Cultural Strength, Performance, and Task Environment

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Contents

1. Introduction

A considerable number of studies have been conducted on organizational culture, or 'a system of shared values and norms,' in management studies over the past few decades. The inception of the studies was in the late 1970s; since the inception, considerable scholarly efforts to scrutinize issues on the organizational culture have gradually clarified the vague concept over the past 30 years. A number of papers on the issues were rigorously published in 1980s and 90s. Through the incessant scrutiny of scholars, the concept has become common in organizational theory.

In studies on organizational culture, many organization theorists have focused on the relationship between organizational culture and performance. The precursors of the studies, Deal and Kennedy (1982), and Peters and Waterman (1982), focused on the characteristics of successful firms. In particular, Peters and Waterman (1982) show that firms which had certain characteristics, for example, *'A Bias for Action,' 'Close to the Customer,' 'Stick to the Knitting,"* and so on, financially succeeded in the long term. Those early studies were enthusiastically hailed as impressive work in Management. Although early research focused on the characteristics, the content of culture, because of the limited effectiveness of early research, late research concentrated on the prevalence of culture in organizations, or 'the strength of culture.' To date,

certain studies have shown the relationship empirically (e.g. Denison, 1984, 1990; Gordon and DiTomaso, 1992; Kotter and Heskett, 1992). Due to the large number of papers and profound understanding of the relationship, this research seems to have come to an end. Respecting this tendency, the number of articles concerning organizational culture in top journals in Management has declined.

However, the conclusions derived from the existing studies seem unconvincing because of the lack of a salient factor in research. Those previous studies have not considered organizational task environment as problematic. While some scholars ignored the effects of the task environment on the culture-performance relationship, others controlled the effects by concentrating on the firms within the same task environment. Therefore, the studies seemingly fail to posit the relationship completely. The question we have to ask is one about the effects of task environment. We need to proceed clearly with this research on the relationship considering task environment.

The purpose of this paper is to present the missing information on the existing studies on the link between strength of organizational culture and corporate performance, and to suggest certain propositions to complement the studies. First, I summarize the existing research on the relationship between organizational culture and performance. Then, I show the theoretical flaws in the previous research and correct them by making task environment problematic in the research. I finally suggest some propositions on the relationship toward future empirical research, and discuss certain problems for the research. This article is the basis for my future empirical research, but it will also be worthwhile for other researchers.

2. Cultural Strength and Performance

The concept of 'organizational culture' is diversely defined in accordance with the positions of individual scholars. Although a number of studies on organizational culture have been developed since the concept became one of general interest they have caused a flood of definitions. The definitions depend on the academic positions which scholars take (Siehl and Martin, 1990). In this paper, to analyze the effects of organizational culture on corporate performance, I adopt the functionalists' definition, "a system of shared values (that define what is important) and norms that define appropriate attitudes and behaviors for organizational members (how to feel and behave)" (O'Reilly and Chatman, 1996: 160). Most organizational theorists considering organizational culture, especially whose research is about the culture-performance relationship, have proceeded on the functionalists' definition. They are concerned with what organizational cul-

ture causes in an organization. I do not focus on the issue of how organizational culture generates and changes which requires another definition. Therefore, I accept the functionalists' definition.[1]

The seminal studies focusing on the relationship between organizational culture and financial performance are Deal and Kennedy (1982), and Peters and Waterman (1982). Their studies were the first to shed light on the link between organizational culture and performance. Before their studies, most research on organizational culture concentrated solely on the nature of organizational culture. However, Peters and Waterman (1982) focused on the link between the nature of organizational culture and performance, and found eight common characteristics in successful companies. By surveying over 80 companies, Deal and Kennedy (1982) also pointed out that 18 companies, which had *cultural beliefs or ideas,* consistently achieved high performance. Reflecting those studies, Barney (1986) notes that valuable, rare, and imitable organizational culture can be a source of competitive advantage. An approach focusing on the relationship between the content of organizational culture and performance is named the *trait approach* (Saffold, 1988).

However, although trait-approach conclusions were praised by some scholars and most business persons, they seemed too devious for certain reasons. First, their studies are descriptive, based on their observations of firms (Gordon and DiTomaso, 1992). It is not sure whether the characteristics of successful firms are really special. Martin et al. (1983) note that organizational cultures, which seem unique and specific to a given firm, often reflect an underlying commonality and function, so they are not specific to the firm. Second, the characteristics of successful firms are just necessary conditions, not sufficient conditions. As counterevidence for Peters and Waterman (1982), Business Week (1984) presented that a third of the excellent firms identified by Peters and Waterman (1982) experienced poor performance within two years after the study had been published. Because of the counterevidence, the trait-approach conclusion is rather doubtful.

