in 2006. That is there was no user for sales budget, purchase budget and capital budgeting techniques.

Yoshikawa (1994) and Chenhall and Langfield-Smith (1998) who all established that in general budgeting systems are extensively employed. In the meantime the significant use of flexible budgeting is not coherent with Ahmad et al. (2003), who conducted a study within the Malaysian firms and found that flexible budgeting has been widely applied among those firms in Malaysia who use budgeting.

Drury et al. (1993) found that 42% of UK firms adopted flexible budgeting which in conflicts with the researcher study where only .30% reported by total respondents of this study. A similar result was reported by Pierce and O'Dea (1998); and Szychta (2002).

Meanwhile, the low uptake of ZBB is consistent with study by Joshi (2001) who found that only 5% of Indian firms employed ZBB, whereas in the present study there were no user for this technique of budget. Similarly Szychta (2002) observed that only 28% companies in her survey utilized this technique.

Ahmad K (2012), study conducted in Malaysian small firms she found that highest percentage of users (91%) among the total respondents, uses sales budget either frequently or very frequently. The other type of budgets are also regularly applied by most of the respondents with a budgeting system (between 70% and 84%). Under the timings category, the annual budget is the most frequently used by the respondents (84%), which translates into frequent or very frequent uses by 61% of all respondents. In contrary, 40% or less of total respondents uses monthly and continuous budget frequently or very frequently. When frequency of use is considered, ZBB is little used as of the 36% reporting use and only 26% frequently or very frequently use which equates to only 9% of all respondents. In comparison flexible budget is frequently used by 40% of total respondents.

Conclusion

There are low user for any form of budgeting system among the responding MSMEs of Tripura. Majority of the respondents do not consider these various forms of budget as important tools for controlling their business activities. Annual budget, production budget, sales budget and purchase budget are among the preferred budget (though very minimum in percentage of respondents) of responding MSMEs of Tripura. Perceived importance for these budgets are also in line with their usage rate. There are lack of preferences among the surveyed respondents of MSMEs of Tripura for new techniques of budgeting like activity-based budgeting, incremental budgeting, zero-based budgeting and budgeting for long term plans.

4.4.4 Part-D Perceived awareness and usage of performance evaluation techniques:

Performance measurement is such a topic which is often discussed but rarely defined. In real sense it is the process of quantifying action, where quantification is made through the process of measurement and action leads to performance. From the marketing perspective it can be defined as “organizations achieve their goals that is they perform, by satisfying their customers with greater efficiency and effectiveness than their competitors” (Kotler, 1984).

The terms efficiency and effectiveness has been used in a precise manner in this context. Effectiveness refers to the degree to which customer necessities are met, while efficiency is a measurement of how economically the firm’s resources are employed when providing a given level of customer satisfaction. This is an important point because it not only identifies two fundamental dimensions of performance, but also highlights the fact that there can be internal as well as external reasons for pursuing specific courses of action (Slack, 1991).

Maintenance of an effective performance management system is a fundamental issue that every organization essential to pay continuous attention to in order to ensure its survival as it plays an important role in leading the organization. This includes translating strategy into desired behaviours and results, communicating these expectations, monitoring progress, providing feedback, and motivating employees through performance-based rewards and sanctions (Chow and Stede, 2006).

According to Neely *et al.*, (2002) performance measurement system is a balanced and dynamic system that is able to support the decision-making process by gathering, elaborating and analysing information (cited in Garengo *et al.*, 2005). Research reveals that a number of organizations are still relying on traditional performance measurement systems. Conventional performance measurement tools designed for the industrial-age economy, which give emphasis to financial measures and tangible assets, are no longer able to capture the changing nature of today’s business environment (Jusoh, R. *et al.* 2006, p. 51).

The choice of measures to guide and evaluate the performance of business units is one of the most critical challenges facing organisations (Ittner and Larcker, 1998a).

Table 4.27 shows the summary of statistics for performance evaluation system used shown by percentage of respondents. Table 4.28 shows the descriptive results for the extent of use of performance evaluation system used at this detailed level. Techniques from financial measure and non-financial measure have been considered to evaluate surveyed firms performance. Ranking of the techniques for both usage and importance has been made in a similar fashion as made earlier. As similar to the previous tables to break the tie value of mean among the different techniques of performance evaluation system used, value of standard deviation has been used by using the principle of lesser is the value of standard deviation lesser is the deviation from mean value. In general, the standard deviations are also provided for each techniques to show the extent of diversity of responses.

**Table: 4.27 Performance evaluation system (Financial & Non-financial measures):
summary of statistics shown by percentage of respondents**

| Perceived Awareness | | | | Performance Evaluation system | How often used? | | | | | |
|---------------------|-------|------|-------|------------------------------------|-----------------|-------|------|-------|------|------|
| n | NI | MI | I | | n | S1 | S2 | S3 | S4 | S5 |
| 330 | 73.33 | 3.64 | 23.03 | Operating income | 330 | 74.85 | 5.15 | 17.27 | 2.73 | 0.00 |
| 330 | 75.76 | 4.24 | 20.00 | Return on investment | 330 | 77.88 | 5.45 | 14.24 | 2.12 | 0.30 |
| 330 | 96.67 | 1.82 | 1.52 | Variance analysis | 330 | 97.27 | 1.52 | 0.91 | 0.30 | 0.00 |
| 330 | 49.70 | 3.64 | 46.67 | Sales growth | 330 | 50.61 | 5.76 | 40.00 | 2.42 | 1.21 |
| 330 | 60.61 | 3.94 | 35.45 | Operating income & Sales growth | 330 | 62.12 | 3.94 | 30.91 | 1.52 | 1.52 |
| 330 | 96.06 | 2.42 | 1.52 | Cash flows | 330 | 97.88 | 1.21 | 0.91 | 0.00 | 0.00 |
| 330 | 72.73 | 0.30 | 26.97 | Number of customer complaints | 330 | 72.73 | 0.00 | 21.82 | 4.85 | 0.61 |
| 330 | 99.39 | 0.30 | 0.30 | Survey of customer satisfaction | 330 | 99.09 | 0.30 | 0.30 | 0.30 | 0.00 |
| 330 | 99.70 | 0.00 | 0.30 | Number of warranty claims | 330 | 99.39 | 0.30 | 0.00 | 0.30 | 0.00 |
| 330 | 97.27 | 0.30 | 2.42 | On-time delivery | 330 | 97.27 | 0.91 | 0.91 | 0.91 | 0.00 |
| 330 | 99.09 | 0.61 | 0.30 | Manufacturing lead time/cycle time | 330 | 99.70 | 0.00 | 0.00 | 0.30 | 0.00 |
| 330 | 77.27 | 0.91 | 21.82 | Defect rate | 330 | 76.97 | 0.91 | 17.88 | 4.24 | 0.00 |
| 330 | 98.48 | 0.61 | 0.91 | Employee turnover | 330 | 98.79 | 0.91 | 0.00 | 0.30 | 0.00 |
| 330 | 99.39 | 0.30 | 0.30 | Absentees rates | 330 | 99.70 | 0.30 | 0.00 | 0.00 | 0.00 |

n:number of respondents, NI: not important=1, MI: moderately important =2, I:important=3, S1:never, S2: rarely, S3: sometimes, S4: often and S5: very often. **Source:** Compiled from collected data

Table: 4.28 Descriptive statistics for Performance Evaluation system: Financial & Non-financial measures

| Performance Evaluation system: Financial & Non-financial measures | n | Perceived Awareness ^a | | | Usage ^b | | |
|---|-----|----------------------------------|----------|------|--------------------|----------|------|
| | | Mean | Std. Dev | Rank | Mean | Std. Dev | Rank |
| Sales growth | 330 | 1.97 | 0.98 | 1 | 1.98 | 1.05 | 1 |
| Operating income & Sales growth | 330 | 1.75 | 0.95 | 2 | 1.76 | 1.04 | 2 |
| Number of customer complaints | 330 | 1.54 | 0.89 | 3 | 1.61 | 1.02 | 3 |
| Defect rate | 330 | 1.45 | 0.83 | 5 | 1.49 | 0.93 | 4 |
| Operating income | 330 | 1.50 | 0.84 | 4 | 1.48 | 0.87 | 5 |
| Return on investment | 330 | 1.44 | 0.80 | 6 | 1.42 | 0.83 | 6 |
| On-time delivery | 330 | 1.05 | 0.31 | 9 | 1.05 | 0.35 | 7 |
| Variance analysis | 330 | 1.05 | 0.28 | 7 | 1.04 | 0.28 | 8 |
| Cash flows | 330 | 1.05 | 0.29 | 8 | 1.03 | 0.22 | 9 |
| Employee turnover | 330 | 1.02 | 0.20 | 10 | 1.02 | 0.19 | 10 |
| Survey of customer satisfaction | 330 | 1.01 | 0.12 | 12 | 1.02 | 0.21 | 11 |
| Manufacturing lead time/cycle time | 330 | 1.01 | 0.13 | 13 | 1.01 | 0.16 | 12 |
| Number of warranty claims | 330 | 1.01 | 0.11 | 11 | 1.01 | 0.17 | 13 |
| Absentees rates | 330 | 1.01 | 0.12 | 12 | 1.00 | 0.05 | 14 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I:important=3)

^b Based on 5-point scale (S1:never=1, S2: rarely=2, S3: sometimes=3, S4: often=4 and S5: very often=5).

Source: Compiled from collected data

Result shows the dominance of financial performance evaluation techniques over non-financial performance evaluation techniques. Mean value of first six performance evaluation techniques (table 4.28) for importance as well as usage are somehow acceptable though mean value are not up to the mark for every cases. Four out of first six techniques are from financial measures and two are from non-financial measures. In table 4.28, mean value for the remaining performance evaluation techniques are low from both importance as well as usage aspect. It indicates non-importance of performance evaluation techniques to the respondents and at the same time less uses (or no uses) of performance evaluation techniques by the responding MSMEs of Tripura. It is observed that only 3.63% (2.42%+1.21%) of the MSMEs of Tripura *often* or *very often* uses sales as their performance evaluation technique. Though the importance of this techniques was acknowledged by 50.30% of responding MSMEs

rating this technique as either moderately important or important. The usage result followed by operating income & sales growth (3.03%), number of customer complaints (5.45%), defect rate (4.24%), operating income (2.73%) and return on investment (2.42) with a very minimum of response rate. Respondents acknowledged the importance of operating income & sales growth (39.39%), number of customer complaints (27.27%), defect rate (22.73%), operating income (26.67%) and return on investment (24.24) as either moderately important or important. Cash flow (no user) and variance analysis (.30%) are among the least used techniques of financial performance evaluation. Perceived importance for these evaluation techniques are also low 3.94% and 3.33% respectively. For the remaining set of non-financial performance evaluation techniques either there are very minimum user or no user of these techniques. Respondents consider these techniques, as not important for evaluating their firms' performance.

