Chapter-V

Impact of financial and management accounting practices on the survival and growth of MSMEs in Tripura - Data analysis and interpretation.

5.1 Introduction:

This chapter seeks to identify, statistically significant associations between the use of financial and management accounting practices and perceptions of the performance of the firm. For doing so, the nature of data employed to determine the relationship between the use of financial and management accounting practices and perceptions of the performance should be examined in order to determine the type of test relevant for this analysis. Table 5.1 below summarizes the details.

Table 5.1: **A summary of the type of data of independent and dependent variables consider under the third objective and third hypothesis as well**.

Independent variable	Scale used	Type of data
Financial accounting techniques (13 techniques)	Five point Likert Scale	Ordinal
Financial accounting tools for tracking performance (7techniques)	Five point Likert Scale	Ordinal
Cost collection method (7techniques)	Five point Likert Scale	Ordinal
Costing (6 techniques)	Five point Likert Scale	Ordinal
Budgeting (14 techniques)	Five point Likert Scale	Ordinal
Decision making information (9 techniques)	Five point Likert Scale	Ordinal
Strategic analysis techniques (8 techniques)	Five point Likert Scale	Ordinal
Dependent variables	**Scale used**	**Type of data**
Level of productivity	Five point Likert Scale	Ordinal
Product quality	Five point Likert Scale	Ordinal
Sales growth rate	Five point Likert Scale	Ordinal
Operating profit growth rate	Five point Likert Scale	Ordinal
Cash flow growth rate	Five point Likert Scale	Ordinal

As mentioned earlier in chapter-IV (4.3.4 and 4.3.5) usage of financial and management accounting tools and techniques has been judged by using a five point Likert scale (S1 indicating never and S5 indicating very often). Here five indicators are employed to measure perceptions of the firm performance. These indicators are measured using a five-point Likert scale (1 is 'decreased significantly' to 5 'increased significantly'). Any association between these nine sets of financial and management account practices with the above mentioned (table-5.1) five parameters of perceptions of firm's performance will be judged in the following sections.

5.2 Bivariate association analysis:

Correlation is an associative technique that determines if there is a consistent and systematic relationship between two or more variables (Hair et al., 2007). The existence of a correlation or association is a necessary precondition toward demonstration of the existence of a relationship between variables (Kent, 2001). Bivariate analysis provides a single figure for the strength of the relationship between variables. The value of correlation is measured within a range of -1 to +1. A correlation coefficient value of +1 represents a perfect positive correlation. This means that the two variables are perfectly related so that as values of one variable increases, values of the other variable will also increase by the same degree. In contrast, a value of -1 represents a perfect negative correlation which means that as the value of one variable increases those of the other decreases to a similar degree. A value of 0 means there is no relationship among the variables and they are perfectly independent (Saunders et. al, 2009). As regards intermediate values, Miles and Shevlin (2005), reference Cohen (1988) who defined a small correlation as having an absolute value of approximately 0.1, a medium correlation starting at 0.3 and a large correlation as 0.5 or greater.

5.2.1 Tests for an association between the use of management accounting practices and selected contingent factors

In this section, the tests for an association analysis seek to answer the third research objective of this study; to determine the associations between the usage of financial and management accounting practices and perceptions of the performance of the firm. The third objective is translated into a general hypothesis which is "*There is no impact of uses of accounting tools and techniques on the growth and survival of MSMEs of Tripura*".

For the purpose of the analysis and hypothesis testing, there are two general classes of significance tests: parametric and nonparametric tests. Parametric tests are more powerful because the data are derived from interval and ratio measurements (Cooper and Emory, 1994). Such tests are normally applicable only if four basic assumptions are met. Field (2000) lists these as (i) the variable is measured on a ratio or interval scale (ii) data are from a population with a normal distribution (iii) there is homogeneity of variance and (iv) data values in the variable are independent. If data is measured in categorical form (nominal or ordinal), or do not otherwise meet the other assumptions for parametric testing, nonparametric tests are used to test hypotheses (Cooper and Emory, 1994). Therefore in order to determine whether the appropriate test falls under parametric testing or not the nature of data should be examined.

The two most widely used non-parametric correlation analysis tests in business and management research are Spearman's rank correlation coefficient (Spearman's Rho) and Kendall's rank correlation coefficient (Kendall's tau). The tests can be used in a wide variety of contexts since they make few assumptions relating to the distribution of the variables and the nature of the relationship between variables (Bryman and Cramer, 2008).With regards to which of these non-parametric correlation measures should be reported, Bryman and Cramer (2008) argue that Spearman's rho is more commonly used. On the other hand, tau deals with tied ranks (i.e. two or more respondents are at the same rank) better than rho. More or less in all conditions the values of Spearman's rank correlation and Kendall's tau are very close and would invariably lead to the same conclusions (Crichton, 2001). Drawing on this discussion, since there is existence of tied ranks in data of this study, Kendall's tau is chosen to be the statistical method for hypothesis testing. Besides that this method has been commonly used in previous studies (see for example Scapens and Sale, 1985; Fry et al., 1998; Abdel-Maksoud et al., 2005; and Hutaibat, 2005). In term of the value of a measure of association, Botsch (2011) provides a guideline specifically for Kendall's tau is as following table 5.2

Table 5.2: Kendall's tau correlation coefficient test results and their interpretation

Correlation coefficient	Strength of Association
Less than ± .10	Very small/Week
Less than ± .11 to .19	Small/Week
Less than ± .20 to .29	Moderate
Less than ± .30 or larger	Strong

Given that within business research it is extremely unusual to obtain perfect correlation (Saunders et. al., 2009), this guidance will be used in this study to describe the strength of relationship found between pairs of variables. It is essential to establish the acceptable level of statistical significance in order to support or reject the hypothesis. Hair et al. (2007) state that the normal acceptable level of statistical significance for the test is $p < 0.05$ (p means probability).This means that this research would be accepting the possibility that as many as 5 in 100 samples might show a relationship where none exists in the population. Hair et al. (2007) also argued that some researchers will accept a lower probability level of $p < 0.10$ but $p < 0.05$ is more common and will be used when assessing the results in this study. The following nine subsections discuss the results of association between the use of financial and management accounting practices and perceptions of the performance of the firm. The following nine subsections (after Kendall's Tau correlation coefficient analysis) discuss the results of hypothesis using Kendall's tau correlation coefficient in detail using the same table.

5.3 Findings on research objective number -3:

Relationship between the frequency of use of financial accounting tools and techniques and the perceptions of firm performance.

The results of Kendall's tau correlation coefficient analysis between the frequency of use of financial accounting tools and techniques and perceptions of performance are presented in Table 5.3.

