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Customer Profitability Analysis, Cost System Purposes and Decision Making Process: A Research Framework

Faeq Malallah Mahmood Albalaki[1], Raid Jasim Majeed[2]

[1]Department of Accounting, Al-Hadba'a University College, Mosul, Iraq
[2]Department of Accounting, College of Administration &Economic, Duhok University, Duhok, Iraq

Corresponding Author: Faeq Malallah Mahmood Albalaki
Department of Accounting, Al-Hadba'a University College, Mosul, Iraq

Abstract: The aim of this paper is to propose a research framework to examine the relationship between customer profitability analysis (CPA) information, cost system purposes and decision making process in manufacturing organizations. Cost system purposes includes two dimensions; cost management purpose and product planning purpose. This study discusses the relationship between the variables in context of contingency theory. CPA information is expected to have positive relationship with decision making process. Cost system purposes are expected to moderate the relationship between CPA information and decision making process.

Key words: customer profitability analysis, cost system purposes, decision making

Introduction

Since the 1990s, customer profitability analysis (CPA) has been a centre focus of practice for marketers and managerial accountants (McManus, 2007; Cardoş & Cardoş, 2014). As such, management accounting researchers continue to exert momentous efforts on CPA information(Van Veen-Dirks & Molenaar, 2009). The importance of CPA information can be bifurcated. One is that, every dollar of sales revenue does not easily reflect in the figure of net income (Foster, Gupta, & Sjoblom, 1996) and secondly is that, customers are the backbone of every company's costs and without potential or actual customers, there will be no reason for corporate organization to consume resources (Kuchta & Troska, 2007). In other words, customers are the main drivers of cost activities, hence they are the most strategically important factor for explaining cost and revenues generated by a company (No one and Griffin, 1997; Howell and Soucy, 1990; Van Raaij, 2005;Kuchta& Troska, 2007). As such, the significance of CPA information cannot be over-emphasized for corporate organizations especially among those that embrace the customer centric approach (McManus, 2007). Adopting the customer approach allows organizations to focus on customer rather than the product as the cost object for the relevant customer-driven activities and also to behold that products are only a means of converting customer requirements into profits (Noone, Griffin, 1997). Therefore, CPA and CPA information become invaluable for customer-centric organizations in many ways.

In spite of the much attention that CPA has enjoyed from researchers, there have been very limited empirical-based findings demonstrating the role of management accounting practices in organisations that embrace the customer centric approach. Contrarily, majority of the management accounting literature focused on customer accounting which is often comprised of normative commentaries and description of the nature and importance of CPA (Foster and Young, 1997; Chenhall, 2003). Additionally, some of the current findings have only focused on problems that have to be solved for the purpose of producing dependable figures of customer accounts (McManus, 2007; Foster et al., 1996). Others mainly focused on the variety of accounting methods such as full costing, variable costing, activity based costing and time driven activity based costing at the expense of the numerous cost problems (Goebel, Marshall, & Locander, 1998; Stevenson, Barnes, & Stevenson, 1993). Meanwhile, considering the increasing awareness on the differences of revenues and costs across customer segments or individual customer, a gap of knowledge on dissipating a company's profitable and highly profitable customers from non-profitable and low-profitable ones still exist in the extant literature (Guilding & McManus, 2002; Dalci, Tanis, & Kosan, 2010).

In indeed, CPA is a type of customer accounts that can be conducted using many different estimation methods (McManus, & Guilding, 2008). Meanwhile, the result of any specified accounts is reflected by the method applied. However, the highly significant aspect of CPA is that different cost accounting systems result in different estimates of customer profitability (Cooper & Kaplan, 1991; Dalci et al, 2010). In line with this, Schoute (2009) argued that, there is a gap of literature on the contextual factor that are responsible for explaining the purpose for which the cost systems are used. As such, this study intends to address this literature gap.

Also, CPA information is important for organizational sustainability and development for so many reasons. Chiefly is that, knowing the accurate costs of serving specific customers is a valuable information needed to make successful managerial decision and to improve the overall profitability of an organization (Van Raaij, Vernooij, & Triest, 2003; Dalci et al, 2010). However, previous studies have not exclusively revealed how CPA information can improve decision-making processes (Van Raaij, 2005). Also, in view of the fact that, accounting practices and measurements are subject to peculiar purposes, however, the specific effect of different reporting of customer-related information on management decisions have not been studied exhaustively in the current literature (Foster & Gupta, 1994; McManus, & Guilding, 2008).

