

THE EXTENT TO WHICH ACTIVITY BASED COSTING SYSTEM AFFECT FINANCIAL PERFORMANCE OF SMES: DESKTOP STUDY

Lynette Paradza

Midlands State University

Newman Wadesango

University of Limpopo

ABSTRACT

The purpose of the desktop study research was to establish the extent to which Activity Based Costing System affect Financial Performance of SMEs. We have located the research of this paper within a qualitative approach (Gay 1992; Babbie 1998; Leedy & Ormrod 2013). This decision was informed by the fact that this paper is not interested in the quantification of data. But its main interest lies in the painting of qualitatively rich picture of the phenomena being studied within the context of limited respondents” (Hall 2007; Maserumule 2011; Baugh & Guion 2016). To this end, the problem of this study is explained descriptively and theoretically for the purpose of generating a crispy understanding of the extent to which Activity Based Costing System affect Financial Performance of SMEs. In terms of data collection, the authors sourced and reviewed literature on the topic. Among others, this source included journal articles, books, magazines and newspapers. The results obtained from this study revealed on statistical insignificance on effect of ABC system and cost control. The researchers observed a negative correlation relationship between ABC system and cost control. As observed, when activity-based costing increases cost control decreases the vice versa. Therefore, there was no improvement in the cost control and cost reduction meaning that improvement in costs.

Keywords: Activity Based Costing System, Financial Performance, Smes. Cost Control.

1. INTRODUCTION

Small and medium firms have a significant role in economic growth as they contribute to job generation as well as to the gross domestic product (GDP) and they greatly enhance to introduction of new technologies according to Kocakulah et al., (2017). Additionally, according to Munanga (2013), “excessive operating costs make it challenging for Small and Medium-Sized Enterprises to turn a profit because they may hinder their working capital and profitability. High operational expenses might certainly make it impossible for SMEs to offer their items at competitive pricing, thus the issue of poor sales”. Lyne (2014) defines operational cost as “cost of operating a firm, although they vary on the kind of business and may be characterized as (fixed cost) for example rent whereas operational/production cost might alter i.e. can go up or decrease from month to month”.

2. OVERVIEW OF ACTIVITY BASED COSTING SYSTEM

In the field of management accounting, Cooper and Kaplan created the activity-based costing system as a method of cost allocation. According to Hardan and Shatnawi (2013), “Activity-Based Costing (ABC) was created at the end of the 1980s as a costing methodology that overcame the limitations of previous systems by providing more precise cost information for commodities, consumers, services, and processes”. These scholars went on to clarify that “this method provides more accurate cost data since it more accurately reflects the economics of the manufacturing process than the traditional unit-based costing methodology” according to Cooper and Kaplan (1988), who were referenced by (Shibab and Sivaram ,2017).

According to Palaioqk and Tjalsma (2012), “the strategy was successfully used in industrial and service divisions to improve tactical and strategic decision making as well as to activate cost management and customer

profitability”. Additionally, “Activity Based Costing was initially developed for production processes, and its proponents base their argument on the notion that the complexity of production differs between different goods, and that the consumption of data regarding the quantity of activities consumed by cost items is based on this notion” (Boris, 2013). These academics further explained that “this technique reflects the economics of the manufacturing process more precisely than conventional unit-based costing system consequently delivering data that is free from error” (Salem and Mazhar, 2014).

According to Pokorna, (2016), “the Activity Based Costing method finds the relationships between cost factors and activities. Products, services, cost centers, and departments can all be considered as cost objects”. According to Drury (2012), “Activity Based Costing is a two-step allocation, initially it distributes overheads to each key activity rather than departments and secondly there is allocation of expenses from cost pools to different designated cost objects”.

