

ACTIVITY BASED COSTING SYSTEM AND ITS ROLE IN DECISION MAKING. A CASE STUDY OF CEMENT COMPANIES IN KURDISTAN REGION OF IRAQ

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ABSTRACT--*The study dwells on the analysis of activity based costing system and its role in decision making in relation to Kurdistan Region of Iraq. This stems from propositions made that traditional costing tends to yields astonishing results on the condition that there is efficient accounting systems and there are no complexities that can hinder accurate accounting procedures. Results from the study were based on survey 120 respondents from Bazian Cement Company and the results showed activity based costing elements of cost management, performance and quality management are positively related to decision making. Conclusions were thus made that activity based costing plays a vital role in the decision making of firms especially that of Bazian Cement Company.*

Key words-- *Activity Based Costing, Quality Management, Performance Management, Cost Management.*

I. INTRODUCTION

Numerous benefits have been reaped since the adoption of the traditional costing system and they are a necessity for helping companies determine their actual cost. Costing systems in Accounting fall into two major types, namely the Activity Based Costing (ABC) and the Traditional Absorption Costing. Today's managers are finding it necessary to use Activity Based Costing because of its ability to give a more accurate product cost. On the other hand, the dynamic environment in different institutions has necessitated the change of costing systems. Though the demand for activity based costing is surging in most parts of the world, most economies such as Kurdistan have increasingly switched towards activity based costing with only a few still using the traditional costing system. Of notable use is in government departments of Kurdistan Region of Iraq (KRI). Arguments have been raised in favor of the traditional costing system with most scholars contending that it yields astonishing results on the condition of efficient accounting systems and removal of complexities that hinder accurate accounting procedures (Horngren, 2003).

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II. LITERATURE REVIEW

2.1 *The theory of constraints*

The theory of constraints is based on the assertion that firms thrive to make profits both presently and in the foreseeable future. Thus the inability of firms to make money is sufficient to dissuade firms into continuing operations. The theory of constraints implies that activities that do not contribute to the firm's profits are viewed as wastage of resources and time. In order for the theory of constraints to yield desired results, three essential elements are required and these are herein discussed below. The foundational element of the theory of constraints is throughput which is an assessment framework that determines the speed at which activities recoup money through sales. Goldratt (1990) posits that in order to maximize output from activities there is need to identify bottlenecks surrounding activities. The most significant feature of the theory of constraints is that Goldratt (1990) strongly contends that firms must first attain improvements in efficiency of the bottlenecks prior to improving overall efficiency of the systems.

The theory of constraints has received support from Chea (2011) who advocated that firms must draw attention on improving individual efficiency of each activity and optimize the hourly operational capacity of each activity. However, critiques have been raised against this approach. For instance, CIMA, (2001) argues that system sub-optimization always sets in when attention is drawn towards improving the efficiency of individual activities instead of the whole system. It is in this regard that Accounting tools.com, (2015) established that firms must be aware that bottlenecks in activities are a major influence of system capacity. Thus the rate at which the activities produce output or generate money is determined by the bottlenecks. Alternatively, it can be said that output produced by the activities will not rise above the level of the bottlenecks.

This implies that any expenditure towards non-bottlenecks activities will not result in improvements in overall system efficiency but rather will result in a reduction in costs of undertaking those activities. Positive sentiments were also expressed by Holst and Savage (1999) who outlined that management focus must be pinned on improving overall system efficiency through eliminating all the bottlenecks. This has received tremendous support especially in empirical studies which has shown that the elimination of bottlenecks is positively related to improvement in performance (Weston, 1999).

The second element of paramount importance in the theory of costs in the issue of operational costs. Goldratt (1990) purports that operational costs must be kept low so as to increase the throughput. Goldratt (1990) postulates that there is need to reduce costs incurred towards ensuring that activities result in throughput. Such costs are related to raw materials acquisition and utilization, direct labour, machinery costs etc. The ideology of associating operational costs with throughput emanated as a result of contradictions in views about the operational time of activities. Of notable influence is that idea that activities must be kept operating if not, the firm will lose money (Ruhl, 1995).

On the other hand, (Harsh, 1993) argues that keeping activities operational for quite a long period of time is not a guarantee that profits will be earned. (Harsh, 1993) cited that instead of keeping activities operational for long periods, firms must rather focus on increasing throughput. This is because there is a positive linkage between operational time and operational costs. Operational costs are contended to rise with the length of time spent

conducting the activities. It can thus be viewed that increasing the operational time of conducting activities does not necessarily represent an increase in profits made unless there is a corresponding increase in throughput.

