



The Effect of Accountability on Confidence Level and Resistance to Changing of Accounting System

Ahmad Khodamipour^{[a],*}; Gholamreza Hajizadeh^[b]; Zanyar Sajjadi^[b]

^[a]Associate Professor, Accounting Department, Shahid Bahonar University of Kerman, Kerman, Iran.

^[b]Accounting Department, Shahid Bahonar University Of Kerman, Kerman, Iran.

*Corresponding Author.

Address: Accounting Department, Shahid Bahonar University of Kerman, Kerman, Iran.

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Abstract

The aim of this paper is surveying the effect of commitment on judgment about desirability of accounting system and also the effect of accountability on normalizing of overconfidence and resistance to change. In order to testing the hypotheses, an experimental study has been conducted in the research. In the first stage of the study, the subjects were divided into committed and uncommitted groups. In the second stage, participants were divided into accountable and unaccountable groups. Then the reaction of the subjects to two types of accounting systems was surveyed. The findings of the research showed that commitment to an accounting system resulted to increase of desirability of the chosen system and attenuation in desirability of the alternative system. It has been also observed that the people, who are committed to an accounting system, have remarkable confidence to their choice; so in corollary resulted in resistance to change. Moreover, accountability about negative consequences of their decision can reduce these effects. The results of this research increase our perception on peoples' motivations about making the best use of the advantages of the chosen system; it would be useful when a change in accounting system is needed. It's also a guide for finding a way for coping with resistance.

Key words: Accountability; Commitment; Confidence; Resistance to change; Cost allocation system

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INTRODUCTION

Today professional accountants are acting in a multifaceted environment which is changing constantly. Advancement in information technology is continuing with an incremental speed. Business firms are changing their practical manners and their management structures are trying to cope with environmental competition.

Competition is forcing the business units to reduce their costs and improve the performance; so they should present better services with the least possible price which is favorable to customers. Thus, firms should develop their functional process for the accurate report of cost and the information should be in a way that helps manager to reduce the costs.

We can see much attention on resistance to change in management accounting literature. With regard to rapid change in production systems, especially measureless change in information technology, changes in accounting systems for providing related and on-time information, which is needed for managers, it's been expected that the changes are remarkable.

Thus, in this research we are trying to answer the following questions:

(1) Does commitment to an accounting system affect the judgment of people about its desirability?

(2) Does commitment to an accounting system result to overconfidence about that?

(3) Dose accountability for performance attenuate confidence level of accounting system?

(4) Does commitment to an accounting system result to high resistance to change?

(5) Dose accountability for performance attenuate resistance to change of accounting system?

The researches which have done on changes in accounting systems have concentrated mostly on organizational aspects and there are much fewer studies on resistance to change in individual levels. So our purpose is surveying resistance to change of accounting systems at individual levels.

1. THE LITERATURE REVIEW

Coch and French (1947) have done a study about resistance to change. The aim of study was to understand why production workers defend against change and what should do to cope with this phenomenon. They found that the group which didn't have collaboration was heavily resisted to change. However, the group which had collaboration via an agent, show less resistance and the third group which directly involved had no resistance.

Allen (1974) demonstrated conflicts after the decision (after selection of a specific way by people) is occurred when that acquisition of all options is impossible.

In an experimental study, Foran and Decoster (1974), with the use of inconsistency mental approach, observed the effect of collaboration, autocracy, and feedback on attitudes about executive standards that they have collaborated in their preparation. They found that there would be a significant increase in commitment to standard if the feedback be useful.

Tiller (1983) performed another experimental study with the use of Foran and Decoster's developed model. The results showed that collaborative budgeting increase commitment to achieving budget objectives and make its implementation trouble-free.

Nemeth and Rogers (1996) found that when decision makers feel committed to a preferred alternative, they will engage in confirmatory-biased information search leading to the maintenance of their initial position. Confirmatory bias – the tendency to emphasize and believe information that supports one's views and to ignore or discredit evidence that does not – may increase the likelihood of bad outcomes.

Sullivan and Smith (1993) found that personal resistance to change is the main cause of companies' failure in achieving to complete advantages of innovations.