2.1 Benefits and Limitations of Activity Based Costing

Salem and Mazhar (2014) assert “activity-based costing system does not solely operate as foundation for computing more accurate product cost but acts as a method for controlling expenses”. Sarah (2015) explained the advantages of adopting Activity based pricing approach. “Firstly, it permitted the identification of the items and services that are lucrative and less profitable. Secondly, estimates expenses precisely, which allows better control over indirect expenditures. Moreover, it gives information to enable feasible strategic decision-making. Further says that it can be used to all sorts of organizations, and it enables expenditures to be associated the drivers. Lastly, assesses the achievements of both employees and divisions”.

However, irrespective of the benefits gained by activity-based pricing method there are also downsides related with it as revealed by various scholars. Sara (2015) revealed that “Activity Based Costing system had numerous drawbacks as described below; the cost of addressing the data high than in other systems. Secondly, the barrier in determining cost drivers is prevalent. Moreover, enhances different processes and demands main cost distribution. To add cost that is more exact is not achieved, as there are unanticipated charges. Lastly, it largely concentrates upon expenses minimization, setting aside the intended goal of the firm”.

2.2 Fundamentals of Activity-Based Costing

Al-Khadash and Nassar (2010) revealed that “the Activity Based Costing systems focus in appropriate cost apportionment of expenditure to goods relying on the cost assignment perspective”. Moreover, Turney ,(1992) quoted in Oseifuah (2014) study revealed that “there were 2 viewpoints of Activity Based Costing which are respectively cost assign view and process view”.

2.2.1 Cost assignment view

“According to this viewpoint, an organization's important actions are charged with expenses. These activities are then assigned to cost items, such as products or services that make use of the activities. Resources are used by activities; hence, they are linked to them via resource drivers that simulate the consumption of resources by activities. Each resource that is linked to an activity turns into a component of the cost of that activity” Wadesango (2022). “We can better understand why resources are used by using the information provided to identify the activities that use the most of them and potential areas for cost reduction. The following stage involves allocating resources to activities, tracking actions against cost objects, A cost object is frequently a product, a product line, or a client; as a result, it is the reason why work is done. Activity drivers evaluate how much of an activity is consumed by the cost objects. The sum of all activity expenses incurred by the cost object represents the cost object's overall cost”.

2.2.2 Process view

According to Oseifuah (2014) “Cost drivers, actions, and performance make up the building blocks of the process view. Cost drivers determine what and how much work is required to complete a task or series of tasks. For instance, a client order starts the series of steps involved in processing an order. How much is required depends on how much the client orders. Internal components pertaining to individual activity as well as those linked to earlier activities are both considered cost drivers”. Furthermore, “each action in a series is a client of the one before it. To provide value to the external client, activity collaborates with a chain of internal customers. Cost drivers are essential because they show possibilities for improvement. A faulty component obtained from supplier in this situation will need rectification activity to rectify the issue hence investing extra work and money. A quality certification scheme might assist minimize a supplier failure rate and hence reduce overall cost of both customer and supplier”.

2.3 Designing of Activity Based Costing System

According to (Kocakulah 2017), “activity-based costing includes the following techniques: identification of the activities involved in producing each product and the cost drivers used to measure them. Next, list the costs associated with each action. Also determine, through interviews, observation, or records, how much time employees spend on each of these duties for each product. Determine the activity cost driver rates last. Divide these activity costs by the output of each activity to assign these costs to products or customers”. Drury's (2012) study investigated the four steps that go into developing an activity-based costing system, including the identification of crucial business operations. According to him “This may be the aggregation of units of labor or activities for example buying of supplies might be classified as a distinct activity. It may consist of summing up several activities such as receiving a buy request, locating suppliers, producing a purchase order and doing follow-ups”.

2.3.1 Assigning expenses to cost centers for each activity

“This implies that each activity must have a cost associated with the resources it used for a specific time after the activity has been established. This makes it easier for businesses to gauge how much they are spending on certain activities” according to Oseifuah (2014). “Many activities will be directly attributed to individual Centre while some maybe indirectly and jointly shared by numerous activities e.g., manpower, lightning and heating expenses. They are allocated to tasks on the basis source and result or meeting with workers that can offer suitable estimates of used resources”.

