The impact of culture on the relationship between management accounting systems and managerial performance

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Abstract: This paper aims to analyze the relationships between culture, management accounting systems and managerial performance. The correlation matrix shows that both Culture and MAS are positively correlated to managerial performance. Implication of this study is that top management must recognize and proactively manage differences in culture. In designing management control systems, top managers of multinational corporations should be aware of the extent to which reward and evaluation systems and decision-making processes reinforce differences in culture.

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1. Introduction

More recent research by Chatman and Jehn (1994), and Kotter and Heskett (1992), have, therefore, contributed to the field of culture-performance studies by explicitly acknowledging that culture is being treated as variable for a specific research purpose. For instance, Denison and Mishra (1995), utilizing a more rigorous methodology, discovered that cultural strength was significantly associated with short-term financial performance while Kotter and Heskett (1992) refined the culture-performance framework.

Organizational culture refers to shared assumptions, values, and norms (Schein, 1985). Organizational culture is a source of sustained competitive advantage (Barney, 1991) and empirical research shows that it is a key factor to organizational effectiveness (Denison, 1990). In particular, Denison and his colleagues (Denison, 1990) identified and validated four dimensions of organizational culture that are conducive to organizational effectiveness: adaptability, consistency, involvement, and mission. Adaptability refers to the degree to which an organization has the ability to alter behavior, structures, and systems in order to survive in the wake of environmental changes. Consistency refers to the extent to which beliefs, values, and expectations are held consistently by members. Involvement refers to the level of participation by an organization's members in decisionmaking. Mission refers to the existence of a shared definition of the organization's purpose. This study uses this framework.

In recent years, scholars have suggested that today's organizations need modern management accounting and control systems (MACS) to adapt to the rapidly changing organizational and social environment (Abernethy & Bouwens, 2005). There is the view that modern MACS (such as activity-based costing, activity-based management, target costing, product life cycle costing, and balanced scorecard-type performance measures) produce relevant information that provides senior executives and other personnel with continuous signals as to what is most important in their daily organizational decision-making and operational activities (Anderson, 1995; Anderson & Young, 1999). Management accounting theory and practice has moved into new domains and dimensions of management, through a series of inventions in managerial technologies and as a result of new business priorities and agendas (Bromwich and Bhimani, 1994). Relevance was lost and should be regained through the use of new managerial technologies and multiple cost accounting systems (Kaplan, 1998), or through new conceptions of control enabling empowerment (Simons, 1995).

Most empirical studies relating managerial control to firm value in the Iran focus on control through share ownership. Shares provide managers not only with voting rights, but also with cash flow rights, which may align their incentives with those of shareholders. This makes it difficult to disentangle the effects of voting control from the incentive effects of ownership. This is particularly true if voting control has positive effects. A finding that firm performance is positively related to ownership could mean either that both incentives and voting control have positive effects or that the incentive effects of ownership dominate its adverse control effects. Cho (1998) examined the relationship between ownership structure, investment, and the company's value with respect to the potential role of the ownership structure as a determining factor on investment.

2. Culture

Organizational culture is defined as a set of beliefs, values, and assumptions that are shared by members of an organization (Schein, 1985). These underlying values have an influence on the behavior of organizational members, as people rely on these values to guide their decisions and behaviors (Schein, 1985). Culture has been characterized by many authors as "something to do with the people and unique quality and style of organization" (Kilman et al., 1985), "the way we do things around here" (Deal and Kennedy, 1982), or the "expressive non-rational qualities of an organization". culture has been examined with performance and effectiveness. According to Reichers and Schneider (1990), while culture researchers have devoted numerous articles to the nature and definitions of culture, relatively fewer articles have been contributed towards culture and performance research. One reason for this was the difficulty in operationalizing the culture construct.

2.1. Group culture

The group culture corresponds to the quadrant identified with high flexibility and an internal focus. Group dynamics are very important, as belonging to the group becomes a value that is tightly held. Group cultures also value cohesiveness, participatory decision-making and considerate support among co-workers. Managers support and leverage these values through empowerment, mentoring, and support of teamwork.