Additionally, the literature is replete with momentous arguments on the importance of CPA information in enhancing decision making and increasing competitive advantage of organizations (Mulhern, 1999). Many empirical and contextual findings have been reported by a number of studies from different industries and markets. However, little is known on the practices of CPA and the role of CPA information in enhancing decision-making process among manufacturing companies (Jathir& Al Ameri, 2012). Therefore, this paper proposes a theoretical framework to examine the relationship between CPA information and decision making process in the manufacturing sector.

Customer Profitability Analysis

Van Raaij (2005) defines CPA as "the process of allocating revenues and costs to customer segments or individual customer accounts, such that the profitability of those segments and / or accounts can be calculated". CPA is a set of calculations that tallies costs with the functional activities of a business and finally with the customers that consume those activities (Holm, 2012). According to Bellis-Jones (1989), CPA is an important part of analytical and management accounting tools, which is specially used for highlighting and identifying profitable customers from the unprofitable ones (Horngren, Datar, & Foster, 2003; Cardoş & Cardoş, 2014).

CPA enables organizations to identify and understand its sources of profit, expenses, customer costs structure, revenues, and customer profitability (Cokins, 2015). Hence, CPA is not only potent for companies to grow also, it enhances fact-based decisions which are necessary for organizational development and enhanced marketing productivity (Holm, 2012). In specific, information retrieved from CPA are useful for answering questions like; what is the exact cost of doing business in particular market? Where exact does organizational profit comes from? From which customers and from which products? Finally, why does profit comes from those customers? (Hicks et al., 2009). In other words, the importance of CPA is reflected through the above questions and providing correct answers to such questions grows from necessity to mandatory as businesses grow from simple to complex and serving customer grow from one channel to a number of different channels and serving points (Noone, Griffin, 1998). This is because through CPA, companies are able to retain and attend to their profitable customers while they work on bringing unprofitable customers to be profitable (Kaplan and Narayanan, 2001).

The definitions of CPA from the management accounting perspectives emphasize more on tracing costs to customers and to the development of costing systems than the general perspective to CPA definition. For instance, Pfeifer Haskins, & Conroy (2005) argued that choosing the included costs in CPA model depends on the preferences of decision makers and the context of the market. Specifically, CPA was defined by Pfeifer et al. (2005) as "the difference between the revenues earned from and the costs associated with the customer relationship during a specified period". This definition corroborates with the suggestion of Kaplan and Narayanan, (2001) who argued that, customers can be divided based on the cost of service they receive. In other words, customers can either be "high cost "and "low cost to serve" customers. Therefore, different business models will work for different customers depending on their position across the divide of service costs. Understanding which customer is in the high cost and low cost is the key purpose of conducting CPA.

CPA Information

CPA is a strategic methodology employable for determining the profitability status of specific customers or group of customers (Van Raaij et al., 2003; Foster, Gupta and Sjoblom, 1996; Shapiro, Rangan, Moriarty, & Ross,1987; Kaplan and Narayanan, 2001). The reports retrieved as a result from CPA are regarded as CPA information. According to Hartfeil (1996), CPA information is useful for implementing useful and effective marketing strategy for organizations. There has been a level of consensus among researchers that, CPA information can be used for enhancing and managing customer behaviour (Howell & Soucy 1990; Booth, 1994; Smith & Dikolli 1995; Hartfeil 1996). This can be effectuated in a way that, organizations can assess their relationships with unprofitable customers and understand how the relationships can restructure and transform to a profitable one (Dalci et al., 2010). Also, Petty and Goodman (1996) argued that managers get insight on how to reduce non-value activities within their organisational operations and how to improve the profitability of customers through the information produced through CPA.

Many companies are recently becoming more consumer oriented in issues and decision related to their marketing activities which is likely the reason for the increasing popularity of CPA (Albalaki and Mohammed, 2013). In view of this, the data for conducting CPA is extremely important because of the flexible and fleeting attribute of customers in switching from unprofitable customer or low-profits at a point into profitable customer in a later time (Rust, Kumar, & Venkatesan, 2011). Hence, CPA is an analytical strategy which is expected to continuously determine the profitability status of customers and dissipate the profitable ones from the unprofitable ones at all time (Cokins, 2015). The information retrieved through CPA is also invaluable for managers to make critical decision in converting unprofitable customers to profitable ones (Bates & Whittington, 2009). In other words, CPA according to Shapiro et al. (1987) enable managers to "manage customers for profit and not just for sales". The difference in managing customers for profit to managing them for sale is that, CPA allows manager to the magnitude, origins and managerial implications of profit differences between customers and enable them to reflect through customer behaviour and management of customers' activities towards increasing their customers' profitability.

