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# The impacts of organizational culture, firm's characteristics and external environment of firms on management accounting practices: an empirical research on industrial firms in Turkey

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## Abstract

Organization culture is important meso-level analysis for organization studies and could be considered as a linking pin between society and organization. Organizational culture could impede or strengthen usage of any types of managerial practices such as management accounting practices. This argument is main proposition of this study. The aim of this study is to investigate relationships among organizational culture, firm's characteristics, perceived environment of firms and the usage levels of management accounting practices. In this study, organization culture, firm's characteristics and perceived external environment of firms are considered as independent variables and the usage of management accounting practices are considered as a dependent variable. Firm's characteristics are operationalized by using firm's size, age, formalization and centralization. Perceived external environment is operationalized by dealing with perceived environmental uncertainty and competitive intensity. The study argues that how organizational and environmental variables affect to the usage level of management accounting practices.

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## 1. INTRODUCTION

The effects of cultural, institutional and societal practices on accounting are growing sub-field in accounting theory. The Journal of Accounting, Organizations and Society founded in 1976 by Hopwood may have indicated as a concrete demonstration of this propensity. In this sub-field or research field, accounting is considered as a social and institutional practice. According to the sub-field of accounting theory, the basic context of the accounting practices is explained by the sociological perspective.

Firms should primarily have financial accounting knowledge with regard to managerial accounting practices. Therefore, data, which is used for to practice managerial accounting, should be accurate, reliable and in accordance with standards. At this point, financial accounting and managerial accounting split off. Research will be explained by means of "contingency approach". Contingency approach relies on the assumption of independency from cultural and social environments (Üsdiken, 1995:100).

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## 2. LITERATURE REVIEW

There are various definitions of managerial accounting in the literature. Managerial accounting is the sum of practices that are formed to assist management through planning of reasonable economic targets. It is also defined as the practice of historical and estimated data with appropriate techniques and concepts for rational decision making and for reaching business goals (Belkaoui, 2002: 2). Managerial accounting provides the information needed by the owner of business or senior managers in decisions of new investments, leasing, purchasing, advertisement and promotion expenses etc. (Libby and Short, 2003: 4).

The development of behavioral accounting showed a change on organizational psychology and organizational field besides the development of accounting as a practice. When the citation of the researches on the development of accounting field carried out by Beattie and Davie (2008) is analyzed, many studies regarding the effect of organizational factors on accounting practices stand out. Organizational culture, which is regarded as the sub field of organizational studies, is a significant part of this movement. Whereas the movement had begun with the analysis of effect of culture on accounting in the beginning, it was degraded to the relation between organizational culture and managerial accounting afterwards. Difficulty of measurement of culture, with the initiation of contingency approach that underpinning of surveys, resulted in increase in organizational variables and multidimensional studies. When related studies are examined in national culture and organizational culture context, the relevancy can be outlined as below.

Flamholtz (1983) has studied the accounting, budget and control systems, and organizational conditions of these both theoretically and empirically. Dent (1991) has examined the culture in terms of accounting and organization respectively and conducted a field study for a new business. Goddard (1997) has linked with organizational culture and budget control in local government in United Kingdom. Chia (1995) has worked on decentralization, managerial accounting system, information characteristics and interaction of these on managerial performance. Gosselin (1997) has studied the effect of strategy and organizational structure on the adaptation and application of activity based costing. By extending the study, the effect of organizational and cultural factors on the performance of operations management practices was examined. Williams and Seaman (2001) have investigated whether there is an effect of structural variables in national culture on the changes in managerial accounting practices in their study named "Predicting change in management accounting systems: National culture and industry effects". The research was applied to the industrial enterprises, which practices managerial accounting tools, in terms of organizational structure, centralization, the level of competition and organizational capacity. A significant positive relation was found between centralization and the change on managerial accounting practices.

Chia and Koh (2007) have studied on the adaptation of organizational culture and managerial accounting practices on public sector. Two main purposes of the study are; it was found that the environmental change and adaptation of innovative managerial accounting practices mean the adaptation of organization to innovation. The case of the study is Singapore and the ministries were examined concerning public sector. It was targeted to determine the adaptation and flexibility level of managerial accounting practices and to contribute about the relation between the adaptation level and performance of these practices. The relation between the level of adaptation level variable and innovative managerial accounting practices variable were tested. Waweru (2008) has tried to define the characteristics of business which enable managerial accounting systems change. The relation between centralization and structural variables like size, competitiveness and technology of a business, and the effect of centralization on the change of managerial accounting systems were examined. Waweru (2008) set forth a positive relation between organizational structure and the change in managerial accounting systems.