Table: 5.3- Kendall's tau correlation coefficient test results for a relationship between the frequency of use of financial accounting tools and techniques and the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Cash book	**.163**	**.184**	**.300**	**.316**	**.194**
	.001	.000	.000	.000	.000
Sales books	**.210**	**.254**	**.308**	**.301**	**.212**
	.000	.000	.000	.000	.000
Purchase books	**.258**	**.243**	**.210**	**.216**	**.215**
	.000	.000	.000	.000	.000
Expenses books	**.282**	**.226**	**.233**	**.229**	**.244**
	.000	.000	.000	.000	.000
Provision for depreciation	**.121**	**.139**	**.202**	**.220**	**.160**
	.078	.034	.000	.000	.009
Fixed asset register	**.132**	**.142**	**.194**	**.202**	**.148**
	.055	.029	.000	.000	.014
Stock book for materials	**.216**	**.270**	**.299**	**.319**	**.248**
	.001	.000	.000	.000	.000
Debtors book	**.130**	**.218**	**.178**	**.196**	**.138**
	.022	.000	.000	.000	.004
Creditors book	**.144**	**.218**	**.153**	**.202**	**.121**
	.007	.000	.003	.000	.012
Profit & Loss Account	**.119**	**.128**	**.198**	**.216**	**.096**
	.023	.004	.000	.000	.047
Balance sheet	**.115**	**.142**	**.222**	**.225**	**.072**
	.025	.003	.000	.000	.154
Cash flow analysis	**.219**	**.077**	**.164**	**.179**	**.123**
	.025	.266	.002	.000	.073
Computer for recording business transactions	**.200**	**.194**	**.238**	**.259**	**.184**
	.015	.010	.000	.000	.006

Kendall's Tau correlation coefficient value in bold. ***(Data analysed using SPSS, version-20)***

From the results shown in table 5.3 it has been observed that there are strong positive correlation between cash book and sales book with sales growth rate and operating profit growth rate, as the correlation coefficient value for these cases are more than .29. There are moderate positive correlation of purchase book and expenses book with every five variables consider for perceptions of firm performance as the correlation coefficient lies within .20 to .29 for every cases. Sales has a moderate correlation with level of productivity, product quality and cash flow growth rate. Results showing moderate positive correlation between provisions for depreciation and sales growth rate and also with operating profit growth rate. Fixed asset register has the positive moderate correlation with operating profit growth rate. Stock book for materials has the moderate positive correlation with all the variables consider for perceptions of firm performance except operating profit growth rate, which has strong correlation with stock book for materials. Debtors' book has the moderate correlation with Product quality. Creditors' book has the positive moderate correlation with product quality and operating profit growth rate. There are moderate positive correlation between Profit & Loss Account and operating profit growth rate. Balance sheet has the moderate positive correlations with sales growth rate and operating profit growth rate. Cash flow analysis has moderate correlation only with level of productivity. Finally, computer for recording business transactions has the moderate positive correlation with level of productivity, sales growth rate and operating profit growth rate. For the remaining financial accounting tools and techniques either there are week or very week correlation within the remaining variables, as in every cases coefficient value lies within .11 to .19 or less than .10.

Relationship between the frequency of use of Financial accounting tools and techniques for tracking business performance and the perceptions of firm performance.

The results of Kendall's tau correlation coefficient analysis between the frequency of use of financial accounting tools and techniques for tracking business performance and perceptions of performance are presented in Table 5.4.

Table: 5.4- Kendall's tau correlation coefficient test results for a relationship between the frequency of use of Financial Accounting tools and techniques for tracking business performance and the Perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Cash &bank balance	**.204**	**.282**	**.302**	**.300**	**.232**
	.000	.000	.000	.000	.000
Profit & Loss account	**.143**	**.187**	**.298**	**.309**	**.198**
	.005	.000	.000	.000	.000
Balance sheet	**.102**	**.148**	**.242**	**.264**	**.092**
	.084	.010	.000	.000	.091
Cash flow analysis	**.227**	**.117**	**.179**	**.192**	**.084**
	.032	.135	.000	.000	.205
Fund flow analysis	**.114**	**-.031**	**.072**	**.076**	**-.042**
	.365	.162	.155	.155	.158
Comparative financial statement analysis	**.136**	**.024**	**.114**	**.121**	**.054**
	.222	.710	.023	.023	.434
Trend analysis	**.229**	**.112**	**.107**	**.116**	**.107**
	.064	.196	.038	.031	.157

Kendall's Tau correlation coefficient value in bold. (Data analysed using SPSS, version-20)

From the results of table 5.4 it is observed that there are strong positive correlation between Cash &bank balance and Profit & Loss account as a financial performance tracker with sales growth rate and operating profit growth rate, as the correlation coefficient value for these cases are more than $\pm.29$. There are moderate positive correlation of cash &bank balance with level of productivity, product quality and Cash flow growth rate as the correlation coefficient value lies within $\pm.20$ to $\pm.29$ for all the three cases. Balance sheet has a moderate correlation with sales growth rate and operating profit growth rate. Results showing a moderate and positive correlation between cash flow analysis and level of productivity. Finally, trend analysis has the moderate positive correlation with level of productivity. For the remaining accounting tools for tracking business performance either there are week or very week correlation with the variables consider for perceptions of firm performance, as in every cases correlation coefficient value lies within $\pm.11$ to $\pm.19$ or less than $\pm.10$ again.

Relationship between the frequency of use of accounting ratios and the perceptions of firm performance.

The results of Kendall's tau correlation coefficient analysis between the frequency of use of accounting ratios and perceptions of performance are presented in Table 5.5.

Table: 5.5- Kendall's tau correlation coefficient test results for a relationship between frequency of use of accounting ratios and the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Gross profit ratio	**.317**	**.300**	**.263**	**.246**	**.350**
	.001	.000	.000	.000	.000
Operating profit ratio	**.357**	**.337**	**.296**	**.305**	**.405**
	.000	.000	.000	.000	.000
Net profit before and after tax	**.242**	**.245**	**.201**	**.214**	**.243**
	.020	.009	.000	.000	.003
Return on equity	**-.038**	**-.049**	**.065**	**.072**	**.113**
	.034	.029	.212	.178	.164
Return on capital employed	**.003**	**.076**	**.137**	**.148**	**.105**
	.962	.308	.007	.005	.146
Current ratio	**.153**	**.133**	**.215**	**.179**	**.152**
	.088	.093	.000	.002	.037
Acid test ratio	**.070**	**.086**	**.128**	**.138**	**.119**
	.379	.269	.012	.010	.112
Average collection period	**.189**	**.214**	**.187**	**.184**	**.233**
	.067	.024	.001	.000	.005
Average payment period	**.224**	**.204**	**.164**	**.158**	**.246**
	.046	.033	.004	.003	.005
Days stock held	**.029**	**.004**	**.094**	**.103**	**.124**
	.676	.942	.068	.055	.119
Circulation of working capital	**.103**	**.066**	**.094**	**.103**	**.174**
	.279	.390	.068	.055	.046
Gearing ratio	**-.024**	**-.031**	**-.005**	**.000**	**.053**
	.166	.162	.928	1.00	.488
Interest coverage ratio	**.083**	**.056**	**.025**	**.031**	**.103**
	.420	.496	.634	.563	.229