2.3.2 Determination of cost drivers for each activity

A cost driver must be provided for each activity center and costs connected to each activity cost center must be assigned during this stage. Application of activity cost driver occurs here.

2.4 Traditional Costing System

“Traditional costing practice assigns production expenditure (factory overheads) to product cost or service, make use of direct labour or machine hours for distributing overheads” according to Mwila, Masaka and Tukumana (2022). “According to multiple sources Kaplan and Cooper studied numerous coordinated cost approaches to affect profitability and financial performance. One of them is the classic costing method utilized mostly in the past and now solely for financial reporting operations. Direct costs are assigned to cost items directly in a traditional costing approach. In contrast, each cost item is frequently allocated indirect costs” (Shibab and Sivaram, 2017). According to Drury (2012), “classic costing approach is a 2-step allocation, and initially it distributes overheads to each significant activity rather than department”.

2.5 Financial performance

“The act of performing includes carrying out, achieving and satisfying”, Ogbuu (2016). Furthermore, Ifrah, Kerosi, and Andabu (2015) describe performance “as a general term applied to some or all of an

organization's operational conduct over a period of time, generally with relation to past or anticipated cost effectiveness, managerial responsibility, or accountability". According to Ifrah, Kerosi, and Andabu (2015), "financial performance is the process of evaluating the financial impact of a firm's policies and activities".

2.6 Empirical Review

2.6.1 Benefits of adopting ABC system

'Even though it has been demonstrated that the Activity Based Costing system has many benefits when it is properly applied, its adoption and implementation among Small and Medium Enterprises has not been widespread since SMEs have paid it little attention" (Pham et al., 2021), (Alsayegh, 2020). According to Al-Dhubaibi (2021) "review on the adoption and execution of the ABC system brought significant advantages to those organizations that effectively adopted it". "The use of Activity Based Costing guarantees the survival of Small and Medium Enterprises as it is employed in cost reduction and for performance measurements" (Mohammed, 2019). "Moreover, the system permits effective allocation of resources across the full chain of production notably in manufacturing Small and Medium Enterprises another advantage stated by" (Miller-Nobles, Mattison and Matsumura, 2018). Moreover, Drury (2017) went further saying that "activity that does not have influence on profitability but still requires resources may readily be discovered utilizing the Activity Based Costing method, therefore it is deleted if necessary".

Kocakulah stated (2017) also highlighted that "there is number of possible advantages to Small and Medium Enterprises can be realized from the use of Activity Based Costing, which include;

2.6.1 Product costing is accurate, and pertinent financial and non-financial measures assist cost control and performance tracking.

2.6.2 Stronger profitability metrics are available, allowing for more educated price, product line, and market segment decisions.

2.6.3 Determine wasteful spending areas and accurately allocate overhead costs.

2.6.4 Budgets can be managed and controlled, performance can be measured, and efficiency can be increased.

2.6.5 Positively affects the performance of the company.

2.6.7 It makes decision-making easier, boosts productivity, and points out ineffective actions.

2.6.8 It serves as a foundation for making strategic decisions and a benchmark for performance and ongoing progress.

2.6.9 Alleviation of managers' concerns regarding the precision of cost allocations, the causality of allocations and resource consumption, the timeliness of cost and profit reporting, and the capability of system updates".

"Greater cost reduction potential awareness and improved managerial decision-making are two other benefits to be gained. Finally, it provides more specific price and cost information for goods and services" Oseifuah (2014). Salem and Mazhar (2014) review is also corroborated by Kocakulah (2017) since they all explain the same advantages to be realized from adopting Activity Based Costing approach. Moreover, (Oseifuah, 2014) "also added to the list, stressing that in the long-term, the gains to be achieved from deploying an Activity Based Costing system were larger than the expenses. The review clarified the primary advantages which relate to increase in awareness of activities, the expenses incurred, and improvement in decision making. Another advantage was that it establishes a tight correlation between firm operational success and real financial performance. He further noted that Activity Based Costing helps disclose how an organization's operations correspond with its strategic goals and objectives. Another advantage is that it enhances financial management. It also identifies the reasons of cost and gives better cost control and cost management. Another advantage to be garnered is greater awareness of cost reduction potential; and, improvement in managerial decision making. Finally, it provides more specific price and cost information for goods and services".

