

The Pennsylvania State University  
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**THE RELATIONSHIP AMONG LEADERSHIP STYLE, ORGANIZATIONAL  
CULTURE AND THE LEARNING ORGANIZATION:  
THE MODERATING EFFECTS OF ORGANIZATIONAL CULTURE AT THE  
MIDDLE MANAGEMENT LEVEL**

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by

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## ABSTRACT

Present day organizations are faced with a turbulent environment. In order to obtain and sustain a competitive advantage in an increasingly complex and unpredictable work environment, business organizations must enhance their learning capabilities and need to be transformed into learning organizations that can transmit new knowledge and create new products. It is useful to study the aspects of organizational culture that support the learning organization and the leadership style of middle management that shapes the learning organization since middle managers play a key role in making the transition to a learning organization, encouraging employees to embrace continuous learning in business settings. Thus, an awareness of the impact of organizational culture and the leadership style of middle management in the learning organization is a prerequisite for improving organizational performance.

The major objective of this research is to explore the relationship among leadership style, organizational culture, and learning organization factors. More specifically, this research examines the moderating effects of organizational culture on the relationships between leadership style of middle management and the learning organization in the Korean business settings.

All the constructs are measured by multi-item scales and all the measures are perception-based, self-reporting survey types of instruments. For the purpose of this study, the middle managers and subordinates' perceptions regarding the seven dimensions of the learning organization in their organization were taken as the dependent variables and the leadership style (transformational and transactional leadership) of the middle managers were taken as independent variables. Four types of organizational

culture (clan, adhocracy, hierarchy and market culture) served as moderator variables. This study adopted Multivariate Analysis of Variance (MANOVA), Structural Equation Modeling (SEM), Confirmatory Factor Analysis (CFA), and Multiple Regression Analysis for data analysis using SPSS 18.0 and LISREL 8.8.

The results of this study are as follows: (a) transformational leadership and adhocracy culture had positive significant effects on the development of the learning organization; (b) organizational culture (hierarchy culture) had a moderating effect between transformational leadership and the learning organization; (c) the effects of leadership style and organizational culture on the development of the learning organization did not differ between middle managers and subordinates; (d) leadership components (idealized influence attributes, idealized influence behavior and individual consideration) in transformational leadership had significant effects on the learning organization; and (e) leadership style, organizational culture and learning organization were different among the industry types. Further, several issues on leadership competency, organizational culture and learning organization were reported through short-answer responses.

A conclusive summary is provided along with contributive discussion. Implications, limitations and future research are discussed, and final conclusions are offered.

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## CHAPTER ONE

### INTRODUCTION

The new global economy is tearing down traditional concepts of time and space. Advances in technology and globalization of the world markets are rapidly altering the traditional face of the workplace. The markets have expanded across national boundaries, accelerating the development of new products, processes, and services. This global competition is forcing organizations to adopt new standards and practices. Under the business environment with the competition of no national boundaries, organizations are faced with a turbulent environment, and they need to transform themselves so as to be able to confront the shifting needs of the new environment. Several changes in the external and internal environment of the organizations act as a driver for their transformation. The adaptability to environmental challenges is exactly the critical element for business organizations to keep running and to strengthen their competitive advantages. Toffler (1970), in his work *Future Shock*, raised a collective awareness of the importance of adapting to change in light of the extreme difficulty of predicting the future. Clearly, the only constant in today's environment is change, and organizations will not survive and flourish if they do not understand and adapt to change (Garvin, 1993; James, 2004; Marsick & Watkins, 2003).

With the ever-increasing competition in today's business environment, organizations are continuously searching for strategies and techniques to adapt to change and to improve their performance. Thompson (1992) predicted that intense global competition, the explosion in information technology, and the emergence of knowledge-

based economies that continuously reshapes the world's business environment will transform traditional companies into new organizations. Knowledge has become an important determinant for a competitive advantage for both organizations and individuals (Marquardt, 1996). The transformation from the industrial era into a knowledge economy necessitates that organizations sustain a culture of learning, which is critical to organizational effectiveness (Drucker, 1998). Thus, many organizations continuously reorganize and adopt new strategies to keep with the widespread changing pace of work and to remain efficient in their process and outcomes. Organizations understand that their employees are fundamental assets and thus try to leverage these assets to have greater ability and higher performance (Kaye & Jordan-Evan, 2000). The ability to learn and to convert learning into practice creates extraordinary value for individuals, teams, and organizations (Ashton et al., 1999). Organizations need to create a learning environment that encourages their employees to continue to learn and to develop their skills further.

Since ongoing learning in the workplace is recognized as one of the most important sources of a sustainable competitive advantage, organizations are paying more attention to the learning organization. After Senge (1990) proposed the importance to create the learning organization in his book entitled: *The Fifth Discipline: The Art and Practice of Learning Organization*, various business organizations started to perceive that knowledge would become the critical resource for business organizations wanting to create core values. The learning organization concept has been prominent in human resource development, organizational psychology, and management for more than a decade. The learning organization has been hailed as a revolutionary panacea in a wide variety of organization types, including government and business companies. Many

executives and managers see becoming the learning organization as critical to attaining a competitive advantage in an increasingly complex and unpredictable work environment (Marquardt, 2002; Watkins & Marsick, 1993). Most leaders consider the learning organization as a step to success in the rapidly changing markets and sectors, and most organizations embrace the value of building and sustaining the learning organization.

### **Statement of the Problem**

Organizations view learning as a means to achieve strategic goals and performance improvement on the job, not just a means to developing their employees' cognitive understanding (Marquardt, 1996; Meister, 1998). During the process of encouraging employees to want to learn, there is a need for the existence of an organizational culture to support the learning organization so that it is available to obtain, improve, and transfer the required knowledge with ease (Pool, 2000; Hall, 2001). Coutu (2002) stated: "We know how to improve the learning of an individual or small team, but we don't know how to systematically intervene in culture to create transformational learning across the organization" (p.105). This statement supports the need to continue the study of culture as a variable that facilitates and supports the shaping of learning organizations.

In addition to the support of organizational culture for the learning organization, understanding ways in which leaders can influence the learning process in organizations is becoming increasingly important. Lei et al. (1999), Llorens (2005), Senge (1990), and Swieringa and Wierdsma (1992) emphasize the importance of leadership for the learning organization, while recent theoretical developments emphasize the importance of a

contingent approach toward leadership and the learning organization (Vera & Crossan, 2004). Other than the above mentioned, the literature rarely addresses the relationship between leadership and the learning organization, particularly in the context of a transitional economy outside North America. Only a few empirical studies exist to date and even in these, the impact of leadership on the learning organization was not the primary research focus. Hence, Vera and Crossan (2004) call for an empirical investigation of both transformational and transactional leadership styles and the learning organization. Nevertheless, the scarce empirical evidence does indicate that certain kinds of leadership behaviors, such as supportive, empowering, and transformational leadership, do have a positive influence on learning in organizations (Aragon-Correa et al. 2005; Burke 2006; Kurland & Hertz-Lazarowitz 2006; Llorens Montes et al. 2005; Shin and Zhou, 2003). Employees are the important resource for every organization. The success of organizations can be reachable through the continuous learning effort of employees. Therefore leaders have to attract and motivate; reward, recognize and retain; train, educate, and improve performance of these employees in order to lead the evolution of learning organizations.

Leadership writings to date have concentrated mostly on the roles and functions of senior executives. However, the roles and functions of middle managers have received increased attention (Fenton-O’Creevy, 1998; Floyd & Wooldridge, 1996, 2000). The vast majority of managers in today’s large organizations are middle managers. According to Floyd and Woodridge (1996), middle managers’ positions are located somewhere between the strategic apex and the operating core of the organization. Several studies have shown that middle managers’ roles do not only center on the planning, controlling,

and monitoring of their units' activities, but they also can influence strategy and culture in both upward and downward directions (Floyd & Woodridge, 1992, 1997; Wooldridge & Floyd, 1990). Additionally, middle managers play vital roles, such as innovators and entrepreneurs, by proposing new possibilities that would add value to the organization. They also play a role as communicators by successfully leveraging their informal networks at multiple levels of the organization and as barometers of the tenuous balance between continuity and change for the motivational needs of the employees and manager (Huy, 2001). Thus, it is necessary to study the leadership style of middle management for shaping the learning organization. Robbins (1996) indicated that leadership and organizational culture substantially influence the output of personnel resource. Studies are needed to determine how a leadership and organizational culture affect building up and sustaining the learning organization.

There exists a substantial amount of research on antecedents and outcomes of organizational culture, leadership behavior, and the learning organization. Much of these are focused on independent relationships, such as leadership and culture, leadership and the learning organization, or organizational culture and the learning organization. Only a handful looked into identifying precise relationships between multiple areas of organizational behavior and the application of such findings at the middle management to the corporate firms. These have practical implications for the middle managers and executives in management development, and ultimately could bring about superior performance in their respective organizations.

## **Purpose of the Research**

The main purpose of this study is to investigate the relationship among leadership style, organizational culture, and the learning organization. More specifically, this research examines the moderating effects of organizational culture on the relationships between leadership style of middle management and the learning organization in the Korean business setting.

The specific objectives of this research are the following:

1. Identify the difference in the industry types on leadership style of middle management, organizational culture and the learning organization.
2. Explore the effects of leadership style of middle management and organizational culture on the learning organization.
3. Explore the overall relationship among leadership style of middle management, organizational culture, learning organization factors.

## **Research Questions & Hypotheses**

The major objective of this research is to explore the relationship among leadership style of middle management, organizational culture, and learning organization factors. The models applied in this study are Bass's (1985) Transformational and Transactional leadership dimensions for leadership style of middle management, the Competing Values Framework (CVF) developed by Cameron and Quinn (1999) for organizational culture, and Watkins & Marsick's (1993, 1996) Seven Dimensions of the Learning Organization Questionnaires (DLOQ) for the learning organization.

In addition to these three research models, the following research questions and hypotheses guided the entire study:

1. What differences are there among the industry types within the concepts of leadership style, organizational culture, and the learning organization?
2. What similarities and differences exist between the perceptions of middle managers and the perceptions of subordinates on the effect of leadership style and organizational culture type on the learning organization?
3. What components in transformational and transactional leadership help develop a positive learning organization at the middle management level?
4. What factors do participants report as most influential and encouraging for leadership behavior and organizational culture in developing the learning organization?

Hypothesis 1: Transactional and transformational leadership of middle management has a significantly positive effect on the learning organization.

Hypothesis 2: Organizational culture has a significantly positive effect on the learning organization.

Hypothesis 3a: Clan culture has a moderating effect on the relationship between leadership style and the learning organization.

Hypothesis 3b: Adhocracy culture has a moderating effect on the relationship between leadership style and the learning organization.

Hypothesis 3c: Hierarchy culture has a moderating effect on the relationship between leadership style and the learning organization.



Hypothesis 3d: Market culture has a moderating effect on the relationship between leadership style and the learning organization.

### **Significance of the Study**

Today's organizations are characterized by continual and disruptive changes (Senge, 1995; Kotter & Cohen, 2002). Industry now faces a dramatically new competitive environment that offers opportunity, possibility, and challenge. To remain relevant and competitive, organizations must continuously adapt and transform through learning at all levels of the organization (Senge, 1990). What underpins the general prescription that organizations become the learning organization is the capability to create, integrate, and apply knowledge. Such capability is critical for organizations to develop a sustainable competitive advantage (Bierly et al., 2000). Given the significance of the learning organization for organizational performance, leadership is one of the most important means of developing learning organizations (Slater & Narver, 1995; Snell, 2001). Gardiner and Whiting (1997) also contend that organizational culture poses the critical impact on whether the learning organization can be successful or not.

This study is significant because the moderating effect of organizational culture on the relationship between middle management's leadership style and the learning organization is important as organizations attempt to improve performance. Understanding which leadership styles of middle management work best in the learning organization under discrete organizational cultures will improve organizations' ability to apply the knowledge to select the best leaders for their learning organization. Selecting a middle manager with the optimum leadership style, which is matched to specific

organizational culture, will maximize the learning organization's effectiveness and improve organizational performance.

Knowledge from this study could be used by organizations whether they desire to promote from within or hire externally. Organizations will know what type of leaders should be recruited or promoted to build up and sustain the learning organization in their organizations. These new leaders will be supported by the learning organization for maximum effectiveness. Additionally, an organization may wish to change leadership styles to adapt to their learning organization. This organization might select a leader who is not compatible with its learning organization. However, organizational members will understand not only that their learning organization needs to change, but also which factors of the learning organization their organization needs to adopt.

This research adopts an empirical research design to study the moderating effects of organizational culture on leadership and the learning organization within business organizations in Korea. Therefore, this attempt is meant to make business organizations aware of the effect of leadership and organizational culture on the learning organization in Korea as well.

Understanding the relationship among leadership, organizational culture, and the learning organization may increase organizational performance and therefore is valuable information to an organization. One potential strategy for increasing organizational performance may lie in identifying the relationship between the leadership style of a middle manager and organizational culture, and matching this leadership and culture to a compatible learning organization.

## Conceptual Framework of the Research

In this paper, the researcher examines the relationship among the leadership style of middle management, the organizational culture, and the learning organization. Rather than investigate specific aspects of the learning organization concept, this study provides a synthesis of the leadership, culture, and learning in order to develop a deeper, more practical understanding of the related concepts. This integrated approach is founded on the belief that organizations are complex, ambiguous, and paradoxical and the challenge is dealing with this complexity. The multi-layered model developed provides a simple, yet rich view of the dynamic links between learning, leadership, and culture.

In order to design the integrated research model based on the determinant themes of this study, a conceptual framework (Figure 1-1) has been developed to guide the entire study.

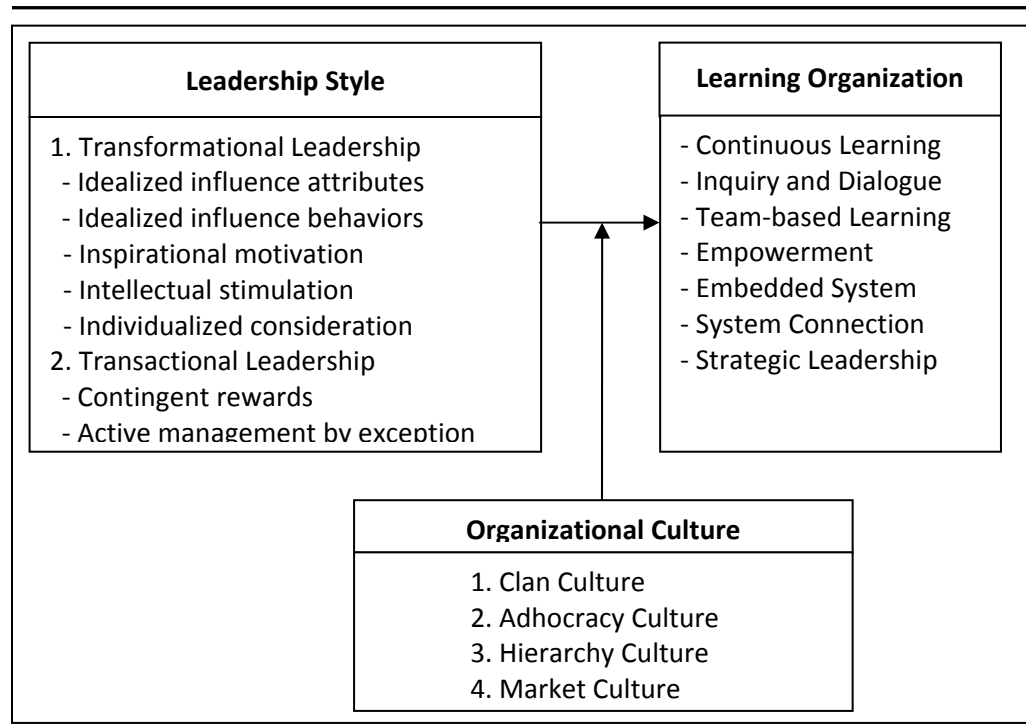


Figure 1-1. Theoretical Framework

## **Limitations of the Research**

There are several limitations related to sampling and the research framework in this study. First, the sampling of the current study is limited to different types of business companies in Korea because this study analyzes the leadership style, organizational culture, and the learning organization in order to compare the differences in the industry types. Thus, this study employs a purposive, non-random sampling process, and the outcomes could be compromised in terms of generalizing the results.

Second, this study assumes leadership style as the independent variable, organizational culture as the moderator variable, and the learning organization as the dependent variable. Grojean, et al. (2004) reported that leaders may have an influence on organizational culture. Furthermore, Ahn, et al. (2004) found that managers often control the changes in an organization's culture. However, organizational culture may have an influence on the leadership style. Further research is needed to determine the causality of this relationship and how this relationship develops.

Third, this research collected data from organization members, and data were gathered using self-report web survey instruments. Leadership surveys usually include reports by subordinates (Bass & Avolio, 1993), and surveys related to leadership, culture, and the learning organization are generally self-report. A concern with this type of data gathering is that responses may be susceptible to bias by members who report their perceptions of leadership, culture, and the learning organization.

Fourth, the current research studies the leadership style of middle management and provide a definition and examples of middle management at the beginning of the questionnaire. However, the demarcation of middle managers can be vague in practice.

Thus, participants may vary in their understanding of the definition of middle managers. These factors might influence their responses to questions. In order to reduce those factors, the current research defines middle managers as the management layer between the top management group (i.e., executives or vice presidents) and first-level supervisors (i.e., assistant managers or operations division managers) (Dopson, Stewart, & Risk, 1992). This definition is used to identify the sample.

Finally, although this research uses an investigative questionnaire with concise questions, it is still not known whether the respondents in a Korean context can substantially understand the original contextual meaning of the questionnaire. Interpretation issues may limit generalizability of the results. In addition to the survey, short-answer questions are used and analyzed to reduce this limitation.

### **Definitions of Terms**

Leadership: “The process of influencing others to understand and agree about what needs to be done and how it can be done effectively, and the process of facilitating individual and collective efforts to accomplish the shared objectives”(Yukl, 2002, p. 7).

Transformational Leadership: “Leaders who (1) recognize what his or her followers want to get from their work and try to see that followers get what they desire if their performance warrants it; (2) exchange rewards or promises of rewards for appropriate levels or efforts; and (3) respond to the self-interests of followers as they are getting the job done” (Bass & Avolio, 1990, p 233).

Transactional Leadership: “Leaders who (1) raise the level of awareness of followers about the importance of achieving valued outcomes, a vision, and the required strategy; (2) get followers to transcend their own interests for the sake of the team, organization, or larger collectivity; and (3) expand followers’ portfolio of needs by raising their awareness to improve themselves and what they are attempting to accomplish” (Bass & Avolio, 1990, p. 234).

Middle Management: “is located somewhere between the strategic apex and the operating core of the organization. Traditionally, middle managers have been charged with overseeing some aspect of the organization’s operation—what organization theories would call ‘subunit work flow’—with one or more layers of management reporting to them. They have, at least, access to upper management. Their responsibilities have been defined mainly according to functional boundaries, and they have held formal authority over operating –level managers, supervisors, and individual contributors” (Floyd & Wooldridge, 1996, p. 4).

Organizational Culture: “A pattern or shared basic assumptions that the group learned as it solved its problems of external adaptation 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” (Schein, 1992, p.12).

Clan Culture: The clan culture emphasizes flexibility and maintains a primary focus on the group culture for group maintenance and enforces trust, and participants as core values, and the primary motivational factors or attainment, cohesiveness, and membership (Cameron & Quinn, 1999).

Adhocracy Culture: The adhocracy culture focuses on flexibility and change, but maintains a primary focus on the external environment and emphasizes growth, stimulation, creativity, and variety (Cameron & Quinn, 1999).

Hierarchy Culture: The hierarchy culture emphasizes internal efficiency, uniformity, coordination, and evaluation and its focus is on the logic of the internal organization and the emphasis is on stability (Cameron & Quinn, 1999).

Market Culture: The market culture emphasizes productivity, performance, goal fulfillment, and achievement and tends to be the pursuit and attainment of well-defined objectives. Motivating factors include competition and the successful achievement or predetermined ends (Cameron & Quinn, 1999).

Learning Organization: “is one that learns continuously and transforms itself... Learning is a continuous, strategically used process-integrated with and running parallel to work... Learning also enhanced organizational capacity for innovation and growth. The learning organization has embedded systems to capture and share learning” (Watkins & Marsick, 1993, p. 8).

### **Chapter Summary**

The purpose of this study is to investigate the relationship among leadership style of middle management, organizational culture, and the learning organization factors. The models applied in this study are Bass's (1985) Transformational and Transactional Leadership Dimensions for leadership style of middle management, the Competing Values Framework (CVF) developed by Cameron and Quinn (1999) for organizational

culture, and Watkins & Marsick's (1993, 1996) Seven Dimensions of the Learning Organization Questionnaires (DLOQ) for the learning organization.

The current research focuses on examining the moderating effects of organizational culture on the relationship between middle managers' leadership style and the learning organization in the Korea business setting in order to improve organizational performance. Thus, this study could produce useful information when organizations recruit or promote middle management leaders to build up and sustain the learning organization in their own companies.



## **CHAPTER TWO**

### **REVIEW OF RELEVANT LITERATURE**

This study focuses on measuring the relationship among leadership style of middle management, organizational culture, and the learning organization in a Korean business organization context. An awareness of the impact of organizational culture and leadership style on the learning organization is a prerequisite to improve organizational performance. In order to understand each of the research components, the current research has reviewed the following literature: (a) leadership focused on transformational and transactional leadership (Bass, 1985; Bass & Avolio, 1993); (b) organizational culture types based on the Competing Values Framework (Cameron & Quinn, 1999); and (c) learning organization construct factors, especially for dimensions of the learning organization (Watkins & Marsick, 1993, 1996).

### **Leadership**

#### **Definition of Leadership**

Some people say that good leaders are made, not born. Good leaders always keep working and learning to improve their leadership skill, not resting on their laurels. Leadership means the leader's ability to induce followers towards a particular goal (Bass, 1985). It contributes significantly in the success and failure of an organization and general exists within people and organizations. Merely speaking, leadership has the capability to affect others (Bethel, 1990). To understand leadership and leader effectiveness is necessary in order to realize how to motivate employees and thus

accomplish organizational goals. Of significant importance to organizations in their quest to fulfill their goals is an understanding of the relationship between leaders and followers and how leaders moderate their leadership style to maximize their effectiveness (Hersey et al., 1996). Hersey et al. (1996) believe that the readiness and willingness of subordinates to perform tasks are important aspects that contribute to a leader's effectiveness.

To sum up, leadership means a kind of ability that a leader who has followers, well communicate to achieve particular goals. This kind of leader can lead his or her followers efficiently to approach the goals. Kotter (1997, 1999) described the key leadership activities as setting a direction, aligning people with the direction, and motivating and inspiring.

### **Leadership Theory**

For almost as long as there has been research on leadership, there has been recognition that different types of leaders are best adapted to different types of situations. Different types of leaders were viewed as successful in different types of situations. Heilbrun (1994) divides the leadership theories into three concentrated areas for discussion. The first area is to identify leadership as the leader traits. The second area is to define leadership as the leader behaviors. Leader's traits and behaviors theories focus on the characteristics and behaviors of successful leader. The third area is the contingency or situational leadership, which focuses on the interaction with personnel, and concerns eventual and material matters between leaders and subordinates. Recently some researchers divide the leadership into transactional leadership and transformational

leadership (Burns, 1978; Bass, 1997). In addition, some researchers add complex leadership as new leadership theory (Marion & Uhl-Bien, 2001). Contingency leadership theory and transactional and transformational leadership theory tend to consider the role of followers and the contextual nature of leadership. Complex leadership is based on the unpredictable and uncontrollable nature of integrated systems.

The leadership literature overview reveals an evolving series from the trait theory to the complex leadership. It is important to comprehend early theories of leadership to better understand the modern theories and their significance to business practices. This study reviews five main leadership theories including trait theories; behavioral theories; contingency and situational theories; transactional and transformational leadership, which is relatively recent; and complex theories of leadership, which is one of the latest theories.

**Trait Theories of Leadership.** One of the first series of theories concerning leadership emerged from the study of leadership traits (Green, 2001). In the 1920s and 1930's, leadership research focused on trying to identify the traits. This approach arose from the "Great Man" theory as a way of identifying the key characteristics of successful leaders. Trait theory has been focusing on identifying the personal qualities that distinguish leaders from non-leaders (Bryman, 1992). This theory posited that leaders were born, not made, and that the traits necessary to be an effective leader were inherited (Kirkpatrick & Locke, 1991). Early research on leadership was based on the psychological focus of the day, which was of people having inherited characteristics or traits.