Ness and cucuzza (1995), Argyrise and Kaplan (1994), Sullivan and Smith (1993) found that activity based costing creates new visions about related costs and activities with earned value, but managers defend against changes in the cost allocation system.

Innes (2000) performed a study on activity based costing in holdings of UK from 1994 to 1999. He found that commitment to existed systems could be effective in deficiency of innovation in management accounting.

Tetlock *et al.* (1989) showed that how responsibility affect peoples' behavior. They found when people explicitly committed to a special issue; they will try for its justification.

Beller and Hunton (1995) surveyed the effect of explicit disclosure on zealotry to selected guidelines. They found that the people who explicitly state their selection, their arrogance increases related to others; even when the feedback in negative. Tendency to insistence on mistaken decision has been approved in other studies.

Brown (1999) found that auditors accept the information which supports their hypotheses aligned with criteria. However, they survey unfair about the information which makes their hypotheses unreliable.

Jermias (2001) found that after selection of a specific cost allocation system, people tend to search the information which shows the advantages of the chosen system versus the alternative one. So they decline to present the information which is in contrast with this.

In another study, Jermias (2006) found that commitment to a particular cost allocation system results in an increase in desirability of chosen system and decrease in desirability of the alternative system. Results also showed that the people who committed to particular cost allocation system show more confidence to their chosen system which causes to the high resistance to change. Although accountability aligned with negative consequence of decision cause to decrease in confidence level and lower resistance to change.

2. HYPOTHESES

In order to survey the effect of commitment on judgment of people about desirability of cost allocation system and the effect of accountability on confidence level and resistance to change, six hypotheses were tested as follows:

(1) The people who select their cost allocation system give more score to their chosen system than others.

(2) The people who select their cost allocation system give fewer score to the alternative system than others.

(3) Lack of accountability cause the people who are committed to their chosen system to show more confidence than others.

(4) Accountability reduces the effect of commitment on confidence level in the way that accountable and committed people show less confidence level than uncommitted and unaccountable people.

(5) Lack of accountability causes the people who are committed to their chosen system to show more resistance to change of their chosen system than others who aren't committed.

(6) Accountability reduces the effect of commitment on resistance to change in the way that accountable and committed people show less resistance than committed and unaccountable people.

3. METHODS SUMMARY

The method which used in this study is semi-experimental. At the first stage of study, two groups of subjects were used: committed and uncommitted groups. At first information about two cost allocation systems (traditional cost allocation system and activity based costing system) was given to the groups. Committed group was asked to select one of the systems and state the reason for their choice upon the information that was given to them. It's been assumed that they are committed to the system if they select it and bring reasons to support it. Then subjects were asked to answer fourteen questions about these two systems. People of the uncommitted group were asked to answer the questions after reading information about two cost allocation systems.

At the second stage, all the participants were divided into two clusters: accountable and unaccountable clusters.

In this stage, participants were asked to play the role of a firm's manager. In this way, they were given information about cost of three products and were asked to give us the price of their products. Participants were told if their proposed price is lower or equal to market share, they would sell a unit of their products and their profit would be equivalent to the difference between selling price and cost of product. Otherwise they won't sell any product and so their profit would be zero.

Participants were also told that their assumed profit would be compared with the market average and if their profit is less than average, they should be accountable for this. So they should be responsible for their negative feedback. However, people in the unaccountable group were not obliged to justify their performance.

Regarding to this research which surveys the effect of accountability on confidence level and resistance to change, assumed market average is chosen in the way that all participants have negative feedback.

In order to measure validity of the research tool, choronbakh alpha with the use of SPSS were used. Alpha coefficient for this tool is 77%, which shows that it is valid enough.

Population of this research involves accounting students of Shahid Bahonar university of Kerman which are experienced in their field.

For determining sample, Cohen's tables were used. Regarding to that there are two groups in this research, significant level of $\alpha=0.5$ and effect volume of $(1-\beta) = 0.50$ was chosen. With selection of 26 subjects within each group, regard to Cohen's tables, test power was calculated as 97%.

