THE IMPACT OF MANAGEMENT ACCOUNTING PRACTICES ON OPERATIONAL PERFORMANCE IN SMES IN THE COLOMBO DISTRICT, SRI LANKA.

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ABSTRACT

The objective of this study was to address the research problem of how the effect of management accounting practices influences the operation performance of SMEs in the manufacturing sector of the Colombo district. Different SMEs use financial knowledge in varying ways, which affects the performance of the businesses. This study sheds light on the Practices of management accounting used by SMEs in the manufacturing sector and how they affect Operational success. The Management accounting practices which are discussed in the study is, costing, performance evaluation, budgeting, strategic management accounting and decision support system. The data gathered was primary data, using a convenience sampling method in cross-sectional time horizon. And the deductive research methodology and the survey method were used in the research design. The Research was conducted using demographic analysis, correlation coefficient analysis, and regression analysis. The sample was taken from the small and medium-sized, 131 manufacturing enterprises in the Colombo district. The study found, the budgeting system, performance evaluation system, and strategic management accounting system to have a statistically significant impact on operational performance. Costing systems and Decision support systems were found to be not statistically significant in regression analysis. Therefore, 3 out of 5 hypotheses were accepted. As for concluding remarks, this study's findings recommend that using management accounting practices can enhance operational performance. Further, study suggests that budgeting, performance evaluation, and strategic management accounting be used by management to improve the operational performance of Manufacturing SMEs. The study thereby, hopes to increase the knowledge and awareness of students and professionals who are interested in this field. Additionally, this will provide insight on the management accounting techniques now employed by SME's and their level of financial literacy. Consequently, this study's valuable information can be used by government, organizations, and experts to advance the Small Medium Enterprises of Sri Lanka.

Keywords: Management accounting practices; Operations performance; Small medium enterprises; Manufacturing sector; Colombo district

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1. INTRODUCTION

Small and medium-sized businesses (SMEs) have a remarkable impact on Sri Lanka's employment, and income distribution. Small and medium-sized businesses (SMEs) make up more than 75% of all firms, 45% of all jobs, and 52% of Sri Lanka's gross domestic product. (Ministry of industry and commerce,2016).

According to the government. Small and medium-sized Enterprises (SMEs) are businesses with annual turnover and employee counts that fall within established boundaries, as directed by the National Policy Framework for Small Medium Enterprise (SME) Development. The manufacturing sector's Small and Medium Sized Enterprises are businesses that engage in manufacturing operations and have less than 300 employees as well as yearly revenues of up to Rs. 750 million. (Ministry of industry and commerce,2016).

Table 1: Defining SMEs of Sri Lanka

Sector	criterion	medium	small
manufacturing	annual turnover	Rs Million 251 to 750	Rs Million 16 to 250
	number of workmen	51to 300	11 to 50
service	annual turnover	Rs Million 16 to 250	Rs Million16 to 250
	number of workmen	51to 200	11 to50

Source: Ministry of industry and commerce (2016)

Businesses engaged in agriculture, mining, manufacturing, construction, and the service industry are among the varied spectrum of enterprises that make up SMEs. SMEs make up for over 96% of units of industry, 36% of industrial jobs, and 20% of value additions in the manufacturing sector. (IPS, 2017)

In spite it being such a significant component of the Sri Lankan Development and Economy, SMEs in Sri Lanka are facing inherent challenges that could hinder their potential to expand into domestic and international markets. CMA, Sri Lanka (2018), claim insufficient internal financial literacy as important challenge which hinders the development of SMES. The insufficient internal financial literacy or the lack of knowledge on financial management would prevent business in taking informed effective decisions in how to utilize their resources. CIMA (2015) claims to make informed, effective management decisions in businesses the practices of management accounting(MA) are vital. Management accounting places a strong emphasis on delivering timely, precise, and pertinent information that supports the organization. (Karunaratne,2020) In light of the above literature, it is evident, that SMEs' adoption of MA practices would result in an improvement in their overall business performance. Thereby, the study expects to examine whether, management accounting practices influence on operation performance of business performance in the of SMEs in the Manufacturing sector of the Colombo District.

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1.2 Problem identification

Even though SMEs are the significant to the Lankan economy, CMA (2018) claims SMEs face the dire challenge of insufficient internal financial literacy which hinder businesses in making effective decisions.

