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Effect of Management Accounting Techniques on Performance of Sulfo Rwanda

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Abstract: *Management accounting offers a good best opportunity for firms to compete in the market in order to offer best quality commodities and services at low and affordable prices to consumers. The study focused on the effects of management accounting techniques on performance of manufacturing companies in Rwanda from 2011 to 2020. It adopted a descriptive survey design. The target population for the study 257 in Sulfo Rwanda ltd as a case study. Stratified random sampling method was applied to come up with the sample size, since the population in the manufacturing firm is considered heterogeneous, implying that a simple random sample is unrepresentative. The study used primary data using questionnaires as a form of collecting data. The data collected were both quantitative and qualitative. Qualitative data is a categorical measurement expressed not in terms of numbers, but rather by means of a natural language description. Quantitative data is a numerical measurement expressed in terms of numbers. Analysis was done using Statistical Package for Social Sciences (SPSS), allowing the researcher to present the information in form of tables and figures. The study concluded that information for management accounting practice amongst the manufacturing companies in Rwanda followed by strategic analysis, budgeting, cost analysis and performance. R2 = 0.738 and Adjusted R2 = 0.702, show the goodness of fit of the estimated model. Up to 73.8% of long-run appreciation in performance is influenced by changes in budgeting; cost Analysis; strategic Analysis control as implemented by SULFO. The variation of Pearson Coefficient correlation is between -1 and 1; thus according to the results of P-Values (probability significance), they are categorized as positive correlation; therefore, this leads to confirm that there is significant relationship between management accounting techniques and performance of SULFO. The P-value (probability) of all results for correlation coefficient are lower than the conventional 5% (P<0.05); therefore, the correlation coefficients are statistically significant, this lead to confirm the significant relationship among variables means independent variables affected statistically the dependent variable at significant level.*
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Keywords: Management Accounting, Accounting Techniques, Performance and Sulfo Rwanda

I. INTRODUCTION

Managerial Accounting, or Management Accounting (MA), is a set of practices and techniques that focus on providing managers with financial information to help them make decisions and maintain effective control over corporate resources. These include the techniques and approaches necessary for effective planning, decision making (choosing among alternative business actions) and controlling through the evaluation and interpretation of performance. Competition in the trade industry may require the management to advance trade tactics and strategies that would direct an organization towards profit increment. This may be attained through decreased cost of production and operations and increased trading. MA avails schemes for both manufacturing and service industries (Abdel-Kader, 2018).

For Rwanda, accounting profession or field has grown extremely with the adoption ofInternational Financial Reporting Standards (IFRS) and International Accounting Standards (IAS) as accounting and auditing standards. Throughout the years, the challenge in keeping costs down in order to maintain better performance has been dominant in most firms and especially those listed on the Rwanda Development Boards (RDB) given the pressure from the shareholders for firms to post better performance. Generally, economic situation in Rwanda investors and shareholders are looking for companies that can create and generates wealth for them hence companies which perform poorly do not attract investors. Management accounting offers the best opportunity for firms to compete in the market in order to offer best quality products and services at affordable prices to consumers. Most of the current research literature on accounting in

Rwanda manufacturing companies tends to be more biased toward the financial accounting, information technology adoption as well as research in credit accessibility for manufacturing companies, more so only remote exists in regard to effects of management accounting practices on financial performance of manufacturing companies in Rwanda (Alleyne, 2010).

There is a rise of issues and difficulties of ineffective management accounting practices, products delayed, distorted, or too highly aggregated information that can easily undermine the efforts of companies with excellent research and development, production, and marketing activities. Rwandan companies are not achieving or accomplishing properly their goals and objectives, where many reasons are considered to threatening industries' objectives: some of them are winding up due to ignoring management accounting practices in financial performance process, lack of better knowledge about management accounting and many industries are in trouble (Jonhson, 2015). Some of manufacturing industries' product grow slowly and others grow negatively and managers have a big challenge of developing management accounting practices on financial performance. The general objective of this research was to investigate the effect of management accounting techniques on financial performance of manufacturing companies in Rwanda.

Management accounting systems of many companies in Rwanda do not guarantee competitive success and companies do not have good products and efficient operating process.

Decision-making and required Information, the assumption that management will use management accounting tools in making decisions places a burden on the management accountant. Each tool requires special information. The management accountant will be required to provide the specialized information needed. Management accounting texts and records have traditionally emphasized the mechanics of techniques with little emphasis on how to obtain the necessary data. In several cases, the inability to obtain the required information has rendered particular techniques useless for improvement of industries performances (Ashton et al., 1991).

