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Investigate the Relationship between Behavioral Intention to Change the Activity-Basted Costing Management Systems and Performance in Small and Medium Manufacturing Enterprises in Kurdistan Province

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Abstract

The aim of this study was to investigate the relationship between influence behavioral intention to change on the usage of the activity based costing/management system and firm performance in small and medium size manufacturer in Kurdistan province. The present study is an applied research and in terms of how to collect data, descriptive and correlational research. The population of study consisted all employees in small and medium size manufacturer in Kurdistan province that Stratified random sampling method was used for sampling. A sample of 410 employees was selected through Cochran's formula. For data collection standard questionnaire used and to analyze the data. Structural equation modeling with LISREL software was used. Cronbach's alpha was all the items are a good value. Results showed that Performance expectancy and Facilitating conditions not affected on Behavioral intentions to change but Ease Expected affected on Behavioral intentions to change. However, communication between Behavioral intentions to change on performance and activity base costing was meaningful.

Keywords: behavioral intention to change, activity based costing/management, acceptance of information technology model.

Introduction:

Several recent studies have begun to consider the constructs related to ABC/M implementation and its success (Anderson, 1995; Anderson & Young, 1999; Brown, Booth, & Giacobbe, 2004; Foster & Swenson, 1997; Gosselin, 1997; Shields, 1995; Swenson, 1995).Studies of this stream identified

contextual, behavioral, organizational, environmental, and other constructs associated with the implementation process that affect the adoption of ABC/M systems. However, very limited studies have defined constructs that examined the adaptation of ABC/M projects from the perspective of information systems. As claimed by Gupta, and Galloway (2003), ABC/M is an "Information System" (IS) developed to overcome some limitations that exist in traditional cost accounting and to enhance its usefulness to the strategic decision-making processes (ling lee at el, 2010).

Explaining user acceptance of information technology (IT) is often described as one of the most researched areas in contemporary information literature (Hu, Chau, Sheng, & Tam, 1999). Since user acceptance of an information technology is the key to implementation of information systems, it is vital to research the users' acceptance of IT, like ABC/M systems. Moreover, the critical role of change agents in ABC/M implementation has been suggested in several studies (Cooper, Kaplan, Maisel, Morrissey, & Oehm, 1992, Foster & Swenson, 1997, Shields, 1995; Lin & Duh, 2003).

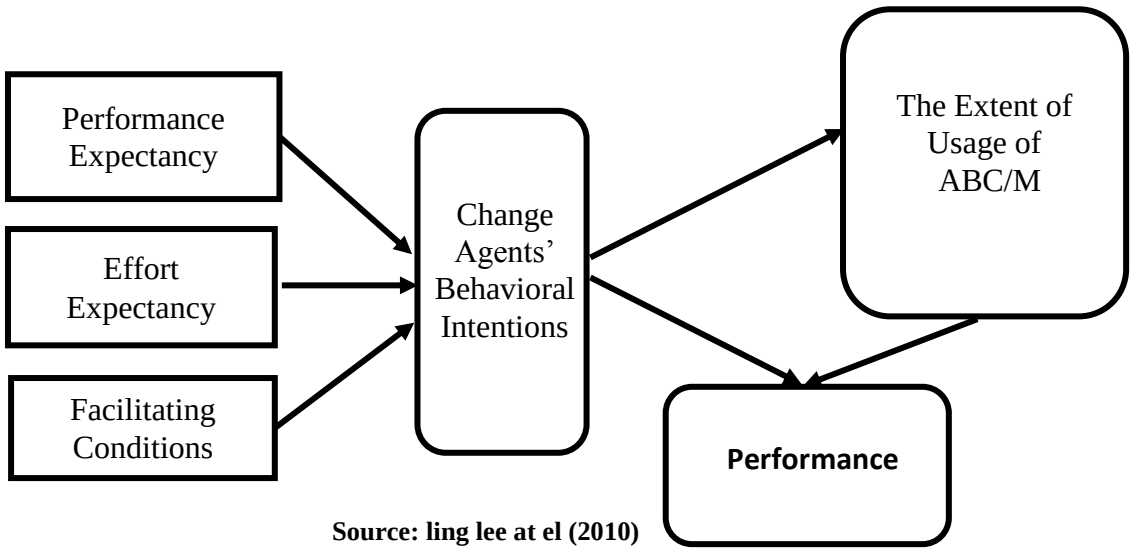
Nevertheless, how IS/IT-related determinants affect change agents' behavioral intentions remains unexplored. The important role of change agents in ABC/M implementation has been emphasized in prior literature — suggested that a change agent must usually have a high-level position in an organization that also receives support from top management. Other characteristics of change agents included the ability to motivate others, the political-savvy knowledge and the knowledge of how to acquire the resources required for implementation. Cooper et al. (1992) documented the experiences of ABC/M implementation in eight case sites. Technical and process factors and organizational issues were mainly the concern in the study of Cooper et al. In general, these aforementioned studies identified several specific factors that must be taken into consideration in the analysis and action phases. Furthermore, in these two aforementioned phases; advocates, sponsors, and change agents were targeted as key individuals to lead the change process. Change agents' behavioral. Intentions play an important role in the implementation of ABC/M. Thus, this study expects change agents' behavioral intentions to promote ABC/M, especially in terms of the extent of usage of ABC/M.

