

# Relationship between Behavioral Intention to Change and Performance in Small and Medium Manufacturing Enterprises

Hasan Sanami <sup>a</sup>, Abdolnaser Shojaei <sup>b</sup>

<sup>a</sup> *M.A graduated in Management, Sanandaj Branch, Islamic Azad University, Sanandaj, Iran.*

<sup>b</sup> *Department of economic, Sanandaj Branch, Islamic Azad University, Sanandaj, Iran.*

---

## Abstract

Behavioral intention to change and firm performance are important factors determining productivity. Although several studies have empirically supported the distinction between behavioral intention to change and firm performance, there is still disagreement regarding how they are related. Furthermore, little attention has been given to the direction of causality between these two variables and as to why they have common antecedents and outcomes. In this study was to investigate the relationship between influence behavioral intention to change on firm performance in small and medium size manufacturer in Kurdistan province. 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. Results showed that behavioral intention to change affected on firm performance.

**Keywords:** Behavioral Intention to Change, Firm Performance, Small and Medium Size Manufacturer

---

## **Introduction:**

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 (Foster & Swenson, 1997; Gosselin, 1997; Innes & Mitchell, 1997; Krumwiede, 1998; Lin & Duh, 2003; Shields, 1995).

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 (Foster & Swenson, 1997; Cagwin & Bouwman, 2002).

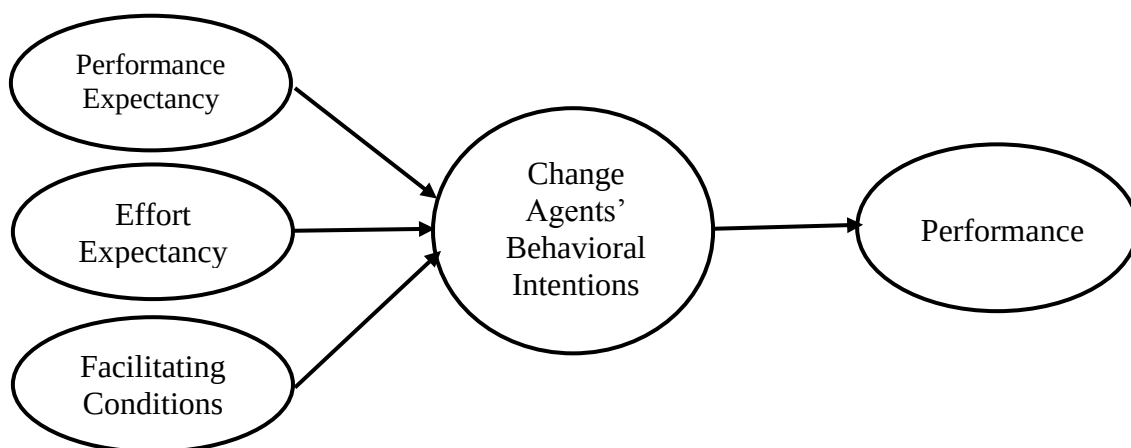
Furthermore, in these two aforementioned phases; advocates, sponsors, and change agents were targeted as key individuals to lead the change process. Change agents' behavioral intentions play an important role in the implementation of ABC/M. Thus, this study expects change agents' behavioral intentions to promote ABC/M, especially in terms of the extent of usage of ABC/M. 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). 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.

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.

Performance consequences were measured by a subjective self report instrument made up of four items. Prior studies support that such managerial assessments are highly correlated with objective performance measures internal to the organization (Dess & Robinson, 1984), as well as secondary published performance data external to the organization (Venkatraman & Ramanujam, 1986).

## **Conceptual model**

The conceptual model of the research has been adapted from the study conducted by ling lee at el, 2010. In their research, behavioral intention to change with firm performance have a direct relationship. 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. Indeed. We combine models and questionnaire.



**Source: ling lee at el (2010)**

Based on this model, the following hypotheses are made:

**Main Hypotheses:**

- 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.

**Methodology**

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. The questionnaires were distributed among the companies in Kurdistan Province. To analyze the data from both descriptive and inferential statistics are used.

## Results:

### Reliability of the questionnaire items

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                   | 0.718            |
| effort expectancy                    | 4                   | 0.864            |
| facilitating conditions              | 4                   | 0.741            |
| Change Agents' Behavioral Intentions | 5                   | 0.911            |
| Performance                          | 4                   | 0.920            |

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

### Data 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 |
| Performance                          | 0.752 |

### Data analysis and hypotheses testing

SPSS software is used to analyze the data. The software conducts data analysis at two levels, namely descriptive and inferential. The first level includes frequency, average, standard deviation and statistical tables and diagram. The latter, first, makes use of Kolmogorov – Smirnov test to know that whether the distribution is normal or not, then if the first is the case, Pearson's correlation coefficient and Regression coefficient are employed to do hypotheses testing and assessing size and amount of effects respectively.

### Hypotheses testing:

- There is a significant relationship between Change Agents' Behavioral Intentions and performance in small and medium manufacturing enterprises in Kurdistan province.

To determine whether there is a correlation between the Change Agents' Behavioral Intentions and performance the following hypothesis was made and the following results was obtained:

$$\begin{cases} H_0: \rho = 0 \\ H_1: \rho \neq 0 \end{cases}$$

The first hypothesis suggests that there is not a relationship between the above-mentioned variables.

The second one suggests that there is a relationship between the above-mentioned variables.