2.2. Developmental culture

An externally-focused emphasis on flexibility defines the developmental quadrant. This cultural orientation is one of change and adaptation in hopes of growing the organization. Leadership supports entrepreneurial ventures and inspires creativity in employees in hopes of acquiring new resources for the organization. The organizational culture framework of Bettinger (1989) includes eleven artifacts: (i) the level of awareness in establishing company goals and objectives, (ii) the sense of pride of the employees on the mission set by the company, (iii) the employees' attitude towards the change of goals, (iv) the degree of openness in communication, supervision and information sharing among team members, (v) the degree of openness in communication and supervision, (vi) the employees' commitment to the organization and teamwork, (vii) the atmosphere to reduce conflicts and enhance trust for avoidance of dysfunctional performance outcome, (viii) the level of concern of the employees' participation in the decision-making process, (ix) the establishment of performance standards and values that contribute towards success, (x) rituals to support and reinforce values, and (xi) the presence of a rewarding scheme to recognize good performance. Bettinger (1989) argued that these are constructive artifacts, the existence of which signifies 'Good' organizational culture.

3. Management accounting systems

The issue of accounting systems change has interested management accounting scholars for decades. Dynamic business environments, characterized by unrelenting technological and organizational change from heightened globalization and increasing competition, continue to perpetuate this focus. Managers' use of the information provided by the MAS can help organizations to adopt and implement plans in response to their competitive environment. For purposes of this study, the MAS is viewed as a system which provides benchmarking and monitoring information in addition to the internal and historical information traditionally generated by management accounting systems. Benchmarking involves the comparison of a firm with its competitors on relevant factors, including costs and cost structures, productivity, quality, price, customer service, and profitability. Monitoring involves the provision of feedback on the implementation of a firm's strategies in regard to the above factors (see Bromwich, 1990).

The MAS in an organisation is expected to be available to managers in an appropriate format and on demand to satisfy managers' information needs (Simons, 1990).

Harris and Brander Brown (1998) point out three specific reasons for which, the empirical evidence of the 'MAS use and performance relationship' in the manufacturing industry may not apply in the hotel industry. These are:

First, the process of production in the manufacturing industry can be repetitive – products going through standard and mechanised production process. This is not the case in the hotel industry, because the provision of food and beverage, and guest accommodation involves considerable customer interaction, thus, providing a greater job variety.

Second, because of the personalised and customised nature of the hotel business, the provision of products and services is highly labour intensive, and in that managers play the key role in managing quality.

Third, a hotel's products and services are highly perishable and intangible, they are affected by fluctuating demand, and their production, delivery and consumption takes place simultaneously.

4. Managerial performance

Himmelberg et al. (1999) argued that bothmanagerial ownership andfirmperformance are endogenously determined by exogenous changes or other factors within the spectrum of the firm. Using an unbalanced (over time) 12-year sample, they extended the results of the cross-sectional analysis by Demsetz and Lehn (1985) and found that managerial ownership could be explained by a set of specific variables linked to the firm environment in a way that satisfies the predictions of the agency theory. Performance evaluation is central to management control systems, and has been shown to influence managerial behavior and performance (Otley, 1999). This influence depends on the properties of the performance measures and the fairness of the procedures used for the performance evaluation (Hartman & Slapnicar, 2012). Although performance evaluation systems can differ in many respects, one main distinction concerns the use of objective and subjective assessment. An objective performance evaluation is based on quantitative, verifiable measures and targets of organizational outcomes (e.g., productivity, profitability, and sales growth). Subjectivity in performance evaluation means that the superior uses discretion and judgement to assess non-quantifiable aspects of managerial performance, such as cooperation and knowledge-sharing within the organization and leadership and communication skills.

Furthermore, previous research suggests that the effect of performance measure properties on perceptions of procedural justice tends to be influenced by contextual factors such as target difficulty and participation (Libby,1999), interpersonal trust (Maas et al., 2012), and task uncertainty (Hartman & Slapnicar, 2012). We extend this research stream by examining whether the effects of two forms of subjectivity on managerial perceptions of performance evaluation justice interact with two contextual factors: the quality of the superior–manager relationship and voice opportunity. Whereas there is substantial evidence on the direct positive effects of a high-quality superior–manager relationship (Hartman & Slapnicar, 2009) and voice opportunity (Hartman & Slapnicar, 2012) on perceptions of procedural justice, we focus on their interaction effect with subjectivity on performance evaluation.

Hypothesis 1: There is a significant relationship between culture and Management accounting systems.

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5. Methodology

A survey was employed to collect the data for this study. Pilot tests of the Iranian versions of the different instruments were conducted prior to distribution to ensure that the translations were valid and reliable. Questionnaires were then distributed to subunit managers in selected Iranian manufacturing enterprises in Qazvin. A total of 100 questionnaires were distributed. Ninety questionnaires were returned.