However, many research studies has not offered convincing evidence that a specific collection of traits in essential for leader success (Yukl, 1989) and thus the

conception of leadership traits has been regenerated. The traits owned by leaders not only can be learned but also can be developed. In addition, possessing leadership traits is not only to make a person to be a successful leader, the leaders must also take the actions necessary for the leadership exhibited to be successful (Kirkpatrick & Locke, 1991). Researches moved to examine the behaviors employed by leaders which made them effective in various organizations.

**Behavioral Theories of Leadership.** The results of the trait studies were indefinite. Traits, among other things, were hard to measure. Behavioral theories of leadership do not seek inbred traits or capabilities. Rather, they look at what leaders actually do and begin the attempt to define the activities of successful leaders. This was the focus of much research from the 1940s through the 1960s. The behavioral theorists identified determinants of leadership so that people could be trained to be leaders (Bryman, 1992). This research concentrated mainly on leadership style or behaviors. Behavioral theory of leadership is critically different from the earlier trait theory of leadership that assumed leaders were born and not made.

Three of the most well known behavioral leadership theories include Ohio State University (OSU) Studies, University of Michigan Studies and The Managerial Grid. OSU studies emphasized two independent dimensions of leadership behavior that are individualized consideration and initiation of structure (Bass, 1990). Initiation structure is the measure of how a leader starts and controls activity within the group, organizes the group, and directs how the work is to be accomplished (Bryman, 1992). Individualized consideration defines how leaders treat the members of the group as individuals with separate consideration while maintaining a fair and equitable relationship with the entire

team (Bryman, 1992). Michigan Studies classified leaders' behaviors as two opposing styles that are job-centered and employee-centered (Likert, 1967). The Managerial Grid focuses on two dimensions of leader behavior which are concern for people and concern for production (Blake & Mouton, 1964).

Leadership studies in the 1960s began to see the importance of going beyond measuring leaders' behavior and examining the setting in which they exercised their leadership behaviors. A collection of researchers shifted to examine the approach to understanding how leadership was used within an organization in specific situations (Yukl, 1989).

**Contingency Theories of Leadership.** Successful leaders must be able to identify clues in an environment and adapt their leader behavior to meet the needs of their followers and of the specific situation. Indeed, most researchers today conclude that no one leadership style is right for every manager under all circumstances. Instead, contingency theories were developed to illustrate that the style to be used is contingent on such factors as the situation, the people, the task, the organization, and other environmental variables. Even with good diagnostic skills, leaders may not be effective unless they can adapt their leadership style to meet the demands of different types of situations. Contingency theory proposes that certain styles of leadership will be effective in different situations.

There are two familiar studies in Contingency theories of leadership: Fiedler's Contingency Model and The Path-Goal Leadership Theory developed by Robert House (Robbins, 2005). Fiedler's Contingency Model focuses on that there is no single best way for managers to lead and thus leadership effectiveness depends on the interaction of

qualities of the leader with certain characteristics of the situation (Fiedler, 1967).

Fiedler's contingency theory combines positional power, the task, and the relationship between the leader and the follower(s) as leader effectiveness determinants. In contingency theory, the leader is either task-oriented or relationship-oriented and matched with situations conducive to that style (Bass, 1990; Wren, 1994).

Another contingency leadership model is the path-goal approach in which a leader's role is to push performance and reinforce change by setting goals, identifying and clearing the path to those goals, and rewarding performance. Variables in the situation determine leader behavior. Path-goal is an exchange theory wherein followers recognize productivity as a path to achieving personal goals (Bass, 1990). The Path-Goal Leadership describe the way that leaders encourage and support subordinates in achieving the goals they have been set by making the path that they should take clear and easy (Evans, 1970; House, 1971).

**Situational Theories of Leadership.** Situational leadership theories have been studied for many years. Hersey and Blanchard developed the Situational Leadership Model, a model that focuses on behaviors rather than traits (Bass, 1990). The model design recognizes the differences in leadership styles, the relationship between the situation and the leadership style, and the relationship between follower task maturity and leadership style. Hersey and Blanchard developed the model with the belief that the leader diagnoses the situation and adapts leader behavior to achieve effectiveness based on the multiple factors (Bass, 1990). In situational theory, leaders acquire competence from previous leadership experiences (Bass, 1990; Leonard, 2003). The leader is a product of the situation. Were the situation not available, the leader would not emerge

because each situation requires a unique set of traits and competencies that each unique situation helps to create.

Situational theory is similar to contingency theory in that there is an assumption of no simple one right way. The main difference is that situational theory tends to focus more on the behaviors that the leader should adopt, given situational factors (often about follower behavior), whereas contingency theory takes a broader view that includes contingent factors about leader capability and other variables within the situation.

Hersey and Blanchard (1988) contended that leaders need to be flexible and develop different styles of leadership and use them as the situation demands. Contingency and situational leadership highlight that different leadership styles may be used in different situations. Kolb (1991), for example, examined leadership in research and nonresearch teams in a number of manufacturing, aerospace, and health services companies. She found differences between the two sets of teams and determined that, although some behaviors appeared universal, others were influenced by the purpose and needs of the team. Results of the study indicated that garnering support and resources for the team and serving in a public relations or boundary management role were significantly related to team performance for research team leaders but not for leaders of nonresearch teams. Moving to another area of study, two of the most researched styles of leadership employed by organizational leaders are transformational and transactional leadership (Parry, 2002).

**Transactional and Transformational Leadership.** Transactional views of leadership shift the focus from traits of the leader to the interaction of the leader-member exchange. Burns (1978) studied the leadership behaviors to motivate followers as

transactional or transformational. Bass (1985) generalized Burn's model and applied it to generic organizational settings (Howell & Avolio, 1993).

Burns (1978) distinguished between transactional and transformational leadership, emphasizing the importance of leadership as an interactional and innovative phenomenon. Transformational leadership was initially measured with three dimensions: charisma, individualized consideration, and intellectual stimulation; transactional leadership with two: contingent reward and management by exception (Bass, 1985). Three dimensions of transformational leadership were defined by four dimensions later on: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Bass not only distinguished between a transformational and a transactional leadership style but also added a third type, namely a laissez-faire (non-leadership) style (Bass, 1985, 1990; Bass & Avolio, 1994).

*Transactional Leadership.* Transactional leadership is based on the concept of exchange between subordinates and leaders (Bass & Avolio, 1994). In other words, transactional leaders provide subordinates with resources and rewards in exchange for motivation, productivity, and effective task accomplishment. Therefore, Kim and Shim (2003) suppose the transactional leadership is oriented by demands. Transactional leadership is based in contingency, in that reward or punishment is contingent upon performance. Namely, leaders will affirm and reward subordinates' effort, and satisfy their relevant demands to reach esteem and support from these activities. It is called contingent reward. Contingent reward is the primary component of transactional leadership. These rewards are offered by the leader to subordinates in response to performance (Bass, 1985). Rewards may be economic such as bonuses, commissions, or



pay raises or they may be psychological such as recognition. These rewards may be positive such as monetary or recognition or they may be negative in nature such as demotions, criticism, or the withholding of rewards. In this paradigm, followers are motivated by the promise of reward or the avoidance of punishment.

In addition to contingent rewards, transactional leadership has another type that is management by exception. Leaders monitor their team members' performance and distribute rewards defined by the terms of the contract with the members. Workers exceeding set standards are positively rewarded. Conversely, subordinates not meeting established performance parameters are punished (Bass & Avolio, 1990). The manager exerts his influence when necessary to maintain control and influence the performance of the members. Management by exception is further defined by the activity level of the leader and is described as active or passive. Active management by exception leaders set standards and then continuously scrutinizes the performance of each of their team members (Bass, 1985). These active leaders are quick to clarify assignments and standards and will reinforce the importance of the contract with the member by letting the member know their performance is under continual examination. Active management by exception leaders are constantly monitoring the activities of their organizations and taking action when appropriate. In contrast to active management by exception, passive management by exception is the intervention of managers only when standard performance is not being achieved (Bass, 1985). Rather than searching for variation from expected performance similar to an active manager, these passive managers only react after an incidence has occurred.

Laissez-faire leadership is a third style of leadership often referred to as a lack of leadership. It also includes a style of passive management by exception that is the avoidance of interfering with workers if established procedures are working and performance goals are being met (Geyer & Steyrer, 1998). Tasks are delegated to subordinates with little instruction or oversight. Bass (1985) included laissez-faire style as a way to describe a lack of leadership. This lack of leadership includes an avoidance of intervention and a lack or loss of influence by the leader. Laissez-faire leadership does not incorporate the inspiration of transformational leadership or the contractual agreements for performance included in transactional leadership.

*Transformational Leadership.* Research in the 1980s brought transformational leadership to the fore as an important extra dimension of leadership. According to Koehler and Pankowski (1997), transformational leadership is defined as one that involves a process of inspiring change and empowering followers to achieve great heights to improve themselves and the organization. Transformational leaders do more with colleagues and subordinates than set up simple exchanges or agreements (Bass, 1998). They motivate subordinates to do more than they originally expected, making them to have much more self-confidence, setting more challenging expectations and achieving higher goals. The transformational leader always encourages subordinates by acting as a role model, motivating through inspiration, stimulating intellectually, and giving individualized consideration for needs and goals (Bass & Avolio, 1994).

According to Bass and Avolio (1994), transformational leadership and has been defined by characteristics referred to as the 4 I's; Idealized influence, when followers idealize and emulate their leader; Inspirational motivation, where workers are motivated

to achieve a common goal; Intellectual stimulation, which encourages followers to break away from old ways of thinking; and Individualized consideration, where followers' needs are individually and equitably met (Bass, 1985; Bass & Avolio, 1993; Howell & Avolio 1993; Sivanathan & Fekken 2002).

Idealized influence includes leaders' charisma. Leaders are trusted and admired and serve as role models to others in the organization (Bass, Avolio, Jung, & Berson, 2003). Bass (1988) defined charisma as the ability to generate strong emotions in followers. Charismatic leaders are confident in themselves and have a strong conviction in their beliefs and evoke passion in their followers. Research has shown idealized influence to be the most important of the four components of transformational leadership (Avolio, Bass & Jung, 1999). Charismatic leaders often place team members' needs before their own and share risks with the team (Bass, Avolio, Jung, & Berson, 2003). Charismatic leaders use their emotional intelligence to control their own emotions and to understand the emotions of their team (Goleman, 1995). They are able to use this knowledge as a tool to influence the team. This understanding of the values and hopes of the members facilitates the leader's use of optimum words and actions to communicate the vision to the team and inspire members to implement the new vision and exceed their previous efforts. These leaders set the example for behavior and guide the organizational culture.

Bass (1985) originally defined inspirational leadership as a sub-component of charismatic leadership. Charisma of a leader is helpful in inspiring members but it is not a requirement (Bryman, 1992). Inspirational leaders may use other devices such as symbols, body language, and cultural icons to stimulate the inspiration of the organizational

members. Quiet leaders may inspire an organization as well as the most charismatic leaders. Followers may be motivated by a vision of the future and put the needs of the group above their own self-interests. This sense of higher purpose and challenging tasks motivates workers to exceed normal performance levels (Bass, Avolio, Jung & Berson, 2003). Workers are often inspired by meaningful and challenging tasks and not solely by extrinsic rewards (Bass & Avolio, 1993).

An additional component of transformational leadership is intellectual stimulation. Leaders use intellectual stimulation to teach followers to challenge present assumptions, values, and expectations and to attempt new techniques to improve results (Bass, 1985). Importance is placed on taking risks and being creative in solving new and existing problems. Members are solicited for creative ideas (Bass, Avolio, Jung, & Berson, 2003) and workers are motivated through engaging their minds to make a positive impact on the performance of their team (Bass, 1985). By supporting and encouraging innovation and creativeness, transformational leaders convert challenges from threats into opportunities (Parry, 2002). Transformational leaders use intellectual stimulation to both encourage and exercise the creative abilities of subordinates to improve individual performance, problem-solving skills, and become more valuable assets to the team (Bass, 1985).

Leaders exhibit individualized consideration when they address team members by acknowledging their differences and treating them according to those differences (Bass, 1985). Followers' needs are addressed individually while the entire team is treated equitably. This consideration is also a prominent component of transformational leadership (Bryman, 1992). Team members receiving individualized consideration feel they have a personal relationship with the leader and trust the leader to address their

unique needs. Less skilled members are given close supervision while more experienced members are given an appropriate level of autonomy and responsibility (Bass, Avolio, Jung, & Berson, 2003). Subordinates may develop their skills and capabilities and increase their ability to aid the team by receiving mentoring and coaching from the leader. These developmental actions by transformational leaders include delegation, informal communication, and mentoring of subordinates to aid in transforming a team into a more effective organization.

Transformational leadership is a process in which the leaders take actions to try to increase their subordinates' awareness of what is right and important. They convince their subordinates to strive for a higher level of achievement as well as higher levels of moral and ethical standards. Through the development of their associates, they optimize the development of their organization as well.

**Complex Leadership Theory**, Complex leadership stems from complexity theory that recognizes the unpredictable and uncontrollable nature of integrated systems (Marion & Uhl-Bien, 2001). The complex leader's primary role is to enable an environment that fosters emergent structures and embraces the natural interaction that produces uncertainty within organizations. Control in complex leadership is not the direct control of people or things, but rather the influence the leader projects on outcomes through the initiation and management of interaction. Three complexity theory elements are factors in complex leadership (Marion & Uhl-Bien, 2001). First, individuals and groups are interaction products. Leaders can assemble groups, but the leaders cannot control all that the groups become or produce. Instead, leaders should be cognizant that interaction does produce and should encourage global interaction to foster productivity.

Second, emergence occurs as groups work through individual differences to produce shared understanding. Complex leaders encourage interaction and provide support for emergence. Finally, unpredictability is part of interactive systems, and social systems are no exception. Thus, complex leaders understand that leaders cannot control organizations' futures. Rather, the leader's role is to provide conditions that foster productivity in the surprises that emerge (Marion & Uhl-Bien, 2001).

Complex leadership extends transformational leadership in several ways. First, transformational leadership does not seek to control, preferring instead to facilitate (Bass, 1990; Marion & Uhl-Bien, 2001). Transformational leadership focuses on emergence rather than top-down process. The primary difference between transformational leadership and complexity leadership is focus. Whereas transformational leadership focuses on organizational outcomes, complex leadership focuses on creating transformational environments (Marion & Uhl-Bien, 2001). Complex leaders can act as tags. Tags are symbols of an ideal or philosophy to which a group relates or subscribes (Marion & Uhl-Bien, 2001). The leader's personality can reflect the group's essence and serve as the group's personality personification. Another way a leader can serve as a tag is through the expression of the group's beliefs. The leader is often a catalyst for the group, but does not attempt to control the group. Thus, complex leadership is similar to charismatic leadership (Marion & Uhl-Bien, 2001).

## **Organizational Culture**

### **Definition of Organizational Culture**

Every person is featured with various characteristics and behavioral styles. Various business organizations also come with their inherit culture to impact the organizational operation. Culture helps determine how well a person “fits” within a particular organization, namely, how well a person feels comfortable with the culture (O’Reilly, 1989). Organizational culture has been a phenomenon of intense interest among practitioners and researchers since the early 1980s, triggered by four influencing books: Ouchi's (1981) *Theory Z*; Pascale & Athos's (1982) *The Art of Japanese Management*; Deal and Kennedy's (1982) *Corporate Cultures*; and Peters & Waterman's (1982) *In Search of Excellence*. Ouchi (1981), Peters and Waterman (1982), and Deal and Kennedy (1982) explored how organizational culture contributes to business success. After their research, organizational culture was raised upsurge and became popular. Organizational culture affects the way in which people consciously and subconsciously think, make decisions what they perceive, feel, and act (Hansen and Wernerfelt, 1989; Schein, 1990). An organization's culture goes deeper than the words used in its mission statement. Culture is the web of tacit understandings, boundaries, common language, and shared expectations maintained over time by the members.

Many definitions of culture give primacy to the cognitive components, such as assumptions, beliefs and values. Organizational culture is the general pattern of mindsets beliefs and values that member of the organization share in common, and which shape the behaviors, practices to learn how to deal successfully with problems of external

adaptation and internal integration (Sathe, 1985; Schein, 1990). Others expand the concept to include behaviors and artifacts, leading to a common distinction between the visible and the hidden levels of organizational culture — a distinction basically corresponding to the climate/culture distinction. (Kotter & Heskett, 1992). Culture consists of some mixture of artifacts or practices, values and beliefs and hidden assumptions that organizational members have in common about appropriate behavior (Cameron & Quinn, 1999; Hofstede, 1980; Schein, 1992; Schwartz & Davis, 1981). Organizational culture could be a strategic asset for the organization in that it increases the adaptability of and fit between an organization and its environment (Kotter, 1995; Peters & Waterman, 1982).

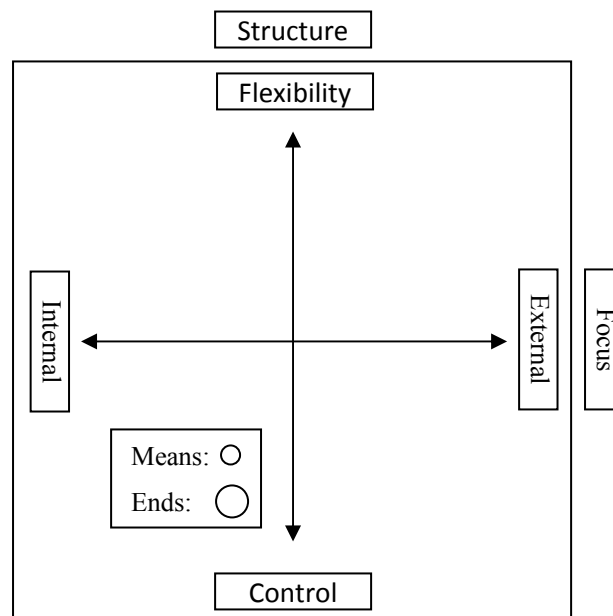
Organizational culture must be defined and described by a construct to enhance a discussion of different styles of organizational culture. This research discusses organizational culture as defined by the Competing values Framework developed by Quinn and his colleagues (Cameron & Quinn, 1999; Quinn, 1988; Quinn & Rohrbaugh, 1983) and first postulated in the seminal article by Quinn and Rohrbaugh (1983). The Competing Values Framework is based on empirical analysis of the values individuals within an organization hold about its performance and the manner in which it functions.

### **Competing Values Framework**

The Competing Values Framework came from a search for a parsimonious approach to organizing the major indicators of organizational effectiveness. Quinn and Rohrbaugh (1983) analyzed 30 determinants of organizational effectiveness. Using a panel of experts on organizational theory and research of the effectiveness indicators,



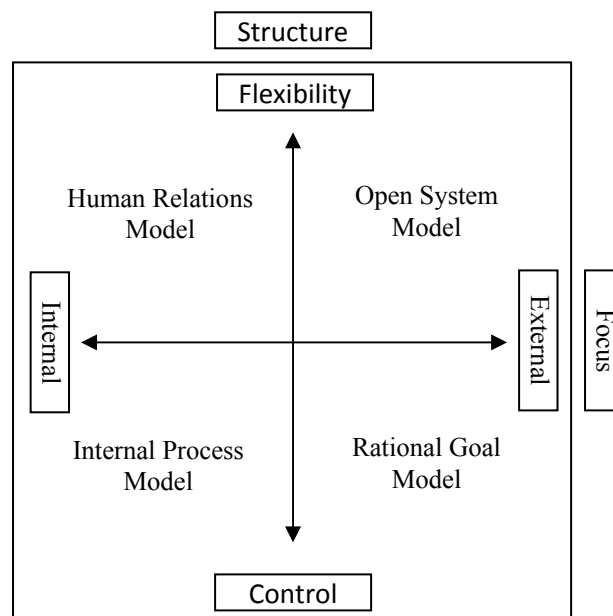
three key dimensions emerged. The three dimensions included focus, structure, and mean-ends and are illustrated in Figure 2-1. The first dimension of organizational focus is illustrated on the horizontal axis and represents the operational orientation of the organization: internal focus is inside the organization with concern for the morale of the employees. External focus is toward the marketplace and customers with concern for market share and the competition. The second dimension of structure is illustrated as the vertical axis (Quinn & Rohrbaugh, 1983). Structure may be defined as either strong control or processes and centralized decision-making as represented at the bottom of the axis or a flexible, decentralized structure which can quickly react to changing conditions at the top of the axis. The third dimension that differentiated indicators of a concern for means from indicators of a concern for ends was subsequently abandoned as redundant.



*Figure 2-1. Dimensions of the Competing Values Framework  
Adopted from Quinn and Rohrbaugh (1983)*

When the first and second dimensions are combined into a framework, they organize the organizational indicators into four quadrants as illustrated in Figure 2-2. The

first quadrant has high external focus and flexibility and is the Open System Model that stresses criteria such as growth, resource acquisition, external support, flexibility, and readiness. The second quadrant with high external focus and high control is the Rational Goal Model that stresses criteria such as productivity, efficiency, planning, objective setting, and evaluation. High control but an internal focus is the Internal Process Model that stresses criteria such as stability, equilibrium, information management, and coordination, while internal focus with flexibility is the Human Relations Model that stresses criteria such as the value and development of human resources, cohesion, and morale.



*Figure 2-2. Spatial Model of Organizational Culture*  
Adopted from Quinn and Rohrbaugh (1983)

Quinn and Kimberly (1984) and Quinn (1988) subsequently adapted the framework to explore organizational culture and Quinn and Rohrbaugh (1999) simplified the Competing Values Framework to include two axes of competing goals by deleting the third axis of means/ends. The other axes remained the same, representing two dimensions:

the horizontal axis describes an organization's focus as divided between internal and external concerns while the vertical axis of structure is the continuum between flexibility and control with managers emphasizing efficiency and control or innovation and adaptability. The two dimensions form four quadrants that each defines a set of dominant values characterizing a specific type of organizational culture. The organizational cultures identified and described by the framework are adhocracy culture, hierarchy culture, market culture and clan culture. Figure 2-3 illustrates the Competing Values Framework of Cameron and Quinn (1999).

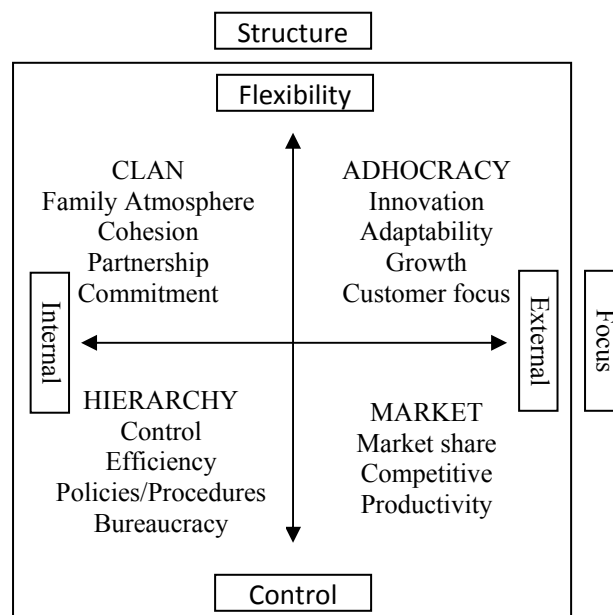


Figure 2-3. Competing Values Framework  
Adapted from Cameron and Quinn (1999)

**Adhocracy culture.** The primary characteristics of the Adhocracy culture are a focus on external positioning and a need for a high degree of flexibility. This culture is characterized as creativity, entrepreneurship, adaptability and dynamism (Cameron & Quinn, 1999). Teams are quickly formed and disbanded. It is important for members to develop adaptability, flexibility, and creativity. Members must be able to constantly

acquire and interpret new information. Organizations with members functioning in this environment are very flexible and responsive to changing markets. Adhocracy organizations may be found in consulting teams and software development companies (Cameron & Quinn, 1999). These organizations develop innovative products and deliver them quickly. Power is decentralized to aid in making rapid decisions. Individuals assigned to ad-hoc teams are rewarded for risk-taking and individual decision making. Due to the small size of many teams, members are often required to familiarize themselves with all facets of the process, including customer contact, product development, and production. Furthermore, these adhocracy cultures encourage initiative and freedom as sources of competitive advantage (Deshpande, Farcy, & Webster, 1993; Hooijberg & Petrock 1993). Such cultures have been demonstrated to be superior in business performance in certain industries (Paulin, Ferguson, & Payaud, 2000). These organizations value creativity and are able to thrive in changing environments. The work environment for members is dynamic, entrepreneurial, and innovative. Effective leaders in these environments instill vision, take risks, and are inventive, much like the organizations they lead (Cameron & Quinn, 1999). Organizations that apply adhocracy practices strive to keep pace with state of the art product development and seek to lead the competition in knowledge (Cameron & Quinn, 1999). They are committed to experimentation to acquire this new knowledge. The long term organizational goal is using new products to drive rapid growth. Success is measured by the ability to produce new and unique products and services.