The process of recognizing, examining, defining and communication of necessary data to make optimum management decisions is called Management Accounting (MA). The process of Management accounting uses information relating to costs systems to determine costs of products or services purchased. Budget systems is mainly used to plan business finances. Management accountants use performance evaluation practice to determine variances between actual results from desired results. Further management accounting practices consist of strategic management accounting, which is done to find sustainable cost advantage, to ensure products are competitively placed on marketplace. (Ahmad, 2012)

According to Maziriri, E. and Mapuranga (2017), MA is centered on giving information to managers, or those inside an organization who direct and control its activities. Even though, the importance of Management accountancy is immense there isn't much research in "Sri Lankan Context", which address the effect of management accounting practices on "Operation performance" of SMEs in the manufacturing sector in Sri Lanka and resulting knowledge gap of what is being known pertaining to the problem which is being discussed.

In Sri Lanka, Management Accounting practices isn't given fully recognition, Subasinghe & Fonseka, T. (2009), research claims that there is a gap in the level understanding and of application of MA practices across different industries in Sri Lankan organizations and therefore, it is evident that there is a performance gap pertaining to adoption of management accounting practices in Sri Lankan organizations. Especially in Sri Lanka's manufacturing sector, there is a dearth of study on the widespread use of MA practices among Sri Lankan manufacturing firms. (Mohamed, A et al ,2021)

Karunaratne, A. (2020) study emphasized the fact that there is a link between the manufacturing sector of SME's operating efficiency and the degree of adoption of management accounting methods. This highlighted the fact that SMEs in the manufacturing sector had poor utilization of management accounting, which led to low operating efficiency. Further, failure to adopt suitable MA practices could result in failed business, particularly in the manufacturing sector where methods of production are highly complicated, technically sophisticated, and subject to costs and prices competition. (Mohamed, A et al ,2021)

Therefore, to this effect, it can be theoretically deducted that the following of MA practices by the SMEs would lead to increase in operation performance. Hence, this study will expect to address the research problem on how the effect of management accounting practices influence the operation performance of SMEs in the manufacturing sector of Colombo.

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1.3 Research questions

1.What is the association between cost systems, on the operation performance?

2.What is the association between the budget systems on the operation performance?

3.What is the association between performance evaluation Systems on the operation performance?

4.What is the association between Decision support system on operation performance?

5.What is the association between strategic management accounting on operation performance?

1.4. Research objectives

1. To determine association between cost systems on the operation performance.

2. To determine, association between budgeting systems on the operation performance.

3. To determine association between Performance Evaluation Systems on operation performance.

4. To determine association between Decision support system on operation performance.

5. To determine association between strategic management accounting on operation performance.

1.5. Significance of the study

The study will contribute to the corpus of knowledge already available since there isn't much research related to this problem area is done in Sri Lanka. As a result, it hopes to increase the knowledge of students and professionals who are interested in this field. These findings may be helpful to policymakers who want to assist Sri Lankan SMEs in the manufacturing sector who need to strengthen their management accounting capabilities.

Further, this will give an understanding of SME's management accounting practices used at present and understanding of their financial literacy knowledge. Therefore, professional's institutions and government can utilize this information for development of SME sector.

The awareness about MA Practices within Sri Lankan setting may improve as a result of this work. Since Sri Lanka has a small economy, it must seek to catch up to more developed nations, making it crucial to have the right information to support efforts to strengthen the country's SME-manufacturing industry.

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2. LITERATURE REVIEW

2.1 Research studies of management accounting

According to Ahmad, K. (2012), Considerable number of studies related to management accounting emerged, essentially after 1990s, analyzing management accounting practices impact in organizations.

Alnmeri (1993) stated, the availability of management accounting theory and techniques is very important to the developing world as it is a useful contributor to the economic development.

It is believed that the management accounting has a vital role in the strategy development in the firms. (CIMA,2015). Subasinghe & Fonseka, T. (2009), claim Businesses can develop their business strategies, plans and controls, make decisions, use resources effectively, improve performance, and maintain internal controls with the aid of management accounting.

2.2. Research studies of particular management accounting practices

This section examines the research on certain management accounting procedures, which are used in this study as independent variables.