Information technology acceptance literatures have produced many competing models and each with different sets of acceptance determinants. A number of other theories that have been applied to the causal linkage of a users' IS acceptance behavior may be aligned with the TAM research. The Social Cognitive Theory, Diffusion of Innovation Theory, the Theory of Reasoned Action/Theory of Planned Behavior, the Tri and is Model, Human Computer Interaction research, the Technology Transition Model (Briggs et al., 1999), and the Social Network Theory (Robertson, 1989) are typical examples. Integration efforts and a new elaboration model are required. The Unified Theory of Acceptance and Use of Technology (UTAUT) is a representative model. Venkatesh, Morris, Davis, and Davis (2003) formulated a unified model called the Unified Theory of Acceptance and Use of Technology (UTAUT). Eight models that have been reviewed in the UTAUT, which include the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975), the technology acceptance model (TAM) (Davis, 1989), the motivational model (MM) (Davis, Bagozzi, & Warshaw, 1992), the theory

model of planned behavior (TPB) (Ajzen, 1991), amodel combining the technology acceptance model and the theory of planned behavior (C-TAM-TPB) (Taylor & Todd, 1995a), the model of PC utilization (MPCU) (Thompson, Higgins, & Howell, 1991), the innovation diffusion theory (IDT) (Tornatzky & Klien, 1982;Moore & Benbasat, 1991;1996), and the social cognitive theory (SCT) (Bandura, 1986; Compeau &Higgins, 1995: ling lee at el, 2010).

Conceptual model

The conceptual model of the research has been adapted from the study conducted by ling lee at el, 2010. This conceptual model was first set forth by the aforementioned authors in Taiwan and the model was shown to have a good fit by various studies. Based on the relationship between each variable and other variables, their indicators have been provided. The questionnaire designed based on this model was tested in their study for the first time and was shown to have a good reliability and validity.



Source: ling lee at el (2010)

Figure 1. Research Model

Based on this model, the following hypotheses are made:

Main Hypotheses

- There is a significant relationship between Change Agents' Behavioral Intentions and extend of usage of ABC/M in small and medium manufacturing enterprises in Kurdistan province.
- There is a significant relationship between Change Agents' Behavioral Intentions and performance in small and medium manufacturing enterprises in Kurdistan province.