On the contrary, Harsh (1993) argues that increasing the operational time of conducting activities will result in an increase in the impact of the bottlenecks. The ultimate element of the TOC is inventory. Inventory in this context is defined as expenditure spent towards items of activities that are intended to be sold (Holmen, 1995). The TOC establishes the need to maintain inventory at desired levels. Thus in order to increase the efficiency of the activities, inventory must be balanced with operational costs and the level of demand. Excess inventory is thus viewed as wastage of both resources and time.

Greenwood et al. (1992) viewed inventory as idle capital that must rather be used in productive activities rather than keeping it idle. Hindrances in activities are identified by altering the level of inventory. Goldratt (1990) outlines that the inability or lack of capacity to achieve desired goals by affirms is as result of constraints. Such constraints are believed to be external and these can include the unavailability of materials, logistic complications, lack of customer demand etc. internal constraints are regarded to be caused by bottlenecks in the activities. Using the above analysis, it can be ascertained that the theory of constraints outlines that there is a relationship between bottlenecks, non-bottleneck activities, constraints and output produced or money generated from activities. Operational capacity is thus viewed as not bottleneck but can be a bottleneck when improperly managed (Greenwood et al. 1992).

The therefore of costs further asserts that in order to maximize both output or money generated from activities, firms must adopt a 5-step constraint management process. These steps are given as follows;

Table 2.1: Five-Step Focusing Process on the Theory of Costs

| | |
|----------|--|
| 1 | Identify system constraints, whether physical or political constraints. |
| 2 | Decide how to exploit the system constraints. That is, get the most possible within the limit of the current constraints. |
| 3 | Subordinate everything else to the above decision. |
| 4 | Elevate the system constraints. That is, reduce the effects of the current constraints; off-load some demand or expand capability; and make everyone aware of the constraints and its effects on the performance of processes. |
| 5 | If in the previous steps a constraint has been broken, go back to step 1, but don't allow inertia to cause a system constraint. |

Source: Gurses, (1999)

2.2 Difference between ABC and traditional based costing.

Both costing systems serve the same purpose of allocating production costs in relation to the cost driver rate. But the major differences lie in the complexity, and accuracy of allocating costs (Wilkson, 2013). The traditional costing is more easy and simple to interpret as compared to the activity costing which is difficult to comprehend. However, the activity costing method provides managers with accurate information, needed for decision making

while the traditional costing is less accurate. The Table below provides a summary of the differences in traditional and ABC methods.

Table 2.2: Differences between activity based costing and the traditional based costing

| | Traditional | ABC |
|--------------------|---|---|
| 1. Cost pools | 1. One or a limited number | 1. Many, to reflect different activities |
| 2. Applied rate | 2. Volume-based cost drivers | 2. Activity-based, nonfinancial |
| 3. Suited for | 3. Labour-intensive, low-overhead companies | 3. Capital-intensive, product-diverse, widely diverse set of operating activities, variation in numbers of production runs, high-overhead companies |
| 4. Benefits | 4. Simple, inexpensive | 4. Accurate product costing, possible elimination of non-value-added activities |
| 5. Cost assignment | 5. Allocates overhead costs first to departments and second to products or services | 5. Assigns overhead costs first to activity cost pools and second to products or services |
| 6. Focus | 6. Focuses on managing costs of functional departments or responsibility centres | 6. Focuses on managing processes and activities and solutions of cross-functional problems |

Exhibit 4.7: Traditional and ABC Systems.

Source: (Agarwal, 2015)

2.3 Empirical literature.

Activity Based costing system has been adopted in many institutions as compared to the traditional costing system. This section will seek to identify some of the literature or previous research done by other researchers on the issue of ABC system in different cases and situations. Liu and Pan (2013) examined the implementation of ABC in a Chinese company called Xu Ji Electrical Co. Ltd. The system was implemented in 2003 and prior to that, the company was using the traditional based costing system. The main reason for the change was that the traditional costing system was inadequate in allocation of costs therefore a new and improved costing strategy was required. Findings of the study revealed that after implementation of the costing system, decision making became easier and improved work flow was encountered. Direct costs and variable costs were identified more easily, the company obtained accurate data, and management was able to manage expenses and sales of the company more effectively.