It would be noteworthy to mention here that there was a preference of non-financial performance measure over financial performance measure among the surveyed service industries of Tripura. Number of customer complaints, defect rate and on-time delivery are among the most preferred techniques of service enterprises.

Comparison of results with those of previous studies

Result of the present study on usage of performance evaluation techniques are far from the previous study results. In this present study, either there are very minimum usage or no usage of performance evaluation techniques by the owner/manager of surveyed MSMEs of Tripura. Though the perceived importance for these techniques are quite good.

About 78% of respondents rated financial measures as important and in same percentage reported frequent usage of these measures. Non-financial measures related to customers, operations and innovations were very influential with 87% and 77% of respondents. They consider these non-financial performance evaluation techniques as at least moderately important (Abdel-Kader and Luther, 2006).

Higher use of financial performance measures is in line with other studies (Joshi (2001); Phadoongsitthi (2003); Jusoh and Parnell (2008). Phadoongsitthi (2003) reported that Thai firms using more of financial performance measures than non-financial performance normally they are budget variance analysis, return on investment, cash

flow return on investment, and divisional profit. Similarly Jusoh and Parnell (2008) discovered that many Malaysian manufacturing firms given a greater emphasis on financial rather than non-financial measures. From their study we came to know that return on investment (a financial measure) was widely employed technique which is inconsistent with the present study where sales is the most preferred technique among respondents.

Ahmad K (2012), from the study found that respondents were using any form of financial measures either frequently or very frequently by 85% and 86% respectively. Which translates into around two-thirds of all respondents. In contrary, the least used financial measure is return on investment with only 36% of total respondents reporting frequent or very frequent adoption.

The most used measure from the non-financial category is the number of customer complaints where 66% of those indicating its adoption report frequent or very frequent use, which ranks it sixth among all performance measures.

In previous studies related to non-financial measures there was a high adoption rate for measures related to internal processes and customers (Chenhall and Langfield-Smith (1998); Phadoongsitthi (2003); Abdel-Kader and Luther (2006); and Abdel-Maksoud et al. (2008). Phadoongsitthi (2003) indicated that Thai firms increase their focus on customer satisfaction and on-time delivery for evaluating firms' performance.

Conclusion

Result shows that very minimum number of respondents have adopted any techniques from both financial measures and non-financial measures. Though there are minimum adoption of performance evaluation techniques, dominance of financial measures over non-financial measures has been observed. Sales from the financial measures and number of customer complaints from non-financial measures are among the most preferred techniques of surveyed MSMEs of Tripura.

In case of perceived importance of performance evaluation techniques again there is a dominance of financial measures over non-financial measures. Though two of the techniques from non-financial performance measure, number of customer complaints and defect rate has been given very good rating as a performance measure techniques by the surveyed respondents of Tripura.

4.4.5 Part-E Perceived awareness and usage of information for decision making:

Objective of management accounting since 1970s was to provide relevant information for internal decision making. This specialised branch of subject can provide information for taking short term decisions as well as long term decisions. With the help of cost-volume-profit (CVP) analysis, product profitability analysis, customer profitability analysis and stock control models management accountant can take short term decision/s for his/her firm. By using accounting rates of return and payback period management accountants can evaluate major capital investment decisions which considered as long term decisions for the firm. By using discounted cash flow techniques like IRR, NPV and profitability index management accountants can also evaluate alternative capital investment proposal with a more scientific way, though more calculations are required in comparison to previous two approaches. From the non-financial area also management accountant can provide so many important information for long term decision making of the firm.

Table 4.29 shows the summary of statistics for information for decision making used shown by percentage of respondents. Table 4.30 shows the descriptive results for the extent of use of information for decision making at this detailed level. Techniques for long term decision making and short term decision making have been considered here. Ranking of the techniques for both usage and importance have been made in a similar fashion as made earlier. As similar to the previous tables to break the tie value of mean among the different tools of decision making system used in the survey, value of standard deviation has been used by using the principle of lesser is the value of standard deviation lesser is the deviation from mean value. In general, the standard deviations are also provided for each techniques to show the extent of diversity of responses.

Table: 4.29 Information for decision making: summary of statistics shown by percentage of respondents

| Perceived Awareness | | | | Information used for decision making | How often used? | | | | | |
|---------------------|-------|------|------|--|-----------------|-------|------|------|------|------|
| n | NI | MI | I | | n | S1 | S2 | S3 | S4 | S5 |
| 330 | 98.48 | 0.30 | 1.21 | Cost volume-profit analysis (break-even analysis) for major products. | 330 | 98.79 | 0.00 | 0.91 | 0.30 | 0.00 |
| 330 | 97.58 | 1.52 | 0.91 | Product profitability analysis | 330 | 98.48 | 0.61 | 0.61 | 0.30 | 0.00 |
| 330 | 99.70 | 0.00 | 0.30 | Customer profitability analysis | 330 | 99.70 | 0.00 | 0.30 | 0.00 | 0.00 |
| 330 | 98.48 | 0.00 | 1.52 | Stock control models | 330 | 98.79 | 0.00 | 0.61 | 0.30 | 0.30 |
| 330 | 99.70 | 0.00 | 0.30 | Evaluation of major capital investments based on discounted cash flow methods (NPV, IRR & PI) | 330 | 99.39 | 0.00 | 0.61 | 0.00 | 0.00 |
| 330 | 99.70 | 0.00 | 0.30 | Evaluation of major capital investments based on payback period and / or accounting rate of return. | 330 | 99.70 | 0.00 | 0.30 | 0.00 | 0.00 |
| 330 | 99.70 | 0.00 | 0.30 | Evaluation of major capital investments, non-financial aspects are documented and reported. | 330 | 99.70 | 0.00 | 0.30 | 0.00 | 0.00 |
| 330 | 99.70 | 0.00 | 0.30 | Evaluating the risk of major capital investment projects by using probability analysis or computer simulation. | 330 | 99.70 | 0.00 | 0.30 | 0.00 | 0.00 |
| 330 | 99.70 | 0.00 | 0.30 | Calculation and use of cost of capital in discounting cash flow | 330 | 99.70 | 0.00 | 0.30 | 0.00 | 0.00 |

n:number of respondents, NI: not important=1, MI: moderately important =2, I:important=3, S1:never, S2: rarely, S3: sometimes, S4: often and S5: very often. *Source: Compiled from collected data*

Table: 4.30 Descriptive statistics for Information for decision making

| Information for decision making | n | Perceived Awareness ^a | | | Usage ^b | | |
|--|-----|----------------------------------|----------|------|--------------------|----------|------|
| | | Mean | Std. Dev | Rank | Mean | Std. Dev | Rank |
| Product profitability analysis | 330 | 1.03 | 0.22 | 1 | 1.03 | 0.24 | 1 |
| Cost volume-profit analysis (break-even analysis) for major products. | 330 | 1.03 | 0.23 | 2 | 1.03 | 0.25 | 2 |
| Stock control models | 330 | 1.03 | 0.24 | 3 | 1.03 | 0.31 | 3 |
| Customer profitability analysis | 330 | 1.01 | 0.11 | 4 | 1.01 | 0.11 | 4 |
| Evaluation of major capital investments based on payback period and / or accounting rate of return. | 330 | 1.01 | 0.11 | 4 | 1.01 | 0.11 | 4 |
| Evaluation of major capital investments, non-financial aspects are documented and reported. | 330 | 1.01 | 0.11 | 4 | 1.01 | 0.11 | 4 |
| Evaluating the risk of major capital investment projects by using probability analysis or computer simulation. | 330 | 1.01 | 0.11 | 4 | 1.01 | 0.11 | 4 |
| Calculation and use of cost of capital in discounting cash flow | 330 | 1.01 | 0.11 | 4 | 1.01 | 0.11 | 4 |
| Evaluation of major capital investments based on discounted cash flow methods (NPV, IRR & PI) | 330 | 1.01 | 0.11 | 4 | 1.01 | 0.16 | 5 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I:important=3)

^b Based on 5-point scale (S1:never=1, S2: rarely=2, S3: sometimes=3, S4: often=4 and S5: very often=5).

Source: *Compiled from collected data*

From the results of the table 4.30 by taken into account results of table 4.29 it can be concluded that there was significant low use of techniques for any sort of decision making purposes by the respondents of MSMEs of Tripura. Perceived importance for these techniques are also low as mean value for every cases are very much closure to one, which signifies majority of respondents opted for not important (NI) option for these techniques. Product profitability analysis, cost volume-profit analysis (break-even analysis) and stock control models got the same mean value (for both importance and usage) and to get them ranked properly standard deviation value has been used to break the tie among themselves. For the remaining set of decision making techniques there is no use at all but from importance point of view only one firm considers these techniques as important.

Comparison of results with those of previous studies

In this study on Tripura MSMEs it is found that almost there are no user of information for taking any short-term as well as long term decisions by the owner/manager of MSMEs of Tripura. Result of the present study are in conflict with the previous researchers' findings. Summary of the few research findings discussed in the following; Chenhall and Langfield-Smith (1998); Joshi (2001); and Drury and Tayles (2006) as per their previous research findings product profitability analysis was the most used techniques (80%) for the short term decision making by the firms.

Abdel-Kader and Luther (2006), from their study they discovered that product profitability analysis and customer profitability analysis are often and very often used techniques by the companies (69% and 51% respectively). Respondents also rated these analysis as important by 72% and 59% respectively. CVP analysis is considered to be moderately important or important by 86% of respondents and used by 44% of respondents. Accounting rate of return and payback period are used to evaluate major capital investment projects by 41% of respondents while the figure for discounted cash flow models such as IRR and NPV is only 19%.

Ahmad K (2012), from the study result (study conducted in Malaysia) it was found that 51% of the overall respondents uses product profitability analysis. Other short run analysis techniques like break-even analysis, customer profitability analysis and stock control model were used by 27% to 32% of the total respondents.

For the long run decision making payback is the most used techniques with a low percentage (28%) of adaptors among the total respondents. While for the other techniques this value has come down to 25% of the total respondents.

Conclusion

Almost there are no use of management accounting tools and techniques for decision making purposes by the owners/managers of surveyed MSMEs of Tripura. Reason may be either infrastructure required for applying these techniques not prevailed within the surveyed firms or all these techniques for taking any short run (or long run) decision not required for the mix of firms selected for survey. The perceived importance for few techniques are relatively higher than their usage rate among the respondents of Tripura though it is not up to the mark.

4.4.6 Part-F: Perceived awareness and usage of usage of management accounting for strategic analysis:

Traditional management accounting system focuses mainly on reporting information related to internal processes of any organisation. This is the reason why traditional management accounting have been criticised by many scholars in the era of 1980s. The term strategic management accounting (SMA) was introduced by Simmonds (1981, p.26) and defined by him as ‘the provision and analysis of management accounting data about a business and its competitors, for use in developing and monitoring business strategy’.