Kendall's Tau correlation coefficient value in bold. *(Data analysed using SPSS, version-20)*

From the results of table-5.5 it is observed that there are strong positive correlation between operating profit ratio with all the five parameters consider for this test namely with level of productivity, product quality, sales growth rate, operating profit growth rate and cash flow growth rate, as the correlation coefficient value for all these alternatives are more than ±.29. Gross profit ratio shows strong positive correlation with level of productivity, product quality and cash flow growth rate, as the correlation coefficient value for all these alternatives are more than ±.29. There are moderate positive correlation of net profit before and after tax with all the parameters consider for perceptions of firm performance, as the correlation coefficient value lies within ±.20 to ±.29 for all the alternatives. Average payment period has a moderate and positive correlation with level of productivity, product quality and cash flow growth rate. Results showing a moderate and positive correlation of gross profit ratio with sales growth rate and operating profit growth rate as the correlation coefficient value lies within ±.20 to ±.29 for both the alternatives. Similarly, average collection period has a moderate and positive correlation with product quality and cash flow growth rate as the correlation coefficient value lies within ±.20 to ±.29 for both the alternatives. Finally, current ratio has the moderate positive correlation with sales growth rate. For the remaining ratios either there are week or very week correlation with the variables consider for perceptions of firm performance, as in every cases correlation coefficient value lies within ±.11 to ±.19 or less than ±.10 again.

Relationship between the frequency of use of Cost collection techniques and the perceptions of firm performance.

The results of Kendall's tau correlation coefficient analysis between the frequency of use of Cost collection techniques and perceptions of performance are presented in Table 5.6.

Table: 5.6- Kendall's tau correlation coefficient test results for a relationship between the frequency of use of Cost collection techniques and the Perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Job costing	**-.024**	**-.031**	**.072**	**.076**	**.146**
	.166	.162	.155	.155	.154
Batch costing	**.251**	**.189**	**.136**	**.144**	**.225**
	.058	.073	.007	.007	.017
Contract costing	**.178**	**.141**	**.051**	**.054**	**.103**
	.315	.315	.316	.316	.315
Process costing	**-.030**	**.056**	**.025**	**.031**	**.026**
	.094	.496	.642	.570	.689
A separation is made between variable/ incremental costs and fixed/non-incremental costs	**.028**	**.065**	**.094**	**.102**	**.074**
	.680	.392	.071	.057	.298
Using plant- wide overhead rates	**-.030**	**-.038**	**.025**	**.031**	**.103**
	.094	.088	.634	.563	.229
Departmental or multiple plant wide overhead rates	**-.024**	**-.031**	**-.005**	**.000**	**.053**
	.166	.162	.928	1.00	.488

Kendall's Tau correlation coefficient value in bold. (Data analysed using SPSS, version-20)

As shown in table-5.6 only batch costing has the moderate positive correlation with level of productivity and cash flow growth rate as their coefficient lies within ±.20 to ±.29. For the remaining cases either there are week or very week correlation among the remaining variables, as in every cases coefficient value lies within ±.11 to ±.19 or less than ±.10.

Relationship between the frequency of use of Costing techniques and the perceptions of firm performance.

The results of Kendall's tau correlation coefficient analysis between the frequency of use of Costing techniques and perceptions of performance are presented in Table 5.7.

Table: 5.7- Kendall's tau correlation coefficient test results for a relationship between the frequency of use of Costing techniques and the perceptions of firm Performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Absorption costing	**.093**	**.137**	**.135**	**.147**	**.142**
	.255	.101	.009	.006	.057
Variable costing	**-.034**	**-.043**	**.048**	**.055**	**.075**
	.055	.050	.363	.311	.324
Variable and absorption costing	**.083**	**.056**	**.088**	**.094**	**.103**
	.420	.495	.081	.080	.230
Target cost	a	a	a	a	a
	a	a	a	a	a
Activity- based costing(ABC)	a	a	a	a	a
	a	a	a	a	a
The cost of quality	**-043**	a	a	a	a
	.050	a	a	a	a

Kendall's Tau correlation coefficient value in bold. (Data analysed using SPSS, version-20)

 a*: No statistics are computed because Target cost, Activity- based costing and the cost of quality (except level of productivity) are constant.*

Here also (in table-5.7) not even a single item under costing techniques got a strong or moderate correlation with any variables consider for perceptions of firm performance. All the items under costing techniques either there are week or very week correlation among the variables, as in every cases Kendall's tau correlation coefficient value lies within ±.11 to ±.19 or less than ±.10.

Relationship between the frequency of use of Budgeting techniques and the perceptions of firm performance.

The results of Kendall's tau correlation coefficient analysis between the frequency of use of Budgeting techniques and perceptions of performance are presented in Table 5.8.

Table: 5.8- Kendall's tau correlation coefficient test results for a relationship between the frequency of use of Budgeting techniques and the Perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Sales budget	**.251** .001	**.241** .001	**.265** .000	**.251** .000	**.178** .004
Purchase budget	**.270** .002	**.197** .007	**.161** .002	**.136** .018	**.123** .049
Production budget	**.280** .000	**.281** .000	**.248** .000	**.257** .000	**.260** .000
Cash flow budget	**.094** .542	**.024** .721	**.065** .215	**.072** .180	**.053** .440
Monthly budget	**.079** .345	**.044** .522	**.062** .306	**.071** .251	**.089** .212
Annual budget	**.252** .001	**.262** .000	**.291** .000	**.281** .000	**.227** .000
Continuous /rolling budget	a a	a a	a a	a a	a a
Flexible budget	**-.017** .323	**-.022** .320	**.051** .316	**.054** .316	**.103** .315
Activity- based budgeting	a a	a a	a a	a a	a a
Incremental budgeting	a a	a a	a a	a a	a a
Zero-based budgeting	a a	a a	a a	a a	a a
Budgeting for planning	**-.017** .323	**-.022** .320	**.051** .316	**.054** .316	**.103** .315
Budgeting for controlling cost	**-.017** .323	**-.022** .320	**.051** .316	**.054** .316	**.103** .315
Budgeting for long term	a a	a a	a a	a a	a a

Kendall's Tau correlation coefficient value in bold.   (Data analysed using SPSS, version-20)

a: *No statistics are computed because Rolling Budget, Activity- based budgeting, Incremental budgeting, Zero-based budgeting and Budgeting for long term plans are constant.*

As shown in table-5.8 there is only one positive strong correlation, which is between the annual budget and sales growth rate as the correlation coefficient value between these variables is .291. Production budget moderately correlated with all the variables consider for perceptions of firm performance as the coefficient result for all the five alternatives lies within ±.20 to ±.29. Moderate correlation coefficient has been observed for sales budget with level of productivity, product quality, sales growth rate and operating profit growth rate as their correlation coefficient result lies within ±.20 to ±.29. Annual budget also moderately correlated with level of productivity, product quality, operating profit growth rate and cash flow growth rate as their correlation coefficient result lies within ±.20 to ±.29. Similarly, purchase budget moderately correlated with level of productivity. For the remaining variables either there are week or very week correlation among the variables as in every cases correlation coefficient value lies within ±.11 to ±.19 or less than ±.10.