## 3. RESEARCH STRATEGY, DESIGN AND METHOD

### 3.1. *The Process of Sampling*

The research method is survey. A questionnaire was handled for data collection. The research unit is industrial enterprises. The samples were chosen from the enterprises in İzmir and totally 84 enterprises was examined from İzmir Atatürk Organized Industrial Zone. The respondents are accounting managers of enterprises. The reason of choosing accounting managers is their knowledge on managerial accounting practices to be analyzed. Moreover,

their knowledge on organizational and environmental structure is another underlying reason. It is obviously seen when the related studies are checked (Kader and Luther 2008, Chia and Koh 2007, Waweru 2008).

3.2. Hypothesis Development

While research model is set, the study carried out by Kader and Luther (2008) was benefited to define the variables. The only variable that was not examined within the related study, even though exist in research model is transaction characteristics. Moreover, organizational culture and perceived competition level were not considered by Kader and Luther (2008) although they were in the scope of the study.

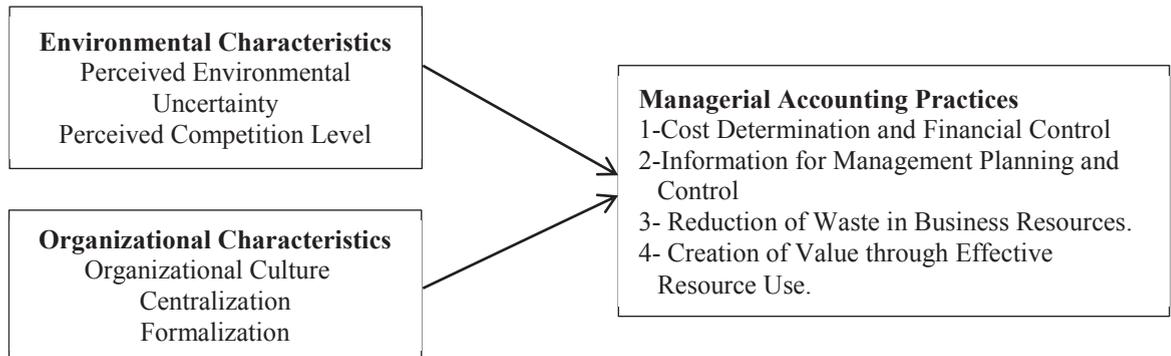


Figure-1. Research Model and Variables

**Hypothesis 1:** The usage of managerial accounting practices will be positively associated with (a) supportive organizational culture, (b) innovative organizational culture, (c) rule-based organizational culture and (d) goal-oriented organizational culture.

**Hypothesis 2:** The usage of managerial accounting practices will be positively associated with (a) centralization degree of business, (b) formalization degree of business, (c) perceived competition level and (d) environmental uncertainty level.

3.3. Measurement of Variables

**Organizational Culture:** The independent variable of the study is organizational culture. The organizational culture survey used in the study was developed with two parts by Van Muijen and international researchers from twelve countries (1999). The first part of scale analyses the organizational culture in applications dimension whereas the second part tries to evaluate the organizational characteristics. The common point of these two parts is to test the same characteristics. These characteristics constitute *innovative, supportive, rule based and goal-oriented* culture dimensions. By this way, internal consistency reliability of scale was also tested while organizational culture dimensions were being analysed. Four descriptive variables (measuring practices) and four characteristic variables (measuring attitudes) concerning organizational culture were defined. The descriptive variables are represented by 21 items and reduced to 17 items as a result of factor analysis. 6 factors partaking in factor matrix were reduced to 4 factors after three iterations.

**Measurement of Managerial Accounting Practices:** The managerial accounting scale was adapted from Magdy Abdel-Kader and Robert Luther (2008). The basic foundation of scale is International Federation of Accountants (IFAC). Financial and Managerial Accounting Committee (FMAC), one of the committees of IFAC, operates to develop and support financial and managerial accounting profession by exchanging ideas internationally. Kader and Luther (2006) studied to explain the relation between managerial accounting practices and organizational variables by examining the usage and importance level of 38 practices. For all variables used in the study, a reliability analysis was conducted, and the table below shows Cronbach’s Alpha coefficients and the sources of scales.

Table.1. The Sources of Scales and Cronbach’s Alpha Values

Variable	Source of Scale	Number of Items in Scale	Cronbach’s Alpha Value
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Organizational Culture	Van Muijen, J. et al. (1999)	42 (38)	0,921
Managerial Accounting Practices	Kader & Luther, (2008)	37	0,832
Perceived Environmental Uncertainty	Miles and Snow (2003)	22	0,874
Perceived Competition Level	Bulut Ç. et al. (2009)	5	0,709
Formalization	Justin, Jansen et al. (2006)	5	0,804
Centralization	Justin, Jansen et al. (2006)	5	0,669

**4. HYPOTHESIS TESTING AND FINDINGS**

Hypothesis testing was conducted in accordance with partial correlation analysis.