2.7 Problems Associated with Implementation of ABC System

“The adoption and implementation of ABC systems offer benefits as well as several challenges that businesses, particularly SMEs, face, which contributes to the system's low acceptance” (Al-Dhubaibi, 2021), which is also reinforced by (Pham et al., 2021).

However, Hamad, Yousif, & Fatehaerrhman, (2020) also add that “the obstacles of complexity, cost structure and the perceived advantages to be acquired from the system were some of the elements that affected the rate of adoption among the SMEs in the developing nations”. Molela and Ismail (2020) “have underlined these challenges as of lack of managerial support, high cost of implementation and misconceptions”. “The adoption and implementation of ABC systems offer advantages as well as various problems that companies encounter, notably the SMEs, which results in the low acceptance of the system” (Al-Dhubaibi, 2021).

Furthermore, Nair and Tan (2018) “highlighted factors including the competitive climate, firm size, cost reduction, and user attitudes as being issues that SMEs face when adopting the ABC method”. Furthermore, according to Hasan (2017), “there are a number of administrative and technological barriers, including internal resistance to change, a lack of senior management support, a shortage of human resources, a lack of understanding, and a claim of satisfaction with the status quo”. Oseifuah (2014) “lists additional challenges as the high costs of the Activity Based Costing system's implementation, resistance to change, a lack of support from top management, a lack of cooperation and commitment from various departments, a lack of familiarity with Activity Based Costing, difficulties defining cost drivers, difficulties identifying activities, high consultation costs, a higher priority for other project changes, and a lack of software tools”. Another argument mentioned by Rundora and Selesho (2014) “was that impression by non-users was the reason for non-adoption of ABC into their accounting processes in regard to industrialized countries”.

According to Reyhanogiu (2014), “an issue that was confronted with Activity Based Costing system was that workers opposed change as some felt there would be alter the present power structure”. He further mentioned that “Activity Based Costing has challenges such as difficulty in adopting, costly, employee resistance, time consuming and difficult in collecting information and doubtful gathered information. As noted above numerous academics addressed the obstacles of implementing ABC.

2.8 Effects of ABC System on Cost Control and Cost Reduction

“Cost reduction is a proactive effort to save costs that involves lowering the price per unit of goods or services without compromising their suitability for the intended use,” (Akeem, 2017). In other words, “the goal of cost reduction is to ascertain whether there is a chance of reducing costs associated with material, labor, overhead” (Lawal, 2017). “Additionally, cost reduction attempts to lower the targets themselves, whereas cost control aims to lower the actual to the targets”.

“Following the calculation of each activity's cost, the cost of each activity is distributed among the products based on how much of the activity is utilized by each product. Using this technique, ABC often identifies areas with high overhead costs per unit and concentrates efforts on finding ways to reduce costs or increase prices for more expensive commodities” (Shibab and Sivaram, 2017). “To sum up, cost reduction strives to lower the targets itself while cost control attempts to lower the actual to the objectives”. Mwila, Masaka and Tukumana (2022), in their research “found out that all SMEs that used ABC system had claimed a favorable effect on cost management and cost reduction. In addition to these results, use of this system enables Small and Medium Enterprises to enhance their cost management and lower these expenses which enable them to identify cost drivers”. According to Al-Dhubaibi (2021), “review found that various organizations that were polled in his study stated that the usage of ABC system has helped them to cut expenses”.