Sub ***Hypotheses***

- There is a significant relationship between performance expectancy and Change Agents' Behavioral Intentions in small and medium manufacturing enterprises in Kurdistan province.
- There is a significant relationship between effort expectancy and Change Agents' Behavioral Intentions in small and medium manufacturing enterprises in Kurdistan province.
- There is a significant relationship between facilitating conditions and Change Agents' Behavioral Intentions in small and medium manufacturing enterprises in Kurdistan province.
- There is a significant relationship between extend of usage of ABC/M and performance in small and medium manufacturing enterprises in Kurdistan province.

Methodology

This is a correlational study, an applied research in terms of purpose and a survey - type correlational study in terms of data collection method. The study population consists of all of the employees of industry in small and medium manufacturing enterprises in Kurdistan province that were working when the study was being conducted. The population was classified using random sampling method and the sample size was determined 410 employees of manufacturing companies of Kurdistan based on Cochran Formula. Data were collected using a questionnaire due to the nature of the subject under study. Structural equation model was used to analyze the data and the research hypothesis respectively. This is a cross-sectional study in terms of time and was performed in the small and medium manufacturing companies in Kurdistan Province. The questionnaires were distributed among

the companies in Kurdistan Province. To analyze the data from both descriptive and inferential statistics are used. Descriptive statistics were used to describe demographic variables and inferential statistics, regression and structural equation model used to analyze the hypothesis.

Results:

Reliability

Cronbach's alpha was used in this study to determine the reliability of the test. The higher the alpha, the more reliable the scale will be.

Table 1: results of testing the reliability of the items

variable	Number of questions	Cronbach's alpha
performance expectancy	4	0.769
effort expectancy	4	0.812
facilitating conditions	4	0.741
Change Agents' Behavioral Intentions	5	0.718
Performance	4	0.729
extend of usage of ABC/M	4	0.825
Total	25	0.815

As presented in Table (1), Cronbach's alpha for all of the two constructs is greater than 0.7, which shows high reliability. Data normality test

Normality test

Data should first be tested in terms of normality before analysis. The most commonly-used test for this purpose is Kolmogorov-Smirnov Test. This test has also been used in the present study for examining the normality or non-normality of the data used. The results presented in the following table indicates that the data have a normal distribution because the Sig values are higher than 0.05.

Table 2: Data normality test

variable	sig
performance expectancy	0.743
effort expectancy	0.815
facilitating conditions	0.746
Change Agents' Behavioral Intentions	0.791
extend of usage of ABC/M	0.812
Performance	0.752

Structural model and path analysis

By structural model is meant the causal relationship between latent variables. The goal of this model is to discover both direct and indirect effects of latent exogenous variables on endogenous latent variables, or to provide the path analysis of the research model.

