

# **Traditional Absorption versus Activity Based Costing System: Applications Among Companies in Emerging Market**

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## **ABSTRACT**

A profitable company is the one that is able to improve quality, cut down on costs and increase efficiency of operations, and eliminate different activities and products that incur losses. To achieve this, companies implement different costing systems. A costing system is a system that helps the management of a company with planning and decision making. This system plays an important role in providing accurate cost information about the products and services provided for clients. Many companies shift their focus from conventional or traditional costing systems to an increasingly popular costing methodology system that is activity based costing system. This article specifies characteristics of both traditional absorption costing and activity based costing and reasons for application of this methods among Cambodian companies.

**Keywords:** quality, costs, costing systems, management, data.

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## Introduction

During the last two decades, Cambodia experience a strong economic growth, sustained an average growth rate of 7.6 percent in 1994-2015, ranking sixth in the world and the economy is expected to remain strong over the next five years (World Bank, 2017). Cambodia has attained the lower middle-income status as of 2015, with gross national income (GNI) per capita reaching US\$1,070, driven by garment exports and tourism. Cambodia has also experience tremendous amount of business investment not only local demand but also foreign heightened interest on investment escalated (Turunen & Zhou, 2017). For example, according to statistics from the National Bank of Cambodia (NBC), total trade between Cambodia and the rest of the world in 2016 equalled US\$29 billion, around 161 percent of the country's GDP. Exports from Cambodia reached US\$11 billion while import represent US\$18 billion. Foreign direct investment (FDI) into Cambodia increased by 25 percent last year amounting to \$2.15 billion, most of which were channelled into the financial and manufacturing sectors (Chan, 2017). The investment inflow from foreign countries mostly went to the financial sector, especially to banking, due to the increase in banking institutions' capital reserves and the manufacturing sector. The reasons behind for increasing capital investment are underpinned by peaceful domestic environment, improved investor confidence, favourable macroeconomic conditions, and increased capacity utilization together with expansion of economic activity (Turunen & Zhou, 2017).

Manufacturing sector plays an important role in the prosperity of Cambodia's economy, accounting for 31% of Cambodia GDP (ODC, 2015). Manufacturing products are essential for the exports of Cambodia representing about 80% of the overall exports (Workman, 2018). Furthermore, garment products topped Cambodia export categories in 2016 with \$13.13 billion worth of clothing and footwear constituting 71.35% of the total exports (OEC, 2016). Cambodia also exported \$426 million worth of bicycle and \$536 million worth of machinery and equipment in the same year (OEC, 2016). The manufacturing sector among the largest provider of employment. For example, the sector accounts for 27.1% of the total employment in 2017 in Cambodia, an increase from 9.59% in 2007 (Statista, 2018). Moreover, there were about 1,692 factories in Cambodia as of 2017 employing approximately 927,900 workers in with 68% from garment factories (Cheng, 2017 & ILO, 2016).

Therefore, it is essential for manufacturing companies to choose suitable costing system to manage cost of each product and especially overheads absorbed in order to remain competitive. Costing systems play an important role in overhead costs allocation on results of production, providing in the same time the management of one company with important information about: production price of product or service; the sale price (pricing strategy); information that assists in business planning and controlling; and information that help managers in process of alternative decision-making. More often, companies' uses traditional management costing, in which the overhead absorption rate is calculated by pooling all the indirect costs or overheads and applying them equally based on labour hour or machine hour for all kind of activities and products produced. This traditional costing system is very simple and cost-effective. In an organization that manufactures single items or several similar items, traditional costing system makes it less complicated as the calculation of cost of each product is using the same rate. The organization also does not feel the need to implement costly costing system as it saves time for accountants to perform the cost estimation using simple traditional costing system. However, this costing system has its benefits as well as its downsides. Traditional costing system offers limited accuracy as it lacks of detailed calculation distorts actual overhead expenses, skewing vital measure (a product's profitability) by assigning costs arbitrarily instead of considering each

activity for a particular product (Molis, 2018). It is also not helpful when tracing every indirect cost for each specific product as it looks at overhead costs in general. There are several other alternative costing systems, such as activity-based costing (ABC), total quality management (TQM), life cycle costing, and target costing.