2.2.1. Costing systems (CS)

Costing systems are a set of Process and procedures which is implemented to monitor and control the costs for management decision making. According to Ahmad. K (2012), Costing system was divided as cost collection methods and costing techniques and studied effect of management accounting on organization of Malaysian SMEs of Manufacturing sector had adopted 2 main cost methods which was absorption costing and direct (variable) costing. Ahmad, K (2012), emphasized cost collection methods, which have been tested using batch, job, contract and process costing. Further highlighted, costing technique which has been measured using absorption costing, variable costing, activity-based costing. The study claimed the overall range of use of cost collection methods was 50% to 73% and overall level of use of costing techniques ranges from 44% to 52%.

Further, Karunaratne, A. (2020), who researched SMEs in the Manufacturing sector in Sri Lanka confirmed product costing practices generally used in small medium enterprises which is approximately only 65% of the selected SME's.

Whereas Logose.A.M. (2017) claimed from Cost collection methods, 74% of the respondents used job costing, batch costing level of use was 74% and process costing level of use was 68%. From the Costing techniques, level of use of activity-based costing was 74%, While variable and absorption costing were used by 80% of the respondents.

In light of the aforementioned discussion reviews, it would seem that Sri Lankan researchers did not thoroughly examine the level of implementation of costing systems by utilizing a wide range of cost gathering methods and approaches.

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2.2.2. Budgeting Systems (BS)

Ahmad. K. (2012) claimed sales budgets and annual budgets had the high level of use which were 73% and 70%. Abdel-Kader and Luther, (2006) confirms budgeting was used for planning, controlling costs, and overall long-term growth of the organization. They found budgeting is used by staggering 84% for planning and for controlling cost by 73%. Together, 90% of the participants replied that budgeting was an essential.

Further, Indrani et al (2022), claimed the majority of respondents in their study employed multiple budgeting approaches concurrently to assure the feasibility of the budgets and to avoid mistakes and flaws. Furthermore, the study's findings support the idea that, regardless of the type of organization or industry sector, budgeting is the most crucial tool used by companies.

Therefore, it is evident concerning above study findings, show high level of use of budgeting system in their respective studies.

2.3.3. Performance Evaluation Systems(PE)

Performance evaluation reports determine variances between actual results from desired results. According to Abdel-Kader and Luther (2006), this practice is contributed for comparison of present results with results from earlier periods to determine whether there has been improvement or regression. In their study benchmarking was introduced as an organization improvement tool to improve organization in performance. In contrast, Kaplan, R.S. et al. (1992), used the balance scorecard performance management tool which allows the assessment of business performance from four key perspectives, including those that are related to customers, finances, internal business processes, learning, and growth.

Whereas Abdel-Kader and Luther (2006) Study used financial and non-financial measures of performance evaluation emphasizing majority of the respondents which is 78% consider financial measure as important. Non-financial evaluation related to the customers was considered very influential recording 87%. Therefore, this reflects studies use different evaluation measures and tools to test performance evaluation in their respective studies

2.2.4. Decision Support System (DSS)

This management accounting practices discuss how business use Information to make decisions. Ahmad. K. (2012) divided the decision support system in long run and short run basis, establishing that there is a positive effect of decision support system an organization performance

Maziriri, E. and Mapuranga, M. (2017) discovered that the decision support system is not a statistically significant indicator of firm performance, claiming decision making process of SMEs are diverse and therefore their strategic decision-making model may not appropriate for explaining such differences.

In contrary, Abdel-Kader et al. (2006) found majority of the companies exercised these techniques, emphasizing for decision-making in short time period respondents

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used stock control models, cost volume-profit, product profitability and custom profitability analysis.

Thus, it is undeniable that decision support systems have been the subject of numerous studies, all of which have revealed that these systems have had diverse effects on organizations' performance.

2.2.5 Strategic Management Accounting, (SMA)

Accounting for strategic management defined as analyses of managerial accounting information about the enterprise and its rivals for use in construction and monitoring of firm strategy (CIMA, 2015). To ensure that products are positioned competitively on the market and to identify sustainable cost advantages, strategic management accounting is used.

Abdel-Kader and Luther, (2006), emphasized long range forecasting - strategic management technique was often or very often used by only 43% of the study respondents. Further, Rathwatta and Samudrage, 2022, tested strategic management accounting practices in cost, customer, competitor, and performance perspectives.