In the traditional management accounting system very little attention has been given to the external environment. In this system of management accounting there were no scope for considering effect of competitors’ decisions in different operational areas of business like their product pricing decision, cost reduction programme etc. Not only about competitors decisions, inability of traditional management accounting system to forecast about the impact of current cost structure on present and future business processes.

Table 4.31 shows the summary of statistics for use of accounting for strategic analysis shown by percentage of respondents. Table 4.32 shows the descriptive statistics results for the extent of use of accounting for strategic analysis at this detailed level. Ranking of the techniques for both usage and importance has been made in a similar fashion as made earlier. As similar to the previous tables to break the tie value of mean among the different techniques of management accounting tools used in the survey, value of standard deviation has been used by using the principle of lesser is the value of standard deviation lesser is the deviation from mean value. In general, the standard deviations are also provided for each techniques to show the extent of diversity of responses.

Table: 4.31 Management accounting techniques for strategic analysis: summary of statistics shown by percentage of respondents

| Perceived Awareness | | | | Use of management accounting for strategic analysis | How often used? | | | | | |
|---------------------|-------|------|------|--|-----------------|-------|------|------|------|------|
| n | NI | MI | I | | n | S1 | S2 | S3 | S4 | S5 |
| 330 | 97.88 | 1.21 | 0.91 | Long range forecasting | 330 | 99.39 | 0.00 | 0.61 | 0.00 | 0.00 |
| 330 | 100 | 0.00 | 0.00 | Target costing in the design of new products? | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |
| 330 | 99.39 | 0.30 | 0.30 | An analysis of the costs incurred in each of the activities in the firm's value chain? | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |
| 330 | 99.70 | 0.00 | 0.30 | Industry analysis | 330 | 100 | 0.00 | 0.00 | 0.00 | 0.00 |
| 330 | 99.70 | 0.00 | 0.30 | Analysis of competitive position | 330 | 99.70 | 0.00 | 0.00 | 0.30 | 0.00 |
| 330 | 99.70 | 0.30 | 0.00 | Product life cycle analysis | 330 | 99.70 | 0.00 | 0.00 | 0.30 | 0.00 |
| 330 | 99.70 | 0.30 | 0.00 | Strategic costing in determining the firm's strategy | 330 | 99.70 | 0.00 | 0.00 | 0.30 | 0.00 |
| 330 | 99.39 | 0.30 | 0.30 | Product Pricing decision | 330 | 99.39 | 0.00 | 0.00 | 0.61 | 0.00 |

n:number of respondents, NI: not important=1, MI: moderately important =2, I:important=3, S1:never, S2: rarely, S3: sometimes, S4: often and S5: very often. **Source:** *Compiled from collected data*

Table: 4.32 Descriptive statistics for management accounting techniques for strategic analysis

| Use of management accounting for strategic analysis | n | Perceived Awareness ^a | | | Usage ^b | | |
|--|-----|----------------------------------|----------|------|--------------------|----------|------|
| | | Mean | Std. Dev | Rank | Mean | Std. Dev | Rank |
| Product Pricing decision | 330 | 1.01 | 0.12 | 3 | 1.02 | 0.23 | 1 |
| Long range forecasting | 330 | 1.03 | 0.22 | 1 | 1.01 | 0.16 | 2 |
| Analysis of competitive position | 330 | 1.01 | 0.11 | 2 | 1.01 | 0.16 | 2 |
| Product life cycle analysis | 330 | 1.00 | 0.05 | 4 | 1.01 | 0.16 | 2 |
| Strategic costing in determining the firm's strategy | 330 | 1.00 | 0.05 | 4 | 1.01 | 0.16 | 2 |
| Target costing in the design of new products? | 330 | 1.00 | 0.00 | 5 | 1.00 | 0.00 | 3 |
| An analysis of the costs incurred in each of the activities in the firm's value chain? | 330 | 1.01 | 0.12 | 3 | 1.00 | 0.00 | 3 |
| Industry analysis | 330 | 1.01 | 0.11 | 2 | 1.00 | 0.00 | 3 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I:important=3)

^b Based on 5-point scale (S1:never=1, S2: rarely=2, S3: sometimes=3, S4: often=4 and S5: very often=5).

Source: *Compiled from collected data*

From the result it is observed that almost there are no uses of strategic management accounting techniques by the owner/manager of responding MSMEs of Tripura. Perceived importance for these set of techniques are also significantly low among the respondents. Product pricing decision technique is used by only two firms and perceived importance for the same technique is only .60% among the respondents of Tripura. Though the long range forecasting technique is not used by any firms, perceived importance for this technique is at highest level 2.12% in comparison to other techniques.

Comparison of results with those of previous studies

In the present study conducted in Tripura it is found that almost there are no use of strategic management accounting (SMA) techniques by the owner/manager of MSMEs of Tripura. So, the study result are not in line with the previous researchers' findings which were conducted in different time and places of the world.

Abdel-Kader and Luther (2006), they found that long-range forecasting was done by 43% of the companies and this result was followed in frequency by the analysis of competitive position (33%). Food companies were very much keen towards using conventional long range planning and lateral competitive analysis than industry, value chain and life-cycle analysis. For the few techniques (analysis of competitive position & value chain) of their study, there was a high score of importance relative to the frequency of uses suggests that potential application of these techniques may become widespread and frequent.

Ahmad K (2012), in her study in Malaysian small firms found that, 35% of total respondents had been using SMA techniques, frequently or very frequently for decision making purposes. Very small number of firms out of the total respondents applying these SMA techniques. Out of the six techniques strategic pricing was the most used technique (35%). The rest of the techniques are highly used by only between 25% and 31% of all respondents.

Conclusion

Usage rate of strategic management accounting techniques are very poor (or zero usage rate) among the surveyed MSMEs of Tripura. Not only usage rate, perceived importance for these techniques among the respondents are also at significantly low

level. From a series of interview with the respondents researcher came to know that above mentioned tools are not likely to serve any purpose for them. They thought that, either kind of business (micro and small) they are dealing with is not suitable for these techniques to apply or they don't have such type of professional person who can apply these techniques.

4.5 Status of financial/management accounting communication practices

Major challenges of management accounting reporting related with, providing accurate information to the shop floor manager in time, improving timeliness of reporting data, and changing the information gathering system so that it becomes instantaneous and interfaces with other systems. (Drury et al (1993).

This section (Section-4) will investigate the importance of internal financial/management accounting reporting practices among the responding MSMEs of Tripura. Accountants were asked to assess the importance to their business of four levels of accessibility of internal reports and to rate the importance of communicating financial/management accounting information by using three point Likert-type scale (1 indicating *not important* and 3 indicating *important*). Summary of results has been given in the following tables (4.33 and 4.34)

Table: 4.33 Communication of Financial Accounting/Management accounting information: summary of statistics shown by percentage of respondents

| Communication of Financial Accounting/ Management accounting information | How Important? | | | |
|---|----------------|-------|-------|------|
| | n | NI | MI | I |
| Detailed management accounting/financial accounting information is available on a systematic, regular, short-term basis (e.g. weekly or monthly). | 330 | 87.58 | 10.91 | 1.52 |
| Detailed management accounting/financial accounting information is available immediately upon request. | 330 | 89.70 | 9.39 | 0.91 |
| Detailed management accounting/financial accounting information is updated and made available on a real-time basis. | 330 | 90.00 | 9.09 | 0.91 |
| Detailed management accounting/financial accounting information is reported directly to line managers. | 330 | 90.91 | 8.79 | 0.30 |

n:number of respondents, NI: not important=1, MI: moderately important =2 and I:important=3

Source: Compiled from collected data

Table: 4.34 Descriptive statistics for Communication of Financial Accounting/Management accounting information

| Communication of Financial Accounting/ Management accounting information | Importance ^a | | |
|---|-------------------------|----------|------|
| | Mean | Std. dev | Rank |
| Detailed management accounting/financial accounting information is available on a systematic, regular, short-term basis (e.g. weekly or monthly). | 1.14 | 0.39 | 1 |
| Detailed management accounting/financial accounting information is available immediately upon request. | 1.11 | 0.34 | 2 |
| Detailed management accounting/financial accounting information is updated and made available on a real-time basis. | 1.11 | 0.34 | 2 |
| Detailed management accounting/financial accounting information is reported directly to line managers. | 1.09 | 0.30 | 3 |

^a Based on 3- point scale (NI: not important=1, MI: moderately important =2, I:important=3)

Source: *Compiled from collected data*

Table 4.33 shows the summary of statistics communication of financial accounting/management accounting information shown by percentage of respondents. Table 4.34 shows the descriptive statistics results for four levels of communicating financial/management accounting reporting for internal accessibility. Result shows that in all the four levels of communicating financial/management accounting reporting highest number of respondents were opted for the option ‘not important’ and they are 87.58%, 89.70%, 90% and 90.91% respectively. As per descriptive statistics result, ‘detailed management accounting/financial accounting information is available on a systematic, regular, short-term basis (e.g. weekly or monthly)’ got the first rank considering perceived importance of the respondents (either moderately important or important considered by 12.42% of respondents). This result followed by mutually ‘detailed management accounting/financial accounting information is available immediately upon request’ (opted by 10.30% of respondents) and ‘detailed management accounting/financial accounting information is updated and made available on a real-time basis’ (opted by 10% of respondents). Finally ‘detailed management accounting/financial accounting information is reported directly to line managers got the third rank preference given by 9.09% of respondents.

Comparison of results with those of previous studies:

Present study result differs significantly with previous studies, here respondents not communicating their financial/management accounting information on demand for decision making purposes or not even they are keeping accounting result up to date for making these information available on request to higher management. Respondents not even consider these all are important for their business.

Result of the present study are conflicting with the previous study (see for example Abdel-Kader and Luther, 2006) conducted in British food and drink industry. As per their study respondents recognise that it is important to provide detailed management accounting information on a systematic and regular basis by 91% of respondents. The ability to provide detail information immediately on request was rated important (or moderately important) by 86% of respondents. Immediate updating of accounting information supplying real-time information was important to only 11% of respondents.

Conclusion

From the above results of the table 4.33 and 4.34 it is very much clear that very minimum percentage of respondents consider communication of accounting information is important for operational use of business. Mainly medium categories of firms are doing this practice and using these for business operational decision making among the responding MSMEs of Tripura.

4.6 Performance of the firm (Respondents perceptions)

The level of performance of responding firms was investigated through section 5 of the schedule. As considered by Ahmad, K (2012) two dimensions of organizational performance (financial and non-financial measures) were considered. Financial measures cover business performance which used sales growth rate; operating profit growth rate; and cash flow growth rate. At the same time non-financial measures cover operational performances which are level of productivity and product quality. Respondents were required to indicate their perceptions of changes in their firm's performance over the past three years on a five-point Likert scale (1 is decreased significantly to 5 increased significantly). Table 4.35 & 4.36 summarises the findings. The composite scores are computed in order to indicate the average performance of responding MSMEs.