Among all the alternative costing system, most businesses nowadays prefer using activity-based costing (ABC) rather than traditional costing thanks to its merits. Traditional costing system was criticised by ABC advocates as giving inadequate support to managerial decision-making as it had not altered since the early twentieth century, despite the business environment having undergoing radical changes since 1960s. Both Harvard and CAM-I networks described conventional management accounting system as obsolete and inadequate, claiming they prevented organisations from enhancing efficiency and profitability and impeded the ability of American firms to compete successfully (Morakul & Frederick, 2001). ABC recognizes the complexity of modern manufacture by providing realistic costs of manufacturing specific products as it uses different overhead absorption rate for different products (Willi & Islam, 2004). Instead of using labour or machine hour to calculate the overhead absorption rate like traditional costing system, ABC uses “cost driver” to determine the overheads for each activity. This cost driver varies with production volume and it could be number of orders, number of set ups, or production cycle. This allows ABC to allocate manufacturing overheads more accurately to products, especially for those companies that manufacture various or a wide range of products (Morakul & Frederick, 2001). Businesses find it more reliable to determine product profit margins and control the cost effectively and efficiently by controlling the incidence of the cost drivers.

The objective of this paper is to gets the reader familiar with advantages and disadvantages of ABC and traditional absorption costing system. The second objective is to present the results of research on the application of ABC and traditional absorption costing system in real life among Cambodian companies.

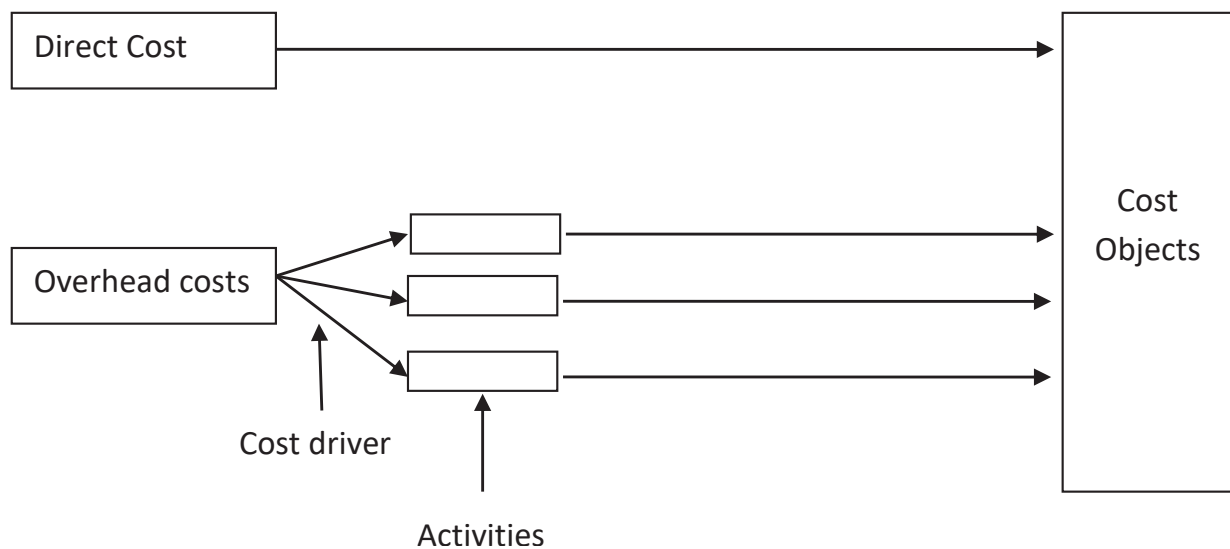
## Literature Review

### *ABC and Traditional costing system: Advantages and Disadvantages*

Traditional costing system allocates costs to production division, sometimes called cost centres where the overheads are being pooled by departments. The traditional cost system allocate overheads using allocation bases from cost centres to products dependent on the volume produced; for example allocation bases are direct labour and machine hours (Drury, 2009). However, the traditional costing system has been criticised since the 1980s, it fails to provide management with relevant information on how and where costs are being incurred. It also fails to look at expenses “below the surface” such as sales, distribution, R&D and administration cost; it rather looks at the company's total cost. Many companies consider these types of costs as fixed, which is why they are being distributed across all customers; although some customers are more costly than others (Stratton et al., 2009). The traditional cost system is less costly to implement but can be misleading at the same time. With distorted information managers can support decisions on the wrong basis and consequently it will generate long-term losses for the company in general.