Statistical methods used throughout this research are descriptive and comparative, including average, variance, standard deviation and t-test at 5% confidence level. Statistical hypotheses for each hypothesis are as follows:

$$H_0: \mu_1 \leq \mu_2$$

$$H_1: \mu_1 > \mu_2$$

In this research Likert's spectrum was used which people score the question between 1 to 7. 1 indicates that completely disagree and 7 means completely agree.

4. FINDINGS

4.1 Test of the First Hypothesis

The first hypothesis of the research is stated as follow:

H0: the average of committed group scores to the chosen system is less or equal to average of uncommitted group scores.

H1: the average of committed group scores to the chosen system isn't less or equal to average of uncommitted group scores.

The results are shown in Table 1.

Table 1
Test of the Hypotheses

Description	Hypothesis number #	Committed group		Uncommitted group		Test		Test result
		Average	Standard deviation	Average	Standard deviation	T-Test	P-Value	
Desirability of chosen cost allocation system (in use)	1	5.91	0.591	4.96	0.991	4.349	<0.001	reject
Desirability of the alternative cost allocation system	2	3.51	0.764	5.05	0.895	6.662	<0.001	reject
Confidence level to the in use system	3	3.90	0.949	2.76	0.813	2.273	<0.001	reject
Confidence level to the in use system	4	3.15	0.800	3.90	0.949	2.177	<0.001	reject
Tendency to change of in use system	5	3.23	1.535	5.69	0.947	4.918	<0.001	reject
Tendency to change of in use system	6	4.923	1.552	3.23	1.535	2.794	<0.001	reject

Regarding to Table 1, H0 hypothesis is rejected and H1 which is the research hypothesis is accepted. Accordingly, it can be stated generally the people who select their

system, at 95% confidence level, give more score to their chosen system related to others.

4.2 Test of the Second Hypothesis

The second hypothesis of the research is stated as follows:

H0: the average of uncommitted group scores to the alternative system is less or equal to average of committed group scores.

H1: the average of uncommitted group scores to the alternative system isn't less or equal to average of committed group scores.

The results are shown in Table 1. Regarding to Table 1, H0 hypothesis is rejected and H1 which is the research hypothesis is accepted. Accordingly, it can be stated generally the people who select their system, at 95% confidence level, give fewer score to the alternative system related to others. Average score of committed and uncommitted groups to the chosen and alternative system is shown in Figure 1.

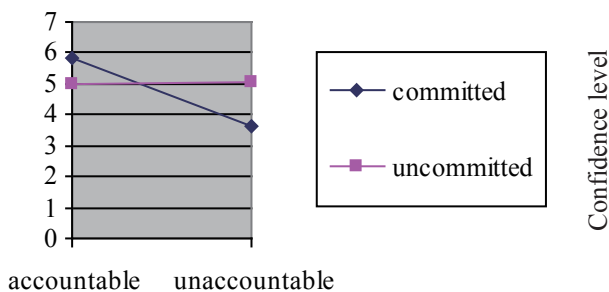


Figure 1
Average Desirability Scores of Committed and Uncommitted Groups for Two Cost Allocation Systems

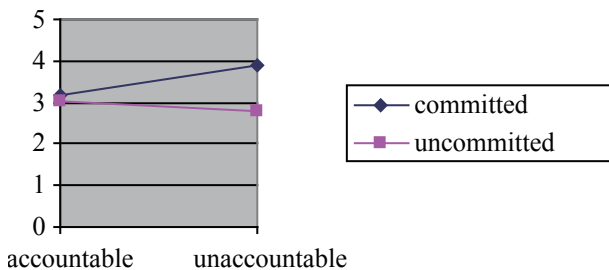


Figure 2
Confidence Levels Chart for Committed and Uncommitted Groups at the Condition of Accountability and Unaccountability

4.3 Test of the Third Hypothesis

The third hypothesis of the research is stated as follows:

H0: at the condition of unaccountability, average confidence level of the committed group to the chosen system is less or equal to average confidence level of the uncommitted group.

H1: at the condition of unaccountability, average confidence level of the committed group to the chosen system isn't less or equal to average confidence level of the uncommitted group.

Regarding to Table 1, H0 hypothesis is rejected and H1 which is the research hypothesis is accepted. Results

indicate that at 95% confidence level, people within the committed group have more confidence to their chosen cost allocation system than the ones within the uncommitted group.