2.3 Literature into operation performance and measures

The management accounting practices assist Operational performance, which is known as the ability of an organization to deliver products and services to consumers ensuring short delivery time, low price, dependable delivery, high quality, and flexibility to achieve core business objectives. There are five fundamental performance goals. They are namely: cost, dependability, flexibility, quality, and speed. (Operations, Strategy and Operations, 2012).

N. Slack, S. Chambers, R. Johnston, (2001) all art of an organization manages processors therefore, all parts of business implement operations. Term operation is described as a function as and also as an activity. Operations is a function because it's a part of the organization which produce and distribute products and services to the customers.

Ahmad K. (2012) studied use of MA practices in Manufacturing sector of Malaysian SME's. The study measured organization performance using 2 categories, such as business and operational level. That study claims perceptions of operation performance significantly higher than the overall business performance.

Effectiveness and efficiencies used as to measure productivity. Tangen, S. (2002) claimed, Effectiveness is the capacity to produce the intended effect or result and efficiency as the minimum resource that is required to achieve expected operations in an organization system. Karunaratne, A. (2020) looked into the link between the level of operational efficiency in the SME manufacturing sector and the application of management accounting approaches. This claimed that management accounting practice adoption would improve efficiency.

The operations performance measure of product quality determines how a certain product satisfies consumer needs and wants to meet the organization objectives and industry standards. The product quality is determined by quality dimensions. Those

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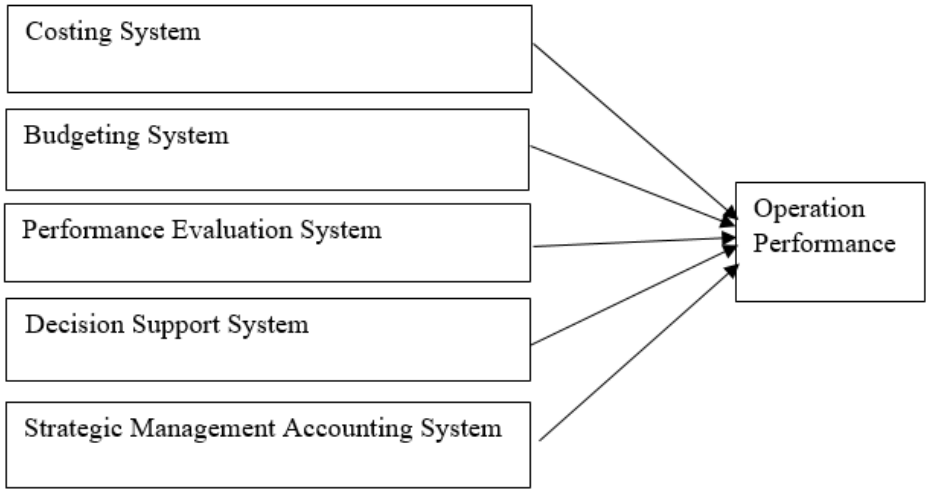
are reliability, performance, features, conformance, durability of the product, service ability of the product, aesthetics, and perceived quality. Sebastian Elli, R., & Tamimi, n. (2002).

3. METHDOLOGY

3.1. conceptual framework and Operationalization table



Source: Author

Figure 1: Conceptual Framework

The literature sources, which was reviewed, to construct above conceptual framework is show in the operationalization table below.

Table 2: Operationalization table

Variable	Dimension	Indicators	Sources	Measure
Independent	Costing	cost collection method • Unit costing • job costing • batch costing • Contract cost • process costing costing technique • absorption costing • variable costing • activity-based costing	Ahmad , K (2012)	Likert scale

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	Budgeting	Budget type • sales • purchasing • production • cash flow • financial position timing • monthly • yearly • continuous/ rolling budget Methods • Flexible budget • Incremental budget • Zero-based budget	Ahmad, K (2012)	Likert scale
	Performance Evaluation	financial measures • operating income • return on investment • variance analysis • sales growth • Cash flows non-financial measures • customer complaints • customer satisfaction survey • warranty claims • On-time delivery • Manufacturing lead time • defect rate • employee turnover • absentee rates	Ahmad, K (2012)	Likert scale
	Decision support system	Short-run analysis • break-even analysis • stock control model • product profitability analysis • customer profitability analysis Long run analysis	Ahmad, K (2012)	Likert scale