**Hierarchy culture.** The primary characteristics of the Hierarchical culture are a focus on internal maintenance and a need for stability and control. This culture describes

organizations of bureaucracy which emphasize rules and structure, policies and procedures, and well-defined multiple levels of authority (Cameron & Quinn, 1999). Focus of the organization is on stability and control with workers' roles defined and enforced through policies and procedures (Goodman, Zammuto, & Giiford, 2001). Hierarchy cultures exemplify workplaces that are formal and structured (Cameron & Quinn, 1999). Processes and procedures are well documented and control business activities. Organizational cultures based on hierarchy were common during the industrial revolution to organize resources to efficiently produce goods and are still found in government offices and large companies (Cameron & Quinn, 1999). Weber (1947) organized such bureaucracy's features into seven categories: rules, specialization, meritocracy, hierarchy, separate ownership, impersonality, and accountability. These characteristics were used by organizations to create consistent output. From the 1940s to the 1960s, many authors reported hierarchy or bureaucracy as the most ideal form of organization due to its inherent efficiencies and dependable output (Cameron & Quinn, 1999). In the stable market environment of this time, research and management emphasized efficiency rather than innovation or flexibility. In recent decades, a segment of organizational research has shifted to organizational styles that are more flexible and better matched to the current turbulent markets. Hierarchy cultures stress efficiency and their leaders excel at coordinating and organizing (Cameron & Quinn, 1999). These leaders maintain efficient organizations and offer predictability and stability to employees. Rather than a common vision of united cause, it is the policies and procedures of the organization that unite it and allow it to complete its goals. These documented procedures define how the organization responds to internal and external stimulus. When there is a

new stimulus to the organization, one that is not covered by existing policies and procedures, these organizations have difficulties determining the best course of action. Many large organizations are examples of this hierarchy culture. These include the federal government, industrial companies such as Ford Motor, and large franchises such as McDonalds (Cameron & Quinn, 1999). Standardized procedures ensure efficiency and consistent service that the public has come to expect. Enforcing these procedures are many levels of management to train workers and ensure process compliance. Hierarchy organizations are effective and efficient in familiar situations that allow members to employ standard policies and procedures. However, these same organizations do not respond well to change. There is a lack of innovation and solving unique problems is difficult due to the lack of a defined process to handle new problems that require a paradigm shift. The emphasis is on doing more of what they do well and increasing efficiency rather than creating or seizing new opportunities (Cameron & Quinn, 1999).

**Market culture.** The primary characteristics of the Market cultures are a focus on external positioning and a need for stability and control. This culture was fashionable in the 1960's and focus on competitors and market share (Cameron & Quinn, 1999). Many of the functions of these organizations are transaction-based with third parties such as customers, suppliers, contractors, regulators, and unions. The primary objectives of market organizations are increases in productivity and sales rather than a true market orientation towards the customers (Goodman, Zammuto, & Gifford, 2001). Market cultures are different from marketing departments: they highlight transactions such as sales and other measures of monetary exchange. Market cultures focus on competitive measures such as external positioning and differentiation rather than flexibility and

discretion (Deshpande, Farley, & Webster 1993; Hooijberg & Petrock, 1993). Members of market culture organizations do not focus on internal processes and procedures resembling hierarchy cultures, they focus externally on making deals. Success in a market culture is measured by contributions to the financial bottom line. There is evidence that market cultures are likely to provide the best business performance, even in Japan where clan cultures are considered the classical style of business culture (Deshpande, Fancy, & Webster, 1993). In this model, organizational effectiveness is aided by the market culture core values of competitiveness and productivity. Competitiveness and productivity in market cultures are maximized by focusing management on external positioning and control (Cameron & Quinn, 1999). The work atmosphere became highly competitive and stressed achieving results without excuses. Leaders in a market culture are aggressive and competitive. They are interested in improving their firm's competitive position by increasing market share, productivity, and profits (Cameron & Quinn, 1999). Managers are firm and replace employees with unsatisfactory performance. The organization focuses on winning in the marketplace. Long term organizational goals highlight competitive issues such as market share and not internal factors such as employee morale.

**Clan culture.** The primary characteristics of the Clan Culture are a focus on internal maintenance and a need for flexibility, concern for people, and sensitivity to customers. This is a family type of culture where cohesion and shared values are paramount (Cameron & Quinn, 1999). The organization feels a sense of togetherness typical of Japanese firms in the 1970's and encourages teamwork and participation (Hooijberg & Petroek, 1993). Clan cultures feel like extended family to many loyal members and are often found in small businesses (Hooijberg & Petrock, 1993) and

Japanese firms (Deshpande, Farey, & Webster, 1993). These cultures are the dominant type of culture found in colleges and universities with emphasis placed on internal maintenance and concern for people, both customers and employees (Berrio, 2003). Leaders of clan cultures are assumed to be most effective through teamwork and joint decision making. Managers are responsible for providing a comfortable work environment and members feel empowered to confront most of the organization's problems (Cameron & Quinn, 1999). Supervisors are often mentors and viewed as more of a parent than a boss as they oversee operations. Characteristics of clan organizations include minimal management levels, informal atmosphere, work teams, and participatory problem solving. Internal competition and individual aggressiveness are not encouraged and are considered disruptive. Members of a clan culture share of themselves while at work (Cameron & Quinn, 1999). Loyalty and tradition are important to the organization and worker commitment is elevated. Success of the organization is defined by the internal climate of the workplace and its concern for the members. Collaboration, involvement, and consensus are important to the members. Morale is usually high and employees rate the environment as a friendly place to work.

## **Learning Organization**

### **Definition of the Learning Organization**

Learning organizations identify competencies that can improve current performance and build capacity for future performance (Armstrong & Foley, 2003; Dunphy et al., 1997; Goh, 2003; Heinen & O'Neill, 2004; Sun & Scott, 2003). Leaders for the present and the future require skills not required of leaders past, and skills that



lead to success in one organization are not necessarily those that can provide for success in another (Caudron, 2002; Conger & Ready, 2004; Montier et al., 2006). Learning organizations create learning opportunities around the identified competencies and support and reward leadership skill development at all organizational levels, not just for senior management (Armitage et al., 2006; Heinen & O'Neill).

Scholars in different fields of management and human resource development (HRD) have had numerous attempts to define the concept or the learning organization (Ortenblad, 2002). But the concept attracted much attention in the 1990's when Peter Senge (1994) popularized this concept in his landmark book "*The Fifth Discipline*." Some researchers point out that the concept itself is still vague and confusing (Fulmer et al., 1998) and some are happy with that (Watkins & Golembiewski, 1995). Others acknowledge the difficulty of describing what a complete learning organization looks like (e.g. Marquardt & Berger, 2003; Pedler & Aspinwall, 1998; Watkins & Marsick, 1993). They argue that each company produces its own learning organization and these specific learning organizations are dynamically and continually changing. Many authors use the terms learning organization and organizational learning interchangeably (e.g. Preskill & Torres, 1999; Klimecki & Lassleben, 1998; Fulmer et al, 1998). Some authors use the term learning company (Pedler & Aspinwall, 1998).

Watkins and Marsick (1993) defined the learning organization as "one that learns continuously and transforms itself". According to Senge (1990), the learning organization is an organization that is continually expanding its capacity to create its future (Ortenblad, 2002). Sugarman (2001) considered that a learning organization could be recognized from the outside and from the inside; from the outside by its agility in changing how it

relates to the external world and how it conducts its internal operations. The learning organization could be recognized from the inside by an ethos in which learning from challenges and mistakes is central (Sugarman, 2001).

Holland (in Pedler & Aspinwall, 1998) declared that if people were going to survive as individuals, as organizations, or as societies, they need to create a tradition of learning companies. Sugarman (2001) considered that a learning organization would be good at creating new solutions and good at sharing knowledge with other members who may need it. Thus, there should be openness to new ideas, wherever they come from, and to sharing knowledge for the good of the business (Watkins & Marsick, 2003).

Various definitions are found in the literature for the learning organization. Senge (1990) suggested five disciplines of the learning organization including personal mastery, building shared vision, measuring mental models, team learning, and systems thinking. Garvin (1993) believed that Senge's five disciplines are abstract and defined the learning organization as "an organization skilled at creating, acquiring, and transforming knowledge, and at modifying its behavior to reflect new knowledge and insight" (p. 80). Garvin considered that making a meaning of learning, managing the acquired learning, and measuring the results or learning as the required tools for a learning organization (Yang, 2003). Ortenblad (2001) viewed the learning organization as a process that needs efforts. He considered the change of behavior of the organization to be a requisite for the learning organization. Watkins and Marsick (1993, 2003) argued that the learning organization was not a collection of individuals learning within the organization; rather they considered it as a process occurring at different levels of the organization.

## **Learning Organization Construct Factors**

Learning organizations continuously analyze organizational missions, visions, and values. Based on the analysis, learning organizations transform by engaging learning opportunities and actively adjusting to changes, generating new knowledge, and unlearning obsolete knowledge. (Goh, 2003; Sun & Scott; Wang & Ahmed, 2003; Wijnhoven, 2001). Middle managers play an important role in how learning transfers into the workplace (Belling et al., 2004), influencing learning organization and transformation and simultaneously being influenced by the learning and transformation (Belling et al., 2004; Dimitriadis, 2005; Doyle, 1995; King et al., 2001). Middle managers are interested in learning that which immediately affects the job (Patton & Pratt, 2002). Frequent and rapid change in business organization environments demands continuous learning, with an active connection to the business (Buus & Saslow, 2005; Dunphy et al., 1997). Knowledge of the organization and associated culture helps middle managers determine what an organization already knows, what the organization needs to know, and how the organization learns. Armed with that understanding, middle managers can extend the current organizational knowledge and skill, and validate the knowledge and skill already understood (King et al., 2001).

The learning organization concept can be divided into levels. Although Holton (1996) stressed that approaches to frame the organization into levels vary widely, many scholars depicted the learning organization through three levels, the individual level, the group level, and the organizational level (Cummings & Worley, 2001; Watkins & Marsick, 1996). The five-discipline model suggested by Senge (1990) implicitly brings in these three levels of learning: the individual level including mental models and personal

mastery, the group level including team work, and the organizational level including shared vision and systems thinking.

Similarly, Watkins and Marsick (1993, 1996) suggested the same three levels of organizational learning as a framework. At the individual level they included two dimensions of organizational learning namely continuous learning and dialogue and inquiry. At the group level, they included team learning and collaboration. And at the organizational level, they included four dimensions of organizational learning including embedded systems, system connections, empowerment, and provision of leadership for learning. These three levels can be further considered to belong to one of the two components of Watkins and Marsick's model of a learning organization. The first component represents people who comprise an organization, and the second component represents the structures and culture created by the social institution of the organization.

Theories of learning organization have emphasized that the organization needs to work with people at the individual and group levels first. People also need to be empowered to take learning initiatives. According to Watkins and Marsick (1996), individuals learn on individual bases first, and then learn as clusters, teams, networks, and increasingly large units when they join together in organizational change. The result of learning is the initiation of change by individuals on their own. Still, organizations need to create facilitative structures to support and capture learning in order to reach their missions. It is hypothesized that three variables, system connections, embedded systems, and provision of leadership for learning, are the moderators between individual-level learning activities and organizational outcomes (Yang, 2003). It is worth mentioning that this model supports Senge's (1990) argument that the fifth discipline-systems thinking,

here defined as making systemic connections and creating embedded systems to capture and share knowledge, is the glue that makes the other disciplines work.

The seven dimensions of the learning organization (Watkins & Marsick, 1993, 1996; Marsick & Watkins, 2003) that form the basis of the dimensions of the learning organization questionnaires (DLOQ) and their definitions according to Watkins and Marsick (1997) are presented in Table 2-1.

Based on the seven dimensions of the learning organization, Watkins and Marsick (1997) formed the Dimensions of the Learning Organization Questionnaire (DLOQ) that was tested and validated empirically (Yang, 2003). The DLOQ grew out of both research and practice (Marsick & Watkins, 1997) and has been adapted based on new research on its use.

Table 2-1

*Dimensions and Definitions for the DLOQ* (Adapted from Watkins and Marsick, 2003)

Dimension	Definition
Create continuous learning opportunities	Learning is designed into work so that people can learn on the job; opportunities are provided for ongoing education and growth.
Promote inquiry and dialogue	People gain productive reasoning skills to express their views and the capacity to listen and inquire in to the views of others; the culture is changed to support questioning, feedback, and experimentation.
Encourage collaboration and team learning	Work is designed to use groups to access different modes of thinking; groups are expected to learn together and work together; collaboration is valued by the culture and rewarded.

Create systems to capture and share learning	Both high-and low-technology systems to share learning are created and integrated with work; access is provided; systems are maintained.
Empower people toward a collective vision	People are involved in setting, owning, and implementing a joint vision; responsibility is distributed close to decision making so that people are motivated to learn toward what they are held accountable to do.
Connect the organization to its environment	People are helped to see the effect of their work on the entire enterprise; people scan the environment and use information to adjust work practices; the organization is linked to its communities.
Provide strategic leadership for learning	Leaders model, champion, and support learning; leadership uses learning strategically for business results.

### **The Relationship between Leadership and Organizational Culture**

Many researches have shown there is constant interplay between leadership and organizational culture (Bass & Avolio, 1993; Berrio, 2003; Parry, 2002). Schein (2004) suggests that while observing what happens in organizations is easy, an understanding of culture helps to explain why things happen. Further, understanding how leaders create culture and how culture creates leaders illuminates leadership as a critical variable to define success or failure. Once the culture exists and is embedded in the organization, the culture shapes the style of leadership (Dastmalchian et al., 2000). Also, leaders help shape and change the culture of an organization and influence the employees' perception of that culture. With a fit between positive organizational culture and suitable leadership style in the organization, the success in business performance can be achieved.

Bass and Avolio (1993) noted that effective leaders must be attentive to beliefs, values, and assumptions in an organization — in short, the culture. By having higher levels of emotional intelligence, these leaders can understand the emotions of followers and the influence of the organizational culture on the situation (Barling, Slater, & Kelloway, 2000). These leaders may use this understanding of the culture and its affect on the organizational members to aid them in selecting optimal leadership techniques.

Hart and Quinn (1993) found that managers were more effective when they are culturally complex. They have more tools to deal with different situations. Managers adept at different Competing Values Framework quadrants are rated as being more effective. Consequently, effective leadership requires a range of leadership techniques and skills. It may be inferred that leaders who identify and understand the present culture, and also know which leadership styles are more effective in distinct cultures, will be more successful. Therefore, it is important to know which styles of leadership are the most effective in which type of organizational culture.

### **The Relationship between Leadership and the Learning Organization**

The learning organizations profoundly affect the individuals employed in them. Learning in organizations is reliant on individuals applying shared new understanding to their organization and to the generation of new behaviors. The role of those who create learning organizations is to produce an environment in which such a coordinated intellectual transformation can take place (Waldersee, 1997). The transition to the learning organization involves change in a complex system. Transforming a complex system is difficult without a leader who understands the needs of the situation, the people,

and the goal and undertakes the necessary action to achieve the transition. Senge (1994) stated that leaders in learning organizations are responsible for building organizations in which individuals continually expand their capabilities to understand complexity, clarify vision, and improve shared mental models, that is, they are responsible for learning.

Similarly, Marquardt (1996) identified several leadership roles in a learning organization. He considers the role of "instructor", "coach" and "mentor" as the most important aspect of leadership in learning organization. Johnson (2002) also considered visioning, empowerment and leader's role in learning as crucial skills for leaders of learning organization. Middle managers play critical roles in bridging organizational information from the top management to field-line employees and funnel the data and information gathered from the market or customers to the top decision-makers. These roles are key criteria for facilitating the dynamic learning organization (Nonaka & Takeuchi, 1995).

Leadership is the factor affecting the learning organization (Popper & Lipshitz, 2000). Leadership and the learning organization are highly correlated and leadership can also improve the process and results of the learning organization's activities (Lam, 2002; Leithwood & Menzies, 1998; Leithwood et al., 1998, 1996). Maani and Benton (1999), Slater and Narver (1995), and Snell (2001) describe capability with regard to transformational leadership as one of the most important means of developing learning organizations. Lam (2002) and Leithwood et al. (1998) contend that transactional and transformational leadership have an effect on the process and achievement of the learning organization. Transactional and transformational leadership have significantly positive effects on the learning organization's constructs (Lam, 2002; Sadler, 2001; Leithwood et al., 1998).



With this understanding the researcher can deduce that transactional and transformational leadership have a significantly positive effect on developing the learning organization within business organizations.

### **The Relationship between Organizational Culture and the Learning Organization**

According to Barrett (1995) and Hershey et. al. (2000), the learning organization is the only way to sustain a competitive advantage over the long term in an increasingly complex and turbulent environment. The concept of culture is one of the major variables and an essential ingredient in the development of a learning organization. Organizational culture means sharing of values, social ideals, and beliefs by organization members (Smircich, 1983). The learning organization is the key that enables the learning of all its members and has continuous transition capability (Garavan, 1997). Daft (2001) suggests that the learning organization is a critical feature of the organizational culture with the aspect of effort to encourage organizations to prepare for change and adaptation. One of the most important factors that supports the learning organization is the organizational culture. Learning must be at the center of the organizational culture in learning organizations. Otherwise, managing the opportunities and changes becomes impossible (Gumus, 2001). For learning organizations, the support of the organizational culture, together with values and incentives, are all needed. Otherwise, it is hard to say that the organization is learning (Garavan, 1997).

Organization leaders can form an organizational culture, and a strong culture has more organizational efficiency than a weak culture (Schein, 1985). Leaders should cultivate the learning capability of individuals and working teams in order to develop

learning organizations (Garrate, 1990). Yeung et al. (1999) suggested that leaders need to design the culture and systems, bringing continuous challenges to employees in order to create the prosperous futures for organizations within the learning organizations.

Organizational culture is a basic fundamental for the organization management system (Pool, 2000; Daft, 2001) and with a supportive organizational culture, the learning in organization increases (Pool, 2003). For a supportive organizational culture, there is a need for transparent communication, newness, challenged work, and cooperation among workers. In order to increase learning in an organization, forming a learning climate is important (Cunningham & Iies, 2002) and thus, the learning organization is related to organizational culture (Slater & Narver, 1995).

From above literatures, the researcher can find that an organizational culture has a significantly positive effect on the learning organization.

### **Chapter Summary**

This chapter reviews the streams of literature for leadership, organizational culture, and the learning organization. The focus of the leadership literature is on transformational and transactional leadership. The model used to describe different organizational culture is the Competing Values Framework identified by clan culture, adhocracy culture, hierarchy culture, and market culture. The learning organization focused on seven dimensions of the learning organization.

Organizational culture may be defined as a common set of assumptions, values, and beliefs that are shared by members of an organization which influence how people perceive, think, and act (Schein, 1990). The Competing Values Framework describes

organizational culture based on two axes. The vertical axis is the organization's flexibility or control in dealing with issues. The horizontal axis concerns the focus of the organization and whether it is internal or external (Cameron & Quinn, 1999).

Organizations are named as they appear in the different quadrants of the framework.

Transactional leaders use contingent reward and management by exception to influence their followers to achieve the desired results. Conversely, the components of transformational leadership are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration to influence followers to place the goals of the organization above their own personal goals (Bass, 1985; Bass & Avolio, 1993).

The learning organization is consists of seven dimensions and is identified by three levels of the learning organization as a framework. At the individual level, it includes two dimensions of learning organization, namely, continuous learning as well as dialogue and inquiry. At the group level, it includes team learning and collaboration. And at the organizational level, it includes four dimensions of learning organization including embedded systems, system connections, empowerment, and provision of leadership for learning.

There is constant interplay between leadership and the organizational culture (Bass & Avolio, 1993) and transformational leadership has a direct effect on the process and achievement of the learning organization (Lam, 2002; Leithwood et al., 1998). The learning organization is also a critical feature of the organizational culture, with the aspect of effort to encourage organizations to prepare for change and adaptation (Daft, 2001).

## **CHAPTER THREE**

### **METHODOLOGY**

This research is aimed mainly to investigate the relationship among leadership style of middle management, organizational culture, and the learning organization in a Korea business organization context. An integrated assumption/relationship has not been investigated in the existing body of literature. This information will be or may be useful to companies attempting to create or sustain the learning organization and to improve organizational performance. They can accomplish these goals by identifying which types of leadership styles and what types of organizational culture are required to support the learning organization in the Korea business organization context.

This chapter discusses the research methodology and research procedures employed for measuring the relationship among leadership style, organizational culture, and the learning organization. It describes the research questions and hypotheses, the three survey instruments used, the target population and research sample, research variables, data collection procedures, and data analysis methods.

#### **Research Questions and Hypotheses**

This research is based on the integrative view of leadership, culture, and the learning organization. It explores how different kinds of organizational culture affect the relationship between leadership style and the learning organization. The following questions and hypotheses were identified:

*Research Questions:*

1. What differences are there among the industry types within the concepts of leadership style, organizational culture, and the learning organization?
2. What similarities and differences exist between the perceptions of middle managers and the perceptions of subordinates on the effect of leadership style and organizational culture type on the learning organization?
3. What components in transformational and transactional leadership help develop a positive learning organization at the middle management level?
4. What factors do participants report as the most influential and encouraging leadership behavior and organizational culture for the development of the learning organization?

*Research Hypotheses:*

Hypothesis 1: Transactional and transformational leadership of middle management has a significantly positive effect on the learning organization.

Hypothesis 2: Organizational culture (clan, adhocracy, market, and hierarchy) has a significantly positive effect on the learning organization.

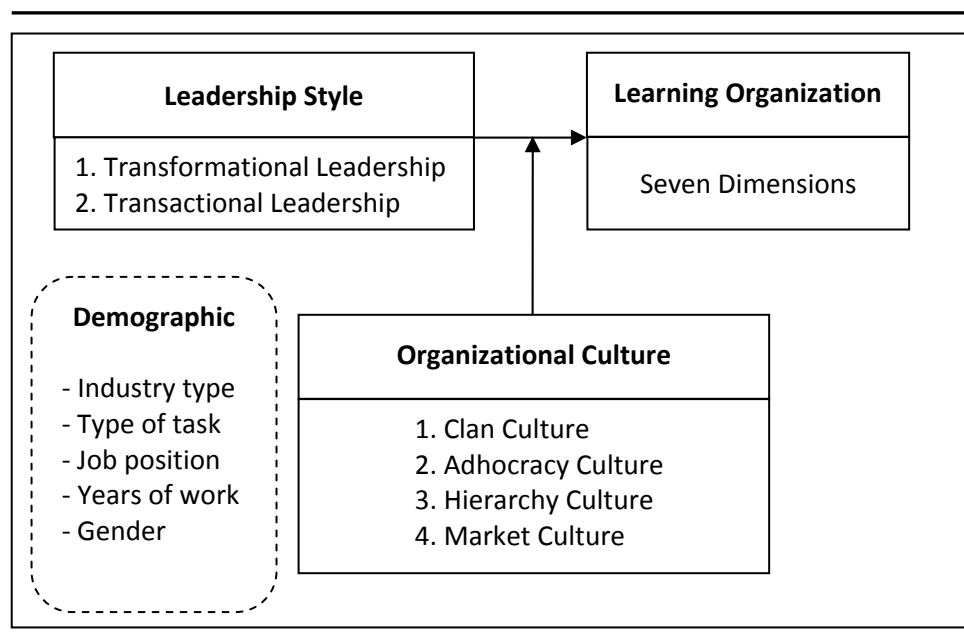
Hypothesis 3a: Clan culture has a moderating effect on the relationship between leadership style and the learning organization.

Hypothesis 3b: Adhocracy culture has a moderating effect on the relationship between leadership style and the learning organization.

Hypothesis 3c: Hierarchy culture has a moderating effect on the relationship between leadership style and the learning organization.

Hypothesis 3d: Market culture has a moderating effect on the relationship between leadership style and the learning organization.

Based on relevant research and coordinating with our research motives and goals, the research models proposed within this study are shown as Figure 3-1. This research model was derived from the integrative review on transactional and transformational leadership styles (Bass & Avolio, 1995), organizational culture types (Cameron & Quinn, 1999), and learning organization construct factors (Watkins & Marsick, 1993, 1996).



*Figure 3-1.* The Proposed Research Model

### **Research Instruments**

A quantitative approach has been chosen for this study, because quantitative techniques are particularly effective for studying large groups of subjects and applying generalizations from the sample being studied to broader groups beyond the study sample (Swanson & Holton, 1997). This study is particularly useful when studying larger

companies, because lessons learned from the research population can be extended to other divisions and locations within that company.