Relationship between the frequency of use of Performance Evaluation System and the perceptions of firm performance.

Table: 5.9- Kendall's tau correlation coefficient test results for a relationship between the frequency of use of Performance Evaluation System and the Perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
FINANCIAL MEASURES					
Operating income	**.281**	**.294**	**.249**	**.232**	**.086**
	.000	.000	.000	.000	.137
Return on investment	**.262**	**.259**	**.229**	**.203**	**.118**
	.001	.000	.000	.000	.050
Variance analysis	**.071**	**.035**	**.128**	**.138**	**.077**
	.379	.590	.012	.009	.264
Sales growth	**.160**	**.273**	**.284**	**.300**	**.202**
	.005	.000	.000	.000	.000
Operating income & Sales growth	**.005**	**.174**	**.238**	**.247**	**.056**
	.929	.003	.000	.000	.299
Cash flows	**-.046**	**.004**	**.094**	**.102**	**.073**
	.014	.949	.070	.057	.300
NON-FINANCIAL MEASURES					
Number of customer complaints	**.047**	**.126**	**.083**	**.120**	**.135**
	.411	.041	.114	.023	.021
Survey of customer satisfaction	**-.030**	**-.038**	**.025**	**.031**	**-.051**
	.094	.088	.642	.570	.084
Number of warranty claims	**.114**	**.085**	**.072**	**.076**	**.053**
	.365	.399	.155	.155	.488
On-time delivery	**.210**	**.153**	**.043**	**.053**	**.044**
	.072	.102	.416	.320	.485
Manufacturing lead time/cycle time	**.178**	**.141**	**.051**	**.054**	**.103**
	.315	.315	.316	.316	.315
Defect rate	**.134**	**.196**	**.148**	**.141**	**.353**
	.042	.004	.006	.007	.000
Employee turnover	**.162**	**.120**	**-.007**	**.000**	**.075**
	.197	.230	.898	1.00	.324
Absentees rates	**.178**	**.141**	**.051**	**.054**	**.103**
	.315	.315	.316	.316	.315

Kendall's Tau correlation coefficient value in bold. (Data analysed using SPSS, version-20)

From the table-5.9 it has been observed that among the financial performance measures operating income and sales growth has strong correlation with product quality and operating profit growth rate respectively. Among the non-financial performance measures only defect rate has its strong correlation with cash flow growth rate. Return on investment is moderately correlated with level of productivity, product quality, sales growth rate and operating profit growth rate as their coefficient value are lies within $\pm.20$ to $\pm.29$. Among other financial measures, operating income is moderately correlated with level of productivity, sales growth rate and operating profit growth rate as the coefficient value for all the three cases are lies within $\pm.20$ to $\pm.29$. Sales growth rate is moderately correlated with product quality, sales growth rate and cash flow growth rate. Operating income and sales growth is moderately correlated with sales growth rate and operating profit growth rate as the coefficient values lies within $\pm.20$ to $\pm.29$ for these cases. Among the non-financial measures only on-time delivery is moderately correlated with level of productivity. For the remaining financial and non-financial measures either there are week or very week correlation among the variables as in every cases correlation coefficient value lies within $\pm.11$ to $\pm.19$ or less than $\pm.10$.

Relationship between the frequency of use of Decision making Information and the perceptions of firm performance.

Table: 5.10- Kendall's tau correlation coefficient test results for a relationship between the frequency of use of Decision making Information and the Perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Cost volume-profit analysis (break-even analysis) for major products.	**.049** .542	**.024** .712	**.065** .215	**.072** .180	**.113** .116
Product profitability analysis	**.136** .223	**.097** .279	**.016** .764	**.024** .659	**.113** .165
Customer profitability analysis	**.178** .315	**.141** .315	**.051** .316	**.054** .316	**.103** .315
Stock control models	**.161** .197	**.037** .602	**.047** .373	**.053** .320	**.073** .328
Evaluation of major capital investments based on discounted cash flow methods (NPV, IRR & PI)	**-.024** .166	**-.031** .162	**-.005** .924	**.000** .997	**.052** .489
Evaluation of major capital investments based on payback period and / or accounting rate of return.	**-.017** .323	**-.022** .320	**.051** .316	**.054** .316	**.103** .315
Evaluation of major capital investments, non-financial aspects are documented and reported.	**-.017** .323	**-.022** .320	**.051** .316	**.054** .316	**.103** .315
Evaluating the risk of major capital investment projects by using probability analysis or computer simulation.	**-.017** .323	**-.022** .320	**.051** .316	**.054** .316	**.103** .315
Calculation and use of cost of capital in discounting cash flow	**-.017** .323	**-.022** .320	**.051** .316	**.054** .316	**.103** .315

Kendall's Tau correlation coefficient value in bold. (Data analysed using SPSS, version-20)

Table-5.10 shows that none of the technique (or techniques), used for business decision making are strongly or moderately correlated with any variables consider for measuring perceptions of firm performance. In every cases of this table correlation coefficient value lies within ±.11 to ±.19 or less than ±.10 as a result of this researcher can conclude a week or very week association among the variables of information used for decision making and perceptions of firm performance.

Relationship between the frequency of use of Accounting Information for Strategic analysis and the perceptions of firm performance.

Table: 5.11- Kendall's tau correlation coefficient test results for a relationship between the frequency of use of Accounting Information for Strategic analysis and the Perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Long range forecasting	**.083**	**.056**	**.088**	**.094**	**.103**
	.420	.495	.081	.080	.230
Target costing in the design of new products?	a	a	a	a	a
	a	a	a	a	a
An analysis of the costs incurred in each of the activities in the firm's value chain?	a	a	a	a	a
	a	a	a	a	a
Industry analysis	a	a	a	a	a
	a	a	a	a	a
Analysis of competitive position	**-.017**	**-.022**	**.051**	**.054**	**.103**
	.323	.320	.316	.316	.315
Product life cycle analysis	**-.017**	**-.022**	**-.058**	**-.054**	**-.029**
	.323	.320	.316	.316	.318
Strategic costing in determining the firm's strategy	**-.017**	**-.022**	**-.058**	**-.054**	**-.029**
	.323	.320	.316	.316	.318
Product Pricing decision	**-.024**	**-.031**	**-.005**	**.000**	**.052**
	.166	.162	.924	.997	.489

Kendall's Tau correlation coefficient value in bold. (Data analysed using SPSS, version-20)

a: *No statistics are computed because target costing in the design of new products, an analysis of the costs incurred in each of the activities in the firm's value chain and industry analysis are constant.*

Table-5.11 also shows that none of the technique (or techniques), used for strategic business analysis are strongly or moderately correlated with any variables consider for measuring perceptions of firm performance. In every cases of this table correlation coefficient value lies within ±.11 to ±.19 or less than ±.10 as a result of this here also researcher can conclude a week or very week association among the variables of strategic business analysis and perceptions of firm performance.