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		• Payback • accounting rate of return • net present value • internal rate		
	strategic management accounting	• target costing • Strategic costing. • Value chain costing • Product life cycle analysis • Strategic pricing • Competitive position monitoring	Ahmad, K (2012)	Likert scale
Dependent	Operation performance	• Productivity • Effectiveness • Efficiency • Product Quality • Performance • Features • reliability • conformance • durability • serviceability • aesthetics • Perceived quality • Number of delivery on time	Ahmad,K (2012), Tangen, S. (2002), Sebastianelli, R., & Tamimi, N. (2002). Jusoh, R. and Parnell, J.A. (2008)	Likert scale

Source: constructed by the author

3.2 Hypotheses of the study

H1; There is a significant positive association between the use of costing system and operation performance

H2; There is a significant positive association between the use of budgeting and operation performance

H3; There is a significant positive association between the use of performance evaluation and operation performance

H4; There is a positive association between the use of Decision support and operation performance

H5; There is a positive association between the use of strategic management accounting and operation performance

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The above hypotheses are author-constructed referring to Ahmad, K. (2012) and Maziriri, E. and Mapuranga M. (2017).

3.3 Sampling procedure

The collected data was primary data, using questionnaires employing convenience sampling technique. Therefore, an accessible sample of participants in the Colombo district was used by researchers for rational reasons to gather and choose data in an effective, inexpensive manner. The data was collected from SME managers or owners who were selected based on organization level as the unit of analysis.

Numerous factors must be considered when choosing a sample size, including cost and time restrictions, the variation of the target population's components, the desired degree of estimating precision, and the required level of confidence (Hair et al., 2007).

Roscoe (1975) and Stutely (2003), claim sample sizes should be higher than 30. Statistics experts have shown that number of observations of 30 and higher number of observations frequently offer a sampling distribution for the mean, that is extremely similar to a normal distribution, that required to make sure that erroneous outcomes would not appear. (Saunders et al 2007). Further, Kent (2001) indicated that at least 100 responses were required for any form of quantitative analysis. This would aid in obtaining a more productive and logical statistical analysis and result.

Further, the researchers expected only to gather responses from Manufacturing sector of SMEs only. The rationale behind this is, despite SMEs comprise enterprises in the many different sectors, only the manufacturing sector has availability to trustworthy statistics. (IPS Sri Lanka 2017). Furthermore, the researchers have only chosen the manufacturing sector in order to avoid you being irrelevantly distracted by variances between sectors.

The targeted or intended population should be the small, and medium manufacturing enterprises of Colombo Sri Lanka, however there is no specific statistics available in SMEs related to the manufacturing sector in the Colombo district in order to find the population. Therefore, SMEs of all sectors which are located in Colombo district is taken as population which is 28,586 (Department of Census and Statistics,2014)

Therefore, the recommended target sample size is 377, chosen from the Morgan table. (Krejcie,R.V ., and Morgan,D.W,1970).

3.4 Data collection method

Data was gathered from SME owners or managers who were chosen based on organization level as the unit of analysis. Questionnaires was distributed for each organization through online as per the Information gained by websites such as SME directory and Institutions such as the Ceylon Chamber of Commerce for SMEs and related institutions

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3.5. *Reliability*

Reliability emphasizes correctness of the measurement. It looks into whether they research tool is consistent and stable. (Moser, C.A., & Kalton, G. 1971). To test the reliability, the author has used Cronbach's Coefficient alpha embedded in SPSS computer program

3.5.1 Reliability Analysis- Cronbach's Alpha

Table 3: Reliability Analysis

Number	Variable	Number of items	Cronbach's alpha
1	costing system	6	0.867
2	budgeting system	11	0.894
3	performance evaluation system	13	0.926
4	Decision support system	8	0.919
5	strategic management accounting	6	0.922
6	Operational performance	13	0.939

Source: Author Constructed

In this study, costing system and budgeting system has Cronbach's alpha above 0.8 indicating a good reliability. Further, performance evaluation system, information foundation making, strategic management accounting systems and operational performance has Cronbach's alpha above 0.9 indicating "excellent" reliability. (George and Mallery ,2003)

3.6 *Validity*

Kumar. R, (1999), claimed the degree (of accuracy) to which a research tool measures what it is intended to measure is known as its validity.