In other words, the information produced through CPA is the actual benefit of CPA to organizations. For instance, the importance of spreading costs among customers and the decision on which specific customers consume the highest and the lowest resources of an organization are some of the valuable information that are produced through CPA (Van Raaij et al., 2003).Petty and Goodman (1996) argue that CPA information can be used by an organization to better manage its customers and improve their profitability. CPA model offers the management of an organization a numerous information and detail about their customer base and behaviour. Hence, CPA information have been argued to have direct and beneficial influence on the management of cost, revenue and strategic marketing (Van Raaij et al., 2003). Moreover, Gurăuand Ranchhod (2002) added that, the benefit of CPA information also extends to increasing customer satisfaction and boost profitability.

CPA information and Decision Making

Theorists such as Mulhern (1999) have argued repeatedly on the importance of CPA for understanding the profitability of customers, for making well-informed decisions about customers and for providing supply-chain service. Cokins (2015) added that: decisions supported by CPA will relate to how a business keeps customers longer, chooses to interact with customers in the future, makes them more profitable, serves them more efficiently and how the business chooses to produce the services necessary to support those customers. Such stance is supported by the argument proffered by Stuchfield and Weber (1992) claimed that, CPA assist organization to drive customers in the unprofitable pack to the profitable group. This is done through the guidance provided through CPA information which avail the management to pinpoint and target the factors that can enhance consumers' decision process about their service and product (Noone & Griffin, 1997). Also, CPA information has direct influence on managerial decision making process (Dalci et al., 2010). The influence of CPA information on managerial decision are multifaceted. However, some of the major influences are briefly discussed as follows (Booth, 1994):

- Support negotiation with key customers: One of the most important use of CPA profitability information is that, it can be used to support negotiations with profitable customers, relating to either the price or the specification and quality of the goods. This is possible as information that are revealed from CPA allow the management to recognize their most important customers and their most important interests. In other words, companies will be able to treat special customers specially during negotiations.
- Develop a marketing strategy: CPA information can also assist organizations to develop effective marketing strategy towards generating profit in particular business segment or for specific customer.
- Design price structure: CPA information can also assist companies to perfect their pricing structure needed to provide signals to customers to encourage them to purchase in ways that enable efficient production and distribution. Providing such pricing structure requires clear understanding of cost behaviour which are embedded in CPA information.

In addition, CPA serves as the foundation for other strategic decisions and analyses such as; the potential costs and benefits of capital investment (Dunn and Brooks, 1990). Furthermore, CPA model is useful for the development of profit forecast and also serves the purpose of stimulating the effect of price adjustments and capacity allocation decisions on the potential profit contribution of their customer base (Downie, 1995). Previous studies, such as Shapiro et al. (1987), have also found that marketing staff perceived CPA information useful for decisions. Based on such perception, Cooper and Kaplan (1991) argued that, studying the differences in customer relationships and identify groups of customer profitability empower managers to make better managerial decisions.

Conducting CPA is not what is exclusively important for companies, rather the application of its result are more important (Bellis-Jones, 1989). The application of CPA information can be beneficial in many areas including the control of costs and strategy development. Also, CPA information can help management cut costs by providing accurate information on redundant and unproductive activities in the trading relationship with customers, without creating a corresponding reduction in customer satisfaction. This is corroborated by the submission of Dalci et al.(2010)referring to CPA as one of the invaluable strategies to improve decision-making regarding the cost of new customers and the cost of keeping existing customers. Hence, CPA is regarded as an effective method of organizing and structuring external relationship at customer in a way that fits the internal cost structure.

Cost System Purposes

Obtaining accurate information through CPA cannot be achieved without an appropriate costing system (Albalaki, 2008;Dalci et al., 2010). Consistent with opinions of Kuchta and Troska (2007),the effectiveness of CPA information is contingent to the selection of an appropriate costing method for an accurate analysis of customer cost (Noone & Griffin, 1997).This is because "high quality information cannot be developed from low quality data inputs" (Foster & Gupta, 1994).