This study uses three instruments: leadership style, organizational culture, and the learning organization. This research adapts the Multifactor Leadership Questionnaires (MLQ) to measure leadership style developed by Bass and Avolio (1995), the Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn(1999) to assess organizational culture, and the Dimensions of the Learning Organization Questionnaires (DLOQ) developed by Watkins and Marsick (1993, 1996) to measure the learning organization. Thus, the survey instrument for this study can be divided into four sections: leadership style, organization culture, learning organization, and demographic data. These sections will be administered by Web-Surveyor, an on-line Intra-Net survey administration software tool. All the constructs are measured by multi-item scales and all the measures are perception-based, self-reporting survey types of instruments. Among three instruments in this study, MLQ and DLOQ have been previously translated into Korean versions of the instrument and validated, but OCAI is not translated and validated in a Korea business context. Thus, OCAI will be translated into Korean versions of the instrument and the translation procedures are described below.

### **Leadership Style Instruments**

This study uses the MLQ to measure leadership as transactional and transformational. The MLQ defines the terms and measures the constructs of Bass's leadership model and was developed based on the Full Range Leadership Model designed by Avolio and Bass (1995). The MLQ measures a range of leadership styles and will be

purchased from publisher Mind Garden, Inc. and used with permission. Researchers have used the MLQ in different types of organizations including public, private, government, and military to measure respondents' perceptions of leadership behaviors. These measurements have been used to determine relationships between leadership behaviors and subordinates' willingness to exert effort, subordinate satisfaction with their leader, and the subordinate's perception of their leader's effectiveness (Avolio & Bass, 1995).

There are two forms of the MLQ, a rater form and a leader form. Subjects use the rater form to score a leader that may be below, above, or at the same level in the organization. This rater version of the MLQ is titled the MLQ Form 5X (MLQ 5X). The leader form is a self-rating tool for respondents to measure their own leadership behaviors. This research will use the leader form to assess their own leadership style and the rater form (MLQ 5X) to enable employees to describe their immediate supervisor or manager (middle manager) in their organization.

The MLQ Form 5X is a self-reporting questionnaire consisting of 45 questions which addresses how often the leader displays a spectrum of leadership behaviors (Gardner & Stough, 2002). Five sub-scales consisting of four items each assess the characteristics of transformational leadership including idealized influence attributes, idealized influence behaviors, inspirational motivation, intellectual stimulation, and individual consideration. Three sub-scales of four items each measure the transactional leadership components of contingent rewards, active management by exception, and passive management by exception (Avolio & Bass, 1995; Howell & Avolio, 1993). The MLQ 5X also measures laissez-faire leadership with four items. The rest of the items rated are extra effort, perceived leader effectiveness, and employee satisfaction with the



leader. This research uses 32 items, which are consisted of only transformational and transactional leadership questionnaires. Subordinates rate how frequently their leaders engage in specific behaviors measured by the MLQ 5X using a 5-point Likert scale (Howell & Avolio, 1993). The responses for answers have a range of “*not at all*” to “*frequently if not always*” (Avolio & Bass, 1995). The MLQ 5X is a survey instrument that takes approximately 10 minutes to complete. The MLQ 5X measures a full range of leadership styles and is widely accepted as the primary instrument used to measure transformational and transactional leadership in different organizations (Avolio & Bass, 1995). The MLQ 5X is accurate at different organizational levels and for both genders. More than 200 doctoral dissertations and master's thesis have used the MLQ 5X (Avolio & Bass, 1995). Independent studies have used the MLQ 5X to show strong positive correlations between the components of transformational leadership and different measures of effectiveness. Additionally, the contingent rewards component of transactional leadership was less positively correlated with leadership effectiveness, while the passive style of management-by-exception was negatively correlated to leadership success (Avolio, Bass, & Jung, 1999).

The MLQ 5X survey has been revised after review. The original samples consisted of 2154 raters from nine sample populations in different organizational settings including business, government, and military. Replication analysis comprised of 1706 respondents from five sample populations. The original survey was criticized for high correlations among the transformational leadership scales and the contingent reward component of transactional leadership. Additional criticisms concerned the mingling of behaviors and the influence on outcomes with the scale's measuring of charisma and also

distinguishing between charismatic leadership that is behaviorally based from an influence or impact on subordinates, referred to as idealized influence. Therefore, the MLQ 5X has added resolution to charisma by separating idealized influence-behavior and idealized influence-attributed leadership characteristics. Transactional leadership was further divided from management-by-exception to include both active and passive styles (Bass & Avolio, 1993). Factor analysis of the original MLQ instrument determined the inclusion of items into the MLQ 5X. New items were designed based on updated literature concerning transformational leadership. Several items were highly correlated between different leadership scales and were removed, thereby increasing construct validity (Avolio & Bass, 1995).

Repeated reliability and validity studies have been confirmed using the MLQ 5X as a measurement instrument. It is strongly predictive of leadership styles across many different types of organizations in different cultures and at various levels in the organization. Reliabilities for the various scales are high with values from .74 to .94. Avolio and Bass (1995) stated that this reliability measurement exceeds accepted levels and were confident in the ability of the survey to measure leadership scales and determine styles of leadership. The survey authors measured construct validity of the MLQ 5X and compared it to the results of other models. Goodness of Fit (GFI) increased significantly, as factors were added from a one-factor test to a nine-factor test (Avolio & Bass, 1995). GFI for the final test measured .91 and adjusted GFI measured .89, exceeding the minimum scores recommended by Marsh and Hocevar (1985).

The five transformational leadership scales have an average intercorrelation of .83 and can be expected to be found in the same leaders (Avolio & Bass, 1995). Additionally,

the transformational leadership scales have an average correlation with the transactional leadership scale of contingent reward at .74. This supports the proposition that many leaders use transformational and transactional approaches. Both of the leadership styles are forms of active management with trust, consistency, and dependability displayed by both styles of leaders. Conversely, transactional managers displaying active management-by-exception had low positive or negative correlations with transformational leadership. Additionally, the inactive laissez-faire leadership had a positive correlation only with management-by exception. In summary, the MLQ 5X is a popular survey instrument used to measure transformational and transactional styles of leadership. The instrument has demonstrated reliability and validity at many different levels in many different cultures for both genders.

### **Organizational Culture of Instruments**

In this study, Organizational Culture is measured by the Organizational Culture Assessment Instrument (OCAI), designed by Cameron and Quinn (1999). The OCAI measures the survey participants' perceptions of the culture of the organization and classifies it as a clan, adhocracy, market, and hierarchical type culture. According to Cameron and Quinn (1999), the instrument has been found to be appropriate for use with organizations as a whole, as well as subculture and teams within the organization.

The OCAI consists of six cultural elements that address four major cultural types (clan, market, adhocracy, and hierarchical). The questionnaire includes 24 items divided into four subscales. Each subscale has six items that address employee perceptions of core cultural elements such as dominant cultural type, leadership, management of

employees, organizational glue, strategic emphases, and criteria of success. In combination, these dimensions reflect the fundamental cultural values and implicit assumptions about the way the organization functions (Cameron & Quinn, 1999). Under each of the dimensions are statements or scenarios to help the survey participants evaluate their respective organization's culture. Participants read the statements under each dimension and then assess their organization by assigning points to each scenario. There are two versions of the instrument that have been used in organizational studies. Instrument I requires participants to distribute a total of 100 points to the four cultural types as representative of their relative strength, and instrument II is designed to use a Likert-scale to measure perceptions of the relative strength of the four cultural types. Using Instrument I with a 100 point scale is not appropriate for several statistical tests, because the scale violates the assumption of independence of items (Quinn & Spreitzer, 1991). This means that each dimension is numerically related to each other. For example, a high score on one quadrant necessitates a low score on the other quadrants. Consequently, scores assigned to one quadrant are dependent on scores assigned to the other quadrants. Therefore, Instrument II, utilizing a Likert-scale was selected for use in this study. The original scale included five possible responses: from 1 (*strongly disagree*) to 5 (*strongly agree*) for each question. Using the instrument with the Likert- scale enables the independent measures of each of the four cultural types. The Likert-scale also enables the creation of a visual representation of the organization's culture as a means for identifying culture strength and balance. The OCAI takes approximately 10 minutes to complete.

Repeated sampling of organizational cultures has tested the reliability of OCAI. Quinn and Spreitzer (1999) conducted a study of 796 executives from 86 different public utility companies in which they rated their organizations. They calculated Cronbach alpha coefficients for each of the four cultures measured by the survey. The coefficients were .74 for clan culture, .79 for adhocracy culture, .73 for hierarchy culture, and .71 for market culture. The researchers determined these results supported the reliability of the OCAI's consistent ability to-measure culture. Zammuto and Krakower (1999) reviewed the reliability of the instrument while studying institutions of higher education. For more than 1300 respondents, the reliability for the different cultures scored .67 or higher. Kwan and Walker (2004) reported that the Goodness of Fit index for the instrument is .95 and exceeded the recommended minimum of .90. They support the reliability of the instrument.

Cameron and Quinn (1999) described how the validity of the OCAI is supported. Comparisons demonstrated that most of the correlations among the questions derived for the same quadrant correlated higher to one another than to other questions concerning traits of other quadrants. Also, discriminate validity was supported by demonstrating a majority of scales for the same culture type as having correlations that are significant. These validity tests were analyzed using Kendall's co-efficient of concordance, which produced a result of .764, strongly supporting discriminate validity. Additionally, the authors reported that multidimensional scaling yielded similar results in supporting convergence and discriminate validity.

There are a number of frameworks available for investigating organizational culture. This research used the Competing Value Framework (CVF) to study

organizational culture, because researchers have shown that the CVF is a valid construct for describing organizational culture – a construct that is related to schemes that organize the way people think and to recognize organizational forms (Cameron & Freeman, 1991; Cameron & Quinn, 1999; Quinn, 1988; Quinn & Rohrbaugh, 1983). Additionally, there is a validated instrument to measure the strength of the culture types in the CVF (Cameron & Quinn, 1999).

### **Learning Organization of Instruments**

This study use an existing instrument, Dimensions of Learning Organization Questionnaire (DLOQ) developed by Watkins & Marsick (1993, 1996) in order to measure the learning organization. Seven dimensions in the DLOQ instrument measured by 21 items are used to assess respondents' perceptions of the learning organization in their respective organizations and whether they think that practices within their organizations will differentiate them as having a culture conducive to learning at the individual, group, and organizational levels.

The seven dimensions measured are: (a) create continuous leaning opportunities, (b) promote inquiry and dialogue, (c) encourage collaboration and team learning, (d) establish systems to capture and share learning, (e) empower people toward a collective vision, (f) connect the organization to its environment, and (g) provide strategic leadership for learning. .

The responses were measured on a five-point Liker scale (1 = *almost never*; 5 = *almost always*). It is worth mentioning that although the Likert-type scale is an ordinal scale, researchers usually treat it as an interval scale (Gall, Borg, & Gall, 1996). .

Constructing the validity of research instruments is an ongoing process (Watkins & Marsick, 1996) and very important to assure that the findings are trusted and credible (Merriam & Simpson, 1995). The DLOQ was translated into several languages such as Spanish, Dutch, Malay, Korean, and Chinese. There have been a number of research studies done in the USA (Yang, Watkins, & Marsick, 2004), Columbia (Hernandez & Watkins, 2004), Malaysia (Fatima & Watkins, 2003), and Korea (Song, Joo, & Chermack, 2009), among other countries, to establish the reliability and content validity of the instrument. .

There are 43 items in original version, but in this research an abbreviated version with 21 items will be used. This abbreviated version has been validated by several empirical studies (Ellinger, et al., 2002; Lien, Yang, & Li, 2002; Song, Joo, & Chermack, 2009; Yang, Watkins, & Marsick, 2004; Zhang, Zhang, & Yang, 2004). Although the seven-dimension factor structure with 43 items fit the data moderately well, the abbreviated 21 items of the same factor structure also is acceptable. Yang et al. (2004) provided evidence supporting the validity of the instrument from several sources, such as best model-data fit among alternative measurement models, nomological network among dimensions of the learning organization, and organizational performance outcomes. Yang et al. (2004) and Ellinger et al. (2002) ran a confirmatory factor analysis (CFA) to test the validity of the DLOQ and found that the seven-factor structure fit with the data. They also found that the DLOQ measures demonstrated acceptable reliability estimates, while Cronbach's alpha ranged between .75 and .85. A Cronbach's alpha score of 1.0 identifies a perfectly reliable instrument, alpha scores between 0.70 and .90 indicate high reliability,

and alpha scores between .50 and .60 indicate moderate to low levels of reliability (Cronbach, 1951; Hair et al, 2006). .

This instrument was selected from many other learning organization models for a number of reasons. First, this model contains the largest number of learning dimensions that are cross-validated in other widely publicized and research-based models of the learning organization (DiBeIla & Nevis, 1998; Marquardt, 2002; Pedlar et al, 1991; Redding & Catalanello, 1994; Senge, 1990). Second, this model has an associated survey instrument that several other models lack (Greigo & Geroy, 1999; Tannenbaum, 1997). Third, this survey instrument has been field tested in a large number of organizations and by several different researchers (Dymock, 2003; Ellinger et al., 2003; Fatima, 2003; Hernandez, 2003; McHargue, 2003; Milton, 2003; Selden, 1998). Finally, this survey assessment has the most extensive validity and reliability testing out of any other learning organization assessment discovered in the literature review (Lien et al., 2002; Yang et al, 1998; Yang, 2003).

### **Open-Ended Questions and Demographic items**

Additionally, this research includes open-ended questions and demographic items. These open-ended questions are developed to capture additional information that respondents might have wanted to share, but might not be available in the multiple-choice questions. At the same time, the survey instruments used in this study are selected based on thorough review of the literature and on the applicability of these instruments in the Western culture, not Korean culture. But, the international organizational setting of the study suggests that to understand and explain the different variables might require more



than the application of what works in the West (Punnett & Shenkar, 2004). Several questions ask about: employees' perceptions regarding the organizational culture in their organizations; factors that each company utilized to promote learning in order to support the professional growth for individual employees and their entire organization; employees' opinions regarding additional leadership styles that the middle manager showed to lead employees in an organization; and whether they have any additional comments on the leadership of the middle manager, organizational culture, and the learning organization they wished to share. These open-ended questions will be complimentary to the multiple-choice questionnaires. The open-ended questions will also account for additional data and provide a better understanding of the different organizational dimensions in the Korean culture that might be important for this study but might not be captured otherwise.

In addition to these items, this research includes demographic questions intended to measure basic demographics: age, gender, type of work, job position, number of years worked with current middle manager, and type of industry.

### **Translations of Instruments**

All three questionnaires used in this study were originally developed in English. MLQ 5X has been already translated and validated into a Korean version by publisher Mind Garden Inc., and DLOQ has been validated by Song, Joo, and Chermack (2009). However, it is necessary to translate the OCAI for organizational culture measurements into Korean. The translation technique that is used in this study follows the forward-then-back translation approach (Maneesriwongul & Dixon, 2004). This technique provides the

most accurate translation of the OCAI. First, two bilingual experts and instructors of the Korean language at a United States university translate the OCAI into Korean. Then, an independent expert translates the Korean version back to English. Item equivalence and conceptual equivalence is established by a comparison of meanings between the original and back-translated forms. This comparison results in some modifications to the translation. Also, language and culture considerations are taken into account when establishing conceptual equivalence between the two versions of the instrument (Maneesriwongul & Dixon, 2004).

### **Target Population and Research Sample**

Research studies using questionnaire instruments mainly target specific professional groups (Gall & Borg, 1996). The population for this study is comprised of employees working full-time in the various business industries in Korea. The largest Korean conglomerates and their subsidiary companies are chosen as a research sample. This business conglomerate consists of various business industries, such as manufacturing industries (including electronic and electromechanical engineering, information technology, machine producing, construction engineering, etc), financial industries (including banks, stock trading, life insurance, property insurance, etc), service industries (including telecommunication companies, trading and department stores, vehicle sales and airlines, etc), heavy and chemical industries (including automobile, industrial machinery, steel, shipbuilding, chemical engineering, etc), and others.

The research sample consists of the middle managers and subordinates in the business conglomerate. Employees of a larger business conglomerate in Korea may be

divided into four groups. The first group includes front-line employees or workers in an organization. The second group includes first-level supervisors or first-line managers with higher ranking and more responsibility than front line employees. Employees in this group hold titles such as operations division manager, section manager, or assistant manager. The third group is composed of middle managers in an organization. Employees in this group hold the title of manager, senior manager, or general manager. Middle manager is used to denote the management layer between the top management group in the organization on the one hand, and the first-line managers, front-line employees, and first-level supervisors on the other (Dopson, Stewart, & Risk, 1992). The last top management group is directors. They hold titles such as executive or vice-president.

According to Bartlett (2001), developing a sample is a fundamental issue when multiple organizations are involved in research. In specific, researchers frequently face challenges in the development of comprehensive sampling frames (Spaeth & O'Rourke, 1994). In response, researchers have often relied on non-probability sampling methods. As a result, non-probability sampling is used in this study. This research is based on self-reported data and the sample organizations are limited to the Korean business context. These limitations may be biased by common method variance. Common method bias, which occurs when the same method of data collection (e.g., all survey, all observation, and all narrative) is used for all study variables or the data are collected from a single source, is present in this study. This bias could have inflated the relationships between the variables, leading to erroneous conclusions of significant relationships. The generalizations occurring from this study are limited to a particular group of employees

who are included in the study. In other words, the limitation comes from the sampling technique used, which is non-probability based convenience sampling. This research uses the criteria-based method for selecting large organizations in order to examine the research objectives regarding the learning organization, organizational culture, and leadership style of middle management. The reason for selecting large organizations for this study is not only do they have more supportive workplace learning environments and more awareness of the concept of learning organization, but they also have a diversity of industries and a large number of middle managers in their organizations.

The companies involved with the largest business organizations in Korea will express an interest in learning more about their organizational culture and dominant style of leadership. These companies will agree to have their employees complete the on-line survey in exchange for learning the results of the survey concerning their organization. Approximately 1,000 middle managers and 1,000 subordinates were selected as a potential sample group from several industries in the Korea business conglomerate for this research, and questionnaires were sent by a random email-list selection function of the companies' Intra-Net server system. The unit of measure was each responder who completes the survey.

### **Data Collection**

The collection of data concerning perceived leadership styles, organizational culture types, and learning organization construct factors were achieved by using the subordinates' responses about middle managers. A sampler set of the MLQ 5X for measuring leadership styles and permission to reproduce as many as 500 copies of the

MLQ 5X were purchased from Mind Garden Inc. Permission was obtained from the authors of the OCAI and DLOQ sets for measuring organizational culture and the learning organization.

In accordance with established Pennsylvania State University regulations and to ensure the protection of participants in the study, the approval of the Institutional Review Board (IRB) was secured before data collection. Initial contact with senior managers in the Human Resource (HR) or Human Resource Development (HRD) departments in each business conglomerate was done either by phone or by e-mail to explain the study and asked for permission to survey employees at their subsidiary or affiliated companies. HR or HRD senior managers in participating conglomerate retained control over the selection and voluntary participation of respondents. HR or HRD departments of the conglomerate had an employee data-bank system, which contains all of the contact information for individual employees of all the subsidiary companies.

Following the first contact, the informed consent form and recruitment letter was distributed by e-mail and a sample of the questions was submitted by e-mail to the same senior managers. Follow-up with the senior managers was done in person by the researcher. The questionnaire was distributed through the conglomerate's Intra-Net server system on behalf of the senior manager of the HR or HRD departments in order to collect data. The senior manager of the HR or HRD departments participating for this study granted approval for the researcher to access the Intra-Net server to obtain the completed questionnaires upon the respondents' agreement of participation.

Procedures for data collection were administered based on the guarantee of maintaining complete anonymity and confidentiality of respondents' personal information,

which was explicitly emphasized both in the questionnaire and in the consent letters. The on-line version of this survey consisted of an e-mail cover letter, detailed instructions, a statement of confidentiality, and a hyperlink to the computer server containing the survey instrument. Upon opening the survey, the respondent was provided with a reminder of participation instructions and a statement of confidentiality. In addition, the introduction to the survey included instructions on how to contact the researcher, the significance of the study, who was being asked to participate in the study, and a statement emphasizing the voluntary nature of participation.

### **Research Variables**

For the purpose of this study, the middle managers and subordinates' perceptions regarding the seven dimensions of the learning organization in their organization were taken as the dependent variables and the leadership style of the middle managers were taken as independent variables. Four types of organizational culture served as moderator variables and demographic information for the respondents was included in this research.

### **Dependent Variables**

The dependent variable of this research is the learning organization's environmental factors, which is the seven dimensions of the learning organization: create continuous learning opportunities, promote inquiry and dialogue, encourage collaboration and team learning, establish systems to capture and share learning, empower people toward a collective vision, connect the organization to its environment, and provide strategic leadership for learning. These learning organization construct factors have been

validated and modified through sustained efforts in a variety of different contexts, and according to the results of positive reliability of applications, they have been adapted for this study in the Korean context.

### **Independent Variables**

In this study, the independent variable is the leadership style of middle management: transformational and transactional styles. The MLQ 5X identifies eight factors used to measure leadership styles. The five constructs of transformational leadership are: idealized influence (attributed), idealized influence (behavioral), inspirational motivation, intellectual stimulation, and individual consideration. The three constructs of transactional leadership are: contingent reward, management-by-exception (active), and management-by-exception (passive).

### **Moderator Variables**

Moderator variables of this study are the types of the specific organization culture measured by the Competing Values Framework. These types include clan, adhocracy, hierarchy, and market cultures based on six dimensions: dominant characteristics, organizational leadership, management, organizational glue, strategic emphases, and criteria for success.

In addition to these variables, demographic-containing questions pertaining to gender, division or department, job position, number of years worked with current middle manager will be included in this research. The industry type is also included in the demographic questions in order to investigate whether the industry types cause

significant difference under the dimensions of leadership style, organizational culture, and the learning organization.

### **Data Analysis Strategies**

Within this research, the researcher focuses on the research questions and hypotheses and uses the received questionnaire data for statistic analysis and examination. This study adopted the Multivariate Analysis of Variance (MANOVA), Structural Equation Modeling (SEM), Confirmatory Factor Analysis (CFA), and Multiple Regression Analysis for data analysis. The data was analyzed using the Statistical Package for the Social Sciences (SPSS) for Windows release 18.0 and Linear Structural Relations (LISREL) for Windows release 8.8.

Descriptive statistics are used to describe the basic characteristics in this study. These statistics accommodate simple summaries about demographic data and each variable in different dimensions. Mean, Standard Deviation, and Correlations are computed to understand the interdependence among the variables. The correlation study examines the differences in one variable and the differences in one or more other variables (Leedy & Ormond, 2001; Milligan, 2003). Pearson's correlation coefficient is used to determine the relationships among: leadership styles (transformational and transactional), organizational culture (clan, adhocracy, hierarchy and market), and the learning organization (seven dimensions). Pearson's correlation coefficient enables a determination of the strength of the linear relationship among the variables under examination (Huck, 1999). The magnitude (i.e., power of relationship and direction (i.e., positive or negative) of correlations will also be assessed (Cohen, 1998; Urdan, 2005). If



the correlation coefficient level is greater than 0.71 means, it has high relationship; between 0.31 and 0.70 is a moderate range; and between 0.10 and 0.30 is a weak relationship (McMillan & Schumacher, 2000).

This research conducts a CFA to measure the goodness-of-model fit of the hypothesized measurements and to assess the reliability and validity of the constructs used in the study. Reliability is the consistency of a set of measurements or measuring instrument, which is always used to examine the stability and consistency of results. Validity refers to the measuring instrument, which means the questionnaires can measure the features correctly or not. The construct validity measures show how well the indicators represent the corresponding latent variables. CFA used in this study is one application of SEM. It is an extension of factor analysis in which specific hypotheses about the structure of the factor loading and inter correlations are tested.

In order to determine the significant differences among group means in an analysis of variance setting, MANOVA is adopted. This study analyzes a comparison of research factors to investigate the differences among the industry types under leadership style, organizational culture and the learning organization.

This study also adopts SEM for measurement and the examination of structural models. The first modeling strategy of SEM is model confirmation. SEM is conducted through LISREL in order to see how well the proposed model fits the driving theory and answer the research questions related to the moderating effects and the hypothesized models' casual relations. This research also analyzes the similarities and differences of perceptions between middle managers and subordinates on measures of leadership style and organizational culture using SEM. In addition, the current study utilizes multiple

regression approach in SEM to examine the relationship between leadership style and the learning organization. Multiple regression approach using SEM assesses the extent to which the learning organization can be predicted from the leadership style and organizational culture in this research.

Although multiple regression analyses are useful to test moderating effects, SEM, which is based on maximum likelihood analysis, should be used if any of the following conditions exist: (a) the model is non-recursive, (b) the model has correlated residuals, or (c) the model has multiple indicator variables for unobserved (or latent) variables (Pedhazur, 1982). SEM makes allowances for errors in measurements in the statistical model. Measurement errors are important because they can attenuate the relationship between two variables (Baron & Kenny, 1986; Peyrot, 1996). Moreover, SEM is capable of generating solutions for models in which unobserved variables (known as “constructs” or “latent” variables) are measured by multiple indicators (Biddle & Marlin, 1987; Mason-Hawkes & Holm, 1989; Pedhazur, 1982; Peyrot, 1996).