5.4 Result of Hypothesis number-3 (H_3):

Third hypothesis is all about the impact of uses of accounting tools and techniques on the growth and survival of MSMEs of Tripura. Which has formed as follows:

H_3: *"There is no impact of uses of accounting tools and techniques on the growth and survival of MSMEs of Tripura."*

The following nine sub-hypotheses (**H_{3-1}** to **H_{3-9}**) were developed to show in details the impact of usage (or non-usage) of different financial and management accounting tools on the growth and survival of MSMEs of Tripura from the perceptions of firm performance. Which has formed as follows:

H_{3-1}: *There is no impact of uses of financial accounting tools and techniques on the growth and survival of MSMEs of Tripura.*

H_{3-2}: *There is no impact of uses of financial accounting tools and techniques used to monitor/track financial performance and profitability on the growth and survival of MSMEs of Tripura.*

H_{3-3}: *There is no impact of uses of accounting ratios on the growth and survival of MSMEs of Tripura.*

H_{3-4}: *There is no impact of uses of Cost collection techniques on the growth and survival of MSMEs of Tripura.*

H_{3-5}: *There is no impact of uses of costing system on the growth and survival of MSMEs of Tripura.*

H₃₋₆: *There is no impact of uses of budgeting techniques on the growth and survival of MSMEs of Tripura.*

H₃₋₇: *There is no impact of uses of Performance Evaluation System on the growth and survival of MSMEs of Tripura.*

H₃₋₈: *There is no impact of uses of decision making information techniques on the growth and survival of MSMEs of Tripura.*

H₃₋₉: *There is no impact of uses of strategic analysis tools and techniques on the growth and survival of MSMEs of Tripura.*

It is essential to establish the acceptable level of statistical significance in order to support or reject the hypothesis. Hair et al. (2007) state that the normal acceptable level of statistical significance for the test is $p < 0.05$ (p means probability).This means that this research would be accepting the possibility that as many as 5 in 100 samples might show a relationship where none exists in the population. Hair et al. (2007) also argued that some researchers will accept a lower probability level of $p < 0.10$ but $p < 0.05$ is more common and will be used when assessing the results in this study. Now all the sub-hypothesis will be discussed one by one in the following sections:

H₃₋₁: There is no impact of uses of financial accounting tools and techniques on the growth and survival of MSMEs of Tripura.

Table: 5.12- Hypothesis test results using Kendall's tau correlation coefficient test, showing impact of uses of financial accounting tools and techniques on the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Cash book	.163	.184	.300	.316	.194
	.001	**.000**	**.000**	**.000**	**.000**
Sales book	.210	.254	.308	.301	.212
	.000	**.000**	**.000**	**.000**	**.000**
Purchase book	.258	.243	.210	.216	.215
	.000	**.000**	**.000**	**.000**	**.000**
Expenses book	.282	.226	.233	.229	.244
	.000	**.000**	**.000**	**.000**	**.000**
Provision for depreciation	.121	.139	.202	.220	.160
	.078	**.034**	**.000**	**.000**	**.009**
Fixed asset register	.132	.142	.194	.202	.148
	.055	**.029**	**.000**	**.000**	**.014**
Stock book for materials	.216	.270	.299	.319	.248
	.001	**.000**	**.000**	**.000**	**.000**
Debtors book	.130	.218	.178	.196	.138
	.022	**.000**	**.000**	**.000**	**.004**
Creditors book	.144	.218	.153	.202	.121
	.007	**.000**	**.003**	**.000**	**.012**
Profit & Loss Account	.119	.128	.198	.216	.096
	.023	**.004**	**.000**	**.000**	**.047**
Balance sheet	.115	.142	.222	.225	.072
	.025	**.003**	**.000**	**.000**	**.154**
Cash flow analysis	.219	.077	.164	.179	.123
	.025	**.266**	**.002**	**.000**	**.073**
Computer for recording business transactions	.200	.194	.238	.259	.184
	.015	**.010**	**.000**	**.000**	**.006**

Hypothesis test results are in bold   (Data analysed using SPSS, version-20)

Hypothesis test result shows that (table5.12) cash book, sales book, purchase book, expenses book, stock book for materials, debtors book, creditors book, Profit & Loss account and computer for recording transactions has the positive impact on all the five parameters consider for perceptions of firm performance as the hypothesis test result is less than .05 for all these cases. As a consequences of these researcher rejected the null hypothesis and concluded that there is an impact of above tools and techniques on survival and growth of MSMEs from the perceptions of firm performance. For provision for depreciation, fixed asset register and balance sheet there is an impact of these three tools and techniques on survival and growth of MSMEs from the perceptions of firm performance for any four variables out of five variables consider for this test, as in every cases test result are less than .05. Here also researcher rejected the null hypothesis for the respective cases. Finally, in the case of cash flow analysis there is an impact on survival and growth of MSMEs from the perceptions of firm performance for any three variables out of five variables consider for this test, as in all the three cases test result become less than .05. Here also researcher rejected the null hypothesis for the respective cases.

H₃₋₂*: There is no impact of uses of financial accounting tools and techniques used to monitor/track financial performance and profitability on the growth and survival of MSMEs of Tripura.*

Table: 5.13 Hypothesis test results using Kendall's tau correlation coefficient test, showing impact of uses of financial accounting tools and techniques used to monitor /track financial performance and profitability on the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Cash &bank balance	.204	.282	.302	.300	.232
	.000	**.000**	**.000**	**.000**	**.000**
Profit & Loss account	.143	.187	.298	.309	.198
	.005	**.000**	**.000**	**.000**	**.000**
Balance sheet	.102	.148	.242	.264	.092
	.084	**.010**	**.000**	**.000**	**.091**
Cash flow analysis	.227	.117	.179	.192	.084
	.032	**.135**	**.000**	**.000**	**.205**
Fund flow analysis	.114	-.031	.072	.076	-.042
	.365	**.162**	**.155**	**.155**	**.158**
Comparative financial statement analysis	.136	.024	.114	.121	.054
	.222	**.710**	**.023**	**.023**	**.434**
Trend analysis	.229	.112	.107	.116	.107
	.064	**.196**	**.038**	**.031**	**.157**