Face validity was verified by submitting the survey to my expert and getting his professional opinion.

Content validity was achieved by using literature studies as a guide while creating the questionnaire and soliciting expert feedback.

Due to the substantial correlation between the dependent and independent variables, criterion validity was guaranteed (Refer to Table 6: correlation coefficient analysis).

Construct validity refers to how well a test or measurement captures what it was intended to capture. Exploratory factor analysis was used to ensure the authenticity of the content. The following table shows exploratory factor analysis.

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Table 4: Rotated Component Matrix

	Component					
	1	2	3	4	5	6
PQ- Performance	.759					
PQ-.Durability	.751					
PQ.-Perceived Quality	.738					
PQ.-Reliability	.734					
PQ-Serviceability	.732					
PQ.-Features	.701					
PQ.-Aesthetics	.665					
PQ-.Conformance	.651					
Product Quality	.637					
Number of deliveries	.566					
Productivity .Effectiveness	.545					
SMA- product lifecycle analysis		.787				
SMA- strategic Pricing		.777				
SMA- Strategic costing		.754				
SMA- Target costing		.692				
SMA- Competitive position monitoring		.656				
CS- Absorption Costing		.581				
productivity	.515	.552				
SMA- value chain costing		.540				
DSS- Customer profitability analysis		.527				
CS-Variable costing		.512				
Product Efficiency		.506				
CS-process costing						
DSS- Stock control Model						
CS-job costing						
DSS-.IRR			.770			
DSS-ARR			.757			
DSS- NPV			.703			
DSS-Payback			.688			
CS- ABC costing			.646			
DSS- Break-even analysis			.552			
CS- batch costing			.510			
CS- contract costing						
CS-unit costing						
BS- monthly Budget				.732		
BS- Annual Budget				.692		
PE- Return on Investments				.643		
PE-Cash flows				.609		

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PE- Operating income	.599		
PE-Sales growth	.585		
PE-Variance analysis	.568		
BS- Flexible budgeting	.564		
BS- Continuous/rolling	.543		
BS-Incremental Budgeting	.511		
PE- On-time delivery			
BS- Purchasing Budget		.686	
BS- Sales budget		.682	
BS- financial Budget		.571	
BS-production Budget		.539	
BS- Cash flow Budget		.528	
DSS-Product analysis		.522	
PE- turnover			.788
PE-Absentee rates			.769
PE-lead time			.646
PE-No of customer complaints			.555
PE- Defect rate			.544
BS-.Zero-based Budget			.511

Source: Author constructed

3.7 Data analysis

The research was conducted in the quantitative analysis method,

The Statistical Package for the Social Sciences was used to examine the data (IBM SPSS- Version 23). Regression analysis was used to analyze the relation between SMEs' operational performance and management accounting in the manufacturing sector in the Colombo district.

4. RESULTS AND DISCUSSION

4.1 Data of Overall Responses

Around 800 questionnaires were distributed to the respondents of SMEs through online and on-site methods. Of these questionnaires, only 131 were filled and fully completed from the target sample size of 377. Data collection for SMEs, however, is dependent on whether respondents use management accounting techniques in their small and medium-sized businesses. In Sri Lanka, management accounting practices are not widely used (Subasinghe & Fonseka, T. 2009). The second factor affecting data collection is respondents' decreased willingness to complete questionnaires. The difficulty of data gathering for SMEs makes it impossible to overcome the limitation of low response rates (Kamilah Ahmad. 2012).

Further, the study's (Table 11-Appendix) KMO value was 0.881 indicates that the sampling was sufficient. (Shrestha, 2020)

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4.2 Demographical Analysis

Findings about the responder's gender, age, and length of service are presented in this section. Additionally, data on the responder's business is gathered from its number of employees, years of operation and the manufacturing sector's small and medium businesses' annual sales turnover.