ABC is an approach to the costing and monitoring of activities which involves tracing resources consumption and costing final outputs. Resources are assigned to activities, and activities to cost objects based on consumption estimates. The latter utilise cost drivers to attach activity cost to output (CIMA, 2008). Since the introduction of ABC, companies all around the globe have been able to refine

their cost system through improved overheads cost allocations based on operational activities. Companies that use ABC have been able to improve cost management and accuracy by highlighting the amount of unused capacity to managers to reduce cost, to increase profitability based on a cost-effective ABC system, and to provide a management tool for better decision making (Agbejule, 2006). Below are some of the advantages of ABC that organisations and management can drive from the system;



**Figure 1: ABC process**  
**Source: (Agbejule, 2006, p. 230)**

ABC helps organisations to improve their business processes. An ABC system allocates indirect costs based on a product's cost driver, or the factor that creates the cost. As a cost are allocated per product, a picture starts to emerge of which business processes are performing well and which ones need to be improved. ABC can be used to identify non-valued added activities and can help to better allocates resources to efficient and profitable activities. The use of ABC can also add value to the continuous improvement of business processes (Hasan & Sayel, 1998). ABC method accounts for costs similar to the way production work is performed, allowing your business to better understand where overhead costs are going. The data can identify wasteful products and unnecessary costs, so that resources can be used productively. The method also helps to fix the price of products or services that are excessive or incorrect. Overall products and services quality can improve as ABC's data details production and cost issues that need to be resolved. Additionally, ABC assigns indirect costs to products in a proper way because it identifies cost of activities linked to cost driver for each activity (Stratton et al., 2009). This is a well known fact of applying or using ABC in companies and almost most of them experience benefits from the concept of ABC. Many firm desires to create value and so own strong position in the market through creating financial statements surplus. To achieve this purpose it is important to identify in details the price of a company sets for a certain work or product. ABC makes such 'value creation' possible (Innes et al., 2000). ABC enables companies to identify the links between activities and activities performed by the customers, consequently it helps the company to reduce unnecessary costs and improve quality of product/service. This will help the company to build valuable relationship with the customer. Generally entering new market requires cost of entry and these costs are not easy to ignore because it can show up in the customer profitability analysis, such cost are identified with ABC (Stratton et al., 2009).

However, ABC has some major disadvantages to organisations and management which may include; misinterpretation of data, report produced by an ABC system contains information, such as product margin, that vary from the information reported for a traditional costing system. It's also possible that some activity-based cost may be irrelevant in certain decision-making scenarios; for example ABC does not conform to accounting standards and should not be used for external reporting (Lana & Fei, 2011). Since traditional cost figures tend to be norm, interpreting ABC data along with regular accounting information can be confusing and lead to a bad decision-making. Setting up an ABC system can be expensive and time-consuming. As business activities are analyzed, they must be broken down into each activity's individual components. The entire process can use up valuable resource as data are collected, measured and entered into the new system. Businesses may also need the assistance of a consultant who specializes in the setup of an ABC system and can provide training on its use (Morakul & Frederick, 2001). It may be hard to find really homogeneous activities. Activities shall be homogenous so that they be applied to one cost driver. If that's not the case then result can be less consistent and the company will have to divide them into several smaller ones as a result will increase the total amount of work and take more effort than actually needed in ABC (Willi & Islam, 2004).

## Methodology

Collecting data for the research is of great importance for the relevance of the outcome of the problem solving or making conclusions and predictions. Relevant research data can be obtained from variety of sources, but this research is based on primary data. The study focus on the manufacturing companies in Cambodia and in attempt to cover most of the companies, a self-reported questionnaire has been administered to collect data from participants of accounting conventions in the biggest towns. The questionnaire adopted has been originally used and developed in previous study to facilitate comparison (Stratton, 2009). The structured questionnaire includes closed ended questions inquiring on the objective of cost allocation, factors to consider when allocating cost and benefit of cost measurement systems among others on the likert scale. The versatility in the characteristics of respondents and firms enriches this research. The response rate was 46% or 41 responses out of 90, 8 responses were excluded from the analysis because of too many blank variables. Data collected were presented and analysed using descriptive statistics and inferential statistics (including mean, mode and percentage analysis).

## Analysis and Discussion

This section presents and summarized the respondent's answers. The respondents are familiar with the costing system and profitability methods. Overall, 70% of respondents were familiar either absorption costing or ABC or both methods. It can be concluded that overall familiarity with costing system in Cambodia is on high level.