1.1 Statement of the Problem

Certain manufacturing companies' products grow slowly and others grow negatively and managers have a big challenge of developing management accounting practices in decision making that support the basic managerial tasks of organizing, planning, and controlling operations to achieve excellence throughout the organization; a researcher has been inspired to do a this research in order to describe clearly the effect of management accounting on performance of manufacturing industries as major objective of this study by looking through some manufacturing industries in Rwanda

1.2 Objective of the Paper

To establish the effect of management accounting on performance of SULFO Rwanda during the period from 2011 up to 2020.

1.3 Research Hypotheses

HO: There is no relationship among management accounting and performance of SULFO Rwanda.
H1: There is significant relationship among management accounting and performance of SULFO Rwanda.

II. REVIEW OF RELATED LITERATURE

2.1 Theoretical Review

2.2.1 Institutional Theory of Organizations

The institutional theory of organizations is an adaptive change process framework. It examines the impact of external environment factors and market conditions on organizational change and development (Barnet&Caroll,1995). The institutional theory depends, heavily, on the social constructs to help define the structure and processes of an organization (Scott, 2001). Using institutional theory, Burns and Scapens (2000) have conceptualized management accounting change as change in organizational rules and routines. Under old institutional economic (OIE) theory, management accounting is conceived as a routine, and potentially being institutionalized, management accounting practices can both shape and be shaped by institutions which govern organizational activity. In OIE there are three dichotomies which offer insights into the process of management accounting change. They are: (1) formal versus informal change; revolutionary versus evolutionary change; and (3) regressive versus progressive change (Burns &Scapens, 2000). Burns and Scapens (2000) conceptualized the formal versus informal change dichotomy as the most

appropriate for explaining the relationship between management accounting and organizational change. The theoretical assumption underlying the first dichotomy provides that there is a relationship between the level of management accounting practices and organization

Performance Formal and informal management accounting change is used to imply that change is not specifically directed (formal change), but may evolve out of the intended actions of the individuals who are enacting and reproducing organizational routines (informal change) (Meyer & Rowan, 1977). Mat (2010), formal change occurs through the introduction of new management Accounting systems and techniques, which in turn, engender the organization to change including organizational performance. Therefore, management accounting practices include formal practices such as costing system, costing techniques, budgetary system, performance evaluation system andstrategic accounting (Smith et al. 2005). These theoretical management accounting practices are explored among the manufacturing firms within the study frame. This provides theoretical concepts underlying one of the objectives of study which focuses on identifying the Manufacturing Accounting Practices adopted by these firms.

III. METHODOLOGY

This is the extensive study and review of published documents, reports, magazines, journals and policy reports related to the topic. This is important because it reviews the literature and tries to locate global perspectives in order to make a comparative framework for analysis and evaluation for readers; therefore, the researcher used this documentary technique in order to conduct and get secondary data.

The study used a regression model to predict the extent to which the identified independent variables affect the dependent variable. The regression line was represented by the following model: Y= Bo+B1X1+B2X2+B3X3+E…….Where; Y= performance

Bo= constant

X1=budgeting

X2=cost analysis

X3=strategic analysis

B1-B3= coefficient of estimates

E=error term

IV. FINDINGS

4.1.Presentation of regression summary

Coefficients

Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*
		B	*Std. Error*	*Beta*		
1	*(Constant)*	*-.423*	*.551*		*-.767*	*.0031*
	Budgeting	*.587*	*.161*	*.407*	*3.645*	*.0001*
	Cost Analysis	*.545*	*.154*	*.258*	*3.538*	*.0018*
	Strategic Analysis control	*.532*	*.153*	*.027*	*3.477*	*.0008*

Dependent variable: Performance of SULFO Source: SPSS, October 2022

Based on the model coefficient result the model becomes:

PS=-0.423+0.587BUD+0.545CA+0.532SAC+εt;

Considering other variables stay constant then

As explained by Ho1 saying that budgeting has significant effect on performance of manufacturing industries; therefore, the change of one percent (1%) of budgeting leads to 58.7% change of performance, and hypothesis was accepted.

As explained by Ho2 saying that; cost analysis has significant effect on performance of manufacturing industries; therefore, the change of one percent (1%) of cost analysis leads to 54.5% change of performance, and hypothesis was accepted.

As explained by Ho3 saying that strategic has significant effect on performance of manufacturing industries; therefore, the change of one percent (1%) of strategic analysis control leads to 53.2% change of performance, and hypothesis was accepted.