To complement the early studies, a new approach to the culture-performance relationship burgeoned. The new approach, or *strength approach*, has focused on 'the strength of organizational culture', defined as *the extent to which a set of norms and values that are widely shared and strongly held throughout the organization.* Researchers adopting the new approach defined 'strong culture' as "a set of norms and values that are widely shared and strongly held throughout organization" (O'Reilly and Chatman, 1996: 166).[2] The strength approach does not make the cultural trait problematic, but rather the cultural strength problematic. The strength-approach researchers have adopted the functions of strong cultures as an explanation for the culture-perfor-

mance relationship.

In organizations, strong cultures have three functions: facilitating social control within the firm, promoting goal alignment, and enhancing employees' motivation and performance (Kotter and Heskett, 1992; Sørensen, 2002). First, widely shared and strongly held organizational values and norms facilitate social control within organizations. If organizational members reach a consensus on what they should do and how they should act, their false behavior is easily detected and corrected by peers. As a result, strong-culture organizations advance along the directions, which their norms and values prescribe, with no objections. Second, strong cultures promote goal alignment. Members in strong-culture firms can cooperate with one another without conflicts because they clearly understand their present goals and appropriate practices (Kreps, 1990; Williamson, 1975). Third, strong cultures enhance employees' motivation and performance (O'Reilly, 1989). When values and norms in organizations are deeply ingrained in members, they recognize that they are not forced to behave as the values and norms prescribe. The members feel that they freely chose their actions.

Using the theoretical explanation for the culture-performance relationship, strength-approach researchers have conducted studies on the relationship based on statistical analysis. For example, the most influential work, Kotter and Heskett (1992) exhibits the positive correlation between the strength of corporate culture and long-term financial performance by surveying over 200 U.S. companies. Denison (1984) reveals, from 34 companies' data, that the cultural strength correlates with the Return on Investment for the subsequent two years. Gordon and DiTomaso (1992) also find the same correlation as Denison (1984) found in 11 U.S. insurance companies.

Based on the empirical studies, strength-approach researchers have suggested the following: *Strong-culture firms can achieve higher performance than weak-culture firms can* (See Figure 1). This suggestion seems acceptable because their studies are mostly statistical, not anecdotal. The research was, however, criticized because the models presented by the strength-approach researchers were oversimplified (Saffold, 1988). In particular, one of the most salient problems

Figure 1

The Traditional Culture-Performance Relationship in Strength Approach
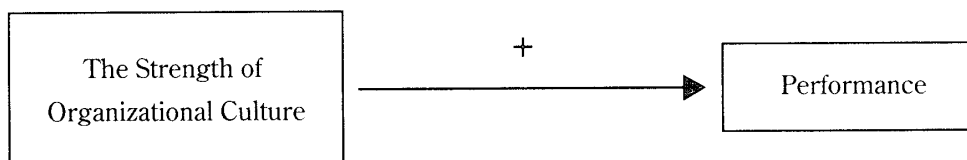
is that the researchers have not considered problematic task environment, *consisting of competitors, customers, suppliers, and those regulatory bodies with whom an organization must interact and whose actions directly affect organizational goal attainment* (Dill, 1958).[3]

3. The Effects of Task Environment on Culture-Performance Relationship

As I mentioned above, little attention has been given to the effects of task environment on the culture-performance relationship in existing literature. Some researchers dismissed the effects acknowledging their presence, whereas others avoided the effects by limiting samples in the same task environment. Based on an open-system perspective on organizations, it is expected that task environment moderates the relationship between cultural strength and performance.[4]

Depending on the open-system perspective, which means that organizations are dependent on their environments, task environments are thought to influence organizations in various aspects (Katz and Kahn, 1966; Pfeffer and Salancik, 1978). For example, firms rely on their task environments to obtain resources for survival, because they are never self-efficient (Pfeffer and Salancik, 1978). The most efficient organizational form depends on the environment to which a given organization belongs (Lawrence and Lorsch, 1967). Therefore, from the open-system perspective, it is reasonable to assume that task environment affects the culture-performance relationship to some degree.