Hypothesis test results are in bold   (Data analysed using SPSS, version-20)

From the table-5.13 it can be interpreted that cash and bank balance and profit and loss account has the positive impact on all the five parameters consider for perceptions of firm performance as the hypothesis test result is less than .05 for every five cases. As a consequences of these researcher rejected the null hypothesis and concluded that there is an impact of above tools and techniques for tracking financial performance on the survival and growth of MSMEs from the perceptions of firm performance. For balance sheet and cash flow analysis there is an impact as a tracking tools on survival and growth of MSMEs from the perceptions of firm performance for any three variables out of five variables consider for this test, as in all the three cases test result become less than .05. Here also researcher rejected the null hypothesis for the respective cases. For comparative financial statement analysis and trend analysis there is an impact as a tracking tools on survival and growth of MSMEs from the perceptions of firm

performance for any two variables out of five variables consider for this test, as in every cases test result become less than .05. Here also researcher rejected the null hypothesis for the respective cases. Finally, for fund flow analysis there is no impact on survival and growth of MSMEs from the perceptions of firm performance.

H₃₋₃: There is no impact of uses of accounting ratios on the growth and survival of MSMEs of Tripura.

Table: 5.14- Hypothesis test results using Kendall's tau correlation coefficient test, showing impact of uses of accounting ratios on the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Gross profit ratio	.317	.300	.263	.246	.350
	.001	**.000**	**.000**	**.000**	**.000**
Operating profit ratio	.357	.337	.296	.305	.405
	.000	**.000**	**.000**	**.000**	**.000**
Net profit before and after tax	.242	.245	.201	.214	.243
	.020	**.009**	**.000**	**.000**	**.003**
Return on equity	-.038	-.049	.065	.072	.113
	.034	**.029**	**.212**	**.178**	**.164**
Return on capital employed	.003	.076	.137	.148	.105
	.962	**.308**	**.007**	**.005**	**.146**
Current ratio	.153	.133	.215	.179	.152
	.088	**.093**	**.000**	**.002**	**.037**
Acid test ratio	.070	.086	.128	.138	.119
	.379	**.269**	**.012**	**.010**	**.112**
Average collection period	.189	.214	.187	.184	.233
	.067	**.024**	**.001**	**.000**	**.005**
Average payment period	.224	.204	.164	.158	.246
	.046	**.033**	**.004**	**.003**	**.005**
Days stock held	.029	.004	.094	.103	.124
	.676	**.942**	**.068**	**.055**	**.119**
Circulation of working capital	.103	.066	.094	.103	.174
	.279	**.390**	**.068**	**.055**	**.046**
Gearing ratio	-.024	-.031	-.005	.000	.053
	.166	**.162**	**.928**	**1.00**	**.488**
Interest coverage ratio	.083	.056	.025	.031	.103
	.420	**.496**	**.634**	**.563**	**.229**

Hypothesis test results are in bold   (Data analysed using SPSS, version-20)

Hypothesis test result shows that (table-5.14) gross profit ratio, operating profit ratio, net profit before and after tax and average payment period has the positive impact on all the five parameters consider for perceptions of firm performance as the hypothesis test result is less than .05 for all these cases. As a consequences of these researcher rejected the null hypothesis and concluded that there is an impact of above ratios on survival and growth of MSMEs from the perceptions of firm performance. Average collection period has an impact on four parameters of survival and growth of MSMEs from the perceptions of firm performance with product quality, sales growth rate, operating profit growth rate and with cash flow growth rate as in every cases test result are less than .05. Here also researcher rejected the null hypothesis for the respective cases. Current ratio has its impact on three parameters out of five parameters consider for perceptions of firm performance that's why researcher rejected the null hypothesis for the respective cases. Return on equity, return on capital employed and acid test ratio has its impact on any two parameters out of five parameters consider for perceptions of firm performance as in the respective cases test result are less than .05. As a result of this researcher rejected the null hypothesis for the respective cases. Finally, in the case of circulation of working capital there is an impact on survival and growth of MSMEs from the perceptions of firm performance on cash flow growth rate, as the test result become less than .05. Here also researcher rejected the null hypothesis for this case.

H₃₋₄: There is no impact of uses of Cost collection techniques on the growth and survival of MSMEs of Tripura.

Table: 5.15 Hypothesis test results using Kendall's tau correlation coefficient test, showing impact of uses of Cost collection techniques on the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Job costing	-.024 **.166**	-.031 **.162**	.072 **.155**	.076 **.155**	.146 **.154**
Batch costing	.251 **.058**	.189 **.073**	.136 **.007**	.144 **.007**	.225 **.017**
Contract costing	.178 **.315**	.141 **.315**	.051 **.316**	.054 **.316**	.103 **.315**
Process costing	-.030 **.094**	.056 **.496**	.025 **.642**	.031 **.570**	.026 **.689**
A separation is made between variable/ incremental costs and fixed/non-incremental costs	.028 **.680**	.065 **.392**	.094 **.071**	.102 **.057**	.074 **.298**
Using plant- wide overhead rates	-.030 **.094**	-.038 **.088**	.025 **.634**	.031 **.563**	.103 **.229**
Departmental or multiple plant wide overhead rates	-.024 **.166**	-.031 **.162**	-.005 **.928**	.000 **1.00**	.053 **.488**

Hypothesis test results are in bold   (Data analysed using SPSS, version-20)

From the table-5.15 it can be observed that batch costing has its impact on three parameters of perceptions of firm performance namely on sales growth rate, operating profit growth rate and on cash flow growth rate as in every cases test result value becomes less than .05. As a result of this null hypothesis has been rejected for the respective cases of batch costing. For the remaining cost collection techniques, researcher accepted null hypothesis for every cases of perceptions of firm performance and concluded that there is no impact of remaining cost collection techniques on the growth and survival of MSMEs of Tripura.

H$_{3-5}$: *There is no impact of uses of costing system on the growth and survival of MSMEs of Tripura.*

Table: 5.16 Hypothesis test results using Kendall's tau correlation coefficient test, showing impact of uses of Costing system on the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Absorption costing	.093 **.255**	.137 **.101**	.135 **.009**	.147 **.006**	.142 **.057**
Variable costing	-.034 **.055**	-.043 **.050**	.048 **.363**	.055 **.311**	.075 **.324**
Variable and absorption costing	.083 **.420**	.056 **.495**	.088 **.081**	.094 **.080**	.103 **.230**
Target cost	a a	a a	a a	a a	a a
Activity- based costing(ABC)	a a	a a	a a	a a	a a
The cost of quality	-043 **.050**	a a	a a	a a	a a

Hypothesis test results are in bold   (Data analysed using SPSS, version-20)

a*: No statistics are computed because Target cost, Activity- based costing and the cost of quality (except level of productivity) are constant*.