Table 5: Demographic Characteristics of Respondents

Demography	Indicators	Frequency	Percentage
Gender	Male	46	35.1%
	Female	85	64.9%
Age	18 - 25 years	22	16.8%
	26 – 33 years	77	58.8%
	34 – 55 years	20	15.3%
	Over 55	12	9.2%
Length of Service	Less than 1 year	14	10.7%
	1 -3 years	50	38.2%
	4 -10 years	54	41.2%
	Above 10 years	13	9.9%
Years of operation	1 -3 years	40	30.5%
	4 -10 years	34	26%
	Above 10 years	57	43.5%
Number of Employees	11 – 50 (Small scale)	52	39.7%
	51 – 300 (Medium Scale)	79	60.3%
Annual sales Turnover	Rupees 16 million – 251 million	74	56.5%
	Rupees 251 million – 750 million	57	43.5%

Source: Author constructed

4.3 ***Correlation coefficient***

Correlation coefficient shows the strength of the linear relationship between each management accounting practice and operation performance. (Kent, R. 2001)

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Table 6: correlation between management accounting practices and operation performance

Independent variables /dependent variables		operation performance
Costing System	Pearson correlation	0. 535**
Budgeting System	Pearson correlation	0.637 **
Performance Evaluation	Pearson correlation	0.633**
Decision Support System	Pearson correlation	0.57 2**
Strategic Management Accounting	Pearson correlation	0.544 **

**. Correlation is significant at the 0.01 level (2-tailed).

Source: author Constructed

The Budgeting system has the strongest relationship with operational performance (correlation coefficient is 0.6 37), followed by the performance evaluation system (correlation coefficient of 0.63 3), Decision support system (correlation coefficient 0.572), strategic management accounting correlation coefficient of 0.544 and costing system correlation coefficient of 0.535. All the values show high correlation coefficient which is above 0.5.

4.4 Regression *analysis*

Regression analysis measures the association and effect between operation performance and independent variables. (Kent, R. 2001)

Table7: Model summary of regression matrix of management accounting practices and operation performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.712[a]	.507	.487	.48270

a. Predictors: (Constant), CS, BS, PE, DSS, SMA

Source: Author Constructed

There is an association between Management accounting practices and operations performance. Above table 7, The R-square was used to assess the regression model's fit. (Mafini & Meyer,2016) state that the R-square statistical metric calculates how closely the data resemble the regression model that has been fitted, as indicated by

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the variance percentage. Consequently, the model fit increases as the proportion increases (Mafini & Meyer,2016). the R-square value is 0.507. The adjusted R-square is 0.487, which emphasizes management accounting can explain approximately 49% of the variance in operational performance.

Table 8: ANOVA table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.976	5	5.995	25.730	.000[b]
	Residual	29.125	125	.233		
	Total	59.101	130			

a. Dependent Variable: OP

b. Predictors: (Constant) CS, BS, PE, DSS, SMA

Source: Author Constructed

Table 8 emphasizes the value of significance is 0.000 which is below of 0.05 level. Regression means square value is 5.995, residual mean square value is 0.233. The F-value is 25.730.

Table 9: Regression coefficient table

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
	1.096	.252		4.350	.000
Costing	.109	.074	.130	1.475	.143
Budgeting	.233	.096	.256	2.439	.016
Performance Evaluation	.246	.090	.275	2.747	.007
Decision support	.005	.078	.007	.070	.945
Strategic management accounting	.132	.065	.177	2.021	.045

Source: Author Constructed

- The table 9 emphasizes, Costing system isn't statistically significant predictor of operation performance, (β = 0. 130; t = 1. 475; p = 0.143)
- Budgeting system is a statistically significant indicator of operation performance, (β = 0. 256; t = 2.439; p = 0.016)
- Performance Evaluation is a statistically significant indicator operation performance, (β = 0. 275; t = 2.747; p = 0.007)
- Decision support system isn't statistically significant predictor of operation performance, (β = 0. 007; t =0.070; p = 0.945)

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- Strategic management accounting is statistically significant predictor of operation performance, (β = 0.177; t = 2.021; p = 0.045)

4.5 Discussion of results

The below table shows the results of the hypothesis tests which is a summarization of table 9.

Table 10: Hypotheses test results

Hypothesis	Supported or not supported	Significance (95% confidence)
H1	Not Supported	not significant
H2	Supported	significant
H3	Supported	significant
H4	Not Supported	not significant
H5	Supported	significant

Source: Constructed by Author

4.5.1 – Costing system and operation performance

According to table 9 and 10, the Costing system was a statistically insignificant indicator of operation performance, (β = 0. 130; t = 1. 475; p = 0.143). These findings stress, costing has a positive impact on performance, but it is not a statistically significant relationship. The findings of this study run counter to the widely held belief that cost systems have a major impact on operational performance. The fact that justifies this due to the various needs of businesses, not all of the costing systems examined in the questionnaire are used by the respondents, which might be used to justify this. For example, a garment manufacturing Enterprise may only use process costing but would not be using contract costing and other costing systems, but a boat building enterprise might use contract costing but not the process costing and other costing systems

Mohr, Z., (2015), claimed even though cost accounting is generally useful for the organization to look at the overall performance as a whole, but departmental managers are likely to resist using cost accounting as an accountability measure of performance.