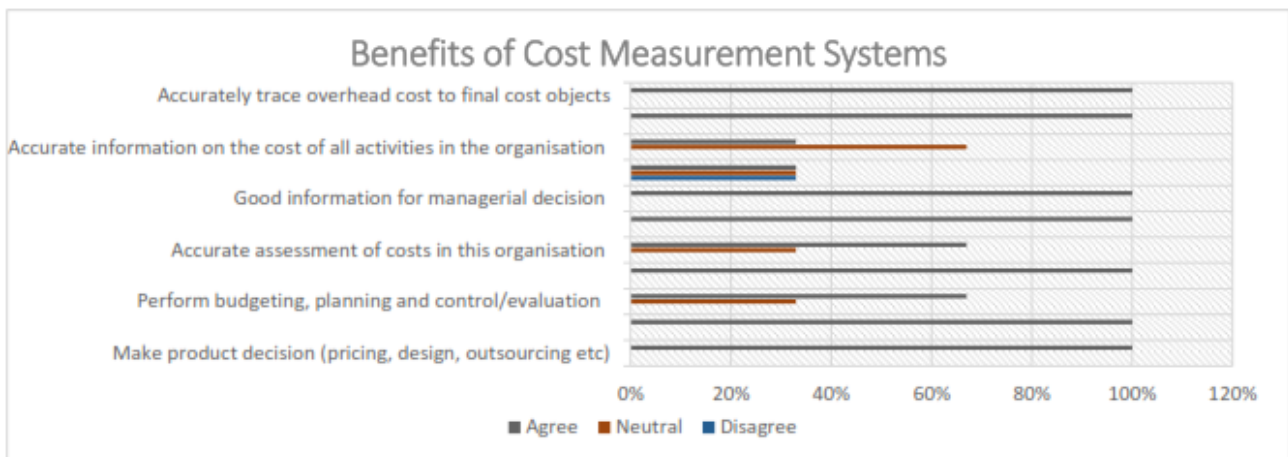


Figure 1: Benefit of Cost Measurement Systems

Figure 1 shows the level of agreement and disagreement regarding benefits commonly reported by the survey respondents. Accordingly, 100% agreed that its accurately trace overhead cost to final cost of object for ABC users that had multiple products, it helps them to find in-depth cost for individual products, and Traditional user that had single product it makes the tracing overhead easy and not complex. For accurate information on the cost of all activities in the organization 67% said neutral and 33% agreed because some users have their own standard cost and budgeting for the period sometime there are a big variant and sometime the variant is small. 100% agreed that the good information for managerial decision, it gives the managers what to expect for upcoming event or new objective. For accurate assessment of cost in the organization 33% said neutral but 67% said agree, there might be an unexpected cost raise for the period. When come to perform budgeting, planning and control/evaluation 67% agreed and only 33% said neutral, it helps managerial decision easy and what to expect for upcoming period. Making product decision like pricing, design, outsourcing, etc. its 100% agreed because it helps set up a foundation for how much a design cost and what price is need to set.

