

## **Investigation of Factors Influencing Procrastination of Management Accounting Changes (Case study of manufacturing firms located in Zanjan)**

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**Abstract:** Companies that compete in industrial market are faced with increase in competition originating from globalization of market, technological changes and more demand on the part of customers. All these changes affect management accounting systems of companies tremendously and require that companies change their management accounting systems. There are several factors that cause procrastination of management accounting changes. Here the researcher has cited five factors influencing this procrastination: Accounting staff shortage, loss of computing resources, inconsistency of management, Problems relating to management, Lack of accounting power. The method in this study is descriptive- survey and the factors are studied in manufacturing firms of big and very big size located in Zanjan-Iran. To achieve the objectives of the research, the researcher has utilized questionnaires and interviews and for the test of research variables Friedman test is employed in order to examine equality of importance of variables. Also Man-Whitney Test has been employed to examine meaningful differences between firms of big and very big size. The results of the research indicate importance of research variables from the viewpoint of firms under study in procrastination of management accounting changes.

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### **1. Introduction**

Contemporary literature of management accounting shows an environment in which management accounting with respect to advances in information technology, competitive environment, modern strategic plans, focus on quality and customer satisfaction has undergone change (Haldama, 2002 & Burns, 2001). In order to support these environmental changes management accounting methods such as activity based costing (ABC), activity based management (ABM), life cycle costing, balanced score card (BSC) have been employed to measure performance in developed countries (Innes, 1990; Gray, 2001 and Hoque, 2003). Some studies have also been carried out concerning acceptance of these methods in developing countries (Abdul Rhman, 2001 and Luther, 2001). Since organizations receive source data from external environment, the final output is automatically retrieved (Berry, 1980). All organizations have open systems. In order to succeed, a company must establish a consistent relationship with its environment. Shields (1997) and Scapens (1999) contend that changes in environment bring about changes in management accounting methods. Other than this reasoning some researchers namely Atkinson et al. believe that we have little insight into why organizations tend to change their

management accounting systems. Thus researches on management accounting change relate to trends that are pursued in developed countries and literature of management accounting has warned against the threat of this method being transferred to other nations (Shields, 1997). Kaplan (1983), Johnson and Kaplan (1987), Bromwich and Bhimani (1989) and Wallace (1990) contend that mixing modern management accounting systems intended for external environment with changing business environment is not satisfactory since there are various conditions under which different companies continue their activities. They believe that cultural, social, economic and political factors of companies must be taken into account.

The main objective of this research is to investigate the influence of factors involved in procrastination of change in management accounting methods in order to obtain clear insight into shortcomings of management accounting of companies such as software and hardware shortages. In order to obtain the objectives of the research the researcher has utilized five factors influencing procrastination of change in management accounting methods given that companies in order to enhance their competitive advantage have put new production methods into action. This in turn requires change in production method and also means of production. However

costing systems are still faced by severe criticism. The following factors are important:

1. Accounting staff shortage
2. loss of resources and computing equipment
3. Inconsistency of management
4. Problems relating to management
5. Lack of accounting power

## 2. Literature Review

Change in management accounting is not a consistent phenomenon. Thus factors of change are expected to be various and management accounting researchers have confirmed that. It is obvious that both external factor (environmental) and internal factor (related to organization) have influenced recent advances in techniques and management accounting systems. According to Shields (1997) potential stimuli of change consist of competition, technology, organizational design and strategy. The stimuli of change also show different roles that causal factors can have in the process of change. Change in environment is indicative of a threat and ambiguity which creates a need for more change in management accounting in the form of non-financial measures.

Many researchers show interest in learning management accounting change. For example Chenhall and Langfield (1998) have examined advantage of management accounting change. However there is no information concerning factors that cause this change. Laitinen (2006) contends that the reasons for management accounting change are considered as motivating factors and many researchers have presented a list of these motivating factors. For example Innes and Mitchell (1990) have found a different set of circumstances related to management accounting which is as follows:

Motivators:( eg, Competitive market, organizational structure and product technology).

Organizers:( eg, poor financial performance, loss of market division and organizational change).