However, in fact, only a few studies have been made on the task environmental effects. Sørensen (2002) examines the relationship between the strength of organizational cultures and mean performance in a volatile environment. Although the research does not show significant environmental effects, as stated in the study, the result might be derived from shortcomings in measuring the environmental volatility.[5] The seminal study in the strength approach, Kotter and Heskett (1992), tentatively indicate that a market position moderates the culture-performance relationship.[6] Analyzing the same data as Kotter and Heskett (1922), Burt et al. (1994) also point out that the strength of correlation between cultural strength and corporate performance within each industry significantly differs from one industry to another industry. Because the concept of task environment includes that of industry, it is reasonable to assume that task environment has a certain influence on the culture-performance relationship. Although existing studies may be a potential means for measuring the effects, no research has yet been done to clarify them.[7]

As I showed above, it is possible that task environment moderates the relationship

between culture strength and performance. In addition, almost all of the strength-approach studies have ignored the effects of task environment.[8] Ignorance prevents a deep understanding of the culture-performance relationship. The critical lack of the existing studies should be corrected by further research.

4. Propositions

As I mentioned before, it is valid to take the effects of task environment on the culture-performance relationship into account. Here, to suggest certain propositions on the effects, I adopt the identification of task environment defined by Dess and Beard (1984). They intended to present the general way of operationalizing task environment. Before their study, there had been almost no effective method widely adopted by organizational theorists. Extending Aldrich (1979), they classified the task environment into three dimensions: 'Munificence,' 'Dynamism,' and 'Complexity.'[9] Their classification is highly evaluated and widely accepted by organization theorists, because it adequately reflects the natures of task environments. Rather than generalizing task environment in my original way, drawing on the widely accepted dimensions is useful for this research. Therefore, I here adopt it in presenting propositions.

The three environmental dimensions reflect the natures of task environments. 'Environmental munificence' is defined as *the extent to which the environment can support sustained growth* (Starbuck, 1976). By definition, 'environmental dynamism' means *the rate of changes that are hard to predict and that heighten uncertainty for key organizational members in the environment* (Dess and Beard, 1984). The definition includes 'environmental turbulence' defined by Emery and Trist (1965). 'Environmental complexity' is defined as *the extent of the heterogeneity of and range of an organization's activities in the environment* (Child, 1972). Depending on each environmental dimension, three propositions on the effects of task environment on the culture-performance relationship can be derived.

In a munificent environment, according to the definition of 'environmental munificence,' firms can grow stably. The stable growth in the environment allows firms to generate slack resources (Cyert and March, 1963). The slack resources function as inducements to members in firms (Barnard, 1938; Bourgeois, 1981; Cyert and March, 1963). Even if a firm did not have a strong culture inside, which enhanced employees' motivation, it could motivate its employees to work through slack resources. High motivation of employees contributes to high productivity. In a more munificent environment, the strength of organizational culture will less positively

influence performance. Therefore, I propose the following.

Proposition 1: Ceteris paribus, as environmental munificence increases, the positive effect of cultural strength on performance decreases.

In a dynamic environment, for organizations, it is difficult to predict the future because of radical changes in the environment. As Sørensen (2002) notes, strong-culture organizations are not suitable for adapting to environmental changes because of the dysfunctions of strong cultures. First, a strong culture may thwart organizational members from recognizing the need for change. "Because members of strong-culture organizations have a greater commitment to a particular understanding of the world than weak-culture organizations, they may be slower to detect fundamental changes in environmental conditions" (Sørensen, 2002: 76). March (1991) pointed out that strong socialization hampered the understanding of changing environmental reality. Second, strong cultures tend to impede the organizational innovation to adapt to changing environments. In strong-culture organizations, the members widely and intensely share the same perspective, and they will not accept a different one. As a result, for strong-culture organizations, it is difficult to include various perspectives in them. According to Denison (1984: 18), "the lack of variety...limits the organization's ability to adapt to changes in the environment." To avoid the dysfunction, for example, firms in a dynamic environment often spin Research and Development departments off. In a more dynamic environment, the strength of organizational culture will more negatively influence performance. Therefore, I propose the following.

Proposition 2: Ceteris paribus, as environmental dynamics increases, the negative effect of cultural strength on performance increases.

In a complex environment, by definition, organizations should handle many different inputs and outputs, and run their businesses throughout a very wide geographical area. Chandler (1962) revealed that the diversity of an organizational activity led to decentralization. Assuming bounded rationality (March and Simon, 1958; Simon, 1997), firms should promote decentralization and departmentalization to handle the overflow of information. At the same time, decentralization and departmentalization tend to cause social conflicts among departments. For example, the department handling automobile and motorcycle components in a certain Japanese motor company, which is located far from headquarters, often complains about headquarters' orders because of the department's superiority, it does not necessarily mean not

to follow the orders, though. The members in the department insist, "Even if headquarters collapses, owing to our superiority, we will still exist!"