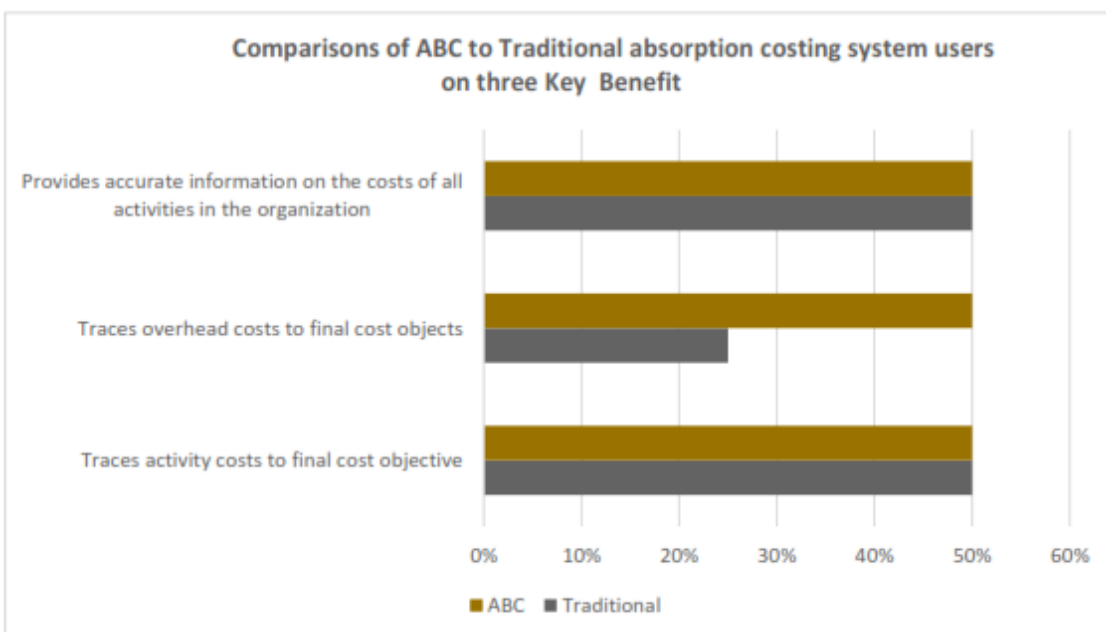


Figure 2: Comparisons of ABC to Traditional absorption costing system



Based on the figure 2, it has shown that 50% of the company has used ABC costing system and think that it's accurate since it traced the cost to each major cost activities. Cost activities refer to cost drivers which help with cost control. The same result apply to overhead cost and information accuracy. A research carried out by Hasan & Sayel, (1998) shows that the analysis of data on the extent of ABC implementation revealed that relatively some percentage of Bahraini manufacturing companies are currently implementing some form of ABC system. The research also suggest that one of the important motive is that ABC provides more accurate information for product decisions such as pricing decisions, profitability analysis, department profitability and inventory valuation etc. (Innes et al., 2000). Research carried out by Lana & Fei, (2011) on the implementation of ABC in Xu Ji Electric Co. Ltd indicates that the top management gives a good support in the implementation of ABC and this top-down instigation worked quite well in the initials stages of ABC implementation. The company and most of the others that implemented ABC are keen to be competitive in the business environment and ABC helps them to create economic of scales and a significant reduction in the production cost. Companies in Thailand that uses ABC have been able to improve cost management and accuracy by highlighting the amount of unused capacity to managers to reduces cost, to increase profitability based on a cost-effective ABC system and to provide a management tool for better decision making (Morakul, 2001).

Whereas, traditional costing method, only 25% agrees to trace overhead costs to final cost objects while 50% on the other two. In this costing system, it only uses a single activity measurement either labour or machine hours. It only assigns overhead to the production department. The different between ABC and Traditional costing already showed that using ABC method is more precise since it differentiates the cost to its own cost centres. In each and every company overhead cost is also as important as the other cost, so tracing it to the final cost objects is a must. That is why most of the company prefer ABC costing system rather than the Traditional one since it's a more development method nowadays. ABC also allows a deeper level analysis of product costs by explaining the relationship between products and activities. The improved accuracy of perception of the cost structure of products and the continuous process improvements in the various departments of an enterprise provide the substance of activity-based management (i.e. using ABC to improve a business) (Byrne et al., 2009).