Azadvar, Alizabeh and Bozorgmehrian (2012) highlight that, because of the changing conditions in the business arena, management has made it its mandate to also change some of its old fashion technique of costing management so as to adapt to the change. ABC was identified as a new and effective way of managing costing. The main aim of their researches was analysis the implications of ABC in order management. The authors employed a multi objective and programming model in order to determine the best decisions to be made. Results showed that there was higher profitability and minimum costs were attained.

In a similar article by Khataie, Bulgak and Segovia (2011), a hybrid solution encompassing activity based management and management is utilized as an effective strategy to cost analysis and also for effective decision making with firms. Findings of the research proved that that the hybrid solution was best for enhancing profitability and generating accurate information for making informed decisions through timely cost analysis.

Cardos and Pete (2013) undertook a study to analyse the strong benefits of implementing ABC and ABM in Companies. The aim of their study was to identify the pros of implanting the systems in companies as well as the

notable disadvantages. Their findings were that activity based costing enable management to have better control of costs and provided the managers with strategies helpful for governing financial and non-financial decisions in the company. Just like other researches done in the field, it assisted accountants in the decision making process.

Damme and Zon (1999), in their research paper titled 'Activity based costing and decision support', revealed that activity based provides advantages to a company in relation to effective allocation of expenses as well is reaping benefits of efficient cash flow based accounting to support decision making. The research paper concluded that adequate information was being utilized by managers to support decision making in various levels or department in the organization.

Chea (2011), looks at the history of BC in America and goes on to analyse the use of ABC in the services sector. From the research paper, the author identifies some advantages of using ABC as the key driving force to supporting managerial decisions in different operations of the business. The author further points out that the limitations of ABC in that it does not provide a suitable benchmark for total quality management, and its lack of customer focus. One notable criticism identified by the author is that it does not provide and suitable way for making decisions in the short run.

Metin (2003) compared the traditional based costing system to the activity based costing system and reported that the emergence of the ABC was a good development as it overrides the disadvantages provided by the traditional based system. The author further highlighted on the need for ABC in decision making especially on pricing issues. Findings revealed that most company would opt for the once of expensive implementation of the ABC so as to guarantee the availability of adequate and reliable information than to suffer ongoing costs of using the traditional system that would provide missing information.

Roztocki, Valenzuela, Porter, Monk and Needy, (2006) analyzed the implementation of activity based costing in small companies with less hundred people. The aim of the research was develop a strategy that would allow the company to shift from the traditional based system to the activity based costing system in a cost efficient manner. Eight major steps where followed throughout the implementation. Results of the study showed that the steps followed allowed easy tracing of costs was enabled through matrices and cost related calculations.

Skaik (2006) investigated the impact of activity based costing system in order to support decision making in Gaza Strip factories. A response of 86% was obtained from the distribution of 43 questionnaires. Findings of the study revealed the non-implementation of activity based costing impacted negatively of the Gaza strip firms. Therefore, the conclusion of the study was that, poor decision making was been done to determine the cost of products in the factories. Mansor et al (2013) conducted a study on a telecommunication company in South Asia. 181 questionnaires were distributed to management at the company. The aim of the study was to find out how ABC influenced their decision making, its usage and how they view the system in general. Descriptive analysis was used in the study. Respondents were required to comment on the changes made after the implementation of the ABC.

The results showed that ABC benefited the institution by enabling the management to obtain better information and make the best decisions in their budgets, process improvements, planning and so forth. Maelah and Ibrahim (2007) examined the factors influencing the implementation of the ABC IN Malaysia. Questionnaires were distributed to accountants as well as department heads. Findings of the research showed that there was a 36 % adoption rate in Malaysia for the ABC system. The authors identified the factors that prompt the adoption of the

ABC as relevance, management support, and performance measures. In a bid to support involvement of customer base in the costing method, Shafiee et al (2012) analyzed the application of activity based management to customer management. The author purports that the application of the method would assist managers to verify the actual costs of products at the same time meet clientele satisfaction.