Facilitators:( eg, accounting personnel resources, degree of independence, accounting requirements).

Reciprocal relationships between these variables not only extend change in management accounting, but they also enhance the order related to it. Laitinen (2001) classifies these factors into six groups:

1. Requirements related to information
2. Changes in technology and environment
3. Interest in change
4. Change resources

5. Change objectives
6. External requirements

Laitinen (2006) uses four other categories to describe management accounting change.

1. Organizational factors
2. Financial factors
3. Motivating factors
4. Management tools

As there are various factors related to management accounting change, this study takes account of two factors namely, motivating factors and financial factors. Changes in environment and technology function as motivation changes in description of management accounting change and changes in organizational factors (structure and strategy). Other than that organizational structure and strategy (organizational factor) are considered as situational factors within the company having management accounting changes (Moores and Yuen, 2001). Financial factors are used as management accounting results and organizational change. According to Granlund (2001) poor financial management may exert some pressure on the company concerning change in management accounting system for the purpose of enhancing performance. According to Baines and Langfield (2003) if management accounting change is accompanied by reliance on accounting information, it will lead to enhanced performance.

Waweru ,et al (2004) in a research on management accounting in south Africa conducted a case study of retailer firms in which by utilizing structure of contingency theory in four retailer firms, he tried to understand changes in management accounting systems and conduct some research on the reasons of these changes. The results of the research indicate significant changes in management accounting systems in four case studies. These changes include increase in applications of contemporary management accounting methods specifically systems such as ABC balanced Score Card BSC. This study shows recent environmental changes in Africa's economy which are caused by strategy of government reforms. global competition on the whole has facilitated changes or required companies to change.

Today accounting is defined as an information system that registers, classifies and reports financial data. This definition requires that accountants increase their knowledge concerning information systems. This shortcoming is not on the part of accountants but concerns weakness of accountant's systemic knowledge. Accountants should have flexible insight so as to be able to adjust companies'

information system with cycles of revenue, production, expenditure and human resources. Today accountants who have systemic knowledge and cooperate with experts in business processes in the realm of systems' integrity are known as hybrid accountants.

Generally in developing countries wages and costs are relatively lower than developed countries (IMF, 1999). However provision of computing technology, both software and hardware due to high cost of import causes weakness in infrastructures such as telecommunication devices, transportation and electronic data interchange. Modern costing systems require different processing systems.

The authority of accounting falls under the influence of external factors in an organization. The authority of accounting relates to organizations that compile accounting standards. In fact these organizations are supposed to update standards with technological advances and organizational changes. This will lead to increase in accounting authority in necessitating use of modern costing systems.

### 3. Research Methodology

This study examines the influence of factors in procrastination of management accounting change so as to be able to gain true insight into shortcomings of companies' management accounting systems such as lack of software and hardware. The method of this research is descriptive-survey and of the applicable

type. In order to get into the scope of the research, field method has also been used. Two types of data, primary and secondary have been employed. Secondary data include books, documents, articles, internet search engines and pertinent sites. To gather primary data from statistical population techniques such as questionnaires and interviews have also been simultaneously used. The method of chance class sample has been used in sample volume choice. In this study companies are chosen on firm size, big companies (50 up to 150 employees) and very big companies (more than 150 employees). The statistical population of the study concerning operating manufacturing firms was sent as 45 questionnaires of which 38 is considered important in concluding the research.

In order to analyze research data Friedman Test has been employed to prioritize and determine the importance of each of the five variables of the research. Mann-Whitney Test has been utilized to compare the median of the two independent societies of the research concerning companies of big and very big size.

### 4. Analysis

#### 1.4 Descriptive Statistical

The firm size under study in this research has been determined based on the number of human resources and the categories of the companies, frequency and percentage of frequency as listed below.

**Table No.1**, Descriptive statistical of firm size

Firm size	Frequency	Percent
Big (50 to 150)	18	47.4
Very big (more than 150)	20	52.6
Total	38	100

#### 2.4 Uniformity test of the independent variables of the research

Friedman Test has been employed to prioritize and determine the importance of each of the independent variables of the research (factors influencing procrastination of management accounting change). This test shows whether there is any factor more important among preventive factors or they are all equally important. The researcher has employed the hypotheses of accept and reject in the test.