According to findings from a different study by Vetchagool et al. (2020), “organizations that use the ABC system as a tool for cost planning, cost analysis, and cost evaluation are better able to identify activities and cost drivers that do not add value, eliminate them, and thereby save costs”. Moreover, Mohammed (2019)

also states that “there was a link between Activity Based Costing system and cost management and cost reduction”. According to Al-Halabi and Shaqqourl (2018), “the application of ABC has a significant impact on resource management since it reduces waste, costs, and costs associated with capacity utilization”. Another research by Akeem (2017) stated that “cost reduction and cost management are crucial to a business as they assist to control and decrease undesired expenditures. It was obvious that cost containment had a good influence on organizational performance”. “Businesses must implement cost management and cost reduction strategies into their operations in order for it to be successful”, according to Lawal (2017). According to a 2013 study by Hardan and Shatnawi, “implementing activity-based costing improves financial performance by lowering expenses and increasing profitability”.

2.9 Identifying Cost Drivers of Activity Based Costing Of SMEs

According to Shibab and Sivaram (2017), : the idea behind activity-based costing is that since activities are a source of expenses, a connection between activities and goods is necessary. This shows that there is a connection between the activity and the expense as a cost driver”. Cost drivers, according to Kocakulah (2017), “are the variables that influence how many activities a certain product uses. Additionally, he gave examples of cost drivers, highlighting the importance of machine hours, size, complexity, kind, and any other feature that may affect a product's price”. Piertrzak, Wnuk-Pel and Christauskas (2020) and Hasan (2017) stated that “there were problems with selection”.

Adding to Compton, (2016) “there were three types of activity cost driver;

Transaction drivers are what make an activity count each time it happens, Duration drivers reflect the amount of time needed for each action while also accounting for variability and the three different forms of activity drivers are employed by intensity drivers, which directly affect the resources utilized each time an action takes place”.

According to Kumar (2016), “a cost driver is an element of an activity that changes the price of goods or services”. Drury (2013) goes on to say that “cost elements for volume manufacturing, like labor and machine hours are directly connected to the number of units produced. They are useful for assessing expenditures that were use, such as indirect labor related to production. While setups and other non-volume-based cost factors are not activity orientated”.

2.10 Relationship between ABC and Financial Performance of SMEs

According to Mwila, Masaka, and Tukumana (2022), “all SMEs in Zambia that used the Activity-Based Costing approach had a good impact on their financial performance. Additionally, they pointed out that the ABC approach has improved financial performance and profitability. These insights were reached using a quantitative methodology approach. Additionally, this study used primary data together with questionnaires as research tools”. Another study by Samuel (2019) “looked at the use and effects of the ABC approach on the performance of a number of selected SMEs in Lagos State, Nigeria. The researchers employed questionnaires to collect primary data. ANOVA, ANCOVA, Pearson's Product Moment Correlation Coefficient (PPMCC), and Student-t tests were used to evaluate the data in order to determine the statistical significance of the regression relationship. According to research, applying the ABC approach had no discernible impact on the financial performance of SMEs”. Mohammed (2019) conducted “a study on how the ABC system affects the performance of SMEs in Lagos State, Nigeria, to further the body of knowledge already available. They concluded that Activity Based Costing and Financial Performance were positively correlated”.

In his study, Ahmad (2017) “looked at how Management Accounting Practices (MAPs) are applied to small and medium-sized businesses and how they relate to performance. A questionnaire survey between Malaysian Small and Medium Enterprises in the manufacturing sector served as the research methodology. The results of the research showed that traditional and more complicated approaches resulted in differing levels of

knowledge of MAPs. The study's findings also showed that several MAPs were found to be significantly correlated with financial performance”.

Pokorna (2016) carried out “an empirical study to examine the effects of activity-based costing on financial performance in the Czech Republic. 548 medium-sized and large Czech businesses representing a variety of industries participated in the empirical study. From 2005 through 2011, financial success was evaluated using Return on Assets. To collect data questionnaires were used in this research. The findings noted that results were statistically significant implying that businesses that use ABC have recorded the same or even lower financial performance than businesses without Activity Based Costing”.

