

Factors Determining Allocation of Common Costs in the Financial Services Sector: A Study of Rural Banks in the Ashanti Region of Ghana

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Abstract

One of the necessary conditions for organisational controls to work is that the manager whose performance is being measured must be able to affect the results in a material way. The controllability principle in management accounting is one of the central tenets of responsibility accounting, (Merchant and Van der Stede, 2007).

The study assessed whether in measuring the performance of these branches factors that are within the control of these branches are considered. In addition the study examined the impact of contingent factors on the application of the controllability principle.

The study found out that branch managers do not have full autonomy and control over common resources costs which form part of their evaluation, even though management accounting theory suggest that.

The study findings also revealed that profitability (i.e. operating profit margin, Return on shareholders' capital) and liquidity (i.e. current ratio and working capital ratio) have varied impact on the use of performance measures, and the allocation of common costs to branches in the rural banks in the Ashanti Region of Ghana.

JEL classification numbers: M40, M41, G14

Keywords: Responsibility accounting, allocation of common cost, Rural Banks, Ghana.

Introduction

Management accounting theory suggests that two different measures of branch performance should be computed; one to evaluate the economic performance of each branch and the other to evaluate the performance of branch managers (managerial performance). It also advocates that the evaluation of a manager's performance should consist of only those factors under his or her control. That is, divisionalised performance measurement should be based on the

application of the controllability principle, (Drury, 2005; Merchant, K. and Van der Stede, W. 2007; Burksaitiene, D. 2008).

The major categories of responsibility centres where performance measurement systems are used, according to Drury, C. (2007) in organizations is:

- Cost centers: - these are responsibility centres whose managers are normally accountable for only those costs that are under their control (p 653).
- Revenue centres: - these are responsibility centres where managers are accountable only for financial outputs in the form of generating sales revenues (p 654).
- Profit centres: - these are responsibility centres where managers are accountable for both revenues and costs (p. 655).
- Investment centres;- these are responsibility centres where managers are responsible for both sales revenue and costs and, in addition, have responsibility and authority to make working capital and capital investment decisions.(p. 655).

Responsibility Accounting

Responsibility accounting is a system which recognises various decision centres within a business and traces costs and revenues to the individual managers who are primarily responsible for making decisions about the items in question.

Common Cost Allocation and Managerial Performance Evaluation

Most organizations allocate common costs to their branches and managers. However, some people argue that responsibility accounting suggests not allocating costs over which managers have no control, Zimmerman, (2003).

Merchant, K. and Van der Stede, W. (2007; p261) report

"That in many organisations different profit and Return on Investment (ROI) measures is computed for two distinct purposes. Those that measure the performance of the manager of the entity emphasize the elements of performance that the manager can influence. It is thus used to motivate the proper behaviours and to evaluate the manager's performance.

The second measure if of economic performance of the entity and thus the measures include many items that the manager cannot influence. Things like interest expense and taxes are included as it is used to evaluate the entity's business for purposes of making decisions."

Horn gren et al. (2006, p544) define common costs as "costs of operating a facility, activity, or like cost object that is shared by two or more users". It is also known as on cost, overhead and joint costs as the terms are interchangeably used. It is also known as overhead. Overheads, by definition, cannot be charged direct to cost units, but must be shared equitably between

them. Needless to say, cost accountants often have different opinions on what is equitable. Such differences of opinion are permissible, providing they are based on an intelligent understanding of the circumstances.

Common costs are normally allocated to divisions in divisionalised organisations to evaluate the performance of managers in such divisions. The methods used ranges from divisional sales to divisional assets. Studies by Reece and Cool; and Fremgen and Liao [cited in Drury and Shishini (2005)] showed that over 80% of the respondents allocated central service costs (common costs) for performance evaluation. The main reason for the allocation of common costs was to remind responsibility centre managers that the costs exist and they must make sufficient profits to cover them.

Some researchers like Beckett, on the other hand kicked against the allocation of common costs as they can obscure the performance of divisional managers. The argument for kicking against the allocation of common costs is that responsibility centre managers have no control over such costs. They thus object to charges that they cannot influence and control (Drury and Shishini, 2005).

The allocation of common costs, according to researchers like Wells, is necessary for managerial performance. However the consensus among management accounting writers is that only controllable costs should be allocated for managerial performance evaluation (e.g. Drury, 2005).

One of the necessary conditions for organisational controls to work is that the manager whose performance is being measured must be able to affect the results in a material way. The controllability principle in management accounting is one of the central tenets of responsibility accounting, (Merchant and Van der Stede, 2007).

According to Merchant,

"[a necessary condition for results control to work is that the person whose behaviours are being controlled must be able to effect the desired results in a given time span; that is, the results must be controllable. This controllability principle - that individuals should not be held accountable for results that they cannot control - appears throughout the control literature." (p21).