Table: 4.35 Opinion survey on the respondents firm’s performance: summary of statistics shown by percentage of respondents

| During the last three years, in your opinion which of the following option is applicable for your firm | What is your opinion? | | | | | |
|--|-----------------------|------|------|-------|-------|------|
| | n | S1 | S2 | S3 | S4 | S5 |
| Level of productivity | 330 | 0.00 | 0.00 | 91.52 | 8.48 | 0.00 |
| Product quality | 330 | 0.00 | 0.00 | 86.97 | 13.03 | 0.00 |
| Sales growth rate | 330 | 0.00 | 0.30 | 46.97 | 52.42 | 0.30 |
| Operating profit growth rate | 330 | 0.00 | 0.91 | 49.09 | 50.00 | 0.00 |
| Cash flow growth rate | 330 | 0.00 | 0.00 | 78.18 | 21.82 | 0.00 |

S1=Decreased significantly, S2=Decreased, S3=No Change, S4=Increased and S5= Increased significantly. *Source: Compiled from collected data*

Table: 4.36 Descriptive statistics for opinion survey on the respondents firm’s performance

| During the last three years, in your opinion which of the following option is applicable for your firm | What is your opinion ^a | | |
|--|-----------------------------------|----------|------|
| | Mean | Std. dev | Rank |
| Sales growth rate | 3.53 | 0.51 | 1 |
| Operating profit growth rate | 3.49 | 0.52 | 2 |
| Cash flow growth rate | 3.22 | 0.41 | 3 |
| Product quality | 3.13 | 0.34 | 4 |
| Level of productivity | 3.08 | 0.28 | 5 |
| TOTAL(composite mean and SD) | 3.29 | .41 | |

^a based on five point scale (S1=Decreased significantly, S2=Decreased, S3=No Change, S4=Increased and S5= Increased significantly). *Source: Compiled from collected data*

Table 4.35 & 4.36 suggests that respondents’ perceptions of financial performance is relatively higher than that of non-financial performance. Two out of three financial perception measures consider for this study has the higher mean value than the composite mean value which indicates preference of financial measures for evaluating firms performance. Nevertheless the overall response mean of more than 3.29 suggests

that performance has been improving among the responding MSMEs. Only .30% of respondents reporting a decrease in sales growth rate and .91% reported decline in operating profit. After analysing the whole sample of the study it can be concluded that respondents perception about their firm considering last three years record either their business is in a same positions or there is growth in their performance as the decline rate is so less.

4.7 Role of accounting information:

Section 6 investigated into the role of financial and management accounting with respondents asked to indicate their perception of the extent of different roles apply in their firms based on a five-point Likert scale (1 is strongly disagree to 5 strongly agree).

Table: 4.37 Accounting practices which helped management in, which of the following area? Summary of statistics shown by percentage of respondents

| In your firm, accounting practices have helped management in, which of the following area? | What is your opinion? | | | | | |
|--|-----------------------|------|-------|-------|------|------|
| | n | S1 | S2 | S3 | S4 | S5 |
| Planning the future strategies, tactics and operations | 330 | 0.00 | 78.48 | 18.79 | 2.73 | 0.00 |
| Controlling current activities | 330 | 0.00 | 78.79 | 19.09 | 2.12 | 0.00 |
| Measuring and evaluating performance | 330 | 0.00 | 83.94 | 14.24 | 1.82 | 0.00 |
| Optimizing the use of firm resources | 330 | 0.61 | 86.36 | 11.82 | 1.21 | 0.00 |
| Reducing subjectivity in the decision making process | 330 | 0.30 | 86.97 | 11.52 | 1.21 | 0.00 |
| Improving internal and external communication | 330 | 0.30 | 87.58 | 10.91 | 1.21 | 0.00 |

S1=Strongly disagree, S2= Disagree, S3=Slightly agree, S4=Agree and S5=Strongly agree

Source: Compiled from collected data

Table: 4.38 Descriptive statistics for accounting practices which helped management in, which of the following area?

| In your firm, accounting practices have helped management in, which of the following area? | What is your opinion? | | |
|--|-----------------------|----------|------|
| | Mean | Std. dev | Rank |
| Planning the future strategies, tactics and operations | 2.24 | 0.49 | 1 |
| Controlling current activities | 2.23 | 0.47 | 2 |
| Measuring and evaluating performance | 2.18 | 0.43 | 3 |
| Reducing subjectivity in the decision making process | 2.14 | 0.38 | 4 |
| Optimizing the use of firm resources | 2.14 | 0.39 | 5 |
| Improving internal and external communication | 2.13 | 0.38 | 6 |

^a based on five point scale (S1=Strongly disagree, S2= Disagree, S3=Slightly agree, S4=Agree and S5=Strongly agree). **Source:** *Compiled from collected data*

Table 4.37 & 4.38 sums up the findings. It can be seen that all roles of financial and management accounting measures listed in the survey are denied (disagree with) by most respondents. None of the respondents ‘strongly agree’ with all these tools and techniques help them to improve or manage their MSMEs better. Only 21.52% of the responding MSMEs agreed that there is a role financial and management accounting tools and techniques (considering options slightly agree and agree) in planning the future strategies, tactics and operations this result followed by controlling current activities with 21.21% and measuring and evaluating performance with 16.06% etc. The lowest importance is attached to improving internal and external communication with a mean of 2.13. Overall, the possible roles of financial and management accounting identified insignificant with a significant portion of respondents.

4.8 Summary:

This chapter summarise the results obtained from 330 schedules distributed to a sample of 330 MSMEs of Tripura out of total population size of 2289 MSMEs. Main purpose of collecting schedules is to enquire about the perceived awareness and extent of use of financial and management accounting tools and techniques. The narrative seeks to answer two of the research objectives of this study; firstly to assess the level of perceived awareness of the owners-managers of MSMEs about the tools and techniques of accounting system; and secondly to examine the pattern of managerial use of the

accounting tools and techniques by the micro, small and medium enterprises. Both perceived awareness and usage of the financial and management accounting practices among the responding MSMEs has been discussed elaborately in the above sections. Additional information was also obtained regarding selected contingent factors and the respondents' perception of the performance level of their organisation over the past three years.

The following sections discusses findings regarding the first two research objectives.

4.9 Findings on research objective number -1:

To investigate the awareness level of respondents about the tools and techniques of financial and management accounting practices three point Likert scale (NI: not important=1, MI: moderately important =2 and I:important=3) have been used. Result has been discussed as follows:

Perceived Awareness about financial accounting tools and techniques:

As discussed in Part-B of section-2, it is interesting to note that perceived awareness about the financial accounting tools and techniques are quite high among the owner/manager of responding MSMEs of Tripura. As per importance profit & loss accounting got the 1st rank with 87.58% response rate, this result followed by debtors book, creditors book, cash book and balance sheet with 2nd rank (84.58%), 3rd rank (83.08%), 4th rank (80.91%) and 5th rank (72.42%) respectively. Importance of the remaining accounting tools and techniques are in similar line with the usage rate of these techniques. Results is very much in line with the previous studies (Nayak and Greenfield, 1994), (Das, 2006) and (Das and Dey, 2010).

Perceived Awareness about financial accounting tools used to monitor/track financial performance:

As discussed in Part-C of section -2, perceived awareness of cash and bank balance as a financial performance tracker was acknowledged by 73.64% of respondents rating it as either moderately important or important. In case of Profit & Loss account and Balance Sheet seems to have considerable perceived awareness; 70% and 38.79% of respondents rated these techniques in two forms either moderately important or important. Perceived awareness for remaining four tools & techniques are significantly

low among the owner/manager of responding MSMEs of Tripura. This results also in line with study conducted by Das (2006) and Das and Dey (2010).

Perceived Awareness about Accounting Ratios:

As discussed in Part-D of section-2, the importance of gross profit ratio was acknowledged by 14.55% of responding MSMEs rated as either moderately important or important. Respondents also acknowledged the importance of gross profit ratio (15.15%), current ratio (8.18%) and net profit before and after tax (8.18%) as either moderately important or important. For the remaining ratios, majority of the respondents do not aware about their importance in their business. As a result majority of the respondents opted either 'not important' or 'moderately important' in times of giving responses. This results are in line with previous studied conducted in North-Eastern part of India (see for example Das; 2006 and Das and Dey; 2010).

Perceived Awareness about costing techniques:

From the result of Part- A & B of Section-3, it has been observed that perceived awareness level about the tools and techniques of Cost collection system and Costing techniques is very low. To mention a few, respondents acknowledged the importance of batch costing (2.73%), process costing (3.03%) and job costing (1.52%) as either moderately important or important. Among the costing techniques, respondents acknowledged the importance of variable costing (2.12%) and variable and absorption costing (1.52%) as either moderately important or important. This results are also in line with previous studied conducted in North- Eastern part of India (see for example Das; 2006 and Das and Dey; 2010).

Perceived Awareness about budgeting techniques:

From the result of Part-C of Section-3, the importance of annual budget was acknowledged by 27.58% of responding MSMEs rating this technique as either moderately important or important. . Respondents also acknowledged the importance of production budget (23.33%), sales budget (22.42%) and purchase budget (15.45%) as either moderately important or important. For the remaining budgeting techniques either very minimum number of respondents are aware about these techniques of budgeting or not aware at all about these techniques.

Perceived Awareness about financial and non-financial measures to measure business performance:

As discussed in Part-D of section-3, out of six financial performance measures respondent are aware about sales growth (50.31%), operating income & sales growth (39.39%), operating income (26.67%) and ROI (24.24%). Among the non-financial performance measures, out of eight techniques very minimum number of respondents are aware about only two techniques, which are customer complaints and defect rate.

Perceived Awareness about MAPs for decision making:

As discussed in Part-E of section-3, information tools used for decision making are collected through fifth set of MAPs, very negligible portion of respondents are aware (or not aware at all) of these techniques and considered these as perceived to be important.

Perceived Awareness about strategic management accounting techniques:

In the sixth and last set of MAPs, discussed in Part-F of section-3 contains management accounting tools and techniques used for strategic analysis of business, here also result shows that very negligible portion of respondents are aware (not aware at all) about these tools and techniques of strategic analysis.

4.10 Findings on research objective number -2:

The degree of use of financial and management accounting practices was investigated using a five point Likert scale; S1 (never) to S5 (very often). Descriptive statistics were prepared based on all the five options (S1: never, S2: rarely, S3: sometimes, S4: often and S5: very often) incorporated in the schedule. To determine the real user of these tools and techniques only S4 and S5(often and very often) have been considered, these figure will probably give a more accurate indication of the actual use of financial and management accounting techniques as respondents who really employ the respective techniques will undoubtedly choose S4 and S5. The percentage of acceptance on S4 and S5 was calculated based on total user basis out of the selected sample size.