From the table-5.16 it can be observed that absorption costing has its impact on sales growth rate and operating profit growth rate as in both the cases hypothesis test result value came out as less than .05. As a result of this null hypothesis has been rejected for the respective cases of absorption costing. Variable costing got the test result value as .50 with product quality. Similarly, the cost of quality got the test result value as .50 with level of productivity. Due to this tie value of test result no final conclusion can be made about these costing techniques on the impact of usage on perceptions of firm performance. For the remaining costing techniques, researcher accepted null hypothesis for every cases of perceptions of firm performance and concluded that there is no impact of remaining costing techniques on the growth and survival of MSMEs of Tripura.

H_{3-6}: There is no impact of uses of budgeting techniques on the growth and survival of MSMEs of Tripura.

Table: 5.17 Hypothesis test results using Kendall's tau correlation coefficient test, showing impact of uses of budgeting techniques on the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Sales budget	.251 **.001**	.241 **.001**	.265 **.000**	.251 **.000**	.178 **.004**
Purchase budget	.270 **.002**	.197 **.007**	.161 **.002**	.136 **.018**	.123 **.049**
Production budget	.280 **.000**	.281 **.000**	.248 **.000**	.257 **.000**	.260 **.000**
Cash flow budget	.094 **.542**	.024 **.721**	.065 **.215**	.072 **.180**	.053 **.440**
Monthly budget	.079 **.345**	.044 **.522**	.062 **.306**	.071 **.251**	.089 **.212**
Annual budget	.252 **.001**	.262 **.000**	.291 **.000**	.281 **.000**	.227 **.000**
Continuous /rolling budget	a a	a a	a a	a a	a a
Flexible budget	-.017 **.323**	-.022 **.320**	.051 **.316**	.054 **.316**	.103 **.315**
Activity- based budgeting	a a	a a	a a	a a	a a
Incremental budgeting	a a	a a	a a	a a	a a
Zero-based budgeting	a a	a a	a a	a a	a a
Budgeting for planning	-.017 **.323**	-.022 **.320**	.051 **.316**	.054 **.316**	.103 **.315**
Budgeting for controlling cost	-.017 **.323**	-.022 **.320**	.051 **.316**	.054 **.316**	.103 **.315**
Budgeting for long term	a a	a a	a a	a a	a a

Hypothesis test results are in bold (Data analysed using SPSS version-20)

a: *No statistics are computed because Rolling Budget, Activity- based budgeting, Incremental budgeting, Zero-based budgeting and Budgeting for long term plans are constant. (Data analysed in SPSS, version-20)*

Hypothesis test result shows that (table-5.17) sales budget, purchase budget, production budget and annual budget showing the positive impact with all the five parameters consider for perceptions of firm performance as the hypothesis test result is less than .05 for all these cases. As a consequences of these researcher rejected the null hypothesis and concluded that there is an impact of above budgeting techniques on the survival and growth of MSMEs from the perceptions of firm performance. For cash flow budget, monthly budget, flexible budget, budgeting for planning and budgeting for controlling cost no impact on perceptions of firm performance has been observed, as a result of this null hypothesis has been accepted. Noteworthy to mention here no statistics has been computed for Rolling budget, Activity- based budgeting, Incremental budgeting, Zero-based budgeting and Budgeting for long term plans as they all are constant.

H₃₋₇: There is no impact of uses of Performance Evaluation System on the growth and survival of MSMEs of Tripura.

Table: 5.18 Hypothesis test results using Kendall's tau correlation coefficient test, showing impact of uses of performance evaluation system on the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
FINANCIAL MEASURES					
Operating income	.281 **.000**	.294 **.000**	.249 **.000**	.232 **.000**	.086 **.137**
Return on investment	.262 **.001**	.259 **.000**	.229 **.000**	.203 **.000**	.118 **.050**
Variance analysis	.071 **.379**	.035 **.590**	.128 **.012**	.138 **.009**	.077 **.264**
Sales growth	.160 **.005**	.273 **.000**	.284 **.000**	.300 **.000**	.202 **.000**
Operating income & Sales growth	.005 **.929**	.174 **.003**	.238 **.000**	.247 **.000**	.056 **.299**
Cash flows	-.046 **.014**	.004 **.949**	.094 **.070**	.102 **.057**	.073 **.300**
NON-FINANCIAL MEASURES					
Number of customer complaints	.047 **.411**	.126 **.041**	.083 **.114**	.120 **.023**	.135 **.021**
Survey of customer satisfaction	-.030 **.094**	-.038 **.088**	.025 **.642**	.031 **.570**	-.051 **.084**
Number of warranty claims	.114 **.365**	.085 **.399**	.072 **.155**	.076 **.155**	.053 **.488**
On-time delivery	.210 **.072**	.153 **.102**	.043 **.416**	.053 **.320**	.044 **.485**
Manufacturing lead time/cycle time	.178 **.315**	.141 **.315**	.051 **.316**	.054 **.316**	.103 **.315**
Defect rate	.134 **.042**	.196 **.004**	.148 **.006**	.141 **.007**	.353 **.000**
Employee turnover	.162 **.197**	.120 **.230**	-.007 **.898**	.000 **1.00**	.075 **.324**
Absentees rates	.178 **.315**	.141 **.315**	.051 **.316**	.054 **.316**	.103 **.315**

Hypothesis test results are in bold   (Data analysed using SPSS, version-20)

From the results shown in the table-5.18 it has been observed that among the financial measures sales growth has a positive impact with all the five variables consider for perceptions of firm performance as the test result is less than .05 for every five alternatives. For this reason null hypothesis has been rejected for every respective cases and concluded that there is an impact of sales growth on every variables of perceptions of firm performance. Operating income and return on investment has an impact on survival and growth of MSMEs from the perceptions of firm performance for any four variables out of five variables consider for this test, as in every cases test result came out as less than .05. Here also researcher rejected the null hypothesis for the respective cases. Return on investment got a tie value with cash flow growth rate and for this reason no conclusion can be made about any impact of this performance evaluation technique on cash flow growth rate. Operating income and sales growth has an impact on product quality, sales growth rate and operating profit growth rate as hypothesis test result for all the three cases came out as less than .05. Here also researcher rejected the null hypothesis for the respective cases. Variance analysis has an impact on sales growth rate and on operating profit growth rate as the hypothesis test result for these cases are less than .05 and as a result of this researcher rejected the null hypothesis for the respective cases. Finally among the financial measures, cash flow has got the positive impact with level of productivity and for this particular case null hypothesis has been rejected.