5.1. Measurement of variables

Managerial performance was measured through a self-evaluation questionnaire (Mahoney, Jerdee, & Carroll, 1963). Respondents were asked to rate on a nine-point Likert scale their own perceived performance on eight subdimensions of planning, investigating, coordinating, evaluating, supervising, staffing, negotiating, and representing (Brownell & Hirst, 1986; Gul, 1991). Culture was measured by using the five dimensions. MAS was measured by using the two dimensions adapted from the Chenhall and Morris' (1986) instrument. First, only the dimensions of scope and timeliness were examined, while Chenhall and Morris also examined the dimensions of aggregation and integration. Our selection of scope and timeliness is based on its theoretical linkages to budgetary participation (Gul, Shields, Fong, & Kwok, 1995) and performance (Gordon & Narayanan, 1984). Second, Chenhall and Morris evaluated the ''perceived usefulness'' of MAS, whereas in this study, we measured the ''availability'' of MAS. This modification was necessary since the dimensions of a MAS may be perceived to be ''useful'' but if they are not available, they are unlikely to have any impact on performance.

Nine questions based on the Chenhall and Morris (1986) instrument were included in the questionnaire in order to evaluate the availability of MAS scope and timeliness characteristics. Of these, five questions focused on the availability of external, nonfinancial and futureoriented information, i.e., broad scope characteristics. Four questions were asked on the frequency and speed of reporting in establishing the information characteristic of timeliness.

6. Data analysis

Demographic statistics are given in Table 1. Descriptive statistics for the independent variable, MAS, and the managerial performance are given in Table 2. A correlation matrix for Culture, MAS and managerial performance is given in Table 3. As expected, the correlation matrix shows that both Culture and MAS are positively correlated to managerial performance.

Table 1 Demographic statistics

	Mean
Iranian managers (N = 90)	
Age	42.35
Experience	15.67

Table 2. summarized subdimensions

Variables	Average	Standard deviation
Culture		
dimension 1	5.36	1.57
dimension 2	4.37	1.68
dimension 3	4.29	2.09
dimension 4	5.16	1.39
dimension 5	4.32	1.84
Managerial performance		
Subdimension 1	4.56	1.57
Subdimension 2	5.12	1.69
Subdimension 3	4.36	1.57
Subdimension 4	5.21	2.05
Subdimension 5	6.28	2.17
Subdimension 6	4.29	1.62
Subdimension 7	5.74	1.97
Subdimension 8	4.39	1.85
MAS		
Characteristic 1	3.98	2.09
Characteristic 2	4.28	1.67
Characteristic 3	5.27	1.82
Characteristic 4	4.74	1.38
Characteristic 5	3.65	1.61
Characteristic 6	3.94	1.38
Characteristic 7	3.54	2.26
Characteristic 8	4.10	1.57
Characteristic 9	3.87	1.28

Table 3. Correlation matrix

Variable	Culture	Managerial performance	MAS
Culture	1.00		
Managerial performance	0.27*	1.00	
MAS	0.41**	0.53**	1.00
**P<0.05 and **p<0.01*			

7. Conclusion

This paper aims to analyze the relationships between culture, management accounting systems and managerial performance. The correlation matrix shows that both Culture and MAS are positively correlated to managerial performance. These results are also seen to be consistent with Otley's (1980) view that MAS and budgetary participation constitute an overall control package and are interdependent. More importantly, the application of this control package should also consider cultural differences. In order to implement control strategies successfully, organizational designers should consider these cultural factors. A number of studies sought to evaluate, empirically, the link between insider managerial ownership and firm performance. However, findings have been mixed and inconclusive. In addition to the two main theoretical foundations mentioned earlier, Demsetz (1983) argued that no relationship should exist between ownership structure and firm performance. Implication of this study is that top management must recognize and proactively manage differences in culture. In designing management control systems, top managers of multinational corporations should be aware of the extent to which reward and evaluation systems and decision-making processes reinforce differences in culture. This study is subject to the usual limitations of questionnaire survey methodology (Birnberg, Shields, & Young, 1990). Subjects were not selected at random and generalizing the results to other organizations should be viewed with caution. The use of respondents' perceptions to measure the variables has been criticized on the grounds that they are not objective. This is not a serious limitation since managers' actions and decisions are based on their perceptions.

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