Uses of financial accounting tools and techniques:

From the first set financial accounting tools and techniques (Part-B) after analysing collected data it can be concluded that most of the respondents make less use of these tools and techniques. Debtors book is the most used books of accounts (50%), followed by creditors book (48.18%), profit & loss account (23.03%), and balance sheet (19.70%). Cash flow analysis is the least preferred techniques among owners/managers of the responding MSMEs of Tripura. Results is very much in line with the previous studies (Nayak and Greenfield; 1994, Das; 2006 and Das and Dey; 2010).

Uses of accounting information to monitor/track financial performance:

From the descriptive statistics tables (4.17 & 4.18) conclusions can made for the second set (Part-C) of financial accounting tools and techniques that majority of the responding MSMEs in Tripura are making very less use of the above mentioned tools to monitor/track financial performance for their firms. Cash and bank balance (5.16%) is the most used tools for this purpose followed by profit & loss account (4.85%) and balance sheet (4.55%). This results also in line with study conducted by Das (2006) and Das and Dey (2010).

Uses of Accounting Ratios:

From the descriptive statistics (tables 4.19 & 4.20) it has been concluded that there is a very minimum number of users for accounting ratios for analysing their financial results among the responding MSMEs of Tripura. In other way it can be interpreted that respondents do not consider accounting ratios as an information base for taking future decisions of MSMEs in Tripura. This results are in line with previous studied conducted in North- Eastern part of India (see for example Das; 2006 and Das and Dey; 2010).

Uses of costing techniques:

Descriptive statistics shows that (tables 4.21, 4.22, 4.23 & 4.24) there are low user for cost collection techniques and costing system among the responding MSMEs of Tripura. Majority of the respondents do not consider these cost collection techniques as well as costing system as important tools for running their small business. Traditional absorption costing has been considered as the best system for cost accounting by the respondents (though response rate is very poor). For other techniques literally there are no user among the responding MSMEs except medium scale enterprises. This results

are also in line with previous studies conducted in North- Eastern part of India (see for example Das; 2006 and Das and Dey; 2010).

Uses of budgeting techniques:

From descriptive statistics (table 4.25 & 4.26) it has been observed that there are very low users for any form of budgeting system among the responding MSMEs of Tripura. Majority of the respondents do not consider these various forms of budget as important tools for controlling their business activities. Annual budget, production budget, sales budget and purchase budget are among the preferred budgets (though response rate is very poor) of responding MSMEs of Tripura. There are lack of preferences among the surveyed respondents of MSMEs of Tripura for new techniques of budgeting like activity-based budgeting, incremental budgeting, zero-based budgeting and budgeting for long term plans.

Uses of financial and non-financial measures to measure business performance:

Result shows that (table 4.27 & 4.28) very minimum number of respondents have adopted any techniques from both financial measures and non-financial measures. Though there are minimum adoption of performance evaluation techniques, dominance of financial measures over non-financial measures has been observed. Sales from the financial measures and number of customer complaints from non-financial measures are among the most preferred techniques of surveyed MSMEs of Tripura.

Uses of MAPs for decision making:

Tools and techniques covered under management accounting information used for decision making (see table 4.29 & 4.30) almost there are no users of management accounting tools and techniques for decision making purposes among the surveyed MSMEs of Tripura. Reason may be either infrastructure required for applying these techniques not prevailed within the surveyed firms or all these techniques are not required for taking any short run (or long run) decisions for the mix of firms selected for survey.

Uses of strategic management accounting techniques:

Usage rate of strategic management accounting techniques (table 4.31 & 4.32) are very poor (or zero usage rate) among the surveyed MSMEs of Tripura. From a series of interview with the respondents researcher came to know that above mentioned tools are not likely to serve any purpose for them. They thought that, either kind of business

(micro and small) they are dealing with is not suitable for these techniques to apply or they don't have such type of professional person who can apply these techniques.

Communication of accounting information:

From the above results of the table 4.33 and 4.34 it is very much clear that very minimum percentage of respondents consider communication of accounting information is important for operational use of business. Mainly medium categories of firms are doing this practice and using these for business operational decision making among the responding MSMEs of Tripura.

4.10.1 Conclusion:

The descriptive statistics result shows that perceived awareness and usage of financial accounting tools and techniques are not up to the mark and study results are in line with the previous studies (see for example Nayak and Greenfield, 1994; Das; 2006; and Das and Dey; 2010). Uses of financial accounting information for tracking their business performance is very poor among the responding MSMEs. Uses of ratios for interpreting or reading the financial reports is also significantly less (or not seen in majority of the cases) among the responding MSMEs of Tripura.

The descriptive statistics results also show that the acceptance rate for traditional management accounting techniques is higher for conventional practices (budgeting, performance evaluation and costing) than for more recently developed practices (decision support system and for strategic analysis). Usage for all MAPs also indicate that a higher usage by medium sized firms as compared to micro and small firms of Tripura. This view is in line with Chun et al. (1994) who observed that Malaysian firms have a preference over traditional management accounting systems to meet their external and internal reporting needs. Other research conducted in developing countries such as Joshi (2001) in India; Phadoongsitthi (2003) in Thailand and El-Ebaishi et al. (2003) in Saudi Arabia; and also support this position. Joshi (2001) opined that the reasons for a lower acceptance of newly developed MAPs in Indian firms are the conservative outlook of Indian management, autocratic leadership, and long term orientation. He also recommend that many Indian companies consider that it is quite expensive to implement the new management accounting techniques particularly, for benchmarking. Lack of training and expertise in these areas are other possible reasons. Phadoongsitthi (2003) also supported this viewpoint and stated the same reasons low

adoption rate of newly developed MAPs in Thailand and because both the countries India and Thailand have cultural similarities. Large power distance and low individualism group and both countries face similar problems the lack of training and expertise are among the other problems they stated. Research in developed countries (see for example, Chenhall and Langfield-Smith, 1998; Pierce and O'Dea, 1998; and Abdel-Kader and Luther, 2006), although reporting an increasing usage of modern MAPs, agreed that basic or traditional MAPs are still dominating in most firms. It is opined that high adoption of conventional techniques may be attributed to the fact that information and proficiency relating to these techniques is the most readily available as compared to the modern management accounting techniques. Subsequently cutting-edge techniques are not widely accepted in practice may be due to the uncertainties, pragmatisms and costs involved in obtaining the information.

4.11 Hypothesis Testing:

In this section of the chapter first two hypothesis will be tested and test result will be discuss in details. This chapter seeks to identify, perceived awareness among the owner/manager of surveyed MSMEs of Tripura. This section of the chapter will also judge whether the usage rate of financial and management accounting tools and techniques are statistically significant or not. To test the perceived awareness, respondents who opted for moderately important (MI) or important (I) for any tools and techniques of financial and management accounting are considered aware about those particular tools and techniques (Abdel-Kader and Luther, 2006). Similarly for segregating the actual users of accounting tools and techniques, respondents who opted for option S4 (often) and S5 (very often) has been considered as real user for those tools and techniques (Abdel-Kader and Luther, 2006; Ahmad, K. 2012) . From the two main hypothesis altogether eighteen sub-hypothesis has been developed, nine sub-hypothesis from the first hypothesis and remaining nine from the second hypothesis. For validating these hypothesis researcher has adopted Z proportion test with p value equal to .5 ($p=.5$). Here, in every cases general sub-hypothesis will be analysed with the help of two alternative hypothesis these are $H_0: P=.5$ and $H_1:\neq.5$. By considering the above mentioned assumptions on perceived awareness level and usage of accounting tools and techniques test result has been analysed.

4.11.1 Result of Hypothesis number-1(H₁):

First hypothesis is all about the perceived awareness level of the different financial and management accounting tools and techniques among the owner/manager of MSMEs in Tripura. Which has written as follows:

H₁: There is a low level of awareness about the tools and techniques of accounting system among the owner/ manager of MSMEs.

The following nine sub-hypotheses (H1-1 to H1-9) were developed to show in details the perceived awareness level about the financial and management accounting tools and techniques among the owners/managers of responding MSMEs of Tripura.

H₁₋₁: There is a low level of awareness about the financial accounting tools and techniques among the owner/ manager of MSMEs.

H₁₋₂: There is a low level of awareness about the financial accounting tools and techniques used to monitor/track financial performance and profitability among the owner/ manager of MSMEs.

H₁₋₃: There is a low level of awareness about the accounting ratios among the owner/ manager of MSMEs.

H₁₋₄: There is a low level of awareness about the Cost collection techniques among the owner/ manager of MSMEs.

H₁₋₅: There is a low level of awareness about the costing system among the owner/ manager of MSMEs.

H₁₋₆: There is a low level of awareness about the budgeting system among the owner/ manager of MSMEs.

H₁₋₇: There is a low level of awareness about the Performance evaluation system among the owner/ manager of MSMEs.

H₁₋₈: There is a low level of awareness about the Information used for decision making among the owner/ manager of MSMEs.

H₁₋₉: There is a low level of awareness about the Use of management accounting for strategic analysis among the owner/ manager of MSMEs.

Analysis of first sub hypothesis:

Now all the nine sub-hypothesis will be discussed in details with their result obtained from the proportion test. Which are as follows:

H₁₋₁: There is a low level of awareness about the financial accounting tools and techniques among the owner/ manager of MSMEs.

In the following table test value for each tools and techniques of financial accounting has been determined separately.

Table: 4.39 Test result shows perceived awareness of respondents for financial accounting tools and techniques.

| Financial Accounting Practices | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|---|--|---|--|
| Cash book | H_{1-1a} | 11.22983 | ±1.96 |
| Sales books | H_{1-1b} | 5.394722 | ±1.96 |
| Purchase books | H _{1-1c} | 0 | ±1.96 |
| Expenses books | H _{1-1d} | -0.44039 | ±1.96 |
| Provision for depreciation | H _{1-1e} | -7.70675 | ±1.96 |
| Fixed asset register | H _{1-1f} | -7.37646 | ±1.96 |
| Stock book for materials | H _{1-1g} | -3.74328 | ±1.96 |
| Debtors book | H_{1-1h} | 12.55099 | ±1.96 |
| Creditors book | H_{1-1i} | 12.00051 | ±1.96 |
| Profit & Loss Account | H_{1-1j} | 13.65195 | ±1.96 |
| Balance sheet | H_{1-1k} | 8.147132 | ±1.96 |
| Cash flow analysis | H _{1-1l} | -14.5327 | ±1.96 |
| Computer for recording business transaction | H _{1-1m} | -11.6702 | ±1.96 |

Significant Hypothesis test results are in bold

From the results shown in the table-4.39, test results for cash book, sales book, debtors book, creditors book, profit and loss account and balance sheet has got the positive Z value with a very high quotient, which implies their Z value lies on the critical region of the right hand side of the normal curve. Due to this result researcher rejected the null hypotheses ($H_0: P=.5$) for all these respective cases and concluded that respondents are well aware about above mentioned financial accounting tools and techniques and their utility in the business. For purchase book test result came out as '0', which signifies that half of respondents are aware about this technique and remaining half remain unaware. Expenses book's Z value lies within the acceptable region with a negative quotient indicates low awareness level. For the remaining techniques as mentioned in the table test result value came out with a high negative quotient, implies location of Z value lies in the left hand side critical region of the normal curve. As the test result value exceeds tabulated value of Z (± 1.96) at the 5% significance level researcher rejected the null hypothesis ($H_0: P=.5$) for all these tools and techniques and conclusion can be made as there is a low level of awareness for these accounting techniques. Now, researcher can conclude that though the awareness level for some of the above mentioned techniques are good, however overall scenario of awareness level about the financial accounting tools and techniques is not satisfactory among the responding MSMEs of Tripura.