Among the non-financial performance measures defect rate has a positive impact on all the five variables consider for perceptions of firm performance as the hypothesis test result is less than .05 for every five alternatives. Because of this null hypothesis has been rejected for every five parameters and concluded that there is an impact of sales growth on all parameters of perceptions of firm performance. For number of customer complaints, there are positive impact with product quality, operating profit growth rate and cash flow growth rate as in all the three alternatives hypothesis test results are less than .05. Hence here also null hypothesis rejected and concluded as there is an impact on survival and growth of MSMEs from the perceptions of firm performance for these three variables. For the remaining techniques of financial and non-financial measures there is no impact on survival and growth of MSMEs from the perceptions of firm performance.

H₃₋₈: There is no impact of uses of decision making information techniques on the growth and survival of MSMEs of Tripura.

Table: 5.19 Hypothesis test results using Kendall's tau correlation coefficient test, showing impact of uses of decision making information techniques on the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Cost volume-profit analysis (break-even analysis) for major products.	.049 **.542**	.024 **.712**	.065 **.215**	.072 **.180**	.113 **.116**
Product profitability analysis	.136 **.223**	.097 **.279**	.016 **.764**	.024 **.659**	.113 **.165**
Customer profitability analysis	.178 **.315**	.141 **.315**	.051 **.316**	.054 **.316**	.103 **.315**
Stock control models	.161 **.197**	.037 **.602**	.047 **.373**	.053 **.320**	.073 **.328**
Evaluation of major capital investments based on discounted cash flow methods (NPV, IRR & PI)	-.024 **.166**	-.031 **.162**	-.005 **.924**	.000 **.997**	.052 **.489**
Evaluation of major capital investments based on payback period and / or accounting rate of return.	-.017 **.323**	-.022 **.320**	.051 **.316**	.054 **.316**	.103 **.315**
Evaluation of major capital investments, non-financial aspects are documented and reported.	-.017 **.323**	-.022 **.320**	.051 **.316**	.054 **.316**	.103 **.315**
Evaluating the risk of major capital investment projects by using probability analysis or computer simulation.	-.017 **.323**	-.022 **.320**	.051 **.316**	.054 **.316**	.103 **.315**
Calculation and use of cost of capital in discounting cash flow	-.017 **.323**	-.022 **.320**	.051 **.316**	.054 **.316**	.103 **.315**

Hypothesis test results are in bold   (Data analysed using SPSS, version-20)

From the table-5.19 it has been observed that there is no impact of any decision making information techniques on any variables of perceptions of firm performance as in every cases hypothesis test result value is more than .05. As a result of this null hypothesis has been accepted for every cases and concluded that there is no impact of decision making information techniques on the survival and growth of MSMEs from the perceptions of firm performance.

H$_{3-9}$: There is no impact of uses of strategic analysis tools and techniques on the growth and survival of MSMEs of Tripura.

Table: 5.20 Hypothesis test results using Kendall's tau correlation coefficient test, showing impact of uses of strategic analysis tools and techniques on the perceptions of firm performance measured in five ways.

ITEMS	Level of productivity	Product quality	Sales growth rate	Operating profit growth rate	Cash flow growth rate
Long range forecasting	.083 **.420**	.056 **.495**	.088 **.081**	.094 **.080**	.103 **.230**
Target costing in the design of new products?	a a	a a	a a	a a	a a
An analysis of the costs incurred in each of the activities in the firm's value chain?	a a	a a	a a	a a	a a
Industry analysis	a a	a a	a a	a a	a a
Analysis of competitive position	-.017 **.323**	-.022 **.320**	.051 **.316**	.054 **.316**	.103 **.315**
Product life cycle analysis	-.017 **.323**	-.022 **.320**	-.058 **.316**	-.054 **.316**	-.029 **.318**
Strategic costing in determining the firm's strategy	-.017 **.323**	-.022 **.320**	-.058 **.316**	-.054 **.316**	-.029 **.318**
Product Pricing decision	-.024 **.166**	-.031 **.162**	-.005 **.924**	.000 **.997**	.052 **.489**

Hypothesis test results are in bold   *(Data analysed using SPSS, version-20)*

a: *No statistics are computed because target costing in the design of new products, an analysis of the costs incurred in each of the activities in the firm's value chain and industry analysis are constant.*

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From the table-5.20 it can be observed that there is no impact of any strategic analysis tools and techniques on any variables of perceptions of firm performance as in every cases hypothesis test result value is more than .05. As a result of this null hypothesis has been accepted for every cases and concluded that there is no impact of strategic analysis tools and techniques on the survival and growth of MSMEs from the perceptions of firm performance. Noteworthy to mention here no statistics has been computed for target costing in the design of new products, an analysis of the costs incurred in each of the activities in the firm's value chain and industry analysis as they are constant.

5.5 Conclusion:

Overall above results provide some evidence as to significant relationships between the use of accounting tools and techniques (both financial and management accounting) and perceptions as to the level of firm performance. The greater use of financial accounting tools and techniques and budgeting techniques has been observed in the above analysis. Researcher found there are positive and significant association between use of financial accounting tools and techniques with a higher level of perceived performance in a number of areas. Researcher experienced similar kind of result with budgeting techniques and perceptions of firm performance. The use of costing techniques, non-financial performance measures and decision support systems appear to have limited significant relationships with perceptions of firm performance. Lastly the results also indicate that the greater use of financial accounting tools and techniques are associated with two indicators of performance, namely sales growth rate and operating profit growth rate.

The result above states that management clearly have a perception about the inefficacy of such strategic tools and techniques towards enhancing performance of MSMEs in Tripura. It appears that behind such depressed view, the fact behind it may be the small scale of their operation and poor competitiveness of MSMEs in practically globalised market at individual level and cost benefit dimension regarding the use of such strategic tools may not be much encouraging. Even though, these strategic tools have definite role for enhancement of quality of accounting practices and business performances. For that matter these tools and techniques needs to be promoted in all possible manner at collective level if not at individual level.

Kendall's tau rank correlation coefficient analysis establishes the positive association (in many cases) of financial performance of MSMEs with accounting practices in Tripura. However, despite having perceptual awareness about the utility of financial and management accounting tools and techniques with regard to the performance of MSMEs were found not using such techniques in wider level. This is a grave situation needs to be examined further with a purpose to establish responsibility for the same and to ensure MSMEs of such practices by the management and agencies entrusted with the job to improve the performance of MSMEs in Tripura.

Noteworthy to mention here to achieve the third research objective Kendall's tau rank correlation coefficient has been applied to show any impact of usage of financial and management accounting techniques on the variables consider to measure perceptions of firm performance. Here researcher objective is to show any association among the above mentioned variables but not to show degree of association among the variables. To determine the degree of association between the usage of financial and management accounting techniques and their impact on survival and growth of MSMEs performance analysis with advance statistical tools is required which is beyond the scope of the present study. Similar conclusion can also be made for third hypothesis (H_3) considering all the sub hypotheses.