Also, an appropriate cost analysis system is expected to yield an analytical balance between customer, product and market segment (Shapiro et al. (1987). It is on this same light that, Kaplan and Cooper (1998) argued that, firms essentially need multiple cost systems, to perform three major analytical functions namely: (1) valuating inventory and measuring the cost of goods sold for financial reporting, (2) estimating the costs of activities, products, services, and customers, and (3) providing economic feedback to managers and operators about process efficiency. However, many research findings have demonstrated that, many organizations have only a single cost system for different analytical and managerial purposes which can either be strategic purposes, such as product pricing, CPA and new product design, or for operational purposes, such as cost modelling, performance measurement and cost reduction (Drury & Tayles, 2005; Cokins, 2006; Chenhall, 2004; Schoute, 2009). Consistent with Schoute (2009), the current study identified two dimensions of cost system purposes of use: cost system usage for product planning purposes and cost system usage for cost management purposes.

Theoretical Framework

Organizations have different managerial and strategic reasons for employing cost systems (Kallunkiand Silvola, 2008). However, the success of CPA depends on the accuracy and appropriateness of cost system used in the CPA (Bordovsky, VanZante, & Wagman, 2011). In other words, the accuracy and effectiveness of CPA information for decision making process may be contingent on the purposes of costing system used an organization.

The current literature affirms that different types of costing system can be used complementarily for the purpose of cost management purpose and product planning (Kaplan & Cooper, 1998). However, many companies do consider the implementation of a cost system that can combine between the managerial and strategic purpose of cost analysis (Drury & Tayles, 2005), this implies that many companies' cost systems compromise on the optimal level of complexity in order to provide both product planning and cost management (Schoute, 2009). As such, it is expected that, when a company's cost system is used mainly for both purposes (cost management purposes and product planning), the effect of CPA will be most effective on decision making, whereas when a company's cost system is used for one purpose only, the effect of CPA will be less effective on decision making process. The theoretical framework, as shown in Figure 1, indicates that CPA information is a predicting variable to decision making process, while cost system purposes is expected to moderate the relationship between CPA information and decision making process.

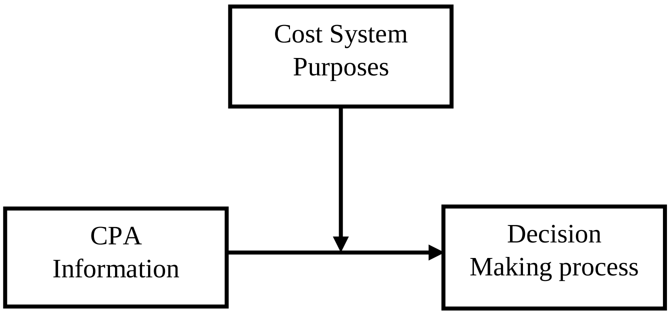

Figure 1: Research Framework

The framework proposed in this study relies heavily on the theoretical perspective of contingency theory. Hence, the hypothesized relationships between CPA information, cost system purposes and decision making process are consistent with the proposition of contingency theory (Gerdin & Greve, 2004). Also, the introduction of cost system purposes as conforms with the moderation model of contingency model for explaining the effect of the independent variable (CPA information) and the moderating effect of cost accounting purposes on decision making process (Venkatraman, 1989). In line with this, the following hypotheses are developed:

H1: There is a positive relationship between CPA information and the process of decision making.

H2: At higher levels of cost system usage for both purposes (cost management and product planning simultaneously), CPA information will positively impact the effective of decision making process.

H3**:** Cost system with one purpose has no (or negative) moderate impact on the relationship between CPA information and the process of decision making.

Conclusion

This paper proposes a framework that highlights the relationship between CPA information and decision making process with the moderating role of cost analysis system. The framework is expected to charge future researchers to examine the proposed relationships. It is believed that, if the proposed framework is validated, it will yield a number of theoretical and practical contributions. Chiefly among the potential contribution of the proposed model is that, it will significantly contribute to the pool of studies in explaining the importance of CPA information on the decision making process of companies and most preferably in the manufacturing sector of Iraq. Additionally, the proposed model can help future researchers to understudy the indirect relationship between CPA information and decision making process via cost system purposes. Finally, the proposed model is also significant for practitioners such as manufacturing managers to improve the decision making process at their organizations.

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