$H_0$ : independent variables of the research are equally important in terms of influence.

$H_1$ : independent variables of the research are not equally important in terms of influence.

Regarding table no2, the amount of P-value equals 0.001; df equals 4 and Chi-Square equals (18/105). We can conclude that in the considerable level of 5%  $H_0$  is rejected and  $H_1$  is claimed. That is independent variables of the research (factors procrastinating management accounting change) are not equally important in terms of influence. The rating order of independent variables can be perceived in the following table (table no 3).

**Table No.2**, Results of Friedman Test

N	38
Chi-Square	18.105
df	4
P-Value	0.001

**Table No.3** Mean Rank of Samples

Independent Variable	Mane Rank
Lack of accounting power	3.32
Lack of accounting staff	3.18
Loss of computing resources	3.05
Inconsistency of Management	2.79
Problem related to management	2.66

### 3.4 Firm size and independent variables of the research

Mann-Whitney Test has been employed to examine the effect company size on independent variables of the research (factors procrastinating management accounting change).

Table no4 shows number and rating median of each of the independent variables separating company size. Regarding the results of the research the

variables lack computing resources and problems related to management have considerable level of 0.05. This indicates uniformity in comments of the companies the size of big and very big and variables of accounting staff shortage, inconsistency of management and lack of accounting authority have considerable level of less than 0.05 which shows no considerable difference between big and very big companies.

**Table No.4**, Mean Rank

Independent Variable	Firm size	N	Mean Rank
Accounting staff shortage	Big (50 to 150)	18	14.61
	Very big (more than 150)	20	23.90
	Total	38	
loss of computing resources	Big (50 to 150)	18	17.72
	Very big (more than 150)	20	21.10
	Total	38	
inconsistency of management	Big (50 to 150)	18	15.50
	Very big (more than 150)	20	23.10
	Total	38	
Problems relating to management	Big (50 to 150)	18	18.61
	Very big (more than 150)	20	20.30
	Total	38	
Lack of accounting power	Big (50 to 150)	18	15.72
	Very big (more than 150)	20	22.90
	Total	38	

**Table No.5**, Results of Mann-Whitney test

Independent Variable	Mann-Whitney statistical	Z statistical	P-Value
Accounting staff shortage	92	-3.078	0.002
loss of computing resources	148	-1.162	0.245
inconsistency of management	108	-2.980	0.003
Problems relating to management	164	-0.740	0.459
Lack of accounting power	112	-2.324	0.020

## 5. Results and Findings

This study seeks the results of survey research from operating manufacturing firms of big and very big size. The results obtained through Friedman Test indicate that all the five independent variables of the research do not have the same importance in procrastinating management

accounting change. The variable of lack of accounting authority with rating median of 3.32 is first priority. In fact this variable from the viewpoint of the firms is the most important factor in procrastination of management accounting change and the variable of lack of accounting staff is the second important factor and the variable of

loss of computing resources is the third important factor.

The results of Mann-Whitney test intended to assess comments of the firms under study indicate uniformity of importance of the variables of loss of computing resources and problems related to management. The above mentioned variables had considerable difference and the variables of lack of accounting staff, inconsistency of management and lack of accounting authority did not have considerable difference from the viewpoint of the firms under study.

## 6. Conclusions

Regarding the results obtained from the data of the research, the following suggestions can be made:

1. Firms must provide education in the fields of management accounting and information technology in order to enhance competence of accounting staff.
2. Management must always support and encourage use of information technology in relation to job opportunities of accountants.
3. Firms must enhance their information systems with respect to their importance.
4. Firms must not replace managers who do not have high flexibility at the time of change in information systems, for they are aware of the characteristics of the firm and its structure.
5. Organizations that have the duty of creating accounting standards are supposed to update standards along with technological advances so that accounting authority is enhanced.
6. With regard to existence of engineering society of value in Iran it is recommended that firms use the guidelines of this society in order to employ engineering techniques and make the best use of them. The site of engineering society of value [www.sive.org](http://www.sive.org)

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