Segovia and Khataie (2011), examined the reasons why it is important to adopt the ABC/M. the main reasons were that the management hoped to increase their performance by controlling costs more efficiently. The aim of the study was to analyse if ABC/M can act as an effective tool for cost reduction and also if there would be a positive effect on the financial aspect of the firm. Sohal and Chung (1998) investigated the benefits of activity based costing in an Australian company. The study highlight some of the advantages and disadvantages of activity based implementation in the company. The authors identified the key issues for the successful adoption of the system. Biller, Jurek and Guldberg (2010) studied the effects of ABC when applied to an automobile company. The results of the study showed that the costing system combined with a Smart grid benefits can offer distinctive competencies for the manufacturing company. Furthermore, the system offered a better cost for its customers. Weggman (2010) analyses the scope to which ABC can be used in strategic management and to check if the costing system can drive the improvement for strategic management issues.

The study gives reasons of why ABC model is adopted and analyses the developments of the case study. Studies on ABC have gone as far as examining its use in higher learning institutions. Krishman (2006) looks at the application of ABC at can at a university and investigates how the method can be better utilized in customer satisfaction at the learning institutions. Sabouri 2014 discusses the need for accounting managers to have full knowledge on cost accounting systems so as to facilitate smooth running of Iranian cement companies. The aim of the study was to analyse the efficiency of ABC in cement production and how managers deal with the resulting information. Walton (1996) examines the role played by activity based management in the implementation of electronic data interchange. The author stresses that managers need to be fully equipped with strategies that will assist in controlling cost. The aim of the study was to detect when electronic data interchange utilizes activity based costing in order to make better decisions.

The role of ABC in hospitals is analyzed in hospital institutions of Iran by Rajabi (2008). The study incorporated activity analysis in all the departments to determine the costs of services offered in the hospital. Findings of the research showed that ABC was more effective in providing useful and complete information to determine and compute the costs of services offered. Bardan, Chen, and Banker (2007) investigate the effect of ABC on the implementation of manufacturing. Their study differs from other researchers because it studies the effect of manufacturing on ABC rather than vice versa. Results of the study indicated that ABC has no significant effect on manufacturing company. The study reveals that the correlation between ABC provides no improvement in the manufacturing process.

Turney (1989) looked at the role of ABC in improving manufacturing brilliance, the study explains how top management can improve their processes in companies by incorporating ABC by identifying deficiencies in manufacturing companies. It also identifies the downs of ABC as being too expensive and very complex system to understand. However, the study shows that the adoption of the ABC system can be a success to the manufacturing companies when the design is made simple. Yousif (2011) used a qualitative method in trying to find if ABC is still a relevant system in most companies. The research made use of questionnaire which were semi

structured in order to get more detailed information from the respondents. From the results it was observed that companies that are still using ABC get benefits from the system and that the problems encountered in using the system are managed in a certain way.

However for those companies that have dropped the system, the reasons were mainly because of insufficient management supports and lack of information and resources to fully carry out the system. Lima (n.d) identified the need for ABC in higher education institutions. The study aimed at finding the best ABC model that would be better applied to higher institutions in order to better manage financial information. Portuguese universities was the population under study. Aho (2006) investigated the adoption of real time ABC in the management of a company's database. The researcher used SPSS program and employed ANOVA, t-test, descriptive statistics and chi-square to analyse the data collected from questionnaires distributed to 925 companies in Ireland. The article aimed to educate managers that they should not rely on their own intuition in determining costs of services but rather utilize the information provided by ABC to allocate the actual cost for products and services produced by the company. Abusalama (2008) looked at why the level of ABC implementation is low despite the opinion stated by other researchers that it is the best system for cost allocation and other benefits provided as well. The author stresses that the low adoption statistics emanate from company's preparedness to adopt the system and from contingency variables. The results of the study showed a significant relationship between ABC systems and contingent variables while technical issues identified in the study are the highest hindrance factor in the adoption of ABC system.

Levin and Sallbring (2011) conducted a case study research that would assist in providing solutions for the challenges identified in companies in Sweden. Multiple research methods were used to collect the data. The aim of the study was to come up with an appropriate plan for the company to implement ABC. The study came up with a costing system suitable for the companies and it provided a benchmark that would help companies improve their system. Moore (2000) observed the impact of activity based management in military organizations. The goal was to analyse how the system can be properly utilised to increase the performance in these type of institutions. Results of the study showed that military institutions fail to fully utilize the system thereby causing a decrease in their performance activities. The root cause of the problem was that the institutions cannot properly apply the ABC in the bid to improve their performance. Roztocki and Schultz (n.d) performed a web survey to analyse the implementation rate of ABC in both service institutions and manufacturing institutions. Results showed that unlike long back only manufacturing companies had a dominant part in using the costing system, nowadays companies that offer services have appreciated the benefits of ABC system in running their organizations.