This research utilizes open-ended questions to capture additional information. The primary approach to data analysis of the qualitative data generated from the open-ended questions in the study is thematic analysis. Thematic analysis provides classification of textual material and reduction of information to more relevant and quantifiable data (Denzin, et al., 2003; Merriam, 1995). Responses gathered from the qualitative data are first transcribed into electronic files. Second, they are coded for themes. The researcher then selects the sentence as a coding unit of analysis. All sentences within the qualitative data are rigorously reviewed in search for emerging themes that might not be captured in the survey. Next, the themes are divided into content categories (Boyatzis, 1998;

Sherman & Webb, 1998; Strauss & Corbin, 1998). For the open-ended questions, the content categories are based on the three variable components of the framework guiding this study. Categories are tested for clarity by coding a small sample of text. The content categories include leadership style, organizational culture, and the learning organization. Table 3-1 summarizes the types of statistical analysis used for each research questions and hypotheses.

Table 3-1

*Types of Statistical Techniques Associated with the Research Questions and Hypotheses*

Research Questions and Hypotheses	Types of Statistical Analysis
A Measurement Model Fit Assessment Research Questions: Q3, H1, H2	Confirmatory Factor Analysis (CFA)
B Multivariate Analysis Research Questions: Q1	Multivariate Analysis of Variance (MANOVA)
C Relationship Analysis Research Questions: Q2, Q3, H1, H2	Structural Equation Modeling (SEM)
D Moderating Analysis Research Questions: H3a, 3b, 3c, 3d	Structural Equation Modeling (SEM)
E Short Answer Questions Research Questions: Q4	Thematic Analysis

### Chapter Summary

This chapter has discussed the research method and hypotheses that are used to answer the research questions from chapter one. Three survey instruments are used: the Multifactor Leadership Questionnaires (MLQ) Form 5X developed for the leadership style, the Organizational Culture Assessment Instrument (OCAI) designed for the

Competing Values Framework of organizational culture, and the Dimensions of the Learning Organization Questionnaires (DLOQ) developed to measure the learning organization. All three were described and the validation and reliability of the tools were confirmed. The research sample consisted of the middle managers and subordinates in subsidiary or affiliated companies in Korean business conglomerates.

The questionnaire was distributed through the target conglomerate's Intra-Net server system and the data concerning perceived leadership styles, organizational culture types, and the learning organization construct factors were collected using the same Intra-Net server system. The seven dimensions of learning organization are taken as the dependent variables and the two leadership styles are the independent variables. Four types of organizational culture serve as moderator variables. In order to analyze the data, Multivariate Analysis of Variance (MANOVA), Structural Equation Modeling (SEM), Confirmatory Factor Analysis (CFA), Correlations analysis, and Multiple Regression Analysis have been adopted for this study.

## CHAPTER FOUR

### DATA ANALYSIS AND RESULTS

This research examined the relationships among leadership style of middle managers, organizational culture, and the learning organization in the Korean business settings. The aim was to evaluate the impact of organizational culture and leadership style of the middle management level on the development and sustention of the learning organization. This chapter is mainly organized around four research questions and six hypotheses.

#### *Research questions:*

1. What differences are there among the industry types within the concepts of leadership style, organizational culture, and the learning organization?
2. What similarities and differences exist between the perceptions of middle managers and the perceptions of subordinates on the effect of leadership style and organizational culture type on the learning organization?
3. What components in transformational and transactional leadership help develop a positive learning organization at the middle management level?
4. What factors do participants report as most influential and encouraging for leadership behavior and organizational culture in developing the learning organization?

#### *Research Hypotheses:*

Hypothesis 1: Transactional and transformational leadership of middle management has a

significantly positive effect on the learning organization.

Hypothesis 2: Organizational culture (clan, adhocracy, market, and hierarchy) has a significantly positive effect on the learning organization.

Hypothesis 3a: Clan culture has a moderating effect on the relationship between leadership style and the learning organization.

Hypothesis 3b: Adhocracy culture has a moderating effect on the relationship between leadership style and the learning organization.

Hypothesis 3c: Hierarchy culture has a moderating effect on the relationship between leadership style and the learning organization.

Hypothesis 3d: Market culture has a moderating effect on the relationship between leadership style and the learning organization.

In order to assess and differentiate between observed and latent variables, Structural Equation Modeling (SEM) was employed as the primary data analysis technique, and SPSS 18.0 and LISREL 8.80 were used for data analysis. The results are presented in three sections. First, the preliminary analysis is presented to evaluate the descriptive information of the variables and item scale analysis, including normality and reliability. The second section presents the results of confirmatory factor analysis (CFA) and model fit of the variables. The last section shows the results of testing hypotheses and the proposed conceptual model in the study.

### **Demographic Information**

This study surveyed four industry representatives from a conglomerate firm in South Korea during December 2010. The online survey was composed of demographic

questionnaires and participant responses to the Multifactor Leadership Questionnaires (MLQ) to measure leadership styles developed by Bass and Avolio (1995), the Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn(1999) to assess organizational culture, and the Dimensions of the Learning Organization Questionnaires (DLOQ) developed by Watkins and Marsick (1993, 1996) to measure the learning organization for both middle managers and subordinates.

Approximately 2,000 employees were contacted through the Intra-Net email via the senior manager of the human resources development (HRD) center in a conglomerate firm in Korea; 426 employees responded. The response rate was 21.3%, which was considered acceptable. Since six participants did not complete the full survey, they were not included in the statistical analyses, resulting in a final sample size of 420 respondents. This approach appears to be in line with the suggestion advanced by Hair et. al. (2006) in which “the researcher determines the extent of the missing data on each case and variable and then deletes the cases or variables with excessive levels” (p. 51). If the degree of missing data is minor, the analyst can decide to either replace the data or delete data in a listwise fashion.

Sample size is an important issue in Structural Equation Modeling (SEM) analysis, requiring a large sample size. According to Kline (2005), sample sizes of less than 100 cases are considered small and untenable. Cases between 100 to 200 subjects are considered medium. Sample sizes that exceed 200 cases are considered large and better suited to detecting even a trivial change in an overall model fit. As such, this research is considered a large sample study. The demographic summary for this sample is illustrated in Table 4-1.

Table 4-1  
*Demographic Information*

Variables	Values	Employees ( <i>n</i> =420)	
		Frequency	%
Industry	Manufacturing	173	41.1
	Finance	65	15.5
	Heavy and Chemical	120	28.6
	Service	62	14.8
Gender	Male	288	68.6
	Female	132	31.4
Job Task	Staff	87	20.7
	Sales	64	15.2
	R&D	152	36.2
	Operator	49	11.7
	Others	68	16.2
Work experience	Less than 1 year	19	4.5
	More than 1 but less than 3 years	33	7.9
	More than 3 but less than 5 years	38	9.0
	More than 5 but less than 7 years	77	18.3
	More than 7 but less than 10 years	67	16.0
	More than 10 but less than 15 years	97	23.1
Position	Manager	182	43.3
	Subordinates	238	56.7
Total		420	100

The target sample group of this research was composed of four industry types, which included manufacturing, finance, heavy and chemical, and service areas of Korea business companies. As shown in Table 4-1, with regard to the industry type, a 41.1% responding was collected from the manufacturing types of organizations such as electronics and technology-related fields. Heavy and chemical type of organizations showed a 28.6% response rate, while finance-related types of organizations and service-related type of organizations illustrated 15.5% and 14.8%, respectively. Regarding work



positions, 43.3% were middle managers and 56.7% were subordinates. Among the total respondents (n=420), 68.6% were male; and almost 36% were involved in a research and development job. In addition, about 60% respondents have worked in their companies for more than 10 years.

The descriptive statistics for the variables of transformational leadership, transactional leadership, organizational culture and learning organization are presented in Table 4-2. All scales are 5-point Likert-type scales from 1 (low) to 5 (high). For leadership styles, the middle managers and subordinates perceived that transformational leadership is the primary leadership style at the middle management level. For the organizational culture, it showed that market culture is the prominent culture type in Korean business companies.

Table 4-2

*Means, Standard Deviations of Leadership, Culture and Learning Organization*

Scale	<i>M</i>	<i>SD</i>
Transformational Leadership		
Idealized Influence – Attributed (IA)	3.30	.77
Idealized Influence – Behavior (IB)	3.68	.73
Inspirational Motivation (IM)	3.60	.79
Intellectual Stimulation (IS)	3.59	.74
Individual Consideration (IC)	3.38	.88
Transactional Leadership		
Contingent Reward (CR)	3.44	.75
Management by Exception – Active (MA)	3.31	.72
Management by Exception – Passive (MP)	2.02	.66
Organizational Culture		
Clan culture (Clan)	3.62	.59
Adhocracy culture (Adho)	3.69	.58
Market culture (Mark)	4.15	.47
Hierarchy culture (Hier)	3.78	.49

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Learning Organization		
Continuous Learning (CL)	3.32	.78
Inquiry & Dialogue (ID)	3.48	.73
Team Learning (TL)	3.30	.77
Embedded System (ES)	3.17	.76
Empowerment (EM)	3.19	.80
System Connection (SC)	3.52	.76
Providing Leadership (PL)	3.45	.81

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*Note.*  $n = 420$ , Measures 1 through 5: 1 is never and 5 is always

### Item Reliability Analysis

Prior to analyzing data for the research hypotheses, the reliability, normality and inter correlation of the three construct variables – transformational/transactional leadership, organizational culture and learning organization – were evaluated and the results are presented in Table 4-3 below. Through analysis, it was determined that there were no extreme outliers as indicated by the skewness and kurtosis values. The nature of the Likert scales provided a limited range of responses, thus controlling for extreme outliers.

As shown in Table 4-3, the Cronbach's alpha coefficients for all subscales of the three instruments used were all above .80 suggesting high internal consistency with an overall combined Cronbach alpha of .95 for the entire 77 item instrument. Using the minimum .70 Cronbach's alpha criteria suggested by Nunnally and Bernstein (1994), all the measures were judged to be reliable.

Table 4-3

#### *Cronbach's Alpha Coefficient Values and Normality for Research Data*

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Scale	Skewness	Kurtosis	VIF	Cronbach's alpha	# of Items
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Transformational Leadership					
Idealized Influence – Attributed	-.16	-.00	3.39	.95	4
Idealized Influence – Behavior	-.28	.04	3.79	.95	4
Inspirational Motivation	-.22	-.05	4.02	.95	4
Intellectual Stimulation	-.29	-.05	3.55	.95	4
Individual Consideration	-.19	-.25	4.12	.95	4
Transactional Leadership					
Contingent Reward	-.21	.03	4.20	.95	4
Management by Exception – Active	.02	.05	1.80	.95	4
Management by Exception - Passive	.55	.03	1.19	.96	4
Organizational Culture					
Clan culture	-.12	.19	3.02	.95	6
Adhocracy culture	-.18	.09	2.47	.95	6
Market culture	-.14	-.41	1.67	.95	6
Hierarchy culture	-.05	.31	2.39	.95	6
Learning Organization					
Continuous Learning	-.14	.45		.95	3
Inquiry & Dialogue	-.11	.44		.95	3
Team Learning	-.07	.31		.95	3
Embedded System	-.16	.19		.95	3
Empowerment	.04	.21		.95	3
System Connection	-.21	.23		.95	3
Providing Leadership	-.18	.15		.95	3
Total				.95 (overall)	77

*Note.*  $n = 420$

For the assumption of normality of variables, skewness and kurtosis values for each of variables were assessed as shown in Table 4-3 after variable scores were transformed into normal scores using PRELIS. The PRELIS data screening procedure provides information on the distribution of the missing values, univariate summary statistics and tests of the univariate normality for ordinal and continuous variables. One possible approach to treat non-normality is to normalize the variables before the analysis. Normal scores offer an effective way of normalizing a continuous and ordinal variable for which the origin and unit of measurement have no intrinsic meaning, such as test scores.

Normal scores may be computed for ordinal and continuous variables (Du Toit & Du Toit, 2001).

Although all values of skewness and kurtosis were different from zero, indicating nonperfect normal distributions, the assumption of normality can be made if the value of skewness ranges from -1 to +1, and the values of kurtosis range from -1 to +2 (Huck, 2004). Thus, the researcher observed no seriously unacceptable violations of the normality that may affect results when running Structural Equation Modeling (SEM) (see Table 4-3). However, the test has a limitation that with large sample sizes significant results can be achieved very easily, so it is not clear whether the deviation from normality is large enough to bias any data analysis procedures (Field, 2005). Therefore, the researcher also checked normal Q-Q plots, and observed that for all the variables, the observed values were not exactly on a straight diagonal line that represented the expected values, while deviations from the line were not seriously large. The result also indicated that the normality assumption was not violated.

The extent of colinearity was also assessed through examination of the tolerance and variance inflation factor statistics. Generally, a tolerance of less than 0.10 and/or a VIF of 10 and above indicates a multicollinearity problem. This analysis revealed that none of the independent variables extracted for the regression model were linear combinations of the other independent variables (see Table 4-3). Therefore, the residual analysis indicated that all the necessary assumptions of linear regression were not violated.

### Assessing Model Fit

In order to determine the relationship between the observed variables and the latent variables, a Confirmatory Factor Analysis (CFA) was used as a statistical technique. CFA could be adapted to verify the adequacy of the item to factor associations and the number of dimensions underlying the construct (Bollen, 1989; Thompson & Daniel, 1996). This study performed separate CFAs for each model construct: transformational and transactional leadership, organizational culture, and learning organization. A factor loading is required to exceed .30 for each scale, indicating the minimal level of practical significance (Robinson, Shaver, & Wrightsman, 1991). According to Hair et al. (1998), since the assessment of statistical significance was influenced by the sample size, a factor loading value of .35 is required for statistical significance based on a .05 significance level. CFAs for each model in this study were analyzed based on the correlation matrix, which was generated by PRELIS, as implemented in LISREL 8.80 (Joreskog & Sorbom, 2005). For this research, all factor loading values for each item exceeded .40 and all items were used for statistical analysis, confirmed by acceptable inter-item correlation.

Table 4-4

*Factor Loadings of the Overall CFA*

Leadership		Organizational Culture		Learning organization	
Transformational Leadership		Clan Culture		Continuous Learning	
IA_1	.83	Clan_1	.66	CL_1	.76
IA_2	.79	Clan_2	.66	CL_2	.76
IA_3	.46	Clan_3	.65	CL_3	.73
IA_4	.42	Clan_4	.60		
IB_1	.76	Clan_5	.59	Inquiry & Dialogue	
IB_2	.69	Clan_6	.50	ID_1	.78
IB_3	.64			ID_2	.74

IB_4	.61	Adhocracy Culture	ID_3	.68	
IM_1	.82	Adho_1	.70		
IM_2	.80	Adho_2	.69		
IM_3	.78	Adho_3	.67	Team Learning	
IM_4	.58	Adho_4	.60	TL_1	.74
IS_1	.86	Adho_5	.51	TL_2	.72
IS_2	.85	Adho_6	.51	TL_3	.63
IS_3	.59				
IS_4	.50			Embedded System	
IC_1	.87	Market Culture	ES_1	.77	
IC_2	.77	Mark_1	.65	ES_2	.71
IC_3	.70	Mark_2	.65	ES_3	.61
IC_4	.69	Mark_3	.65		
		Mark_4	.58	Empowerment	
		Mark_5	.56	EM_1	.79
		Mark_6	.53	EM_2	.75
Transactional Leadership				EM_3	.75
CR_1	.78				
CR_2	.70	Hierarchy Culture			
CR_3	.68	Hier_1	.65	System Connection	
CR_4	.55	Hier_2	.64	SC_1	.83
MA_1	.71	Hier_3	.62	SC_2	.78
MA_2	.64	Hier_4	.55	SC_3	.65
MA_3	.54	Hier_5	.49		
MA_4	.48	Hier_6	.48	Providing Leadership	
MP_1	.74			PL_1	.85
MP_2	.70			PL_2	.82
MP_3	.60			PL_3	.73
MP_4	.58				

Note.  $n = 420$

Because of the large number of indicators, items within constructs were parceled prior to testing hypotheses (Hall, Snell, & Foust, 1999). Parceling items reduce the proportion of estimated parameters to the number of data points, allowing for more reliable parameter estimates (e.g., Hagvet & Nasser, 2004; Marsh, 2007; Little, Cunningham, Shahar, & Widaman, 2002). Parceling of items is the creation of composite scales of individual items, and then submitting these composite scales, rather than the individual items themselves, to analysis with structural equation modeling (SEM).

Parceling of items in SEM is common, and is desirable for several reasons. Kishton and

Widaman (1994) have suggested that the use of individual items can be "problematic because individual items have low reliability, low intercorrelations, restricted correlations with other variables and, in the case of factor analysis, low communalities ..." (p. 757). West, Finch, and Curran (1995) have also suggested parceling as one approach for dealing with non-normal data. Despite some evidence that more items are always better (e.g., Marsh, Hau, Balla, & Grayson, 1998), practical experience suggests that more than about four items per latent variable in SEM often creates serious problems of model fit. Thus, this analysis with all three constructs – leadership, organizational culture, and learning organization – can reasonably be reduced to 23 parcels from the original 77 individual variables and these 23 parcels were used for testing the proposed model of this research.

Kishton and Widaman (1994) have suggested the domain representative approach as one of the parceling strategies. Based on this approach, the researcher performs a second-order factor analysis of the individual items. This study would sample one item from each factor to form each parcel. With this approach, each parcel is representative of the larger domain: four parcels for transformational leadership, four parcels for transactional leadership and three parcels for learning organization. These parcels were labeled in the following models and tables as Transfo1, Transfo2, Transfo3, and Transfo4 for transformational leadership; Transac1, Transac2, Transac3 and Transac4 for transactional leadership; and Learn1, Learn2 and Learn3 for learning organization. For organizational culture, the factorial parceling approach (Rogers & Schmitt, 2004) was adapted and they were labeled as Clan1, Clan2, & Clan3 for clan culture; Adho1, Adho2, & Adho3 for adhocracy culture; Mark1, Mark2, & Mark3 for market culture; and Hier1,

Hier2, & Hier3 for hierarchy culture.

For parceled items, an item scale analysis procedure was used to assess the internal consistency for each item of the measurements again, and Cronbach's alpha coefficients were used to estimate the item reliability as well. Skewness and kurtosis were also checked for the normality test.

Table 4-5

*Cronbach's Alpha, Normality and Colinearity for Parceled Items*

Parcel Items	Skewness	Kurtosis	VIF	Cronbach's alpha	# of Items
Transformational Leadership					4
Transfo1	-.28	-.12	4.85	.93	
Transfo2	-.28	.07	5.88	.93	
Transfo3	-.26	-.17	4.53	.93	
Transfo4	-.31	.48	5.35	.93	
Transactional Leadership					4
Transac1	.29	.50	1.76	.94	
Transac2	.23	.80	1.69	.94	
Transac3	-.03	1.16	1.57	.94	
Transac4	-.29	.96	2.09	.93	
Organizational Culture					3
Clan culture					
Clan1	-.04	-.18	2.18	.93	
Clan2	-.30	.22	1.96	.93	
Clan3	-.14	.01	2.48	.93	
Adhocracy culture					3
Adho1	-.16	-.11	2.29	.93	
Adho2	-.14	.12	2.33	.93	
Adho3	-.20	.11	2.19	.93	
Market culture					3
Mark1	-.10	-.22	1.84	.94	
Mark2	.00	-.56	1.87	.94	
Mark3	-.34	-.20	1.90	.94	
Hierarchy culture					3



Hier1	-.02	.14	2.08	.93	
Hier2	-.20	.35	2.21	.93	
Hier3	-.10	.29	2.00	.94	
Learning Organization					3
Learn1	.00	.55		.93	
Learn2	.04	.51		.93	
Learn3	.11	.56		.93	
Total				.94	23

*Note.*  $n = 420$

As shown in Table 4-5, the results demonstrated that measures for seven constructs with parceled items of this research— transformational leadership, transactional leadership, clan culture, adhocracy culture, market culture, hierarchy culture and learning organization – are also internally consistent based upon Nunnally and Bernstein’s (1994) recommendations of alpha being greater than .70 (coefficient alpha ranges from .93 to .94). A test for normality and multicollinearity also did not reveal any violations of the assumption. Thus, the data resulting from parceling are judged to be reliable in the Korean business context.

Since the data were reliable, the researcher performed a CFA for each latent variable with multiple indicators again in order to ensure that they have been appropriately derived. In this portion of the analysis, we could assess which observed variables are caused by each latent variable and the reliability and validity for each observed variable. In addition, the valid estimation of the model parameters requires that the model be correctly identified. For testing factor loading and identification status, this research analyzed the covariance matrix, involving examination of the standard errors of the parameter estimates.

As shown in Table 4-6, all factors had more than three items and all factor

loadings were over .60. The standard error ratios of all the factors were also less than 2.0. The number of variances and covariances of the observed variables was greater than the number of model parameters to be estimated as well. Thus, the proposed model of this study was considered to be a valid measurement model.

Table 4-6

*Identification Test by Using Standard Error Ratios*

Factor	Loading	avg SE	Ratio
Transformational Leadership	.91, .93, .89, .92	.038	1.03
Transactional Leadership	.69, .67, .63, .79	.046	1.24
Clan Culture	.67, .70, .79	.044	1.19
Adhocracy Culture	.78, .72, .73	.045	1.22
Market Culture	.73, .75, .74	.047	1.27
Hierarchy Culture	.76, .76, .66	.045	1.22
Learning Organization	.94, .95, .94	.037	1.00

*Note.* .037 is used as a denominator.

In order to assess the fit of the model, The Maximum Likelihood (ML) estimation procedure was used to test the final model. The test was conducted with a Chi-square statistic and three standard indices of practical fit for the primary judgments about model fit. The root mean square error of approximation (RMSEA) is a measure of discrepancy between the reproduced and observed covariances per degree of freedom. Generally values of .08 and less are often interpreted as reflecting an acceptable fit of the model to the data and values of .05 and less are suggested as a good fit of the model to the collected data (Browne & Cudeck, 1993; Steiger, 1989). The non-normed fit index (NNFI) is a measure of how much better the assumed model fits compared with a baseline model assuming independence of all variables. Values of .9 or larger are usually assumed to represent an acceptable fit and values of .95 or larger are interpreted as a good fit (Hu &

Bentler, 1999; McDonald, 1999). Finally, the comparative fit index (CFI) is a measure of how much better the model fits compared with an independence model. A value of approximately .9 or larger is generally viewed as representing an acceptable fit and a value of .96 is suggested as a good fit (Hu & Bentler, 1999; McDonald, 1999).

Table 4-7

*Model Fit Indices for Hypothesized Model*

	Chi-Sq	df	RMSEA	NNFI	CFI
Model 0 (True model)	540.4	209	.064	.978	.982
Model 1 (Modified model)	395.6	205	.045	.987	.989
Model 0 vs 1	145.8 $p < .0001$	4			

*Note.* Model 0 estimated all residual variances, but no residual covariances.

Model 1 estimated two more residual covariances and two more residual variances (TE 13,9; TE 20,10; LY 20,3; LY 13,5)

RMSEA (LISREL) was given as part of the LISREL output under the FIML

As shown in Table 4-7, the Chi-square for the true model (Model 0),  $x^2$  ( $df = 209$ ) = 540.4, was significant, but Chi-square is known to be sensitive to sample size. The  $x^2$  with large samples is often statistically significant even when the  $x^2$  model differs only trivially from the true model. For this reason, this study used three indices of practical fit for the primary judgments about model fit. This research used RMSEA (Browne & Cudeck, 1993), NNFI (Bentler & Bonnett, 1980), and CFI (Bentler, 1990).

Based on the overall pattern of the three indices of practical fit, the initial measurement model had a relatively acceptable fit (RMSEA = .064, NNIF = .978, CFI = .982) but it could be modified to improve the overall model fit. A detailed inspection of the model residuals suggested the presence of nonlinearities in the fit of the normed residuals as well as excessively large positive and negative model residuals in organizational culture constructs (residuals > 2.5). Finally, the modification indices

suggested the inclusion of additional estimations. Modification indices and an analysis of covariance residuals was used to determine the improvement in overall model fit by adding free parameters (LY 20,3 and LY 13,5) and by correlating residual errors (TE 13,9 and TE 20,10) to the model. The absence of any large modification indices (expressed as a decrease in the Chi-square statistic) would be consistent with a good model fit. This substitution was an attempt to alleviate the excessive measurement error reflected in the large root mean square error of approximation (RMSEA) value as well as the large standardized residuals. Moreover, this procedural substitution in the measurement model also increases the internal validity of the organizational culture construct and is conceptually more valid. The revised model was analyzed to determine the adequacy of the fit of the model to the data.