Decentralization and departmentalization are necessary to handle the complex environment, but they often cause unnecessary conflicts. These conflicts have pernicious influences on firms because they often hinder the cooperation of members. Lawrence and Lorsch (1967) show that the firms, which have a system for integrating well-diversified departments, are more efficient. Surveying 18 product-development projects in 5 companies, Dougherty (1990, 1992) finds that each department in the companies, Research and Development, Production, Sales, and Finance, had its own view of a market, and that, in good-performance projects, those conflicting views were reconciled with one another. Strong culture can operate as a system for integration. As described above, one of the strong-culture functions, promoting goal alignment, reduces conflicts among departments. In a more complex environment, the strength of organizational culture will more positively influence performance. Therefore, I propose the following.

Proposition 3: Ceteris paribus, as environmental complexity increases, the positive effect of cultural strength on performance increases.

Figure 2 briefly shows the effects of task environment on the relationship culture-performance relationship suggested above.

Figure 2
The Effects of Task Environment on Culture-Performance Relationship
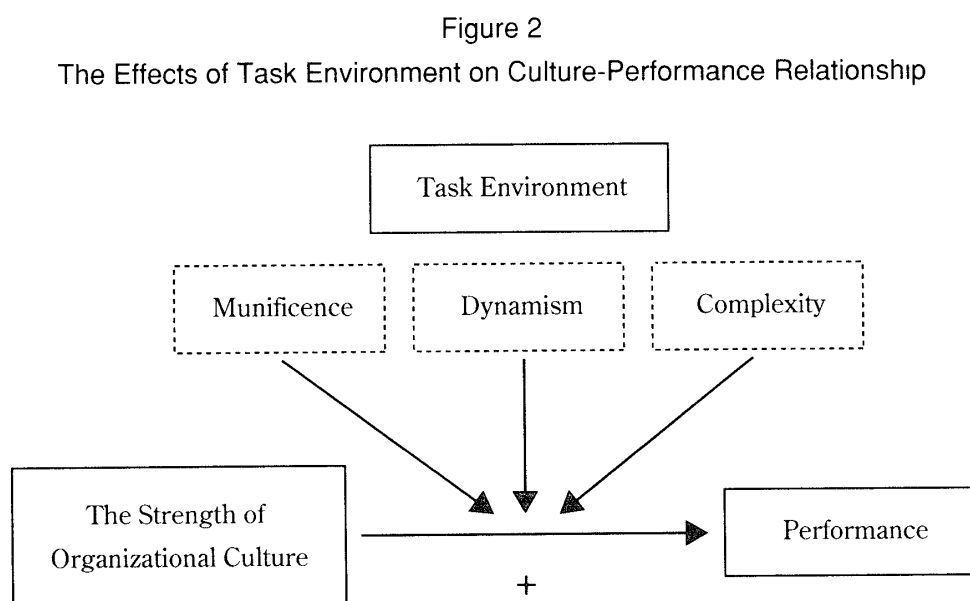
5. Implications for Future Studies

Three propositions have appeared to be obvious. Those are cogent, and will sophisticate the knowledge about organizational culture when they are justified. In doing empirical research on the propositions, there still exist some methodological problems.

First, no method for measuring cultural strength has been clearly confirmed. Despite the fact that many studies on cultural strength have been conducted, the method has not been rigidly established yet. For example, Denison (1984) adopts the inverse of the variance in questionnaire responses across work groups within companies as the cultural strength. On the other hand, Kotter and Heskett (1992) measure certain firm's cultural strength by questioning managers in its rival firms in the same industry. Those methods are completely different from one another. Scholars have yet to reach a consensus on what methods confirm construct validity. In furthering the studies on the culture-performance relationship, we should vigilantly consider the measurement.

Second, in the studies on organizational culture, the reliability of data is questionable. Some researchers treated a small group in an organization, which they investigated, as representative. It may be misleading to regard a small part of an organization as the whole. If a different group were chosen, the whole organizational culture would be completely different. To ensure a solid conclusion from research, we should select the measurement of cultural strength confirming the reliability. To avoid the reliability problem, it might be a promising way of drawing on the data, which other scholars measured, if it strongly confirms reliability.

Finally, the measurement of task environment is convoluted. As Dill (1958) noted, the scope of task environment is broad; consequently, the concept includes a lot of factors. The factors included in task environments differ from one industry to another industry. For example, in the banking industry, there are no bodies such as suppliers in the manufacturing industry. It is somewhat problematic to adopt the same criterion to measure the environmental dimensions of all industries. To overcome this difficulty, to focus on the certain industries which include the similar elements might be better.

The problems I mentioned here are salient for researchers who intend to do empirical research based on the propositions I have presented. These are the critical and unavoidable issues on the culture-performance relationship. Future researchers, of course including me, must surmount the difficulties to further the understanding of organizational culture.