III. METHODOLOGY

The main objective is to determine the roles that are being played by activity based costing on decision making of companies in Kurdistan Region of Iraq. As a result, the dependent variable will be represented by decision making while independent variables are cost management, performance management and quality management. Greene (2000) postulates that a multiple regression model is essential in outlining the effects of one variable upon the other and the significance of that relationship. A multiple regression method will be used to analyse the results and it can be expressed as follows;

$$DM = \beta_0 + \beta_1 CM + \beta_2 PM + \beta_3 QM + \mu \dots \dots \dots (1)$$

Where; β_0 , β_1 , β_2 and β_3 are parameters, CM, PM and QM is cost management, performance management and quality management respectively. The dependent variable is denoted by DM which represents decision making. The data will be analyzed using SPSS 22. The study will therefore attempt to test the following hypothesis;

H0: The cost management role of activity based costing has no significant impact on decision making.

H1: The cost management role of activity based costing has a significant impact on decision making.

H0: The performance management role of activity based costing has no significant impact on decision making.

H1: The performance management role of activity based costing has a significant impact on decision making.

H0: The quality management role of activity based costing has no significant impact on decision making.

H1: The quality management role of activity based costing has a significant impact on decision making.

IV. DATA ANALYSIS

4.1 Persons Correlation test

Correlation coefficients were determined using the Pearson Correlation coefficient determination method. The result are presented in table 4.9. It can be noted using results in table 4.8 that there is a positive association between cost management and performance of 0.811. The relationship between performance management and quality management is positive but that of quality amangement and cost management is negative with coefficients of 0.089 and -0.238 respectively. The relationship between cost management and performance, and quality management is significant at 1% and 5% respectively.

Table 4.1: Person’s Correlation test

| | | CM | PM | QM | DM |
|----|--------------------------------|-------------------------|-------------------------|-----------------------|--------------|
| CM | Corr. Sig. (2-tailed) N. | 1 .br/>111 | | | |
| PM | Corr. Sig. (2-tailed) N. | 0.811** 0.000 111 | 1 .br/>111 | | |
| QM | Corr. Sig. (2-tailed) N. | -0.238* 0.012 111 | 0.089 0.352 111 | 1 .br/>111 | |
| DM | Corr. Sig. (2-tailed) N. | 0.733** 0.000 111 | 0.860** 0.000 111 | 0.092 0.336 111 | 1 111 |

** , * Significant at 0.01 and 0.05 level respectively.

4.2 Justification and Auto-correlation test

Table 4.2: R square and serial correlation test

| R Square | Adjusted R Square | Durbin Watson |
|----------|-------------------|---------------|
| 0.746 | 0.739 | 1.932 |

Obtained model summary results show an R-Square of 0.746 which translates to a 74.6% change in decision making following a change in cost management, performance and quality management. When accounted for degrees of freedom, the adjusted R-Square declines to 0.739 which translates to a 73.9% change in in decision making following a change in cost management, performance and quality management.

A Durbin Watson statistic of 1.932 was obtained and this signifies that there is serial correlation. A Durbin Watson which is very statistically different from 2 whether above or below signifies the presence of serial correlation. A very low Durbin Watson means that there are problems of positive serial correlation while a very high Durbin Watson entails that there is negative serial correlation.

Table 4.3: Estimated Model

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|------------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| (Constant) | .288 | .211 | | 1.362 | .176 |
| 1 COSTMANAGEMENT | .159 | .094 | .166 | 1.692 | .094 |
| PERFORMANCE | .737 | .098 | .719 | 7.511 | .000 |
| QUALITYMANGEMENT | .043 | .037 | .067 | 1.168 | .245 |

*, ** Significant at 0.01 and 0.10 respectively, Dependent variable DM

From table 4.11, it can be noted that there is a positive relationship that exists between decision making and cost management of 0.159 which is significant at 10%. This signifies that a 1% change in cost management practices enhances decision making abilities by 15.9%. Possible reasons point to the fact that a management accounting provides information about the usage of resources and which resources are best performing. Hence corresponding actions can be taken to improve performance and maximise performance.