H₁₋₂: There is a low level of awareness about the financial accounting tools and techniques used to monitor/track financial performance and profitability among the owner/ manager of MSMEs.

Table: 4.40 Test result shows perceived awareness of respondents for accounting tools used to monitor/track financial performance and profitability

| Accounting tools used to monitor/track financial performance and profitability | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|---|--|---|--|
| Cash & bank balance | H_{1-2a} | 8.587517 | ±1.96 |
| Profit & Loss account | H_{1-2b} | 7.266361 | ±1.96 |
| Balance sheet | H _{1-2c} | -4.07357 | ±1.96 |
| Cash flow analysis | H _{1-2d} | -15.964 | ±1.96 |
| Fund flow analysis | H _{1-2e} | -17.6154 | ±1.96 |
| Comparative financial statement analysis | H _{1-2f} | -17.5053 | ±1.96 |
| Trend analysis | H _{1-2g} | -17.2851 | ±1.96 |

Significant Hypothesis test results are in bold

From the results shown in the table-4.40, it is very much clear that for cash and bank balance and profit and loss account respondents are well aware about these techniques as a financial performance monitor techniques as the test results value is very high with positive quotient. As a result of this null hypotheses (H₀: P=.5) has been rejected for these above mentioned techniques. For the remaining accounting tools used to monitor/track financial performance and profitability has got a very high test result value with a negative quotient, which implies location of Z value lies in the left hand side critical region of the normal curve. Due to this reason researcher rejected the null hypotheses (H₀: P=.5) for these remaining techniques and conclude that there are low level of awareness among the responding MSMEs of Tripura about the remaining accounting tools used to monitor/track financial performance and profitability.

H₁₋₃: There is a low level of awareness about the accounting ratios among the owner/manager of MSMEs.

Table: 4.41 Test result shows perceived awareness of respondents for accounting ratios to understand/read the financial statement

| Uses of Accounting ratios to understand/read the financial statement | Hypothesis (H ₀ : P=.5, H ₁ :≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--|---|--|---|
| Gross profit ratio | H _{1-3a} | -13.2116 | ±1.96 |
| Operating profit ratio | H _{1-3b} | -13.2116 | ±1.96 |
| Net profit before and after tax | H _{1-3c} | -15.1933 | ±1.96 |
| Return on equity | H _{1-3d} | -16.8447 | ±1.96 |
| Return on capital employed | H _{1-3e} | -16.1842 | ±1.96 |
| Current ratio | H _{1-3f} | -15.1933 | ±1.96 |
| Acid test ratio | H _{1-3g} | -16.2943 | ±1.96 |
| Average collection period | H _{1-3h} | -15.4135 | ±1.96 |
| Average payment period | H _{1-3i} | -15.7438 | ±1.96 |
| Days stock held | H _{1-3j} | -16.7346 | ±1.96 |
| Circulation of working capital | H _{1-3k} | -16.7346 | ±1.96 |
| Gearing ratio | H _{1-3l} | -17.7255 | ±1.96 |
| Interest coverage ratio | H _{1-3m} | -17.6154 | ±1.96 |

From the table-4.41, it has been observed that test results of all the above mentioned ratios got a very high value with a negative quotient, it implies that location of Z value lies in the left hand side of the critical region of normal curve. As the test result value exceeds tabulated value of Z (±1.96) at the 5% significance level researcher rejected the null hypotheses (H₀: P=.5) for all the ratios. Which signifies poor awareness level of the responding MSMEs of Tripura about the importance of ratios for reading (or understanding) the financial result of their firm.

H₁₋₄: *There is a low level of awareness about the Cost collection techniques among the owner/ manager of MSMEs.*

Table: 4.42 Test result shows perceived awareness of respondents for Cost collection system.

| Cost collection system used | Hypothesis (H ₀ : P=.5, H ₁ :≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--|---|--|---|
| Job costing | H _{1-4a} | -17.6154 | ±1.96 |
| Batch costing | H _{1-4b} | -17.175 | ±1.96 |
| Contract costing | H _{1-4c} | -17.8356 | ±1.96 |
| Process costing | H _{1-4d} | -17.5053 | ±1.96 |
| A separation is made between variable/ incremental costs and fixed/non-incremental costs | H _{1-4e} | -17.175 | ±1.96 |
| Using plant- wide overhead rates | H _{1-4f} | -17.5053 | ±1.96 |
| Departmental or multiple plant wide overhead rates | H _{1-4g} | -17.7255 | ±1.96 |

From the table-4.42, it has been observed that here also test results of all the above mentioned cost collection systems got a very high value with a negative quotient, which implies that location of Z value lies in the left hand side critical region of the normal curve. As the test result value exceeds tabulated value of Z (±1.96) at the 5% significance level researcher rejected the null hypotheses (H₀: P=.5) for all the techniques of cost collection system of the table. Here also researcher can conclude that there are low level of awareness about the cost collection system among the responding MSMEs of Tripura.

H₁₋₅: There is a low level of awareness about the costing system among the owner/manager of MSMEs.

Table: 4.43 Test result shows perceived awareness of respondents for Costing system

| Costing system | Hypothesis (H ₀ : P=.5, H ₁ :≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|---------------------------------|---|--|--|
| Absorption costing | H _{1-5a} | -16.1842 | ±1.96 |
| Variable costing | H _{1-5b} | -17.3952 | ±1.96 |
| Variable and absorption costing | H _{1-5c} | -17.6154 | ±1.96 |
| Target cost | H _{1-5d} | -18.1659 | ±1.96 |
| Activity- based costing(ABC) | H _{1-5e} | -18.1659 | ±1.96 |
| The cost of quality | H _{1-5f} | -18.1659 | ±1.96 |

As shown in the table-4.43, test results of all the above mentioned costing systems have got a very high value with a negative quotient, which implies location of Z value lies in the left hand side critical region of the normal curve. As the test result value exceeds tabulated value of Z (±1.96) at the 5% significance level researcher reject the null hypotheses (H₀: P=.5). Here also researcher can conclude that there are low level of awareness about the costing system among the responding MSMEs of Tripura.

H₁₋₆: There is a low level of awareness about the budgeting system among the owner/manager of MSMEs.

Table: 4.44 Test result shows perceived awareness of respondents for Budgeting Techniques

| Budgeting system | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--|--|---|--|
| Sales budget | H _{1-6a} | -10.0188 | ±1.96 |
| Purchase budget | H _{1-6b} | -12.551 | ±1.96 |
| Production budget | H _{1-6c} | -9.68848 | ±1.96 |
| Cash flow budget | H _{1-6d} | -17.0649 | ±1.96 |
| Monthly budget | H _{1-6e} | -16.9548 | ±1.96 |
| Annual budget | H _{1-6f} | -8.14713 | ±1.96 |
| Continuous /rolling budget | H _{1-6g} | -17.7255 | ±1.96 |
| Flexible budget | H _{1-6h} | -17.7255 | ±1.96 |
| Activity- based budgeting | H _{1-6i} | -18.1659 | ±1.96 |
| Incremental budgeting | H _{1-6j} | -18.0558 | ±1.96 |
| Zero-based budgeting | H _{1-6k} | -18.1659 | ±1.96 |
| Budgeting for planning | H _{1-6l} | -18.0558 | ±1.96 |
| Budgeting for controlling cost | H _{1-6m} | -18.0558 | ±1.96 |
| Budgeting for long term(strategic plans) plans | H _{1-6n} | -18.1659 | ±1.96 |

As shown in the table-4.44, test results of all the above mentioned budgeting systems also got a very high value with a negative quotient, signifies that location of Z value lies in the left hand side critical region of the normal curve. As the test result value exceeds tabulated value of Z (±1.96) at the 5% significance level researcher reject the null hypotheses (H₀: P=.5) and accept the alternative hypotheses (H₁:≠.5) for all types of budgets. Here researcher can conclude that there are low level of awareness about the budget as a planning tools among the responding MSMEs of Tripura.

H₁₋₇: There is a low level of awareness about the Performance evaluation system among the owner/ manager of MSMEs.

Table: 4.45 Test result shows perceived awareness of respondents for Performance Evaluation system

| Performance Evaluation system | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--------------------------------------|--|---|--|
| Operating income | H _{1-7a} | -8.47742 | ±1.96 |
| Return on investment | H _{1-7b} | -9.35819 | ±1.96 |
| Variance analysis | H _{1-7c} | -16.9548 | ±1.96 |
| Sales growth | H_{1-7d} | 0.110096 | ±1.96 |
| Operating income & Sales growth | H _{1-7e} | -3.85337 | ±1.96 |
| Cash flows | H _{1-7f} | -16.7346 | ±1.96 |
| Number of customer complaints | H _{1-7g} | -8.25723 | ±1.96 |
| Survey of customer satisfaction | H _{1-7h} | -17.9457 | ±1.96 |
| Number of warranty claims | H _{1-7i} | -18.0558 | ±1.96 |
| On-time delivery | H _{1-7j} | -17.175 | ±1.96 |
| Manufacturing lead time/cycle time | H _{1-7k} | -17.8356 | ±1.96 |
| Defect rate | H _{1-7l} | -9.90867 | ±1.96 |
| Employee turnover | H _{1-7m} | -17.6154 | ±1.96 |
| Absentees rates | H _{1-7n} | -17.9457 | ±1.96 |

Significant Hypothesis test results are in bold

As shown in the table-4.45, test results of all the above mentioned performance evaluation systems except sales growth, all the other components of performance evaluation system got a very high value with a negative quotient, which signifies location of Z value lies in the left hand side critical region of the normal curve. Hence from the result researcher can conclude that perceived awareness for sales growth as a performance evaluation tool is quite good among the responding MSMEs of Tripura as Z value lies in the right hand side of the normal curve. For the rest of the tools test result value exceeds tabulated value of Z (±1.96) at the 5% significance level as a result

researcher reject the null hypotheses ($H_0: P=.5$) and accept the alternative hypothesis ($H_1:\neq.5$) for remaining techniques. Here, also researcher can conclude that other than sales growth there are low level of awareness about the performance evaluation techniques among the responding MSMEs of Tripura.