For modified model (Model 1),  $\chi^2 (df = 205) = 395.6$  was also significant (RMSEA = .045, NNIF = .987, CFI = .989). Although the Chi-square for Model 1 was statistically significant, the pattern of the three indicators of practical fit suggested a good fitting model. In addition, although four additional parameters were estimated, the modified model (Model 1) fit considerably better than the true model (Model 0). Model 1 fit significantly better,  $\chi^2 (df=4) = 145.8, p < .0001$ . The changes in indices of practical fit shown in Table 4-7 also suggested that the difference between models was of practical significance. Thus, the overall pattern of fit indices suggested that the fit of this model was judged to be good.

As shown in Table 4-8, the factor loading of this final model (Model 1) was checked first. The smallest factor loading (completely standardized solution) for all item factors was .622 and the largest factor loading on all item factors was .949.

Table 4-8

*Factor Loading of the Final Model*Completely Standardized Solution  
LAMBDA-Y

	Transfo	Transac	Clan	Adho	Mark	Hier	Learn
	-----	-----	-----	-----	-----	-----	-----
transfo1	0.910	--	--	--	--	--	--
transfo2	0.934	--	--	--	--	--	--
transfo3	0.892	--	--	--	--	--	--
transfo4	0.922	--	--	--	--	--	--
transac1	--	0.687	--	--	--	--	--
transac2	--	0.666	--	--	--	--	--
transac3	--	0.622	--	--	--	--	--
transac4	--	0.795	--	--	--	--	--
clan1	--	--	0.705	--	--	--	--
clan2	--	--	0.685	--	--	--	--
clan3	--	--	0.806	--	--	--	--
adho1	--	--	--	0.761	--	--	--
adho2	--	--	--	1.162	-0.526	--	--
adho3	--	--	--	0.743	--	--	--
mark1	--	--	--	--	0.718	--	--
mark2	--	--	--	--	0.746	--	--
mark3	--	--	--	--	0.742	--	--
hier1	--	--	--	--	--	0.742	--
hier2	--	--	--	--	--	0.749	--
hier3	--	--	-1.849	--	--	2.458	--
learn1	--	--	--	--	--	--	0.938
learn2	--	--	--	--	--	--	0.949
learn3	--	--	--	--	--	--	0.937

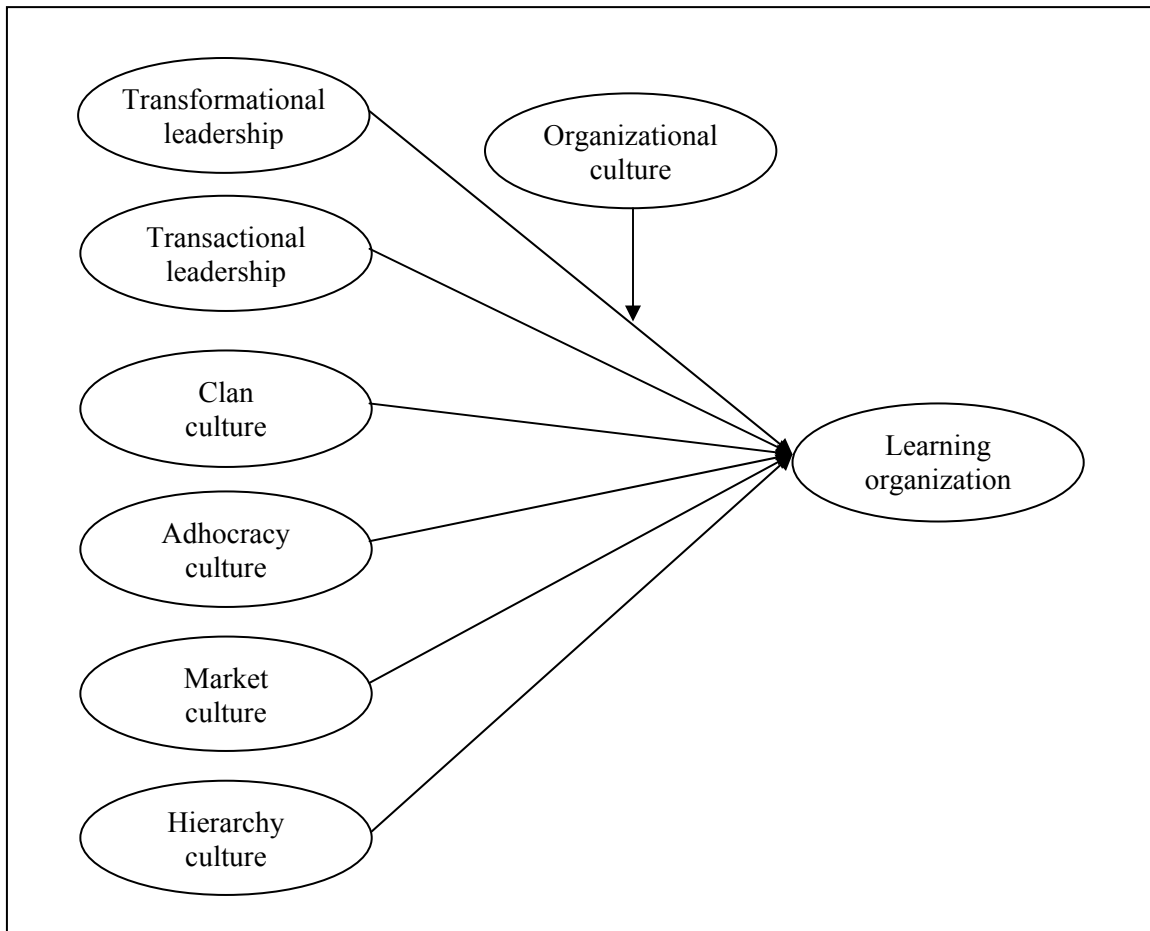
## PSI

	Transfo	Transac	Clan	Adho	Mark	Hier
	-----	-----	-----	-----	-----	-----
Transfo	1.000					
Transac	0.776	1.000				
Clan	0.538	0.495	1.000			
Adho	0.439	0.373	0.806	1.000		
Mark	0.333	0.323	0.501	0.779	1.000	
Hier	0.531	0.517	0.955	0.808	0.607	1.000

These values suggested that factor loadings of this magnitude yielded good

identification of the factors. The identification of this model was also judged to be good.

Thus, this study tested hypothesized causal links among latent variables.



*Figure 4-1.* Hypothesized Research Model with Paths Among the Constructs

### **Testing Hypotheses**

According to the structural equation modeling analysis, the results presented to what extent the combination of the independent variables, transformational leadership, transactional leadership, clan culture, adhocracy culture, market culture and hierarchy culture, jointly contributed to the development of learning organization.

*H1: Transactional and transformational leadership of middle management have a significantly positive effect on the learning organization*

*H2: Organizational culture (Clan, Adhocracy, Hierarchy and Market) has a significantly positive effect on the learning organization*

In order to assess the influential relationships among the variables, one-group regression approach in SEM was adopted for the identification of the predictive power for the proposed models. The main results for the latent variable regression model are presented in Table 4-9.

Table 4-9

*Regression Weights (Path Coefficients), Effects for Latent Variable Regression Model*

LISREL Estimates (Maximum Likelihood)

	Transfo	Transac	Clan	Adho	Market	Hier
	-----	-----	-----	-----	-----	-----
Learn Beta	0.405	0.091	0.180	0.486	-0.496	0.184
SE	(0.058)	(0.099)	(0.241)	(0.157)	(0.159)	(0.258)
t	7.023	0.922	0.749	3.094	-3.119	0.715

*Note.* Transfo: Transformational leadership, Transac: Transactional leadership, Clan: Clan culture, Adho: Adhocracy culture, Mark: Market culture, Hier: Hierarchy culture, Learn: Learning organization.

The results of the latent variable, multiple regression analysis are presented in Table 4-9. From the analysis, it was concluded that the null hypothesis H1 and H2 were partially rejected. Three predictor variables, Transfo ( $b = .405$ ,  $SE = .058$ ,  $t = 7.023$ ), Adho ( $b = .486$ ,  $SE = .157$ ,  $t = 3.094$ ) and Market ( $b = -.496$ ,  $SE = .159$ ,  $t = -3.119$ ) each had significant effects on the outcome, Learning. However, three predictor variables, Transac ( $b = .091$ ,  $SE = .099$ ,  $t = .922$ ), Clan ( $b = .180$ ,  $SE = .241$ ,  $t = .749$ ) and Hier ( $b$

= .184,  $SE = .258$ ,  $t = .715$ ) did not have a significant effect on Learning. These results showed that only transformational leadership of middle managers and adhocracy culture each made a positive significance, unique contribution in the prediction of the development of the learning organization. On the contrary, market culture had a negative significant effect on the development of learning organization. Transactional leadership of middle managers, clan culture and hierarchy culture each did not make a significant, unique contribution in the prediction of the learning organization.

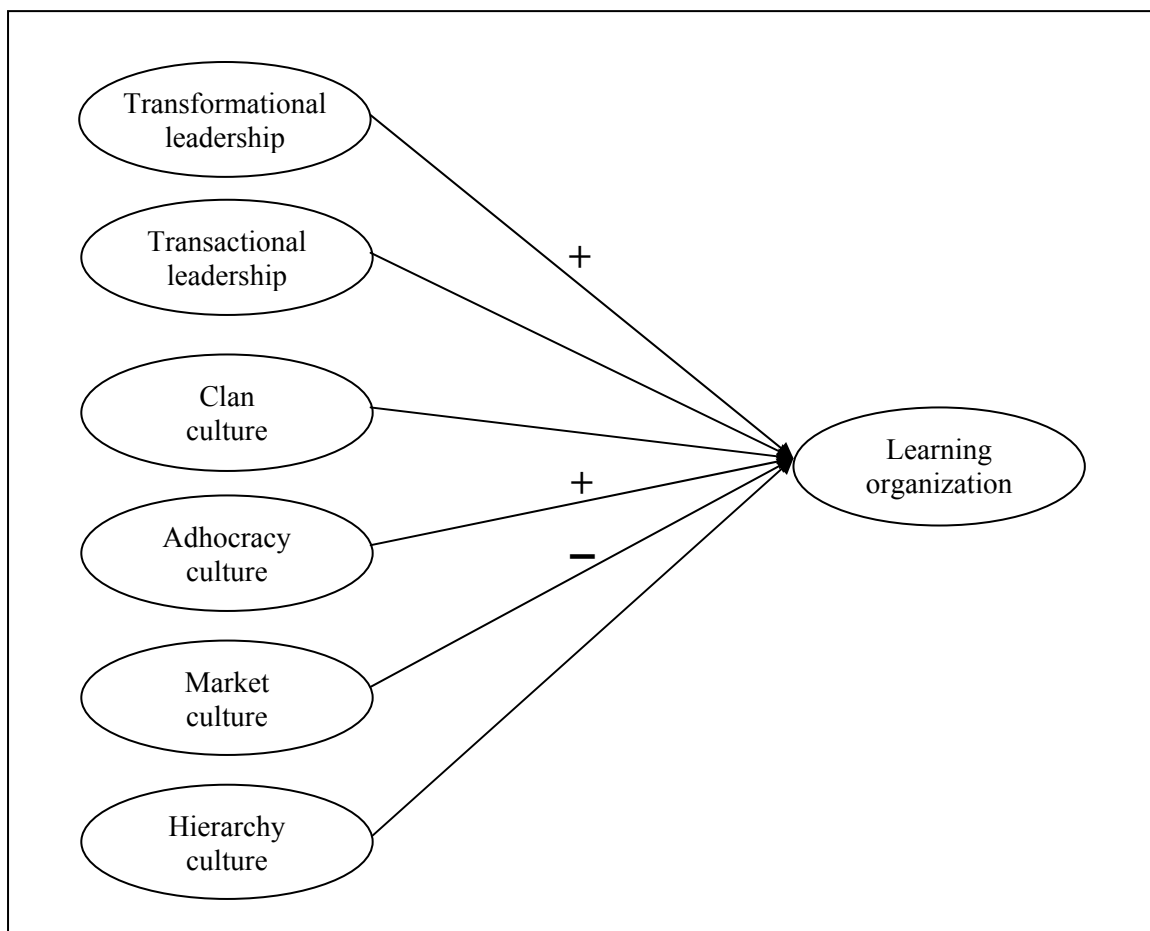


Figure 4-2. Effects on the Learning Organization

*H3a: Organizational culture (clan culture) has a moderating effect on the relationship between leadership style and the learning organization*



In order to assess the moderation effects, this research focused on transformational leadership because only transformational leadership contributed to the development of the learning organization. The current study adopted two-group regression approach for the third hypothesis, which is the moderation effect of organizational culture between transformational leadership and the development of the learning organization. As shown in Table 4-10, a one-group latent variable model (Model 0CH for high level clan culture group; Model 0CL for low level clan culture group) in each of the two groups was firstly analyzed. Then a two-group version (Model 1,2,3a and 3b) of the same model was examined.

Table 4-10

*Goodness of Fit Results for Clan Culture Factor Loading*

Model	Chi-Sq	df	RMS EA	NNFI	CFI	<i>b</i>	<i>SE</i>	<i>t</i>
<u>One-Group Models</u>								
Model 0CH (high clan)	355.6	213	.049	.974	.978	.434	.082	5.320
Model 0CL (low clan)	366.5	213	.055	.958	.965	.370	.089	4.141
<u>Two-Group Models</u>								
Model 1 (ly=ps)	722.2	426	.052	.967	.973			
Model 2 (ly=in)	739.3	444	.051	.969	.973			
Model 1 vs 2	17.1 <i>p</i> > .05	18						
Model 3a (transfo estimated)	743.6	449			High Low:	.421 .386	.074 .062	5.687 6.255
Model 3b (all load equal)	743.9	450						
Model 3a vs 3b	.3 <i>p</i> > .05	1						

*Note.* *n* = 215 (high level clan culture group), *n* = 205 (low level clan culture group)

The goodness fit of Model 0CH (high level clan culture group) and Model 0CL (low level clan culture group) is presented in Table 4-10. The Chi-square for Model 0CH

was significant,  $\chi^2 (df=213) = 355.6$ , but Chi-square is known to be sensitive to sample size with samples as large as this (Model 0CH:  $n = 215$ , Model 0CL:  $n = 205$ ). For this reason, in order to make judgments about the quality of fit for all models, this research used three indices of practical fit (RMSEA, NNFI and CFI). For Model 0CH, the pattern of fit indices suggested that the fit of this model was judged to be good with collected data (RMSEA = .049, NNFI = .974, CFI = .978). For Model 0CL, the Chi-square was also significant,  $\chi^2 (df=213) = 366.5$ , but the overall pattern of the three indices of practical fit demonstrated a moderately acceptable model fit with the data (RMSEA = .055, NNFI = .968, CFI = .965). Based on the acceptable fit of the model in each of the two groups, we could go on to test the two-group model (Model 1 in Table 4-10).

As presented in Table 4-10, even though the Chi-square was significant,  $\chi^2 (df=426) = 722.2$ , the overall pattern of fit indices of Model 1 suggested that this model was also acceptable (RMSEA = .052, NNFI = .967, CFI = .973). In this model, all model parameters were estimated freely in the two groups. Because this model was judged to be acceptable, we could conclude that it was appropriate to go on to test a model, in which all factor loadings are constrained to be equal across the two groups (Model 2 in Table 4-10).

For Model 2, the Chi-square was also significant,  $\chi^2 (df=444) = 739.3$ , and the overall pattern of fit indices of Model 2 suggested that this model was acceptable (RMSEA = .051, NNFI = .969, CFI = .973). As the comparison of fit for Model 1 and 2 was shown in Table 4-10, the Chi-square for this comparison was considered to be not statistically significant,  $\chi^2 (df=18) = 17.1, p > .05$ . Thus we could conclude that the factor loadings in the two groups did not differ and thus it was appropriate to go on to test if the

moderation effect of clan culture between transformational leadership and the development of learning organization existed. (Model 3a and 3b in Table 4-10).

In order to test if there were differences in the factor regression between transformational leadership and the learning organization in the two groups, Model 3a estimated only transformational leadership parameters in each of the two groups and the Chi-square was significant,  $\chi^2 (df=449) = 743.6$ . Transformational leadership still demonstrated significant effects on the outcome of the learning organization in each group (high level clan culture:  $b = .421, SE = .074, t = 5.687$ ; and low level clan culture:  $b = .386, SE = .062, t = 6.255$ ). Model 3b tested the model for which all factor loadings were constrained to be equal across the two groups and the Chi-square was significant,  $\chi^2 (df=449) = 743.6$ . Information about the difference in the factor regression between Model 3a and Model 3b also appears in Table 4-10. The Chi-square was not significant for the difference in the factor regression between the two models (see Table 4-10). Thus, while we were not able to say that the factor regression in the two groups was different in a statistical sense, we could conclude that there was no moderation significant effect of clan culture between transformational leadership and the learning organization.

In order to assess the moderation effects on the other variables – adhocracy culture, hierarchy culture and market culture – this research adopted the same procedure and approach.

*H3b: Organizational culture (adhocracy culture) has a moderating effect on the relationship between leadership style and the learning organization*

Table 4-11

*Goodness of Fit Results for Adhocracy Culture Factor Loading*

Model	Chi-Sq	df	RMS EA	NNFI	CFI	<i>b</i>	<i>SE</i>	<i>t</i>
<u>One-Group Models</u>								
Model 0AH (high adhocracy)	376.1	213	.054	.973	.977	.431	.091	4.748
Model 0AL (low adhocracy)	373.5	213	.056	.958	.964	.376	.072	5.199
<u>Two-Group Models</u>								
Model 1 (ly=ps)	749.7	426	.055	.967	.972			
Model 2 (ly=in)	770.0	444	.054	.968	.972			
Model 1 vs 2	20.3 <i>p</i> > .05	18						
Model 3a (transfo estimated)	777.0	449				High: .417 Low: .375	.073 .059	5.725 6.312
Model 3b (all load equal)	777.4	450						
Model 3a vs 3b	.4 <i>p</i> > .05	1						

*Note.* *n* = 219 (high level clan culture group), *n* = 201 (low level clan culture group)

As shown in Table 4-11, the goodness fit of Model 0AH (high level adhocracy culture group) and Model 0AL (low level adhocracy culture group) was judged to be acceptable with collected data (Model 0AH: RMSEA = .054, NNFI = .973, CFI = .977; and Model 0AL: RMSEA = .056, NNFI = .958, CFI = .964). Because the model was judged to fit the data well in each of the two groups, the researcher concluded that it was appropriate to go on to test the two group model (Model 1 in Table 4-11).

As presented in Table 4-11, For Model 1, all model parameters were also estimated freely in the two groups and the overall pattern of fit indices of this model was also acceptable (RMSEA = .055, NNFI = .967, CFI = .972). For this reason, this researcher could go on to test if all factor loadings were equal across the two groups (Model 2 in Table 4-11).

For Model 2, all factor loadings were constrained to be equal across the two

groups and the overall pattern of fit indices of Model 2 suggested that this model was acceptable (RMSEA = .054, NNFI = .968, CFI = .972). Because the Chi-square for Model 1 and Model 2 was not statistically significant,  $\chi^2 (df=18) = 20.3, p > .05$ , we could conclude that the factor loadings in these two groups did not differ statistically.

As shown in Table 4-11, the Chi-square for Model 3a and Model 3b was also not statistically significant for the difference in the factor regression between the two models (see Table 4-11). Thus, there was no moderation effect of adhocracy culture between transformational leadership and the development of the learning organization in business organizations.

*H3c: Organizational culture (hierarchy culture) has a moderating effect on the relationship between leadership style and the learning organization*

Table 4-12

*Goodness of Fit Results for Both Hierarchy Culture Factor Loading*

Model	Chi-Sq	df	RMS EA	NNFI	CFI	b	SE	t
<u>One-Group Models</u>								
Model 0HH (high hierarchy)	430.6	213	.062	.965	.971	.517	.091	5.693
Model 0HL (low hierarchy)	329.3	213	.050	.967	.972	.229	.073	4.095
<u>Two-Group Models</u>								
Model 1 (ly=ps)	759.9	426	.057	.966	.971			
Model 2 (ly=in)	783.4	444	.056	.967	.971			
Model 1 vs 2	23.5 <i>p</i> > .05	18						
Model 3a (transfo estimated)	785.8	449			High: .971 Low: .972	.466 .356	.072 .061	6.435 5.863
Model 3b (all loads equal)	789.9	450						
Model 3a vs 3b	4.1 <i>p</i> < .05	1						

*Note.*  $n = 229$  (high level hierarchy culture group),  $n = 191$  (low level hierarchy culture group)

As presented in Table 4-12, based on the three indices of goodness fit, these two models (Model 0HH and Model 0HL) were also acceptable with the collected data (Model 0HH: RMSEA = .062, NNFI = .965, CFI = .971; and Model 0HL: RMSEA = .050, NNFI = .967, CFI = .972). The test of the two-group model (Model 1 in Table 4-12) suggested that the overall pattern of the fit of Model 1 was also acceptable (RMSEA = .057, NNFI = .966, CFI = .971). Since the two group model had an acceptable fit, we could go on to test the model to see if all factor loadings are equal across the two groups (Model 2 in Table 4-12). The Model 2 was also judged to be acceptable (RMSEA = .056, NNFI = .967, CFI = .971). As shown in Table 4-12, the Chi-square for Model 1 and Model 2 was not statistically significant,  $\chi^2 (df=18) = 23.5, p > .05$ . Thus, we could conclude that the factor loadings in the two groups did not differ in a statistical sense.

In order to test if there was a moderation effect of hierarchy culture between transformational leadership and learning organization, Model 3a estimated only transformational leadership parameters in each of the two groups and the  $b$ -weight of high level hierarchy culture group was estimated to be higher than that of the low level hierarchy culture group (high level hierarchy group:  $b = .466, SE = .072, t = 6.435$ ; and low level hierarchy group:  $b = .356, SE = .061, t = 5.863$ ). Model 3b constrained all factor loadings to be equal across the two groups to compare the difference in the two groups. As illustrated in Table 4-12, the Chi-square was significant for the difference in the factor regression between model 3a and model 3b ( $\chi^2 (df=1) = 4.1, p < .05$ ). The positive beta indicated that a higher group score in hierarchy culture was associated with

a higher learning organization. Hence, hierarchy culture was found to be a significant moderator in the relationship between transformational leadership and the learning organization. We were able to say that the factor regression in the two groups was different in a statistical sense, and we could conclude that there was a moderating effect of hierarchy culture between transformational leadership and the learning organization.

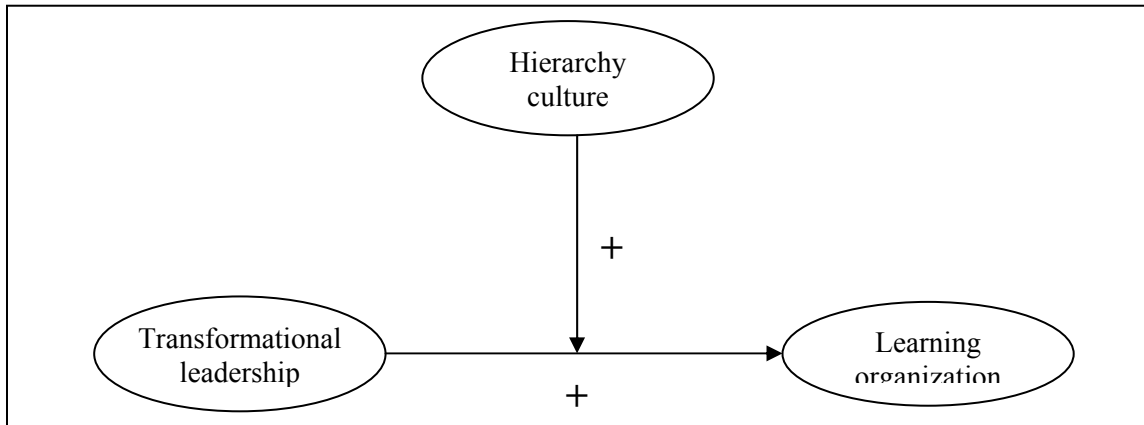


Figure 4-3. The Moderating Effect of Organization Culture

*H3d: Organizational culture (market culture) has a moderating effect on the relationship between leadership style and the learning organization*

Table 4-13

*Goodness of Fit Results for Market Culture Factor Loading*

Model	Chi-Sq	df	RM SEA	NNFI	CFI	b	SE	t
<u>One-Group Models</u>								
Model 0MH (high market)	385.2	213	.055	.974	.978	.417	.089	4.714
Model 0ML (low market)	380.5	213	.055	.959	.974	.415	.073	5.657
<u>Two-Group Models</u>								
Model 1 (ly=ps)	765.7	426	.055	.972	.976			
Model 2 (ly=in)	798.1	444	.056	.972	.975			
Model 1 vs 2	32.4 <i>p</i> < .05	18	.001	.000	-.001			

Model 3a (transfo estimated)	806.8	449	High	.399	.071	5.637
			Low:	.412	.060	6.863
Model 3b (all loads equal)	806.9	450				
Model 3a vs 3b	.1	1				
	$p > .05$					

*Note.*  $n = 196$  (high level market culture group),  $n = 224$  (low level market culture group)

As shown in Table 4-13, the goodness fit of Model 0MH (high level market culture group) and Model 0ML (low level market culture group) was also acceptable with the data (Model 0MH: RMSEA = .055, NNFI = .974, CFI = .978; and Model 0ML: RMSEA = .055, NNFI = .959, CFI = .974). Since this model was judged to be acceptable for both groups, the current study could continue to test the two-group model (Model 1 in Table 4-13).