6. Conclusion

In this paper, I summarize the existing literature on the culture-performance relationship, revealed missing information of the research, and suggested three propositions toward future empirical research. Although several studies have been made on the link between the strength of organizational culture and corporate performance, few researchers have concentrated on the effects of task environment on the relationship. However, as I described above, it is valid to suppose that the presence of the effects, because some studies have tentatively acknowledged them. We need to concentrate on the effects rigorously for a more profound understanding of organizational culture. Toward future empirical research on the effects, some methodological problems exist. Those problems are derived from an issue: how variables of organizational culture, performance, and task environment are operationalized. This issue is crucial to positing the effects.

Here, I only pointed out missing information in the existing literature on the culture-performance relationship and suggested promising propositions to elaborate it. Although the propositions may be potential for the development of the studies, they have not been justified yet. Needless to say, this is a step toward my future research, and I have already attempted to do an empirical study on the propositions. Although those trying problems of the culture-performance relationship occupy my academic interest, I publish them because organizational culture researchers will be concerned with them, too. Some of the researchers may consequently ascertain promising empirical methods which I cannot discover. I hope that some empirical research will justify the propositions, and advance the studies on organizational culture in the future.

[Notes]

1   Although I adopt the functionalists' definition as I stated, not all researchers accept the functionalists' definition of organizational culture. For example, Schein (1992: 12) defines the concept as "a pattern of shared basic assumptions and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems." He also suggests that organizational culture has three levels, *artifacts, espoused values,* and *basic underlying assumption,* and insists that the functionalists' definition limitedly reflects organizational culture. Actually, as Smircich (1983), Martin (1992), and Siehl and Martin (1990) stated, the manifold definitions are present and have not converged yet. A myriad of the definitions may finally converge on the one. This academic issue is so huge that I cannot examine it in this article. Some of readers may criticize me for adopting the functionalists' definition without pondering the

issue. It is, however, *not necessary* to focus on the issue in this paper. The reason is that all of the studies I refer to in this paper are based on the functionalists' definition. Therefore, I adopt the functionalists' definition suitable for the purpose of this paper.

2   Trait-approach researchers draw on the term, 'strong culture,' as well. However, their definition is not the same as that of strength-approach researchers (Gordon and DiTomaso, 1992). The word of the trait-approach researchers simply means 'the cultures of profitable firms.' It does not necessarily mean 'the cultures widely and intensely shared by organizational members.'

3   Dill (1958) shed light on technical environment because few studies considered problematic environmental influences on organizations in his time. Some readers, especially sociologists, may insist that environments surrounding organizations have not only a technical aspect, but social and cultural aspects, as well. The social and cultural environments can affect the culture-performance relationship, but the effects of social and cultural environment on the organizational culture have not been scrutinized yet. This theme is very attractive and will be the one of the central issues. However, the theme goes beyond my research question in this paper. In addition, the existing literature on the culture-performance relationship implies the presence of the task environmental effects, although social and cultural environmental effects are uncertain. For these two reasons, I do not examine the issue in detail in this article. If readers are concerned with the social and cultural environments, see Scott (1981) and Scott (1983).

4   As is self-evident, an open-system perspective on organizations is necessary when we deal with the relationship between organizations and their environments. The open-system perspective assumes that a system includes unpredictable and uncontrollable variables and that it influences an organization (Thompson, 1967). Therefore, I accept the open-system perspective on organizations in this paper.

5   In Sørensen (2002), industrial volatility is measured using the Capital Asset Pricing Model. In the study, he points out the possibility that the volatility measure based on stock market returns reflects the industrial volatility in a limited way.

6   Kotter and Heskett (1992) present McGraw-Hill, SmithKline, General Cinema, and Pitney Bowes as an example of a weak-culture but good-performance company. They explain, "the strong performances appear related to monopolistic market positions" (Kotter and Heskett, 1992: 24).

7   In the trait approach, Gordon (1991) suggested a proposition that organizational cultures would be affected by the industrial characteristics, although he has not empirically posited the effects. In the strength approach, there is no research positing the link between culture strength and task environment.

8   Task environment may influence on corporate performance as Porter (1980) shows. As I indicate in this paper, variables of task environment must be controlled in analyzing the effects of task environment on the culture-performance relationship.

9   In Dess and Beard (1984), the five environmental dimensions defined in Aldrich (1979), *Capacity, Stability-Instability, Turbulence, Homogeneity-Heterogeneity,* and *Concentration-Dispersion,* are classified into the three dimensions though a statistical method.

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