H₁₋₈: There is a low level of awareness about the Information used for decision making among the owner/ manager of MSMEs.

Table: 4.46 Test result shows perceived awareness of respondents for decision making information.

| Information used for decision making | Hypothesis ($H_0: P=.5$, $H_1:\neq.5$) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--|---|---|--|
| Cost volume-profit analysis (break-even analysis) for major products. | H_{1-8a} | -17.6154 | ± 1.96 |
| Product profitability analysis | H_{1-8b} | -17.2851 | ± 1.96 |
| Customer profitability analysis | H_{1-8c} | -18.0558 | ± 1.96 |
| Stock control models | H_{1-8d} | -17.6154 | ± 1.96 |
| Evaluation of major capital investments based on discounted cash flow methods (NPV, IRR & PI) | H_{1-8e} | -18.0558 | ± 1.96 |
| Evaluation of major capital investments based on payback period and / or accounting rate of return. | H_{1-8f} | -18.0558 | ± 1.96 |
| Evaluation of major capital investments, non-financial aspects are documented and reported. | H_{1-8g} | -18.0558 | ± 1.96 |
| Evaluating the risk of major capital investment projects by using probability analysis or computer simulation. | H_{1-8h} | -18.0558 | ± 1.96 |
| Calculation and use of cost of capital in discounting cash flow | H_{1-8i} | -18.0558 | ± 1.96 |

From the results shown in the table-4.46, test results of all the above mentioned decision making information has got a very high value of Z with a negative quotient as earlier cases, which implies location of Z value lies in the left hand side critical region of the normal curve. As the test result value exceeds tabulated value of Z (± 1.96) at the 5% significance level researcher reject the null hypotheses ($H_0: P=.5$) and accept the alternative hypotheses ($H_1:\neq.5$) for all the items. Here also researcher can conclude that there are low level of awareness about the decision making tools and techniques available in present accounting system within the responding MSMEs of Tripura.

H₁₋₉: There is a low level of awareness about the Use of management accounting for strategic analysis among the owner/ manager of MSMEs.

Table: 4.47 Test result shows perceived awareness of respondents about these accounting tools for strategic analysis

| Use of Accounting for strategic analysis | Hypothesis ($H_0: P=.5$, $H_1:\neq.5$) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--|---|--|---|
| Long range forecasting | H _{1-9a} | -17.3952 | ± 1.96 |
| Target costing in the design of new products? | H _{1-9b} | -18.1659 | ± 1.96 |
| An analysis of the costs incurred in each of the activities in the firm's value chain? | H _{1-9c} | -17.9457 | ± 1.96 |
| Industry analysis | H _{1-9d} | -18.0558 | ± 1.96 |
| Analysis of competitive position | H _{1-9e} | -18.0558 | ± 1.96 |
| Product life cycle analysis | H _{1-9f} | -18.0558 | ± 1.96 |
| Strategic costing in determining the firm's strategy | H _{1-9g} | -18.0558 | ± 1.96 |
| Product Pricing decision | H _{1-9h} | -17.9457 | ± 1.96 |

From the results shown in the table-4.47, test results of all the above mentioned strategic decision making tools have got a very high value of Z with a negative quotient as in the earlier cases, implies location of Z value lies in the left hand side critical region of the

normal curve. As the test result of this, tested value exceeds tabulated value of Z (± 1.96) at the 5% significance level researcher reject the null hypotheses ($H_0: P=.5$) and accept the alternative hypotheses ($H_1:\neq.5$) for all the items. Finally for the perceived awareness level, researcher can conclude that there are low level of awareness about the strategic decision making tools and techniques available in present accounting system within the responding MSMEs of Tripura.

4.11.2 Result of Hypothesis number-2(H_2):

The second hypothesis is all about the usage of different financial and management accounting tools and techniques by the owner/manager of MSMEs in Tripura. Which has written as follows:

H_2 : There is a lack of synergy in the application of Financial and Management accounting tools and techniques among the MSMEs.

The following nine sub-hypotheses (H_2-1 to H_2-9) were developed to show in details about the usage of different financial and management accounting tools and techniques by the owners/managers of responding MSMEs of Tripura.

H_{2-1} : There is a lack of synergy in the application of financial accounting tools and techniques among the MSMEs.

H_{2-2} : There is a lack of synergy in the application of financial accounting tools and techniques used to monitor/track financial performance and profitability among the MSMEs.

H_{2-3} : There is a lack of synergy in the application of accounting ratios among the MSMEs.

H_{2-4} : There is a lack of synergy in the application of Cost collection techniques among the MSMEs.

H_{2-5} : There is a lack of synergy in the application of costing system among the MSMEs.

***H₂₋₆**: There is a lack of synergy in the application of budgeting system among the MSMEs.*

***H₂₋₇**: There is a lack of synergy in the application of Performance evaluation system among the MSMEs.*

***H₂₋₈**: There is a lack of synergy in the application of Information used for decision making among the MSMEs.*

***H₂₋₉**: There is a lack of synergy in the application of Use of management accounting for strategic analysis among the MSMEs.*

Now all the nine sub-hypothesis will be discussed in details with their result obtained from the proportion test. Which are as follows:

H₂₋₁: There is a lack of synergy in the application of financial accounting tools and techniques among the MSMEs.

Table: 4.48 Test results obtained for the usage of financial accounting tools and techniques.

| Financial Accounting Practices | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|---|--|---|--|
| Cash book | H _{2-1a} | -13.1015 | ±1.96 |
| Sales books | H _{2-1b} | -13.5419 | ±1.96 |
| Purchase books | H _{2-1c} | -14.4226 | ±1.96 |
| Expenses books | H _{2-1d} | -14.7529 | ±1.96 |
| Provision for depreciation | H _{2-1e} | -15.8539 | ±1.96 |
| Fixed asset register | H _{2-1f} | -15.4135 | ±1.96 |
| Stock book for materials | H _{2-1g} | -13.9822 | ±1.96 |
| Debtors book | H_{2-1h} | 0 | ±1.96 |
| Creditors book | H_{2-1i} | -0.66058 | ±1.96 |
| Profit & Loss Account | H _{2-1j} | -9.79858 | ±1.96 |
| Balance sheet | H _{2-1k} | -11.0096 | ±1.96 |
| Cash flow analysis | H _{2-1l} | -17.2851 | ±1.96 |
| Computer for recording business transaction | H _{2-1m} | -16.0741 | ±1.96 |

Significant Hypothesis test results are in bold

Result shows that (Table: 4.48), in the case of debtors book test result value came out as '0' which signifies p value is just equal to .5 and it can be interpreted as there are equal number of user and non-user for this technique. For creditors book Z value is negative but lies within the acceptable region. For the remaining tools and techniques in above table (4.48) has got a very high value of Z with a negative quotient, it has an implication that Z value lies in the left hand side critical region of the normal curve. For these tools and techniques test result value exceeds tabulated value of Z (±1.96) at the 5% significance level as a result of this researcher reject the null hypotheses

($H_0: P=.5$) and accept the alternative hypotheses ($H_1:\neq.5$) for all these techniques other than debtors and creditors. As a consequences of above, researcher can conclude that usage of above mentioned accounting tools and techniques are significantly less among responding MSMEs of Tripura.

H₂₋₂: There is a lack of synergy in the application of financial accounting tools and techniques used to monitor/track financial performance and profitability among the MSMEs.

Table: 4.49 Test results obtained for the usage of accounting tools for monitor/track financial performance and profitability

| Accounting tools used to monitor/track financial performance and profitability | Hypothesis ($H_0: P=.5$, $H_1:\neq.5$) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|---|---|---|--|
| Cash & bank balance | H _{2-2a} | -16.7346 | ±1.96 |
| Profit & Loss account | H _{2-2b} | -16.1842 | ±1.96 |
| Balance sheet | H _{2-2c} | -16.1842 | ±1.96 |
| Cash flow analysis | H _{2-2d} | -17.7255 | ±1.96 |
| Fund flow analysis | H _{2-2e} | -18.1659 | ±1.96 |
| Comparative financial statement analysis | H _{2-2f} | -18.0558 | ±1.96 |
| Trend analysis | H _{2-2g} | -17.9457 | ±1.96 |

As shown in the table-4.49, test results about the usage of above mentioned accounting tools to monitor/track financial performance and profitability has got a very high value of Z with a negative quotient, has an implication that Z value lies in the left hand side critical region of the normal curve. For all the tools and techniques test result value exceeds tabulated value of Z (±1.96) at the 5% significance level as a result researcher reject the null hypotheses ($H_0: P=.5$) and accept the alternative hypotheses ($H_1:\neq.5$) for all cases. As a consequences of this researcher can conclude that usage of above mentioned accounting tools and techniques are significantly less among responding MSMEs of Tripura.

H₂₋₃: There is a lack of synergy in the application of accounting ratios among the MSMEs.

Table: 4.50 Test results obtained for the usage of accounting ratios to understand/read the financial statement

| Uses of Accounting ratios to understand/read the financial statement | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|---|--|---|--|
| Gross profit ratio | H _{2-3a} | -17.7255 | ±1.96 |
| Operating profit ratio | H _{2-3b} | -17.5053 | ±1.96 |
| Net profit before and after tax | H _{2-3c} | -17.8356 | ±1.96 |
| Return on equity | H _{2-3d} | -18.0558 | ±1.96 |
| Return on capital employed | H _{2-3e} | -18.0558 | ±1.96 |
| Current ratio | H _{2-3f} | -18.0558 | ±1.96 |
| Acid test ratio | H _{2-3g} | -18.0558 | ±1.96 |
| Average collection period | H _{2-3h} | -18.0558 | ±1.96 |
| Average payment period | H _{2-3i} | -18.0558 | ±1.96 |
| Days stock held | H _{2-3j} | -18.0558 | ±1.96 |
| Circulation of working capital | H _{2-3k} | -18.0558 | ±1.96 |
| Gearing ratio | H _{2-3l} | -18.0558 | ±1.96 |
| Interest coverage ratio | H _{2-3m} | -18.0558 | ±1.96 |

As shown in the table-4.50, test results about the usage of above mentioned accounting ratios have got a very high value of Z with a negative quotient, it has also similar implications as mentioned for table 4.49. For all the ratios test result value of Z exceeds tabulated value of Z (±1.96) at the 5% significance level as a result researcher reject the null hypotheses (H₀: P=.5) and accept the alternative hypotheses (H₁:≠.5) for all ratios. Hence, researcher can conclude that usage of above mentioned ratios are significantly less among responding MSMEs of Tripura.