As illustrated in Table 4-13, since the fit of Model 1 was also acceptable (RMSEA = .055, NNFI = .972, CFI = .976), this research could go on to test if all factor loadings were equal across the two groups (Model 2 in Table 4-13).

The overall fit of Model 2 was also judged to be acceptable (RMSEA = .056, NNFI = .972, CFI = .975). The comparison of fit for Model 1 and Model 2 also appears in Table 4-13. The Chi-square for this comparison was statistically significant,  $\chi^2$  ( $df=18$ ) = 32.4,  $p < .05$ . However, as with evaluating the overall model fit, Chi-square is sensitive to sample size. Because of this, we examined the change in indices of practical fit to make judgments about the similarity of factor loadings in the two groups. The change in the three indices of practical fit was: RMSEA = +.001, RHO = -.000, CFI = -.001. Thus, although we were not able to say that the factor loadings in the two groups did not differ in a statistical sense, the change in the three indices of practical fit were trivial, thus allowing us to argue that the factor loadings in the two group did not differ in a practical



sense.

As shown in Table 4-13, the Chi-square for Model 3a and Model 3b was not statistically significant,  $\chi^2 (df=1) = .1, p > .05$  for the difference in the factor regression between the two models. The *b*-weight of the high level market culture group ( $b = .399$ ) was also lower than that of the low level market culture group ( $b = .412$ ). Thus, we could say that there was no moderation effect of market culture between transformational leadership and the learning organization.

*RQ2. What similarities and differences exist between the perceptions of middle managers and the perceptions of subordinates on the effect of leadership style and organizational culture on the learning organization in business companies?*

In order to assess the similarities and differences between middle managers and subordinates on the effect of leadership style and organizational culture on the learning organization, the current research also employed a two-group regression approach using a Structural Equation Modeling (SEM). As shown in Table 4-14, firstly a one-group approach (Model 0M for middle managers; and Model 0S for subordinates) was analyzed in each group and a two-group version of the same model followed.

Table 4-14

*Goodness of Fit Results for Managers and Subordinates*

Model	Chi-Sq	df	RMS EA	NNFI	CFI	<i>b</i>	SE	<i>t</i>
<u>One-Group Models</u>								
Model 0M (manager)	335.6	213	.051	.979	.982	.377	.100	3.763
Model 0S (subordinate)	444.5	213	.063	.969	.974	.469	.093	5.054

Two-Group Models

Model 1 (ly=ps)	780.2	426	.058	.973	.978
Model 2 (ly=in)	797.9	444	.057	.975	.978
Model 1 vs 2	17.7 $p < .05$	18			
Model 3a (leadership estimated)	805.3	448	.057	.975	.977
Model 3b (culture estimated)	799.6	446	.057	.975	.978
Model 3c(all loads equal)	805.6	450	.057	.975	.978
Model 3a vs 3c	.3 $p > .05$	2			
Model 3b vs 3c	6.0 $p > .05$	4			

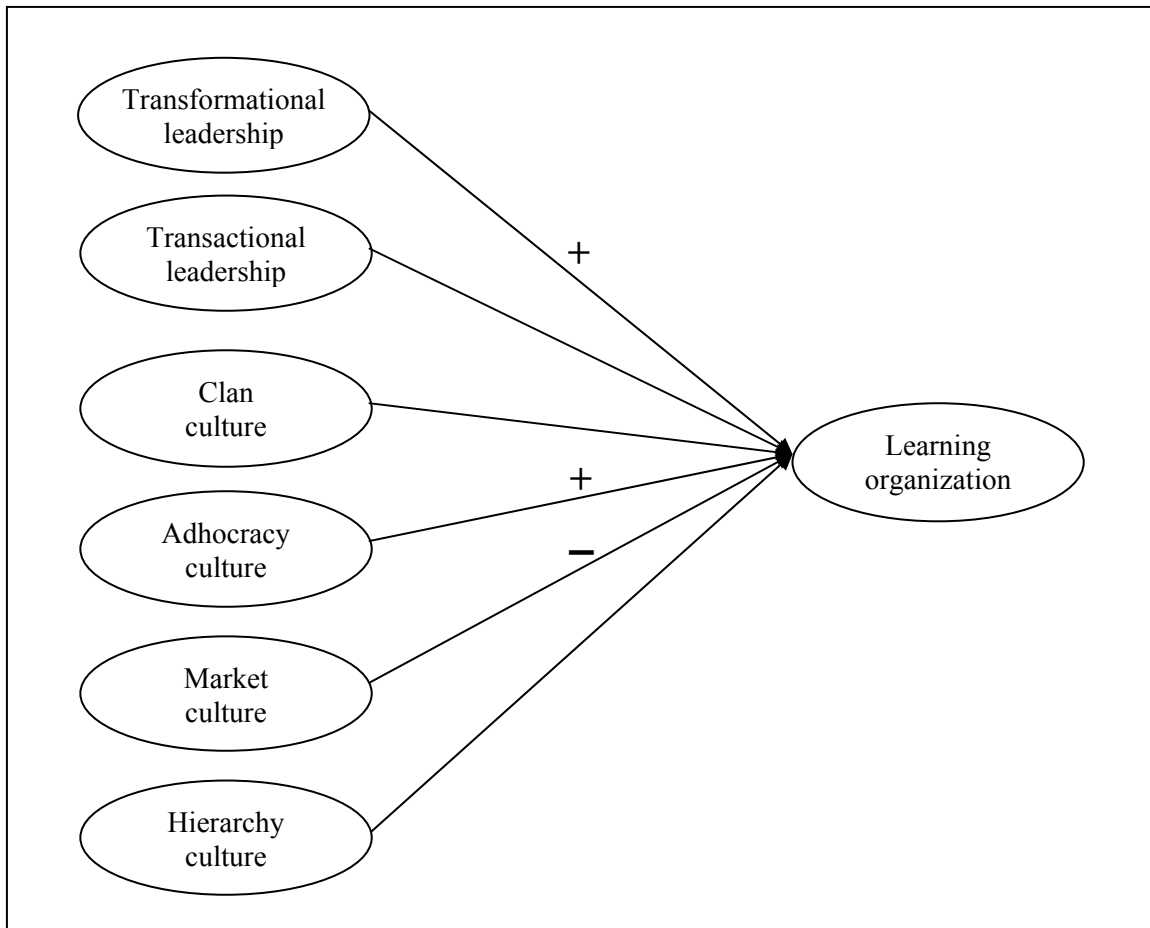
*Note.*  $n = 182$  (manager group),  $n = 238$  (subordinate group)

Goodness of fit information for all models is presented in Table 4-14. Model 0M tested the 7-factor (transformational leadership, transactional leadership, clan culture, adhocracy culture, market culture, hierarchy culture and learning organization) model with managers only. Based on the overall pattern of the three fit indices (RMSEA = .051, NNFI = .979, CFI = .982), the fit of this model was judged to be good. Model 0S tested the 7-factor model with subordinates only. This model was also acceptable (RMSEA = .063, NNFI = .969, CFI = .974). Because the model fit was judged to be acceptable in each sample, taken separately, it was appropriate to continue with a test of two-group models. With these model tests, we could determine the extent to which the factor structures are invariant in the two groups.

The first two-group model was Model 1. Not surprisingly, Model 1 fit was also judged to be acceptable, RMSEA = .058, NNFI = .973, CFI = .978. Because Model 1 was judged to fit well, it was appropriate to test another model, Model 2, in which all factor loadings are constrained to be equal across the two groups. The goodness of fit

information for Model 2 also appears in Table 4-14. The pattern of fit shown by the three indices suggested an acceptable fit, RMSEA = .057, NNFI = .975, CFI = .978. The comparison of fit for Models 1 and 2 also appears in Table 4-14. The Chi-square for this comparison was not statistically significant,  $\chi^2 (df=18) = 17.7, p > .05$ . Thus, we were able to say that the factor loadings in the two groups did not differ in a statistical sense.

Because the factor loadings were judged to be invariant in a statistical sense, it was appropriate to test the degree to which the factor regressions in the two groups were the same or different. The test of hypotheses regarding invariance of factor regressions across the two groups was tested in two stages. The first model tested was Model 3a, in which organizational culture factor regressions were constrained to be equal in a single model in order to assess transformational and transactional factor regressions. The goodness of fit results for Model 3a also appears in Table 4-14. Model 3b tested that transformational and transactional factor regressions were constrained to be equal in order to estimate organizational culture factor regressions. The fit for Model 3b also appears in Table 4-14. Model 3c constrained all factor loadings to be equal across the two groups to compare the difference in the two groups. The difference between Models 3a and 3c was not statistically significant:  $\chi^2 (df=2) = .3, p > .05$ . The difference between Models 3b and 3c was also not statistically significant:  $\chi^2 (df=4) = 6.0, p > .05$ . Because not only the difference between Model 3a and 3c but also the difference between Model 3b and 3c were not significant, we could conclude that the factor regression for leadership style and organizational culture type predicting learning organization was not statistically different in the two groups.



*Figure 4-4. The Perceptions of Middle Managers and Subordinates*

*RQ3. What components in transformational and transactional leadership help develop a positive learning organization at the middle management level?*

In order to assess the effect of leadership components on the development of the learning organization, the current study focused on transformational leadership components because transactional leadership didn't correlate with the development of the learning organization. This research employed the manifest variable regression approach in SEM using composite variables in transformational leadership for the third question: What components in transformational leadership contribute to the development of a

positive learning organization?

The results of the manifest variable, multiple regression analysis are presented in Table 4-15.

Table 4-15

*Multiple Regression Analysis for Transformational Leadership Components*

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LISREL Estimates (Maximum Likelihood)

		IA	IB	IM	IS	IC
		-----	-----	-----	-----	-----
Learn	Beta	0.195	0.213	0.001	0.058	0.141
	SE	(0.052)	(0.057)	(0.058)	(0.058)	(0.048)
	t	3.727	3.707	0.022	1.003	2.906

---

*Note.* IA: Idealized influence attributes, IB: Idealized influence behavior, IC: Individual consideration, IM: Inspirational motivation, IS: Intellectual simulation

Three predictor variables, IA ( $b = .195$ ,  $SE = .052$ ,  $t = 3.727$ ), IB ( $b = .213$ ,  $SE = .057$ ,  $t = 3.707$ ) and IC ( $b = .141$ ,  $SE = .048$ ,  $t = 2.906$ ) each had significant effects on the outcome, Learn. However, the two predictor variables, IM ( $b = .001$ ,  $SE = .058$ ,  $t = .022$ ) and IS ( $b = .058$ ,  $SE = .058$ ,  $t = 1.003$ ) did not have a significant effect on Learn. These results showed that the idealized influence attributes (IA), idealized influence behavior (IB) and individual consideration (IC) each made significant unique contributions in the prediction of the development of the learning organization at the middle management level. However, inspirational motivation (IM) and intellectual simulation (IS) did not make a significant, unique contribution in the prediction of the development of the learning organization.

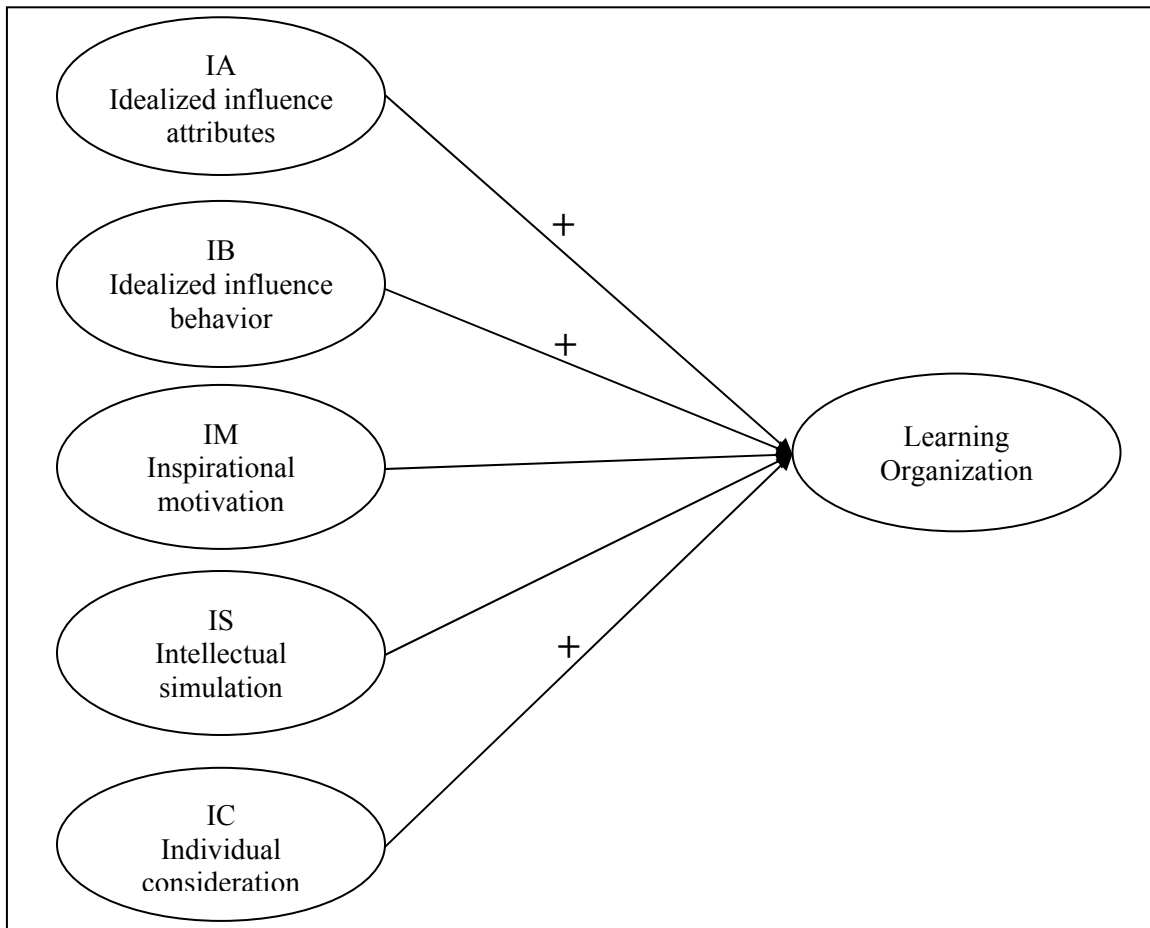


Figure 4-5. Effect of Leadership Components on the Learning Organization

*RQ1. What differences are there among the industry types within the concepts of leadership style, organizational culture, and the learning organization?*

In order to assess the differences among the industry types within the concepts of leadership style, organizational culture and learning organization, this research adopted a MANOVA approach for the first research question. MANOVA was used in this study to test the null hypothesis that there are no differences of leadership style, organizational culture and learning organization among industry types. Before interpreting the MANOVA, critical assumptions were examined. For the test of equality of covariance matrices, Box's M test was not significant and indicated that the homogeneity of

variance-covariance matrices for the dependent variables was fulfilled:  $F(84, 157946) = 1.411, p = .008$ . Therefore, Pillai's Trace test statistic was used to interpret the MANOVA results.

Table 4-16

*Comparison of Research Factors Among Industries*

Dimension	1 Manufa cturing <i>n</i> =173	2 Fina ncial =65	3 Heavy & Chemical <i>n</i> =120	4 Servi ce <i>n</i> =62	<i>F</i> - value	<i>p</i> - value	Scheffe test
<u>Leadership</u>	<u>M</u>	<u>M</u>	<u>M</u>	<u>M</u>			
Transformational	3.21	3.71	3.87	3.46	26.048	.000*	(1<2) (1<3) (1<4)
Transactional	2.83	3.05	3.00	2.93	8.046	.000*	(1<2) (1<3)
<u>Culture</u>							
Clan	3.55	3.79	3.66	3.59	2.438	.064	
Adhocracy	3.69	3.68	3.80	3.52	4.271	.006*	(3>4)
Market	4.14	4.12	4.25	4.03	4.000	.008*	(3>4)
Hierarchy	3.76	3.81	3.85	3.68	2.544	.056	
<u>Learning Org.</u>	3.22	3.54	3.50	3.21	2.899	.000*	(1<2) (1<3)

Note. \* $p < .007$ , M (1.0-5.0)

The results of the multivariate tests showed that the main effect for leadership, culture and learning organization among industry types was significant,  $F(21, 1177) = 5.842, p < .001$ , partial  $\eta^2 = 0.090$ , observed power = .964, which indicated the effect size was moderate. Thus, differences exist among industry types. Given the significance of the overall MANOVA test, the univariate main effects were examined. As shown in Table 4-16, significant univariate main effects for industries were obtained for percentages of Transformational Leadership:  $F(3, 416) = 26.048, p < .001$ , partial eta square = .158,

power = 1.000 ; Transactional Leadership:  $F(3, 416) = 8.046, p < .001$  , partial eta square = .055, power = .991; Adhocracy Culture:  $F(3, 416) = 4.271, p < .007$  , partial eta square = .030, power = .862; and Learning Organization:  $F(3, 416) = 7.946, p < .001$  , partial eta square = .054, power = .990.

As presented in Table 4-16 and 4-17, significant industrial pairwise differences were obtained in Transformational Leadership between manufacturing and both financial and heavy and chemical industries and between manufacturing and service. There were also significant differences in Transactional Leadership between manufacturing and both financial and heavy and chemical industries. Significant differences were obtained in both market and adhocracy culture between heavy and chemical industries and service. There were also significant differences in learning organization between manufacturing and both financial and heavy and chemical industries.

Table 4-17

*Significant Industrial Pairwise Differences*

Type	Industry differences
Transformational Leadership	Manufacturing < Financial, Heavy & Chemical, Service
Transactional Leadership	Manufacturing < Financial, Heavy & Chemical
Adhocracy and Market Culture	Heavy & Chemical > Service
Learning Organization	Manufacturing < Financial, Heavy & Chemical, Service

### **Summary of Hypotheses and Research Questions**

As described above, this research analyzed the given research questions and



hypotheses using SEM and MANOVA techniques and the results provided statistical evidence as presented in Table 4-18 below.

Table 4-18

*Summary of the Research Questions and Hypotheses*

Research Hypotheses	Results
H1: Leadership style → Learning organization	Partially supported
H2: Organizational culture → Learning organization	Partially supported
H3a: Moderating effect of Clan culture	Not supported
H3b: Moderating effect of Adhocracy culture	Not supported
H3c: Moderating effect of Hierarchy culture	Supported
H3d: Moderating effect of Market culture	Not supported
Research Questions	Results
Q1: Difference of leadership, culture and learning organization among Industries	Differed
Q2: Difference of the effect on Learning organization between Managers and Subordinates	Did Not Differ
Q3: Effective Leadership components on Learning organization	IA, IB, IC

### **Thematic Analysis**

The purpose of thematic analysis was to learn from middle managers' and subordinates' perceptions, within their organization, of the specific factors that influenced and encouraged leadership behavior and organizational culture in the development of the learning organization in their organization. There were few responses to the short-answer questions. Only 88 responses were provided: 36 responses for leadership behavior, 24 cases for organizational culture, and 28 cases for learning organization). The collected

cases were analyzed by coding the responses and conducting thematic analysis (Strauss & Corbin, 1998).

Firstly, the analysis identified three themes that reflected key leadership competencies: setting a direction, aligning with organizational strategies, and inspiring people. Thirty-six cases explained what leadership competencies influence the learning organization. For the direction theme, the most frequent responses were about providing clear vision that affected the entire organization as a leader (18 cases - i.e. "*The ability to provide direction and communicate the vision to encourage alignment within the organization,*" and "*The visioning and strategic thinking to address issues for sustaining competitive edge and provide the relevant organizational response*"). Participants also reported aligning people with organizational strategies to ensure long-term profitability and growth as another leadership competency. (10 cases - i.e. "*communicating with employees and aligning with the strategic direction of the organization,*" and "*sharing all information with employees*"). Finally, participants pointed to the motivating and inspiring people to overcome major barriers to change. (8 cases - i.e. "*Encouraging employees to adapt to change,*" and "*Creating an environment that motivates members*").

Secondly, with regard to organizational culture, 24 cases were reported and were categorized into three factors that organizational members reported about appropriate behavior: values, hidden assumptions and practices. Communication was the most important value that organization members should share (10 cases - i.e. "*Sharing the core value and goals of organizations,*" and "*Communication between employees and leaders and between departments*"). Also, an important part of organizational culture is that we should be able to identify hidden assumptions or implicit assumptions and 7 cases

concerned this trust. (i.e. *“The environment that help each other based on mutual trust,”* and *“Building up the trust between employees and management”*). In addition, acting fairly and taking responsibility were reported as practices of organizational culture. (7 cases – i.e. *“Treat others with honesty, fairness and respect,”* and *“Take responsibility for accomplishing work goals within accepted timeframes and accepts responsibility for one’s decisions and actions”*).

Finally, 28 cases were categorized into three levels of influencing factors for developing the learning organization: organization, group and individual. Participants suggested that an environment conducive to learning is essential to foster effective learning at the organization levels. (16 cases – i.e. *“A learning environment that supported by leaders is the most important factors for learning,”* and *“Structures and the reward system for learning should be provided by organization or executives”*). At the group level, most frequent responses were that group managers or leaders should guarantee a variety of learning opportunities and encouragement (8 cases – i.e. *“Group leaders should recognize the necessity of learning and provide the learning opportunities by adjusting heavy workloads of employees,”* and *“The most important factor for learning organization is the encouragement of group managers for employees”*). With regard to the individual level, 4 respondents answered that an individual’s willingness to learn and to share new knowledge and/or skills is critical for the development of learning organization (i.e. – *“Individual needs to make efforts to create new skills or knowledge and to share them with each other,”* and *“Employees themselves need to invest in their future through self-development”*).

As discussed above, several issues were reported as influential leadership

competencies, organizational culture, and learning organization factors for the development of the learning organization in business organizations. These factors need to be further studied in greater depth in future research.

### **Chapter Summary**

This chapter provided the results of various analyses based on the given research questions and hypotheses. First, transformational leadership and adhocracy culture had positive significant effects on the development of the learning organization. Second, organizational culture (hierarchy culture) had a moderating effect between transformational leadership and the learning organization. Third, the effects of leadership style and organizational culture on the development of the learning organization did not differ between middle managers and subordinates. Fourth, leadership components (idealized influence attributes, idealized influence behavior and individual consideration) in transformational leadership had significant effects on the learning organization. Fifth, leadership style, organizational culture and learning organization were different among the industry types. Finally, several issues on leadership competency, organizational culture and learning organization were reported.

## CHAPTER FIVE

### DISCUSSION, IMPLICATIONS, AND FUTURE RESEARCH

In recent years, interest in the learning organization has increased significantly as the capacity for organizational change and improvement has been associated with continuous learning of employees in business organizations. In order to obtain and sustain a competitive advantage in an increasingly complex and turbulent environment, business organizations must enhance their learning capabilities and must be able to learn better and faster from their success and failures, from within and from outside (Marquardt, 1996). The main purpose of this study was to investigate the effects of the middle manager's leadership style and organizational culture on the learning organization. Before examining the moderating effect of organizational culture, this study first assessed the effect of the middle manager's leadership style (transformational leadership and transactional leadership) as well as the effect of organizational culture (clan culture, adhocracy culture, market culture and hierarchy culture) on the development of the learning organization.

The results showed that leadership style and organizational culture have a partially positive influence in the development of the learning organization. Only transformational leadership and adhocracy culture had a positive significance at the middle management level. This means that the middle manager's transformational leadership and an adhocracy culture are required to facilitate the transition to a learning organization. However, market culture was also significant but had a negative effect on the learning organization.

The primary characteristics of market culture are a focus on external factors and a need for competitors and market share. Organizations within this culture are described as results-oriented with competitive and goal-oriented people who focus on winning and define success as the amount of market share achieved (Cameron & Quinn, 1999). In a market culture, the dominant attribute is competitiveness goal achievement (Cameron & Freeman, 1991). People are competitive and goal-oriented and the leaders are hard drivers, producers and competitors. In contrast, a learning organization focuses on creating new solutions and sharing knowledge with other members who may need it (Sugarman, 2001). There should be openness to new ideas, wherever they come from, and a sharing of knowledge for the good of the business (Watkins & Marsick, 2003). Thus, one would not logically connect a strong market culture to the development of the learning organization.