Figure 2. The estimation coefficients of structural model

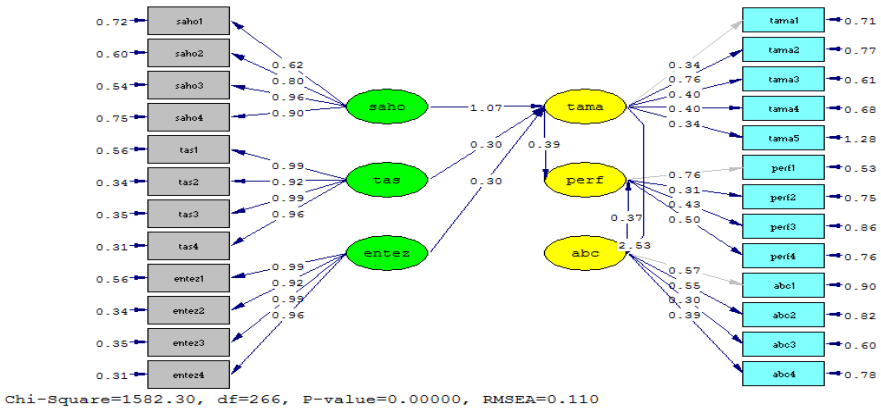
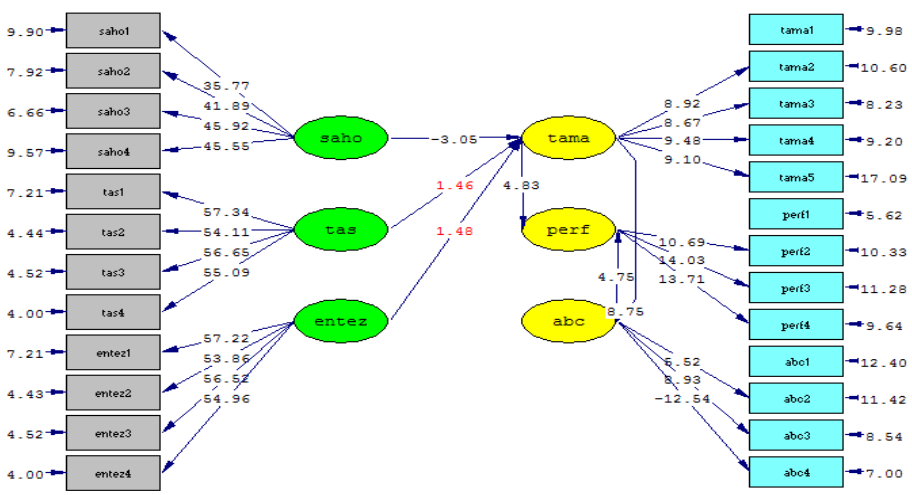


Figure 3. T Value of Structural Model



In t

Table (3): Hypotheses Test

hypothesis	Factor	T value	Significance level	Results
performance expectancy and Change Agents' Behavioral Intentions	**0/30**	**1/46**	**0/000**	**Rejected**
effort expectancy and Change Agents' Behavioral Intentions	**0/30**	**1/48**	**0/000**	**Acceptable**

facilitating conditions and Change Agents' Behavioral Intentions	**0/30**	**1/46**	**0/000**	**Rejected**
Change Agents' Behavioral Intentions and extend of usage of ABC/M	**2/53**	**8/75**	**0/000**	**Acceptable**
Change Agents' Behavioral Intentions and performance	**0/39**	**4/83**	**0/000**	**Acceptable**
extend of usage of ABC/M and performance	**0/37**	**7/75**	**0/000**	**Acceptable**

According to Table (3) the relationship between Behavioral Intention to Change the Activity-Basted Costing management systems and performance are accepted. In other word main hypotheses accepted.

Conclusion

The result of this hypothesis is consistent with previous results, as well as to evaluate the effect Behavioral Intention to Change the Activity-Basted Costing management systems and performance by Ling lee et al (2010).

The results indicate that performance expectancy and facilitating conditions don't have significant positive impact on change agents' intentions to promote ABC/M systems. Further, this study found that change agents' intentions to promote ABC/M systems and facilitating conditions are two significant determinants of the extent of usage of ABC/M systems, and the positive association between the extent of usage of ABC/M systems and relative performance improvement. The linkage between the extent of usage of ABC/M and relative performance improvement could encourage CEOs and CFOs to adopt ABC/M systems. Moreover, relative performance improvement is not restricted to financial improvement; non-financial performance is considered as well. The authors can try to solve the research paradox of ABC/M from the empirical evidence found in this study.

Suggestions

- Providing the cultural backgrounds and training the colleagues by holding seminars - Holding workshops on Behavioral Intention to Change the Activity-Basted Costing management systems and training courses for representatives of companies associated with the transaction.
- Making use of other motivational levers for extending the Change the Activity-Basted Costing management systems to the projects of the organizations and providing letters of appreciation, and appreciating the effective members of teams and so on.
- Holding regular meetings of strategic and executive committees by the managing directors,
- The companies are recommended to use a participatory leadership style, away from orders and imperative behaviors. This means that best way and style of leadership for the emergence of Behavioral Intention is moving from words to actions.
- Organizations should always try to provide new services for employees; that is, services which have not already been provided by their competitors.

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