Horngren, Datar and Foster (2003, p192) states that *"Controllability is the degree of influence that a specific manager has over the costs or revenues in question"*. According to them, controllability aid motivation and the analysis of performance. As Solomons (cited in Merchant and Van der Stede, 2007, p30) puts it,

"It is almost a self-evident proposition that, in appraising the performance of divisional management, no account should be taken of matters outside the division's control".

Managers should logically only be judged on their financial performance if they have control over that performance. At all levels of management certain aspects of their job which affect the overall economic performance of their business may be outside their immediate control. For example, a subsidiary company of a multinational company does not have control of the fiscal and tax system of the country it operates. Thus in measuring the performance of such a manager or the branch care should be taken in applying the net profit after tax as the only measure, (Sims and Smith, 2004).

According to Drury, C. and EL-Shishini, H. (2005, p15) *“the need to distinguish between divisional managerial and economic performance leads to three different profit measures – divisional controllable profit, divisional contribution to corporate sustaining costs and profits and divisional net income.”* Alternative ways of overcoming such difficulties is the use of performance measure such as the balanced scorecard which combines both financial and non financial measures.

Despite this suggestion, the literature reviewed showed that only few studies (e.g. Drury, 2005; Burksaitiene, D. 2008) have examined whether divisionalised companies use different performance measures for measuring the performance of their divisions and the performance of divisional managers. Studies by Lorenzo, (2008) have emphasised the need to use multidimensional performance measures in the service sector such as the banking sector.

Also only a few of the literature reviewed studied the application of performance measures in the financial services sector; for example (Fakhri, G., Menacere, K., and Pegum, R., 2009). Whilst the researchers spend a lot of time in finding the factors leading to the selection of the various performance measures, financial and non financial and the balanced scorecard, they did not test the application of the controllability principle using contingency theory.

Taking into consideration the important role that the rural bank branches play in savings mobilisation in the rural areas of Ashanti Region, and contribution towards the profitability of the bank there is the need to research into how the performance of the branches are measured and also how the controllability principle works in these organisations.

This study therefore, is to research into how the performance of these bank branches is measured, factors influencing the selection of the performance measures, and what the outcome is used for.

Despite the important role that application of divisionalised performance measurements play in motivating managers and branches in achieving their targets, it is perhaps surprising that no previous research has been conducted on the use of divisionalised performance measurement techniques in the rural banks in the Ashanti Region of Ghana.

Performance management is an important part of management accounting where many researchers have shown a lot of interest especially in the developed economies but only little research has been conducted in a developing country setting. In an attempt to encourage

research in performance management in the developing countries Waal (2007) states as follows:

"Performance management can be regarded as one of those theories whose validity needs to be tested in an emerging country's context, as this context can be more dynamic

And be completely different from a developed country's context" (Waal, 2007).

This study is therefore set to fill that vacuum.

Literature Review

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remind responsibility centre managers that the costs exist and they must make sufficient profits to cover them.

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Research Methods

To be able to conduct research into the use of divisionalised performance measurement techniques in the rural banks in the Ashanti region of Ghana, a mail survey questionnaire was used to collect data.

There are 21 rural banks in the Ashanti Region, each comprising of more than 6 branches. Considering the topic for the study, all the rural banks constitute the population as well as the sample for the study. That means the study used the census as the sample. The validity and

reliability of any research data depend to a large extent on the source and technique used in collecting the data. The quantitative research strategy was adopted to reduce the possibility of the researcher influencing the outcome.

A questionnaire eliciting details on, inter alia, application of divisionalised performance measurement techniques was hand delivered to the supervising managers of the 21 banks. This method is justified on practical grounds as being the most effective means of data collection in the Ghanaian situation. While the mail survey is popular in advanced countries with efficient and reliable postal systems leading to its use in many studies, it is not so in Ghana. The construction of the questionnaire was guided by the literature reviewed and other variables of interest.

A document study using the published financial statements of the banks was also conducted to help obtain further information about the firms.

In consideration of the sensitivity of the data being sought, survey subjects were assured of the confidentiality of their responses.

Results

Allocation Of Common Resource Costs

The common resources costs used in the study include; central costs relating to activities such as data processing, marketing services, training programmes, accounting, internal auditing, legal services and personnel (Drury and El-Shishini, 2005).