H₂₋₄: *There is a lack of synergy in the application of Cost collection techniques among the MSMEs.*

Table: 4.51 Test results obtained for the usage of Cost collection system

| Cost collection system | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|---|--|---|--|
| Job costing | H _{2-4a} | -18.0558 | ±1.96 |
| Batch costing | H _{2-4b} | -17.9457 | ±1.96 |
| Contract costing | H _{2-4c} | -18.0558 | ±1.96 |
| Process costing | H _{2-4d} | -17.8356 | ±1.96 |
| A separation is made between variable/ incremental costs and fixed/non-incremental costs | H _{2-4e} | -17.9457 | ±1.96 |
| Using plant- wide overhead rates | H _{2-4f} | -18.0558 | ±1.96 |
| Departmental or multiple plant wide overhead rates | H _{2-4g} | -18.0558 | ±1.96 |

As shown in the table-4.51, test results of the usage of above mentioned cost collection systems have got a very high value of Z with a negative quotient, it has also similar implications as mentioned for table 4.50. For all the cost collection systems test result value exceeds tabulated value of Z (±1.96) at the 5% significance level as a result researcher reject the null hypotheses (H₀: P=.5) and accept the alternative hypotheses (H₁:≠.5) for all the items of cost collection system. Hence, researcher can conclude that usage of above mentioned cost collection systems are significantly less among responding MSMEs of Tripura

H₂₋₅: There is a lack of synergy in the application of costing system among the MSMEs.

Table: 4.52 Test results obtained for the usage of Costing system

| Costing system | Hypothesis (H₀ : P=.5, H₁ :≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|------------------------------------|--|--|--|
| Absorption costing | H _{2-5a} | -17.8356 | ±1.96 |
| Variable costing | H _{2-5b} | -17.8356 | ±1.96 |
| Variable and absorption costing | H _{2-5c} | -17.8356 | ±1.96 |
| Target cost | H _{2-5d} | -18.1659 | ±1.96 |
| Activity- based costing(ABC) | H _{2-5e} | -18.1659 | ±1.96 |
| The cost of quality | H _{2-5f} | -18.1659 | ±1.96 |

As shown in the table-4.52, test results of the usage of above mentioned costing techniques has also got a very high value of Z with a negative quotient as similar to the cost collection systems, hence it has also similar implications as mentioned for table 4.51. For all the costing techniques test result value of Z exceeds tabulated value of Z (±1.96) at the 5% significance level as a result researcher reject the null hypotheses (**H₀**: P=.5) and accept the alternative hypotheses (**H₁**:≠.5) for all the items of costing system. Hence, researcher can conclude that usage of above mentioned costing systems are significantly less among responding MSMEs of Tripura

H₂₋₆: *There is a lack of synergy in the application of budgeting system among the MSMEs.*

Table: 4.53 Test results obtained for the usage of Budgeting Techniques

| Budgeting Techniques | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--|--|---|--|
| Sales budget | H _{2-6a} | -16.9548 | ±1.96 |
| Purchase budget | H _{2-6b} | -17.8356 | ±1.96 |
| Production budget | H _{2-6c} | -16.8447 | ±1.96 |
| Cash flow budget | H _{2-6d} | -18.0558 | ±1.96 |
| Monthly budget | H _{2-6e} | -18.0558 | ±1.96 |
| Annual budget | H _{2-6f} | -15.8539 | ±1.96 |
| Continuous /rolling budget | H _{2-6g} | -18.1659 | ±1.96 |
| Flexible budget | H _{2-6h} | -18.0558 | ±1.96 |
| Activity- based budgeting | H _{2-6i} | -18.1659 | ±1.96 |
| Incremental budgeting | H _{2-6j} | -18.1659 | ±1.96 |
| Zero-based budgeting | H _{2-6k} | -18.1659 | ±1.96 |
| Budgeting for planning | H _{2-6l} | -18.1659 | ±1.96 |
| Budgeting for controlling cost | H _{2-6m} | -18.1659 | ±1.96 |
| Budgeting for long term(strategic plans) plans | H _{2-6n} | -18.1659 | ±1.96 |

As shown in the table-4.53, test results of all the above mentioned budgeting systems also got a very high value of Z with a negative quotient, it implies that location of Z value lies in the left hand side critical region of the normal curve. As the test result value exceeds tabulated value of Z (±1.96) at the 5% significance level researcher reject the null hypotheses (H₀: P=.5) and accept the alternative hypotheses (H₁:≠.5) for all items of budgeting techniques. Here researcher can conclude that there are either no usage or very minimum usage of budgets as a business planning tool by the responding MSMEs of Tripura

H₂₋₇: There is a lack of synergy in the application of Performance evaluation system among the MSMEs.

Table: 4.54 Test results obtained for the usage of Performance Evaluation system

| Performance Evaluation system | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--------------------------------------|--|---|--|
| Operating income | H _{2-7a} | -17.175 | ±1.96 |
| Return on investment | H _{2-7b} | -17.2851 | ±1.96 |
| Variance analysis | H _{2-7c} | -18.0558 | ±1.96 |
| Sales growth | H _{2-7d} | -17.175 | ±1.96 |
| Operating income & Sales growth | H _{2-7e} | -17.5053 | ±1.96 |
| Cash flows | H _{2-7f} | -18.1659 | ±1.96 |
| Number of customer complaints | H _{2-7g} | -16.1842 | ±1.96 |
| Survey of customer satisfaction | H _{2-7h} | -18.0558 | ±1.96 |
| Number of warranty claims | H _{2-7i} | -18.0558 | ±1.96 |
| On-time delivery | H _{2-7j} | -17.8356 | ±1.96 |
| Manufacturing lead time/cycle time | H _{2-7k} | -18.0558 | ±1.96 |
| Defect rate | H _{2-7l} | -16.6246 | ±1.96 |
| Employee turnover | H _{2-7m} | -18.0558 | ±1.96 |
| Absentees rates | H _{2-7n} | -18.1659 | ±1.96 |

As shown in the table-4.54, test results of all the above mentioned performance evaluation systems has also got a very high value of Z with a negative quotient, implies that location of Z value lies in the left hand side critical region of the normal curve. As the test result value of Z exceeds tabulated value of Z (±1.96) at the 5% significance level researcher can now reject the null hypotheses (H₀: P=.5) and accept the alternative hypotheses (H₁:≠.5) for all the cases. Here researcher can also conclude that there are either no usage or very minimum usage of the performance evaluation techniques by the responding MSMEs of Tripura.

H₂₋₈: There is a lack of synergy in the application of Information used for decision making among the MSMEs.

Table: 4.55 Test results obtained for the usage of Information for decision making

| Information used for decision making | Hypothesis (H₀: P=.5, H₁:≠.5) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--|--|---|--|
| Cost volume-profit analysis (break-even analysis) for major products. | H _{2-8a} | -18.0558 | ±1.96 |
| Product profitability analysis | H _{2-8b} | -18.0558 | ±1.96 |
| Customer profitability analysis | H _{2-8c} | -18.1659 | ±1.96 |
| Stock control models | H _{2-8d} | -17.9457 | ±1.96 |
| Evaluation of major capital investments based on discounted cash flow methods (NPV, IRR & PI) | H _{2-8e} | -18.1659 | ±1.96 |
| Evaluation of major capital investments based on payback period and / or accounting rate of return. | H _{2-8f} | -18.1659 | ±1.96 |
| Evaluation of major capital investments, non-financial aspects are documented and reported. | H _{2-8g} | -18.1659 | ±1.96 |
| Evaluating the risk of major capital investment projects by using probability analysis or computer simulation. | H _{2-8h} | -18.1659 | ±1.96 |
| Calculation and use of cost of capital in discounting cash flow | H _{2-8i} | -18.1659 | ±1.96 |

From the results shown in the table-4.55, test results of all the above mentioned decision making information has got a very high value of Z with a negative quotient. As per previous cases it has an implication that, the location of Z value lies in the left hand

side critical region of the normal curve. As the test result value of Z exceeds the tabulated value of Z (± 1.96) at the 5% significance level researcher reject the null hypotheses ($H_0: P=.5$) and accept the alternative hypotheses ($H_1:\neq.5$) for all the items covered under this head. Here, also researcher can conclude that there are either no usage or very minimum usage of decision making information by the responding MSMEs of Tripura.

H₂₋₉: There is a lack of synergy in the application of Use of management accounting for strategic analysis among the MSMEs.

Table: 4.56 Test results obtained for the usage of accounting for strategic analysis

| Accounting for strategic analysis | Hypothesis ($H_0: P=.5$, $H_1:\neq.5$) | Test result of proportion (Value of Z) | Significant value at 95% confidence level (Both Tail) |
|--|---|---|--|
| Long range forecasting | H _{2-9a} | -18.1659 | ± 1.96 |
| Target costing in the design of new products? | H _{2-9b} | -18.1659 | ± 1.96 |
| An analysis of the costs incurred in each of the activities in the firm's value chain? | H _{2-9c} | -18.1659 | ± 1.96 |
| Industry analysis | H _{2-9d} | -18.1659 | ± 1.96 |
| Analysis of competitive position | H _{2-9e} | -18.0558 | ± 1.96 |
| Product life cycle analysis | H _{2-9f} | -18.0558 | ± 1.96 |
| Strategic costing in determining the firm's strategy | H _{2-9g} | -18.0558 | ± 1.96 |
| Product Pricing decision | H _{2-9h} | -17.9457 | ± 1.96 |

From the results shown in the table-4.56, test results of all the above mentioned strategic decision making tools have got a very high value of Z with a negative quotient as earlier cases, it implies that location of Z value lies in the left hand side critical region of the normal curve. As the test result value exceeds tabulated value of Z (± 1.96) at the 5% significance level researcher reject the null hypotheses ($H_0: P=.5$) and accept the

alternative hypotheses ($H_1 \neq .5$) for all items of strategic decision making tools. Finally for the usage of above mentioned tools and techniques, researcher can conclude that there are either no usage or very minimum usage of strategic decision making tools and techniques by the responding MSMEs of Tripura.

4.11.3 Conclusion: Hypotheses test result shows that except few techniques overall perceived awareness about the financial and management accounting tools and techniques are very poor among the responding MSMEs of Tripura. Cash book, sales book, debtors book, creditors book, profit and loss account, balance sheet, Cash & bank balance, and sales growth (performance measure technique) are the techniques where perceived awareness level among the responding MSMEs of Tripura are quite satisfactory.

From the second hypothesis it is found that respondent usage rate is quite good for creditors book only whereas for the debtors 50% of the respondent using this technique. For the remaining tools and techniques of financial and management accounting practices, there are very minimum number of user among the responding MSMEs of Tripura. For certain techniques there are no user at all among the responding MSMEs of Tripura.