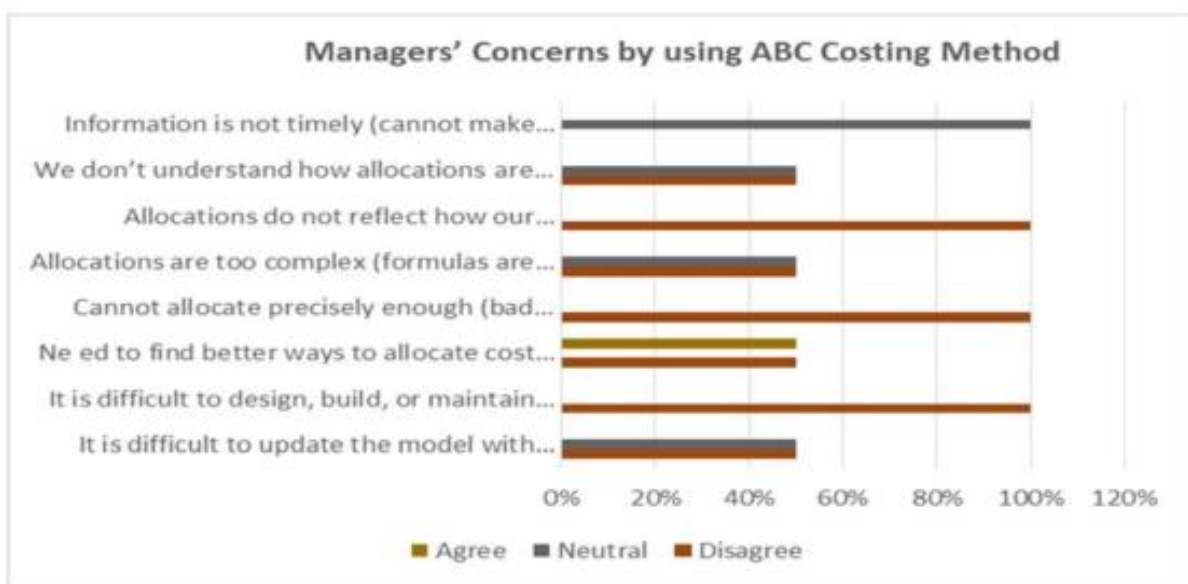


Figure 3: Manager's Concern by Using ABC Costing Method

Even ABC costing provides many benefits to most of business but it still causes some concern to management. Using ABC needs finance manager or relating department to find a standard cost for calculation and during finding process, it might appear some errors which require high knowledge manager to control it so it is a bit harder than using traditional costing method. Based on figure 3, it shows that 50% of respondents agree to find better ways to allocate cost accurately besides using only ABC. Likewise, sometimes management in both ABC and traditional costing cannot make timely decision making based on it because it takes time to create a standard cost of each product. Different cost traces to different cost centre, so more time is needed. At the same time, 25% of the respondents uses traditional absorption costing but agrees that they cannot make timely decision since some information is complicate and error is occurred because the calculation method is not really accurate due to using one standard cost to every product. However, those problems are not the big deal for company to overcome. Figure 4 shows that, 100% of the respondents do not agree that ABC is difficult to build and design, bad allocation basis and do not show business process consuming resource. They have mentioned that it is totally wrong because nowadays system implementation is really easy for big company and they can use their own design to control over the whole production process so they can know all consuming resource that they have used in the production in both quantities and price. Additionally, it is easy to measure profitability and to see the effective of the cost.



Figure 4: Manager's Concern by using traditional absorption Costing Method

By using ABC costing system, 50% of the company have support to find a way to allocate the cost but 50% more didn't, unlike Traditional costing method, 100% of the company have supported the idea. Under ABC costing system, allocate the cost is hard yet detailed at the same time. However, under Traditional costing method, allocate the cost is easier, simpler than yet not as detailed as the ABC one because one production department for all products. Lastly, ABC costing system is a lot easier to update the model with new result data as technology is well-known nowadays so upgrading the system is not really a hard thing for an expertise to do so.



## Conclusion

The results gathered from the sampled companies shows that 70% of the companies have chosen and recommended to use Activity Based Costing method because it is very helpful in allocating cost of business activities, product, and service accurately and efficiently with high standards. Among the many reasons for the emergence of ABC, the method accurately assigns indirect cost to cost object and depends on numbers, values, and data that can be allocated fairly to all the cost. It develops the companies to be effective in allocating cost and provides a better overall efficiency. Since this is an emerging economy companies will be well off using the ABC method even though it requires more time to detail each little data. But depending on what the company is producing it would have to choose which method will benefit them in the long run. Throughout the findings both methods aren't able to improve time in making decisions on the standard cost of products. This shows that each and every company is different. In fact, in the findings companies actually can produce their own systems on how to allocate cost. So, it isn't the matter of which method is better but in reality it is which method can provide efficiency based on the company.

However, with all the benefits ABC can offer, the study found some limitations of ABC and other organisational factors like resistance of implementing new cost accounting system that need to be consider. For example, the method is very expensive to build, require time, resources and new way of thinking. In order for staff to accept a new knowledge, they have to understand the result of the model and objective seems to be hard to achieve even in the user-companies of ABC. Furthermore, the companies need support from management in such decision because at the end the management would make the change possible by supplying staff with the knowledge and resource required to implement ABC. The remaining 30% of the companies still use and recommended traditional absorption costing method because it is easy to allocate by using one standard applying to all related cost. Especially, its save time and reduced high company expenditure on system.

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