The respondents indicated that the bank branches use common resources. They were also asked to indicate whether some of the costs of common resources were allocated to branch managers prior to computing the performance measures. Out of the 17 respondents 76.5% (n=14) stated that they allocated some of the costs of common bank resources to branch managers prior to computing the performance measures. Only 23.5% (n=3) stated that they did not allocate such costs to branch managers for the purpose of performance evaluation. The findings of the study is consistent with Fregman and Liao's 1980;(cited in Drury and El-Shishini 2005) survey of 123 large companies in the United States of America, out of which 80% indicated that they allotted central services costs for performance evaluation. The respondents stated that the main reason for allocation was to remind profit centre managers that central costs were incurred on the bank as an entity and that divisions must make enough profit to cover their share.

In order to obtain an indication of the relative cost of common resources, information was collected on the approximate amount of the costs of common resources as a percentage of branch annual income. Table 4.10 below summarizes the responses to this question. The study found out that the amount of the costs of common resources varies; it is 20% of branch annual income or less for approximately 94% of the respondents. Overall the cost of common resources, as a percentage of branch annual income, is relatively low. In Drury and El-Shishini's

(2005) study, the cost of common resources was 10% of divisional turnover or less for 73% of the respondents.

Table 1.0 the costs of common resources as a percentage of branch income

Percentage of common resources	Frequency	Percentage (%)	Cumulative percentage
0 - 10%	2	12	12
11 - 20%	14	82	94
21 - 30%	1	6	100
31 - 40%	-	-	100
Over 40%	-	-	100
	17	100	

(Source: Developed for current research)

It is apparent that the amount of the costs of common resources varies, but it is 20% or less for approximately 94% of the respondents. Overall the cost of common resources, as a percentage of branch income, is relatively low.

The respondents were asked to indicate whether some of the common resources were allocated to branch managers before computing the performance measures. Out of the 17 respondents, 82% (n=14) stated that this was the case and 18% (n=3) stated that they did not allocate such costs to branch managers for the purpose of performance evaluation.

The study attempted to assess the extent of controllability of the cost of common resources allocated to branches. The respondents were therefore, asked to specify whether or not cost of common resources were allocated to branch managers prior to computing the performance measures.

Factors Influencing The Allocation Of Common Costs To Branches

Several management accounting writers and researchers have written a lot on the allocation of common costs and it continues to be a pervasive problem for researchers for a long time (Horngren, Foster and Datar, 2005, Zimmerman, 2003). Horngren, Foster and Datar, therefore recommend the establishment of a reasonable cause and effect relationship as a means to end this common cost allocation dilemma (Horngren, Foster and Datar, 2005).

According to Zimmerman (2003, p.343) costs are allocated to motivate and control the behaviour of people within organisations. "Cost allocations act as an internal tax system. Like a tax system, they can change behaviour". In the agency setting cost allocation can be used as a motivational tool to encourage resource usage in the best interest of the principal.

To test the hypothesis; *the decision to allocate common costs to branches are likely to be based on internal factors*, a multiple regression was conducted.

The multivariate test used is the standard multiple regression analysis and the regression model is:

$$Y_1 = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where:

Y_1 = Allocation of common costs

a = constant (the intercept)

X_1 = Current ratio (Current assets divided by current liabilities)

X_2 = Working Capital ratio / debtor turnover (Average debtors divided by interest income)

X_3 = Return on Capital Employed (Earnings before interest and tax divided by net assets).

X_4 = Operating Profit Margin (profit before interest and tax divided by interest income)

X_5 = Return on Shareholders' Capital (Profit after tax divided by shareholders' funds)

e = error term.

Table 4.14: Multiple regression results for Hypothesis 7, H7: the decision to allocate common costs to branches is likely to be based on internal factors

Model Summary (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.664(a)	.440	.403	.30358	2.378

a Predictors: (Constant), Current ratio, Return on shareholders' capital, operating profit margin

b Dependent Variable: Allotment of common cost

The R^2 value (0.440) shows the amount of variance in the dependent variable, allotment of common cost that can be explained by the independent variables, current ratio, and return on shareholders' capital and operating profit margin.

From the model summary above, the R (0.664) is the coefficient of correlation and it indicates the degree of the relationship or association between the dependent and the independent variables.

The R² (R square) also known as the coefficient of determination, measures the percentage of variation in the dependent variable that is explained by changes in the independent variables. The coefficient of determination being 0.440 means that 44.0% of the variability in the use of non financial performance measures can be explained by the variability in the current ratio, return on shareholders' capital and operating profit margin of the rural banks.

The Durbin-Watson value of 2.378 indicates that the data has no serial correlation or autocorrelation problem.

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.443	0.208		2.126	0.053
	Current ratio	0.063	0.012	0.653	5.352	0.000
	Return on shareholders' capital	0.086	0.021	0.526	4.178	0.001
	Operating profit margin	0.049	0.019	0.343	2.663	0.020

Dependent Variable: Allocation of common costs

The unstandardized coefficients B column gives us the coefficients of the independent variables, current ratio, return on shareholders' capital and operating profit margin, in the model. Model 1: Allocation of common costs = 0.443 + 0.063 current ratio + 0.086 return on shareholders' capital + 0.049 operating profit margin.