Correlations among variables

		Budgeting	*Cost Analysis*	*Strategic Analysis control*	*Performance of SULFO*
Budgeting	*Pearson Correlation*	*1*	*.442**	*.469**	*.481**
	Sig. (2-tailed)		*.000*	*.000*	*.000*
	N	*257*	*257*	*257*	*257*
Cost Analysis	*Pearson Correlation*	*.442**	*1*	*.311*	*.344**
	Sig. (2-tailed)	*.000*		*.000*	*.000*
	N	*257*	*257*	*257*	*257*
Strategic Analysis control	*Pearson Correlation*	*.469**	*.311*	*1*	*.586**
	Sig. (2-tailed)	*.000*	*.000*		*.000*
	N	*257*	*257*	*257*	*257*
Performance of SULFO	*Pearson Correlation*	*.481**	*.344**	*.395**	*1*
	Sig. (2-tailed)	*.000*	*.000*	*.000*	
	N	*257*	*257*	*257*	*257*

4.2 Regression analysis

4.2.1 ANOVA

ANOVA

Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*

1	Regression	20.041	3	6.680	8.204	.000[a]
	Residual	29.637	62	. 478		
	Total	49.678	65			

a. Predictors: (Constant), Budgeting; cost analysis; strategic analysis control

b. Dependent Variable: performance of SULFO

For testing whether variables are correlated or not; it's better to find the division and variation of Sum of Squares which is equal to 49.678. Therefore, the variables are significantly correlated at regressive level.

From the ANOVA output, the p-value is less than 0.05, which indicates that the performance of SULFO in Rwanda was significantly influenced by independent variables; therefore, the overall regression model was

significant.

4.2.2 Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982[a]	.738	.702	.92225

a. Predictors: (Constant), Budgeting; cost analysis; strategic analysis control
Source: Researcher; Primary Data, SPSS, October 2022

R2 = 0.738 and Adjusted R2 = 0.702, show the goodness of fit of the estimated model. Up to 73.8% of long-run appreciation in performance is influenced by changes in budgeting; cost Analysis; strategic Analysis control as implemented by SULFO.

4.3 Correlations

The variation of Pearson Coefficient correlation is between -1 and 1; thus according to the results of P-Values (probability significance), they are categorized as positive correlation; therefore, this leads to confirm that there is significant relationship between management accounting techniques and performance of SULFO.

The P-value (probability) of all results for correlation coefficient are lower than the conventional 5% (P<0.05); therefore, the correlation coefficients are statistically significant, this lead to confirm the significant relationship among variables means independent variables affected statistically the dependent variable at significant level.

V. CONCLUSION AND RECOMMENDATION

The following equation model shows the statistical effects among variables and helped researcher to take conclusion, as delivered below:

For testing whether variables are correlated or not; it's better to find the division and variation of Sum of Squares which is equal to 49.678. Therefore, the variables are significantly correlated at regressive level. From the ANOVA output, the p-value is less than 0.05, which indicates that the performance of SULFO in Rwanda was significantly influenced by independent variables; therefore, the overall regression model was significant. R2 = 0.738 and Adjusted R2 = 0.702, show the goodness of fit of the estimated model. Up to 73.8% of long-run appreciation in performance is influenced by changes in budgeting; cost Analysis; strategic Analysis control as implemented by SULFO.

The variation of Spearman Coefficient correlation is between -1 and 1. Spearman Coefficient correlation is significance when it is equal or greater than 0.01. According to the research, the correlation of 0.858 (85.8%) is located in the interval [0.75 - 1.00] categorized as positive and very high correlation. As the significant level is at 0.01 (1%), the p-value of 0.000 (i.e. 0.0%) is less than 1%. And by referring to the results from PS= -0.423+0.587BUD+0.545CA+0.532SAC+εt .This leads to confirm that there is significant relationship between management accounting techniques and performance.

The study recommends that in order to make strong management accounting techniques, the researcher suggests SULFO to work with the partners constantly to improve their products and services and to provide the outputs that wanted on time so that they are always more profitability by basing on the findings obtained on the field. The employees and partners of Sulfo, who have particularly, the management accounting techniques into their attribution and responsibilities, are suggested: To allow SULFO actors learn from each other's experiences, building on expertise and knowledge; to ensure the security in budgeting services; to reveal SULFO mistakes and offers paths for learning and improvements; to provides a way to assess the financial crucial link between implementers and beneficiaries on the ground and decision-makers; and to sensitize partners on usage of budgeting and services by conducting public awareness programs to improve their knowledge.

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