4.4 Test of the Fourth Hypothesis

The fourth hypothesis of the research is stated as follows:

H0: average confidence level of the unaccountable group to the chosen cost allocation system is less or equal to average confidence level of the accountable group.

H1: average confidence level of the unaccountable group to the chosen cost allocation system isn't less or equal to average confidence level of the accountable group.

Regarding to table 1, H0 hypothesis is rejected and H1 which is the research hypothesis is accepted. Results indicate that at 95% confidence level, accountable group show less confidence level to their in-use cost allocation system than the unaccountable group. Chart 2 shows the average confidence level of the committed and uncommitted group in accountability and unaccountability condition.

4.5 Test of the Fifth Hypothesis

The fifth hypothesis of the research is stated as follows:

H0: average tendency to change of the system in uncommitted group is less or equal to average tendency of committed group.

H1: average tendency to change of the system in uncommitted group isn't less or equal to average tendency of committed group.

Regarding to Table 1, H0 hypothesis is rejected and H1 which is the research hypothesis is accepted. Results indicate that at 95% confidence level, committed group show more resistance to change of the in-use system than uncommitted group.

4.6 Test of the Sixth Hypothesis

The sixth hypothesis of the research is stated as follow:

H0: average tendency to change of system in the accountable group is less or equal to average tendency of unaccountable group.

H1: average tendency to change of system in the accountable group isn't less or equal to average tendency of unaccountable group.

Regarding to Table 1, H0 hypothesis is rejected and H1 which is the research hypothesis is accepted. Results indicate that at 95% confidence level, accountable group show less resistance to change of the in-use system than the unaccountable group.

Figure 3 shows average tendency to change of the system in the committed and uncommitted group at the accountability and unaccountability situations.

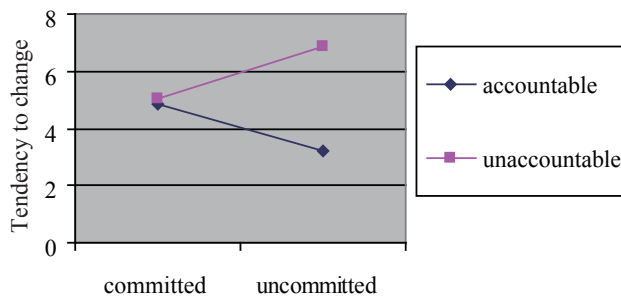


Figure 3
Average Tendency to Change of the System in the Committed and Uncommitted Groups at the Accountability and Unaccountability Situations

CONCLUSION

This research at first survey the effect of commitment on judgment about desirability of cost allocation system and then examine the role of accountability in mitigating overconfidence and resistance to change. It's been seen that the people who are committed to a particular cost allocation system give more utility scores to desirability of the chosen system related to others (uncommitted people). Results also showed that committed people concluded that advantages of the alternative system are poor.

It has been perceived that commitment to a particular cost allocation system results in overconfidence to chosen system and also high resistance to change. Accountability reduces the effect of commitment on confidence level and resistance to change. Even though the people who select their accounting system show more confidence levels and high resistance to change in comparison to the people who are using a system (instead of selecting the system), but making them accountable about negative outcomes of their decision resulted in reduce in confidence level and thus their resistance to change was attenuated significantly. The remarkable point of this research was that uncommitted people without accountability show many tendencies to change. One reason may be that some of the participants think that performance criteria which were used in the research weren't suitable. This factor could probably be solved by selecting the criteria with collaboration of participants.

This research helps to accounting literature in two ways. First, it provides a framework for studying the effect of commitment on judgment of people about cost allocation system and the role of accountability in mitigating of confidence level and resistance to change. Information about infra-motivators, justification and, etc. which result in resistance of people to change helps the researchers and professionals to have a better conceive about causes of resistance to change. It also helps us to find the ways that could reduce justification, resistance to change and confidence level.

Second, the result does not only increase our knowledge about motivation of people in using the chosen system; it is also a guide for find the way to cope with resistance to change and confidence level. Results show that people, who are committed to a particular system, confide it and they don't like to change it. However, accountability reduces confidence level and resistance to change.

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