The standardized beta coefficients 0.653 current ratio, 0.526 returns on shareholders' capital and 0.343 operating profit margin, inform us of the contribution that the variables make to the model.

ANOVA (b)

Model		Sum of Squares	Df	Mean Square	F	Sig.
3	Regression	2.500	3	.833	19.371	.000(a)
	Residual	.559	13	.043		
	Total	3.059	16			

- a. Predictors: (Constant), Current ratio, Return on shareholders' capital, Operating profit margin
- b. Dependent Variable: Allocation of common costs

From the ANOVA table, the sig. (p value) = 0.000. As $p < 0.05$ the predictor variables, current ratio, return on shareholders' capital and operating profit margin are significantly better than

would be expected by chance. The regression line predicted by the independent variables explains a significant amount of the variance in the dependent variable, $[F(3,13) = 19.371; p < 0.05]$.

The results of the regression analysis shows that there is a significant positive coefficient ,i.e. standardised beta, between; current ratio (0.653) the return on shareholders' capital (0.526) and operating profit margin (0.343) and the decision to allocate common costs to the branches. The significantly positive coefficient of Return on shareholders' capital and operating profit margin shows that profitability and solvency play a significant role in the rural banks and are therefore taken into consideration when allocating common costs to branches. Thus *H1: the decision to allocate common costs to branches are likely to be based on internal factors*, cannot be rejected.

The significantly positive coefficient of profitability ratios; return on shareholders' funds and operating profit margin shows that firms that are able to generate high profits tend to allocate common costs to branches prior to measuring their performance, whilst the reverse is also true.

Management accounting theory states that holding managers accountable for uncontrollable costs would lead to dysfunctional behaviour and hence poor performance. Since most of these dysfunctional behaviours occur mainly in the form of the manipulation of financial data, according to Merchant (2007), it is not surprising that the rural banks are basing their decision on profitability and return on shareholders' funds.

The net assets of banks belong to the shareholders. They represent capital tied up in the business. Modern financial management asserts that the goal of business is to increase the wealth of the shareholders. Rappaport (1998) defines shareholder wealth (or shareholder value as he calls it) as:

Business value = Present value of free cash flows from operations plus value of marketable securities.

To increase shareholder value, management should increase business value or reduce debt. Thus in using return on shareholders' funds as the basis to allocate common costs to the branches, the banks headquarters are reminding the branches to generate sufficient profits to improve on shareholder value.

The findings of this study do not support Ramadan's study that examined the perception of top management in 120 large UK divisionalised companies in relation to common cost allocation. He found that the decision to allocate common costs was related to organisational variables, among which was the number of divisions and degree of decentralization.

The findings of this study are also inconsistent with what Zimmerman found that companies that allocate costs to their reportable business segments tend to be large in size. Thus size is a determinant in the allocation of common costs to divisions.

Branch managers can determine quantity acquired and the price paid because they have the authority to purchase the services either inside or outside the organisation. That is, they have full autonomy over their acquired services and their prices. Out of the 17 responding banks, only 4 (24%) stated that branch managers have full autonomy and controllability over common resources. Thus the hypothesis; *Branch managers and branches' performances are likely to be based on controllable factors* was not supported by the findings of the study.

Conclusion

Despite the fact that management accounting literature, (e.g. Drury, 2007) recommend that the performance of divisionalised managers should be evaluated based on controllable factors, that is not the case with the sample studied. According to Drury (2007, p843) *"Controllable contribution is the most appropriate measure of a divisional manager's performance, since it measures the ability of managers to use the resources under their control effectively"*.

The study therefore shows that even though management accounting theory advocates for the use of controllable factors in measuring the performance of divisional managers, it is not so in practice. There is the need to measure the performance of both branch managers and their branches based on controllable factors as that helps in measuring their true economic performance. This is necessary as most cost allocations tend to be arbitrary and do not have any connection with the manner in which the branches can influence such costs (Drury, 2005). To know the true performance of branch managers they must be evaluated on costs they have control over. As Merchant and Van der Stede (2007, p461) states:

"Organizations that hold employees accountable for uncontrollable factors bear the costs of doing so because the vast majority of employees are risk averse, that is, employees like their performance-dependent variables to stem directly from their efforts and not be affected by the vagaries of uncontrollables".

Excessive use of uncontrollable factors in the measurement process can reduce the morale of the staff involve hence steps should be taken to reduce their use.

Though the study found that the managers and branches' performances were evaluated based on non controllable factors they were satisfied with the system.

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