2.11 Activity Based Costing and Performance of a Company

“The implementation of ABC had no appreciable impact on the (ROCE) of consumer goods manufacturing companies in Nigeria or the asset turnover of adopter companies”, according to Ezealo, Nzewi, and Ezekwesili (2022) “analysis of the impact of ABC on financial performance of Nigerian companies. In essence, he concluded that the Activity Based Costing approach had little to no impact on the financial health of SMEs in Nigeria. As a research design, the quasi experiment was employed”.

Charaf, Rahmounib, Sabara (2022) “saw that it improved the non-financial performance of businesses. However, their findings did not point to a clear link between financial performance and Activity Based Costing. Semi-structured interviews and multiple-item questionnaires were the study tools used. Wilcox test, Mann-Whitney test, and median test were among the tools utilized to examine the data”.

“In support of the previous studies made on ABC system it is regarded as the most effective tool which has a positive financial performance on firms who have adopted it” Al-Dhubaibi, (2021) and Alsayegh (2020). Ronald Wanyonyi, Mindila & Mwit, and others (2017) “evaluated how ABC affected the financial results of a few Kenyan public sugar companies. For analysis, they employed both primary and secondary data. Additionally, the study's data were examined using ordinary least squares regression. According to their findings, there was no connection between firms' financial performance and the implementation of ABC”. Ezeagba (2014) “investigated how South East Nigeria's financial performance was impacted by Activity Based Costing (ABC). The researcher used secondary data from two manufacturing firms and Pearson product moment correlation for data analysis. The analysis's finding suggested that the use of the ABC system had a big impact on how much money manufacturing enterprises make. The study's results also showed that the cost of goods has the biggest role in determining how profitable produced goods are”.

Hardan and Shatnawi (2013) “investigated the effects of implementing ABC on raising telecom firms' financial performance. Interviews and a questionnaire were employed. The implementation of Activity Based Costing was found to have a considerable positive link with financial performance, with expenses falling and profits rising. The association between the adoptions of ABC awareness levels was examined using regression analysis. Additionally, it was utilized to pinpoint the rise in Return on Assets, a measure of financial performance connected to ABC activities. Findings showed that finance managers were highly aware of employing ABC but that they rarely actually used it. They also showed that there was a strong correlation between awareness and implementation”.

3. MAJOR FINDINGS FROM LITERATURE REVIEW

3.1 Benefits of adopting activity-based costing

Most of the literature reviewed revealed that ABC system had some benefits. However, other authors emphasized that they have not realised any benefits. In this regard, the authors of this articles are going to conduct an empirical study to determine the real situation at hand.

3.2 Problem associated with implementing activity base costing system

It has emerged from literature that activity-based costing system had many problems associated with its adoption. Several challenges were highlighted as lack of management support, high cost of implementing and perceptions.

3.3 Identification of cost drivers

The findings revealed that cost drivers are difficult to determine but most of the researchers showed to have lack of knowledge on it. A percentage of these responds had knowledge on the sub.

3.4 Impact of activity-based costing on cost control and cost reduction in SMEs

Most of the studies interrogated have revealed statistical insignificance on effect of ABC system and cost control. It has emerged that there is a negative correlation relationship between ABC system and cost control. As observed when activity-based costing increases cost control decreases the vice versa. Therefore, there was no improvement in the cost control and cost reduction.

3.5 Impact of activity-based costing on financial performance

According to the literature reviewed, there is a bad correlation between an organization's financial performance and activity-based costing. This indicates that the ABC approach has a negative impact on financial performance, thus there has been no progress.

4. CONCLUSION

The study's major goal was to find out how ABC affected the financial performance of SMEs. It emerged in the study that adopting the system brought several challenges to SMEs, which were lack of management support, lack of expertise costly to implement the system, which reveals that most of SMEs are finding it difficult to surpass these. In addition, these firms were facing a challenge in identifying the cost driver. The research findings were that there was no link between ABC on cost control and economic performance of SMEs. These results were supported by Samuel (2019) and Pokorná (2016) who revealed that there was no improvement of economic performance.

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