There is a relatively high positive and significant relationship between performance and decision making. It can be noted that a high coefficient of 0.737 translates to a change in decision making ability by 73.7%. Possible reasons suggest that the increase in performance is a good indicator that good decisions have been made. That is, poor performance can be said to be caused by bad decisions and hence the bad decisions are reflected in performance. Meanwhile, quality management can also be observed to be positively related with decision making. This is evidenced by a correlation coefficient of 0.043 which shows that quality management has a positive effect

on decision making of 4.3%. Quality management thus improves the ability and platform to make quality or sound decisions.

Cost management and performance have significant relationships with decision making at 10% and 1% respectively. Hence we can accept the null hypothesis that cost management and performance do play significant impact on decision making. However, the null hypothesis that quality management plays a significant role of decision making is rejected at 5%.

Table 4.4: Regression results model 2

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| (Constant) | .442 | .258 | | 1.709 | .090 |
| 1 COST MANAGEMENT | .765 | .059 | .800 | 12.971 | .000 |
| QUALITY MANGEMENT | .179 | .039 | .282 | 4.574 | .000 |

a. Dependent Variable: DECISION MAKING

From table 4.12, it can be noted that there is a positive relationship that exists between quality management and cost management of 0.765 which is significant at 1%. This signifies that a 1% change in cost management practices enhances decision making abilities by 76.5%.

On the other hand, quality management can also be observed to be positively related with decision making and is significant at 1%. This is evidenced by a correlation coefficient of 0.179 which shows that quality management has a positive effect on decision making of 17.9%. Quality management thus improves the ability and platform to make quality or sound decisions.

Table 4.5: Regression results model 3

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| (Constant) | .427 | .196 | | 2.179 | .032 |
| 1 PERFORMANCE | .880 | .051 | .858 | 17.403 | .000 |
| QUALITY MANGEMENT | .010 | .031 | .016 | .315 | .753 |

a. Dependent Variable: DECISION MAKING.

There is a relatively high positive and significant relationship at 1% between performance and decision making. It can be noted that a high coefficient of 0.880 translates to a change in decision making ability by 88.0%. possible reasons suggest that the increase in performance is a good indicator that good decisions have been made.

That is, poor performance can be said to be caused by bad decisions and hence the bad decisions are reflected in performance.

Quality management can also be observed to be positively related with decision making. This is evidenced by a correlation coefficient of 0.010 which shows that quality management has a positive effect on decision making of 1.0%. Quality management thus improves the ability and platform to make quality or sound decisions.

4.3 Statistical F-test ANOVA

Table 4.6: ANOVA results

| | Sum of squares | Df | Mean square | F | Sig |
|------------|----------------|-----|-------------|---------|--------------------|
| Regression | 19.688 | 3 | 6.563 | 104.846 | 0.000 ^b |
| Residual | 6.698 | 107 | 0.063 | | |
| Total | 26.386 | 110 | | | |

b. Predictors: (Constant), QUALITYMANGEMENT, PERFORMANCE, COSTMANAGEMENT

The significance of the estimated model was determined using ANOVA. The basic assertion is that when the obtained p-value is less than 5%, the null hypothesis that the model is correctly specified is accepted at 5%. Using table 4.12 results, we can therefore accept the null hypothesis and conclude that the estimated model is correctly specified. Hence the model can be used for policy making.

Table 4.7: Hypotheses results

| P-value | Null Hypothesis (H0) |
|---------|---|
| 0.094 | The cost management role of activity based costing has no significant impact on decision making. (Decision: Reject) |
| 0.000 | The performance management role of activity based costing has no significant impact on decision making. (Decision: Reject) |
| 0.245 | The quality management role of activity based costing has no significant impact on decision making. (Decision: Accept) |

The established results for the formulated hypotheses are presented in table 4.13 and it can be accepted that cost management and performance management roles of activity based costing have no significant impact on decision making and that quality management roles of activity based costing have a significant impact on decision making.

V. CONCLUSIONS

It can therefore be concluded that activity based costing plays significant positive roles in organization especially with regards to Bazian Cement Company. The adoption and implementation of ABC in organizations is relatively low and most employees are not fully furnished with ABC information. Thus the effectiveness of ABC is said to hinge on the extent to which ABC is adopted, implemented and employees are immersed with ABC information and understanding. The article offers sound explanations about the role of activity based costing in manufacturing companies in Kurdistan Region of Iraq. Future studies are therefore advocated to build further examination of the usage of ABC based on the outlined roles of ABC in an organization.

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