*Hypothesis 1a:*  $r = 0,358$  shows that there is a relation between supportive organizational culture and managerial accounting practises and  $p < 0,01$  supports highly significant correlation so hypothesis is accepted.

*Hypothesis 1b:*  $r = 0,182$  shows that there is no significant relation between innovative organizational culture and managerial accounting practises so hypothesis is not accepted.

*Hypothesis 1c:*  $r = 0,366$  supports that there is a relation between rule-based organizational culture and managerial accounting practises and  $p < 0,01$  supports highly significant correlation so hypothesis is accepted.

*Hypothesis 1d:*  $r = 0,469$  confirms that there is a relation between goal-oriented organizational culture and managerial accounting practises and  $p < 0,01$  supports highly significant correlation so hypothesis is accepted.

*Hypothesis 2a:*  $r = 0,117$  verifies that there is no significant relation between centralization and managerial accounting practises so hypothesis is not accepted.

*Hypothesis 2b:*  $r = 0,349$  shows that there is a relation between formalization and managerial accounting practises and  $p < 0,01$  supports highly significant correlation so there is a positive relation between formalization and managerial accounting practices, and hypothesis is accepted.

*Hypothesis 2c:*  $r = 0,025$  shows that there is no significant relation between perceived competition level and managerial accounting practises so hypothesis is not accepted.

*Hypothesis 2d:*  $r = 0,059$  represents that there is no significant relation between perceived environmental uncertainty and managerial accounting practises so hypothesis is not accepted.

**Table.2.**Correlation Table of Variables

	1	2	3	4	5	6	7	8	9	14	15	16
1- Man. Acc. Prac.(1.Stage)	1,000											
2- Man. Acc. Prac.(2. Stage)	,512(**)	1,000										
3- Man. Acc. Prac.(3. Stage)	,238(*)	,314(**)	1,000									
4- Man. Acc. Prac.(4. Stage)	,004	,256(*)	,238(*)	1,000								
5- Man. Acc. Prae Mean Score	,555(**)	,759(**)	,447(**)	,711(**)	1,000							
6- Goal-Oriented Organizational Culture	,396(**)	,180	,102	,163	,324(**)	1,000						
7- Innovative Organizational Culture	,000	,152	,105	,247(*)	,182	,199	1,000					
8- Supportive Organizational Culture	,188	,272(*)	-,042	,348(**)	,358(**)	,508(**)	,287(*)	1,000				
9- Rule-Based Organizational Culture	,329(**)	,342(**)	,084	,150	,366(**)	,519(**)	,144	,462(**)	1,000			
14- Perceived Environmental Uncertainty	-,024	-,054	,203	,012	,059	,167	-,046	,111	,179	1,000		
15- Perceived Competition Level	-,027	,018	,061	,031	,025	-,001	,064	-,057	,108	-,131	1,000	
16- Centralization	,149	,167	,090	-,032	,117	,032	,234(*)	,020	,292(**)	,018	,106	1,000
17- Formalization	,248(*)	,285(*)	,025	,217	,349(**)	,455(**)	,084	,337(**)	,537(**)	,174	,293(**)	,308(**)

\*\*= $p < 0,01$  \*= $p < 0,05$

**Table.3.** Represents The Summary of Hypothesis Testing and The Relations Between Managerial Accounting Practices and The Variables Identified.

Variables and Hypothesis	Significantly Relationship (positive)		No Significant Relationship
	at 0,01	at 0,05	

Supportive Organizational Culture (1a)	*	
Innovative Organizational Culture (1b)		*
Rule-Based Organizational Culture (1c)	*	
Goal-Oriented Organizational Culture (1d)	*	
Centralization ( <i>Hypothesis 2a</i> )		*
Formalization ( <i>Hypothesis 2b</i> )	*	
Perceived Competition Level ( <i>Hypothesis 2c</i> )		*
Perceived Environmental Uncertainty ( <i>Hypothesis 2d</i> )		*

## 5.CONTRIBUTIONS OF STUDY AND CONCLUSION

When the hypotheses are checked, it can be seen that organizational culture and managerial accounting practices interact in three holds. Moreover, there has been found a relation between managerial accounting practices and number of employees, age and legal form of business. Additionally, Table-2 shows that there is no relation between perceived competition level and environmental uncertainty, and managerial accounting practices. The study was not designed to identify the reasons of managerial accounting tools usage. There can be many unknown reasons of it. It is recommended to carry out studies to determine these reasons for contributing managerial accounting practices content and suggested to examine the dynamics that enable the businesses to use of these tools. If the researches are conducted by identifying the cultural characteristics unique to Turkey, the originality of studies increases.

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