**Table 3: correlation between marketing values and customer trust**

|                                                      |                                   |           |
|------------------------------------------------------|-----------------------------------|-----------|
| Change Agents' Behavioral Intentions and performance | Pearson's correlation coefficient | P = 0.833 |
|                                                      | Probability                       | 0.000     |
|                                                      | N                                 | 410       |

(Source: research data)

Based on the results shown above the following conclusions are derived: the  $H_0$  is rejected and  $H_1$  (the primary hypothesis suggesting a relationship between Change Agents' Behavioral Intentions and performance is supported. There is a direct relationship between these two variables given the positive correlation obtained through calculation. That is an increase in Change Agents' Behavioral Intentions will contribute to an increase in the performance in small and medium manufacturing enterprises in Kurdistan province.

- **First sub hypothesis:** There is a significant relationship between performance expectancy and Change Agents' Behavioral Intentions in small and medium manufacturing enterprises in Kurdistan province.

Student T test has been used to test the above-mentioned hypothesis and the following results are produced:

**Table 5: student T test between social values and customer trust**

| Variable                               | Mean   | St. deviation | T- student | Df | Sig   |
|----------------------------------------|--------|---------------|------------|----|-------|
| performance expectancy and performance | 4.1837 | 0.83492       | 7/643      | 90 | 0.000 |

(Source: research data)

Based on the results shown above the following conclusions are derived: there is significant relationship between performance expectancy and performance in small and medium manufacturing enterprises in Kurdistan province. At 99% level of significance and T- student 7.643. therefore, the  $H_0$  is rejected and  $H_1$  (suggesting a relationship between performance expectancy and performance in small and medium manufacturing enterprises in Kurdistan province is supported.

- **Second sub hypothesis:** There is a significant relationship between effort expectancy and Change Agents' Behavioral Intentions in small and medium manufacturing enterprises in Kurdistan province.

Student T test has been used to test the above-mentioned hypothesis and the following results are produced:

**Table 6: student T test between emotional values and customer trust**

| Variable                                 | Mean   | St. deviation | T- student | Df | Sig   |
|------------------------------------------|--------|---------------|------------|----|-------|
| <b>effort expectancy and performance</b> | 3.5831 | 0.74336       | 7/629      | 81 | 0.000 |

(Source: research data)

Based on the results shown above the following conclusions are derived: there is significant relationship between effort expectancy and performance in small and medium manufacturing enterprises in Kurdistan province. At 99% level of significance and T- student 7.629. therefore, the  $H_0$  is rejected and  $H_1$  (suggesting a relationship between effort expectancy and performance in small and medium manufacturing enterprises in Kurdistan province is supported.

- **Third sub hypothesis:** There is a significant relationship between facilitating conditions and Change Agents' Behavioral Intentions in small and medium manufacturing enterprises in Kurdistan province.

Student T test has been used to test the above-mentioned hypothesis and the following results are produced:

**Table 7: student T test between economic values and customer trust**

| Variable                                       | Mean   | St. deviation | T- student | Df | Sig   |
|------------------------------------------------|--------|---------------|------------|----|-------|
| <b>facilitating conditions and performance</b> | 3.2612 | 0.69715       | 6/5133     | 75 | 0.000 |

(Source: research data)

Based on the results shown above the following conclusions are derived: there is significant relationship between facilitating conditions and performance in small and medium manufacturing enterprises in Kurdistan province. At 99% level of significance and T- student 6.5133. therefore, the  $H_0$  is rejected and  $H_1$  (suggesting a relationship between facilitating conditions and performance in small and medium manufacturing enterprises in Kurdistan province is supported.

## Conclusion

The results indicate that performance expectancy and facilitating conditions and effort expectancy positive impact on change agents' intentions. Further, this study found that change agents' intentions and performance improvement.

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

## Suggestions

- Creating a system of accountability for client service system could have the effect of influencing their trust.
- Increasing speed services to individuals can be effective in creating a sense of advantage in using these services and the increased tendency of people to use this service.

- Organization have always tried to provide the new services. Meaning the new service, the service is not provided so far by competitors.
- 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.

## **References**

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Anderson, S. W., & Young, S. M. (1999). The impact of contextual and process factors on the evaluation of activity based costing systems. *Accounting, Organizations and Society*, 24, 525–559.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Cooper, R. (1989, January/February). You need a new cost system when. *Harvard Business Review*, 77–82.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–339.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22(14), 1111–1132.
- Dess, G. G., & Robinson, R. B., Jr (1984). Measuring organizational performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit. *Strategic Management Journal*, 5, 265–273.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Foster, G., & Swenson, D. W. (1997). Measuring the success of activity-based cost management and its determinants. *Journal of Management Accounting Research*, 9, 109–141.
- Gosselin, M. (1997). The effect of strategy and organizational structure on the adoption and implementation of activity-based costing. *Accounting, Organizations and Society*, 22, 105–122.
- Gupta, M., & Galloway, K. (2003). Activity-based costing/management and its implications for operations management. *Technovation*, 23, 131–138.
- Hu, P. J., Chau, P. Y. K., Sheng, O. R. L., & Tam, K. Y. (1999). Examining the technology acceptance model using physician acceptance of telemedicine technology. *Journal of Management Information Systems*, 16(2), 91–112.
- Kaplan, R. S., & Cooper, R. (1998). *Cost and effect*. Boston, MA: Harvard Business School Press.
- Lee, Y., Kozar, K. A., & Larsen, K. R. T. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for Information Systems*, 12, 752–780.
- Lin, J. C., & Duh, R. (2003). Understanding change agent's behavioral intention in activity-based cost management implementation: an empirical examination of technology acceptance model. *NTU Management Review*, 13(2), 1–27.
- Swenson, D. (1995). The benefits of activity-based cost management to the manufacturing industry. *Journal of Management Accounting Research*, 7, 167–180.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.