And inherent weaknesses of costing systems may reduce its positive significant effect on operational performance. Wann (2022). Such inherent weaknesses costing systems only consider financial data and ignore nonfinancial factors which impact operational performance such as customer satisfaction and product quality dimensions (aesthetics of the product, perceived quality of the product of customers, customers' reliability on the product, etc..).

All this information suggests, even though costing systems positively affect operation performance it is not statistically significant.

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4.5.2–Budgeting system and operation performance

According to tables 9 and 10, the budgeting was a statistically meaningful predictor of operation performance, (β = 0. 256; t = 2.439; p = 0.016).

These findings present that the budgeting system within SMEs in the manufacturing sector, positively and significantly impact operational performance.

4.5.3-Performance Evaluation system and operation performance

According to tables 9 and 10, the performance evaluation was statistically significant indicator of operation performance. (β = 0. 275; t = 2.747; p = 0.007. These findings emphasize the performance evaluation system has a positive impact on operational performance and has a statistically significant relationship

4.5.4 Decision support system and operation performance

According to tables 9 and 10, the decision support system was not a statistically meaningful predictor of operation performance, (β = 0. 007; t =0.070; p = 0.945) in the regression analysis. These findings emphasize the decision support system has a positive impact on operational performance, but it is not a statistically significant relationship.

The results of this study contradicted the established view that the Decision Support System has a significant influence on operation performance. These findings are in line with Maziriri, E. and Mapuranga, M. (2017).

The above findings can be demonstrated by the fact that small business owners make decisions using distinct processes. As a result, the present models of decision-making systems are unable to explain how small and medium-sized enterprises make decisions (Gilmore & Carson, 2000). Small and medium-sized business decision-making differs from that of giant corporations because small and medium-sized entrepreneurs rely on their instincts to adapt to new environmental developments (Brouthers et al. 1998; Gilmore, A. and Carson, D. 2000). Additionally, Busenitz, L. & Barney, J. (1997) asserted that due to their limited access to information and market prospects, business owners tend to adopt more biased and heuristic decision-making techniques.

4.5.5 *Strategic management accounting system and operation performance*

According to tables 9 and 10, the Strategic management accounting system was a statistically significant predictor of operation performance, (β = 0.177; t = 2021; p = 0.045) in the regression analysis. These findings emphasize the performance evaluation system has a positive impact on operational performance and a statistically significant relationship.

5. CONCLUSIONS

The aim of this study was to address the research problem of how the of management accounting practices influences the operation performance of SMEs in the Manufacture sector of the Colombo district. The study concluded There is an effect of Management accounting practices on operations performance. In order to answer,

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the research questions study concluded, in relation to regression analysis findings, the budgeting system, performance evaluation system, and strategic management accounting system to have a statistically significant and positive impact on operational performance. Costing systems and Decision support systems were found to be positive but not statistically significant.

The study results found operational performance can be improved by the use of management accounting practices. Therefore, as for implications, it is recommended on the manufacturing small and medium enterprises' management, to focus on improving management accounting practices to strengthen and improve the operational performance. Further policymakers can you use this results to improve the awareness of the SME owners in financial literacy.

One weakness of the study is only quantitative analysis method was used to conduct the investigation. The results might have been more enlightening if it had done using mixed analysis method, which combines aspects of qualitative and quantitative research.

As for future areas for research, it is recommended to find the mediating and moderating factors that impact the management accounting practices and operation performance. Finally, it is advised to research the specific differences and parallels between the use of management accounting methods in various industries in order to discover answers to issues related to the use of such practices in SMEs, for the further development and improvement of economy of Sri Lanka.

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Appendix

Table 11:KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.881
Bartlett's Test of Sphericity	Approx. Chi-Square	5342.842
	df	903
	Sig.	.000

Source: Author constructed

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