Organizations need to be flexible to survive in a rapidly changing environment. The need for adaptive and flexible organizational culture within organizations has long been suggested in the turbulent and uncertain environment (Bluedorn & Lundgren, 1993). Adhocracy culture is characterized as flexible and creative and could be integral to effective change initiatives and strategies. In this type of culture it is important for members to develop adaptability, flexibility, and creativity. Members must be able to constantly acquire new knowledge and interpret new information. Such a culture would tend to promote new knowledge and spur involvement in a learning organization. The results of this research provide support for the expectation that the adhocracy culture has a positive influence in the development of learning organization. To make the transition to a learning organization, organizations require an adhocracy culture that supports and

facilitates this transformation.

Transformational leadership has also a positive effect on the development of the learning organization. This means that learning organizations require the leadership of the transformational leader at the middle management level who enables their members to withstand and survive the environmental uncertainty by continuing to acquire new knowledge and information through the mechanism of the learning organization. Middle managers with transformational leadership should allow their team members to understand the goals and importance of the learning organization and encourage them to embrace continuous learning.

Today's workforce is more educated than workers of the past. Today's workers are concerned about the development of their abilities and the opportunity to acquire new knowledge or information (Bass & Avolio, 1993). Certainly, this point is an important consideration for middle managers and those responsible for training and retaining the workforce. Transactional leaders who simply reward or acknowledge agreed upon performance objectives without intellectual stimulation or consideration of subordinate's individual needs, are not likely to attract, invigorate or retain employees (Bass and Avolio, 1993). Rather than analyzing and controlling specific transactions with the followers by using rules, directions and incentives, transformational leadership focuses on intangible qualities such as behavioral and cognitive changes in organizational members, which are the final and apparently the most important phase of the learning process in organizations.

A finding of this research is that transformational leadership has a positive effect on the development of the learning organization. Above all, middle managers need to

promote learning for their subordinates and create opportunities for subordinates to acquire knowledge or information from heterogeneous sources. Middle managers have a particularly strong impact on the acquisition of knowledge or information. Middle managers also need to establish opportunities for subordinates to distribute information, meet, discuss ideas, and facilitate interpretations based on wider perspectives.

This research also sought to identify the key variables in transformational leadership that predict the development of the learning organization. Three of the five components were significant. Idealized Influence (Behavior), Idealized Influence (Attributable) and Individual Consideration are the specific components that most highly correlate with the learning organization. The idealized influence articulated by the transformational leader provides a challenge and motivating force for change to the followers as it represents a perspective shared by all the followers and promises to meet their hopes and aspirations. These factors in transformational leadership could help organizations to develop the learning organization. It is recommended that middle managers focus attention on those specific components of behavior if they are interested in developing the learning organization.

The current research also examined the moderating effect of organizational culture and the results supported only the hypothesis that hierarchy culture moderates the positive relationship between transformational leadership and the learning organization. The group that demonstrated a high level of hierarchy culture produced a higher *b*-weight than that of the low levels of hierarchy culture group regarding the effects of transformational leadership on the development of the learning organization. Interestingly, the hierarchy culture showed a non-significant effect on the learning organization when



including the other organizational culture types (clan culture, adhocracy culture and market culture) but hierarchy culture moderates the effect of transformational leadership on the learning organization. In other words, results suggested transformational leadership of middle manager has an effect on the development of the learning organization under the hierarchy culture group. This means that hierarchy culture supports the development of the learning organization under transformational leadership.

The primary characteristics of hierarchy culture are a focus on internal maintenance and the need for stability and control. The long-term concern is on stability and performance with efficient, smooth operations. Core values promote unity and consistency within the learning organization. Logically, a learning organization with transformational leadership under hierarchy culture would provide a stable environment in order for the learning needed to be sustained for the long-term. This would promote growth in the learning organization, building up a formal and well-structured learning system in business companies.

Although the other three types – clan, adhocracy and market – of organizational culture didn't moderate the relationships between transformational leadership and the development of the learning organization, hierarchy culture was found to exert the unique effect. Middle managers should recognize this as they seek to influence subordinates and achieve their organizational goals. Success can be contingent upon the type of organizational culture being practiced.

Thus, we could say that the interaction of hierarchy culture and transformational leadership at the middle management level could be considered an important factor when business companies attempt to build up and develop the learning organization. This is

good news for Korean business companies, since most large companies in Korea have hierarchy culture.

Another purpose of this study was to examine the difference between managers and subordinates on the effect of leadership style (transformational/transactional leadership) and organizational culture (clan culture, adhocracy culture, market culture and hierarchy culture) on the development of the learning organization.

Self-ratings are often inflated (Podsakoff & Organ, 1986) and have been shown to be less related to ratings by others: subordinates, peers or supervisors (Harris & Schaubroeck, 1988). For this reason, with regard to the effect of leadership style on the learning organization at the middle management level, the current study expected that the average effect of managers would be different from that of subordinate groups. This research also assumed that the effect of organizational culture on the learning organization in the manager group would be different from that in subordinate groups, because managers have observed their culture for a long time and thus might assess the organizational culture more exactly. However, the results of this study were not consistent with these expectations. The results showed that the effect of leadership style and organizational culture on the learning organization were not different in the two groups. For the both managers and subordinates, the effects of transformational leadership and adhocracy culture on the learning organization were significantly positive and the market culture had a negative effect on the learning organization.

This study examined the industry types with significant variance within factors of leadership style (transformational and transactional leadership), organizational culture (clan culture, adhocracy culture, market culture and hierarchy culture) and a learning

organization. As for leadership style, the recognition of manufacturing industries was lower than that of financial industries, heavy and chemical industries and service industries in transformational leadership. In transactional leadership the recognition of manufacturing industries was also lower than that of financial industries and heavy and chemical industries. This means that manufacturing industries have lower levels of transformational and transactional leadership than that in other industry types.

As for organizational culture, heavy and chemical industries came with higher recognition compared to service organizations only in regards to adhocracy culture. We can conclude that heavy and chemical industries have a higher level of adhocracy culture than that in service industries. As for the learning organization, manufacturing industries place a lesser emphasis on the learning organization than that of financial industries and heavy and chemical industries. In other words, financial industries and heavy and chemical industries consider the learning organization more important. On the whole, manufacturing industries put a lower emphasis on the development of the learning organization and two leadership styles, and heavy and chemical industries possess the flexible and adhocracy culture in Korean business companies.

### **Implications**

Middle management continues to have a considerable impact on organizational success but middle managers are not sufficiently prepared to lead in the new world (Bernthal & Wellins, 2003). Middle management is a key position, making middle manager's leadership style crucial to organizational success (Bernthal & Wellins, 2003; Conger & Fulmer, 2003; Newport, 1964; Wellins & Weaver, 2003). Middle managers

became responsible for internal and external relationships, and in order to improve organizational performance, middle management's leadership style, organizational culture and the learning organization should be considered as important factors in the paradoxical situations that represented current and future business states (Buchen, 2005; Childs, 2002; Fenton-O'Creevy, 1998).

This study identified the leadership style of middle managers (transformational leadership) and the organizational culture type (adhocracy culture) that are crucial to the development of the learning organization. In particular, the current research found that there was a moderating effect of organizational culture (hierarchy culture) on the relationship between middle management's leadership style and the learning organization. There can be a number of implications for Korean corporate leaders, middle managers and human resource departments from this study. Middle managers need to realize the impact of their personal leadership styles and organizational culture upon the learning organization within the workplace, and that the success of their organizations is dependent on the development of the learning organization. Hence, to enhance their learning organization and organizational improvement, the current and potential middle managers could consider changing their leadership style to transformational leadership or changing their teams to the adhocracy culture type. They can also assess whether their leadership style is appropriate for the development of the learning organization that matches their organizational culture.

In addition, this further reaffirms the use of the contingency approach in selecting, recruiting and promoting middle managers to improve organizational performance. Study outcomes will benefit executives or human resource managers. Executives and human

resource managers can use the results of this study as a reference in recruiting or promoting middle managers for the development of the learning organization in their own companies and building up middle management development strategies. For example, in order to maximize the learning organization's effectiveness and improve organizational improvement, organizations with hierarchy culture could select the best middle managers with transformation leadership styles for developing their learning organization, by understanding that transformational leadership could work best in the learning organization under hierarchy culture. Organizations could also recruit middle managers with transformational leadership styles externally or promote from within to build up and sustain the learning organization in their organizations. This study contributes to research related to the effects of leadership style of middle management and organization culture on the learning organization in Korea.

### **Recommendations for Future Research**

This research has shed light on the importance of transformational leadership and adhocracy culture for the development of the learning organization. In addition to these two factors, there could be a number of other factors that influence the development of learning organizations. The proposed model is unlikely to be fully comprehensive. In particular, there could be unmeasured variables (e.g., other important predictors, mediating processes, and criteria) that may be acting as causal agents. Replication of this study and convergence with other studies will tease out this phenomenon over time. With regard to organizational culture, for example, some other unidentified culture not examined in this research could account for the moderating effect of transformational

leadership on the development of the learning organization. In order to strengthen the learning organization in the business company, organizations which have transformational leaders might consider some other types of organizational culture. Further research on more diverse types of organizational culture is suggested in order to consider the effects of transformational leadership on the development of the learning organization. A study of other factors would provide a fruitful insight into the development of the learning organization.

This study empirically examined the impact of leadership style and organizational culture on the development of the learning organization. However, this study did not examine the dual link on the leadership style and organizational culture at the middle management level. Leaders have effects on the organizational culture and the culture of an organization also influences the leadership style of individuals and teams (Ogbonna & Harris, 2000). According to Bass and Avolio (1993), transformational leadership helps to develop a transformational culture and transformational cultures are necessary to create a flexible and adaptive culture. In addition to these results, we could assess how the dual link between leadership and culture has effects on the learning organization and, at the same time, is conducive to ongoing change which promotes learning organization.

Finally, while examination of transformational leadership and adhocracy culture in this empirical study provided a significant contribution to the development of the learning organization in the businesses studied, continuing research is needed to gain additional illumination as to how transactional/transformational leadership and organizational culture types affect the learning organization in other organizations. Application of study findings to other organizational contexts, particularly nonprofit

organizations, public organizations, and even other business organizations via similar research endeavors is both needed and encouraged. Also, examination of the effect on the learning organization is needed in light of a myriad of other newly proposed models of leadership. Avolio et al. (2009) offer an overview of current leadership theories including authentic leadership, complexity leadership, shared leadership, and spiritual leadership, in addition to offering suggestions for research. Key questions about the relationships between these leadership theories and the learning organization remain unanswered.

### **Conclusion**

The present day business environmental pressure necessitates the transformation to a learning organization. In this present environment the challenge for business organizations is to create contexts in which employees continually learn and acquire new knowledge or information from both inside and out. Rather than responding, adapting and making a compromise with change, business organizations have to be innovative and strive for the creation of new ideas and new products (Barrett, 1995). The current research has suggested that transformational leadership of middle managers and adhocracy culture is one of the most important factors influencing the creation and development of the learning organization in the Korea business organization context. In particular, transformational leadership of middle managers was found as the most effective factor on the development of the learning organization under the hierarchy culture.

In order to improve organizational performance and survive the environmental pressure in the face of a turbulent environment, traditional business organizations need to

be transformed into learning organizations that can transmit new knowledge and create new products. Middle managers with transformational leadership will play a key role in making the transition to a learning organization, encouraging employees to embrace continuous learning in business settings.



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**APPENDIX A:**

**Questionnaires for Survey (English and Korean Versions)**

## MULTIFACTOR LEADERSHIP QUESTIONNAIRE (MLQ)-Leader Form

(SAMPLE)

Items in this questionnaire ask you to describe your leadership style as you perceive it. Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits you. The word “others” may mean your peers clients, direct reports, supervisors, and/or all of these individuals. Please answer all items on this answer sheet and circle only one response for each item.

Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly Often	Frequently, if not always
(1)	(2)	(3)	(4)	(5)

1. I provide others with assistance in exchange for my efforts
2. I re-examine critical assumptions to question whether they are appropriate
3. I fail to interfere until problems become serious
4. I focus attention on irregularities, mistakes, exceptions, and deviations from standards
5. I avoid getting involved when important issues arise



## MULTIFACTOR LEADERSHIP QUESTIONNAIRE (MLQ)-Rater Form

(SAMPLE)

Items in this questionnaire describe the leadership style of your middle manager (manager, senior manager, or general manager: between the top management group (i.e., executives or vice presidents) and first-level supervisors (i.e., assistant managers or operations division managers) as you perceive it. Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing. Please answer all items on this answer sheet and circle only one response for each item.

Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly Often	Frequently, if not always
(1)	(2)	(3)	(4)	(5)

The person I am rating

1. Provides me with assistance in exchange for my efforts
2. Re-examines critical assumptions to question whether they are appropriate
3. Fails to interface until problems become serious
4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards
5. Avoids getting involved when important issues arise

### Organizational Culture Assessment Instrument (OCAI)

The following statements describe types of operating values which may exist in “your organization.” Please indicate the extent to which each statement describes “your organization.” None of the descriptions are any better than others; they are just different. Please answer all items on this answer sheet and circle only one response for each item.

Use the following rating scale:

Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)

1. The organization is a very personal place. It is like an extended family. People seem to share a lot of themselves.
2. The organization is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.
3. The organization is very results oriented. A major concern is with getting the job done. People are very competitive and achievement oriented.
4. The organization is a very controlled and structured place. Formal procedures generally govern what people do.
5. The leadership in the organization is generally considered to exemplify mentoring, facilitating or nurturing.
6. The leadership in the organization is generally considered to exemplify entrepreneurship, innovating, or risk taking.

7. The leadership in the organization is generally considered to exemplify a no-nonsense, aggressive, results-oriented focus.
8. The leadership in the organization is generally considered to exemplify coordinating, organizing, or smooth-running efficiency.
9. The management style in the organization is characterized by teamwork, consensus, and participation.
10. The management style in the organization is characterized by individual risk-taking, innovation, freedom, and uniqueness.
11. The management style in the organization is characterized by hard driving competitiveness, high demands, and achievement.
12. The management style in the organization is characterized by security of employment, conformity, predictability, and stability in relationships.
13. The glue that holds the organization together is loyalty and mutual trust. Commitment to this organization runs high.
14. The glue that holds the organization together is commitment to innovation and development. There is an emphasis on being on the cutting edge.
15. The glue that holds the organization together is the emphasis on achievement and goal accomplishment. Aggressiveness and winning are common themes.
16. The glue that holds the organization together is formal rules and policies. Maintaining a smooth running organization is important.
17. The organization emphasizes human development. High trust, openness, and participation persist.

18. The organization emphasizes acquiring new resources and creating new challenges.  
Trying new things and prospecting for opportunities are valued.
19. The organization emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.
20. The organization emphasizes permanence and stability. Efficiency, control and smooth operations are important.
21. The organization defines success on the basis of the development of human resources, teamwork, employee commitment, and concern for people.
22. The organization defines success on the basis of having the most unique or newest products. It is a product leader and innovator.
23. The organization defines success on the basis of winning in the marketplace and outpacing the competition. Competitive market leadership is key.
24. The organization defines success on the basis of efficiency. Dependable delivery, smooth scheduling, and low-cost production are critical.

### Dimensions of Learning Organization Questionnaires (DLOQ)

DLOQ is an instrument to measure levels of environmental factors of the learning organization, which includes learning-related factors, system connection, leadership, and organizational support. Please answer all items on this answer sheet and circle only one response for each item.

Use the following rating scale:

Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(1)	(2)	(3)	(4)	(5)

In my organization, people help each other learn.

1. In my organization, people take time to support learning.
2. In my organization, people are rewarded for learning.
3. In my organization, people give open and honest feedback to each other.
4. In my organization, whenever people state their view, they also ask what others think.
5. In my organization, people spend time building trust with each other.
6. In my organization, people have the freedom to adapt their goals as needed.
7. In my organization, people revise thinking as a result of organization discussions or information collected.
8. In my organization, we are confident that the organization will act on our recommendations.

9. My organization creates systems to measure gaps between current and expected performance.
10. My organization makes its lessons learned available to all employees.
11. My organization measures the results of the time and resources spent on training and learning.
12. My organization recognizes people for taking initiative.
13. My organization gives people control over the resources they need to accomplish their work.
14. My organization supports members who take calculated risks.
15. My organization encourages people to think from a global perspective.
16. My organization works together with the outside community or other outside resources to meet mutual needs.
17. My organization encourages people to get answers from multiple locations and perspectives when solving problems.
18. In my organization, leaders mentor and coach those they lead.
19. In my organization, leaders continually look for opportunities to learn.
20. In my organization, leaders ensure that the organization's actions are consistent with its values.

### Short-Answer Questions

Please answer for following short-answer questions. These questions ask your perceptions about the most influential and encouraging factors related to leadership behavior and organizational culture in the development of the learning organization in your organization.

1. What factors do you think are the most influential and encouraging for leadership behavior that develops the learning organization in your organization? (Please list 3 factors in declining order of importance.)
2. What factors do you think are the most influential and encouraging for organizational culture that develops the learning organization in your organization? (Please list 3 factors in declining order of importance.)
3. What factors does your organization utilize to promote learning that supports the professional growth of individual employees and the entire organization?
4. What other comments, if any, do you have about leadership behavior, organizational culture and/or the learning organization?

**General Demographic Questionnaires**

1. Gender: Male  
Female
2. Type of Task: HR/Management  
Sales/Marketing  
Production  
IT/Service  
Others
3. Years of work Less than 1 year  
More than 1 but less than 3 years  
More than 3 but less than 5 years  
More than 5 but less than 7 years  
More than 7 but less than 9 years  
More than 9 years
4. Position: Employee or Worker  
Assistant Manager or Operations Division Manager or Section  
Manager,  
Manager  
Senior Manager  
General Manager  
Others
5. Unit of Business: Manufacturing  
Finance  
Heavy & Chemical  
Service



## MULTIFACTOR LEADERSHIP QUESTIONNAIRE (MLQ)-Leader Form

### (리더십 스타일 질문지 - 리더용)

(SAMPLE)

본 설문지는 귀하가 일반적으로 생각하는 본인의 리더십 스타일을 알아보기 위한 설문사항들입니다. 각 문항의 내용이 팀 본인의 스타일과 언제나 일치하면 "거의 매번 그런다"에, 전혀 일치하지 않으면 "전혀 그러지 않는다"에 표기하여 주십시오. 각 항목에 대해 보기 중 한가지만 선택해 주십시오.

①전혀 그러지 않는다 ②매우 드물게 그런다 ③가끔씩 그런다 ④자주 그런다 ⑤거의 매번 그런다

1. 나는 내가 노력하는 만큼 후배/부하를 지원 해 준다
2. 나는 기본적이며 중요한 가정들이 과연 적절한가 다시 검토한다
3. 나는 문제들이 심각해 질 때까지는 관여하지 않는다
4. 나는 변칙, 실수, 예외, 그리고 기준에서의 이탈에 주로 초점을 둔다
5. 나는 중요한 사안이 발생했을 때에 그것에 관여되는 것을 회피한다

## MULTIFACTOR LEADERSHIP QUESTIONNAIRE (MLQ)-Rater Form

### (리더십 스타일 질문지 - 부하/후배용)

(SAMPLE)

본 설문지는 귀하가 일반적으로 생각하는 팀내 리더(부장/수석급)의 리더십 스타일을 알아보기 위한 설문사항들입니다. 각 문항의 내용이 팀 내 리더(부장/수석급)의 스타일과 언제나 일치하면 "거의 매번 그런다"에, 전혀 일치하지 않으면 "전혀 그러지 않는다"에 표기하여 주십시오. 각 항목에 대해 보기 중 한가지만 선택해 주십시오.

①전혀 그러지 않는다 ②매우 드물게 그런다 ③가끔씩 그런다 ④자주 그런다 ⑤거의 매번 그런다

1. 나의 리더(부장/수석)는 내가 노력 하는 만큼, 나를 지원 해 준다
2. 나의 리더(부장/수석)는 기본적이며 중요한 가정들이 과연 적절한가 다시 검토한다
3. 나의 리더(부장/수석)는 문제들이 심각해질 때까지는 관여하지 않는다
4. 나의 리더(부장/수석)는 변칙, 실수, 예외, 그리고 기준에서의 이탈에 주로 초점을 둔다
5. 나의 리더(부장/수석)는 중요한 사안이 발생했을 때에, 그것에 관여되는 것을 회피한다.

## Organizational Culture Assessment Instrument (OCAI)

### (조직문화 설문지)

본 설문지는 귀하가 일반적으로 생각하는 귀사의 분위기를 알아보기 위한 설문사항들입니다. 각 문항의 내용에 적극 동의하시면 "정말 그렇다"에, 전혀 동의하지 않으시면 "전혀 그렇지 않다"에 표기하여 주십시오. 각 항목에 대해 보기 중 한가지만 선택해 주십시오.

①전혀 그렇지 않다 ②그렇지 않은 편이다 ③그런지 아닌지 잘 모르겠다 ④그런 편이다 ⑤정말 그렇다

1. 회사는 조직 구성원들이 가족처럼 많은 것을 서로 공유하는 친밀한 공간이다
2. 회사는 조직 구성원들이 기꺼이 위험을 감수하는 역동적이고 진취적인 집단이다
3. 회사의 조직 구성원들은 매우 경쟁적이고 성과중심적으로 주어진 업무를 완수한다
4. 회사는 체계화된 정책과 절차에 의해 운영되는 조직적이고 통제적인 집단이다
5. 경영층은 멘토링 또는 퍼실리테이터(촉진자)로서의 본보기를 보여준다
6. 경영층은 혁신적이고 도전적이며 진취적인 본보기를 보여준다
7. 경영층은 현실적이고 적극적이며 결과중심적인 본보기를 보여준다
8. 경영층은 조화롭고 조직적이며, 원활하고 효율적인 운영의 본보기를 보여준다
9. 회사의 경영스타일은 팀웍과 합의 그리고 참여를 중시한다
10. 회사의 경영스타일은 도전적이고 혁신적이며 독창성을 중시한다
11. 회사의 경영스타일은 무한경쟁과 높은 성과를 중시한다

12. 회사의 경영스타일은 고용안정과 확실성, 예측성 그리고 인간관계의 안정을 중시한다
13. 회사의 결속력은 상호 신뢰와 애착심에 바탕을 두며 조직에 대한 헌신을 요구한다
14. 회사의 결속력은 혁신과 개발에 대한 전념에 바탕을 두며 최첨단을 요구한다
15. 회사의 결속력은 성과와 목표달성에 바탕을 두며 적극성과 승리를 요구한다
16. 회사의 결속력은 체계화된 정책과 규칙에 바탕을 두며 원활한 조직운동을 요구한다
17. 회사는 인력개발과 지속적인 참여 및 높은 신뢰를 강조한다
18. 회사는 새로운 것에 도전하고, 새로운 경영자원 획득을 강조한다
19. 회사는 경쟁적인 행동과 성과, 시장선점을 강조한다
20. 회사는 영속성과 안정성 및 효율과 통제, 원활한 운영을 강조한다
21. 회사는 인적자원개발, 팀웍, 구성원들에 대한 관심과 헌신이 회사의 성공을 이끈다고 여긴다
22. 회사는 독창적이고 혁신적인 상품 또는 리더가 회사의 성공을 이끈다고 여긴다
23. 회사는 경쟁적 성과와 빠른 시장 선점이 회사의 성공을 이끈다고 여긴다
24. 회사는 효율성과 비용절감이 회사의 성공을 이끈다고 여긴다

## Dimensions of Learning Organization Questionnaires (DLOQ)

### (학습조직 설문지)

본 설문지는 학습 조직의 환경적 요소를 진단 하기 위한 진단지로, 귀하가 일반적으로 생각하는 귀사의 학습조직 활성화 정도를 알아보기 위한 설문사항들입니다. 각 문항의 내용에 적극 동의하시면 "정말 그렇다"에, 전혀 동의하지 않으시면 "전혀 그렇지 않다"에 표기하여 주십시오. 각 문항에 대해 보기 중 한가지만 선택해 주십시오.

①전혀 그렇지 않다 ②그렇지 않은 편이다 ③그런지 아닌지 잘 모르겠다 ④그런 편이다 ⑤정말 그렇다

1. 회사의 조직 구성원들은 상호간에 학습을 도와준다.
2. 회사의 조직 구성원들은 학습하는데 시간을 투자한다
3. 회사의 조직 구성원들은 학습에 대해 보상을 받는다.
4. 회사의 조직 구성원들은 상호간에 개방적이고 솔직한 피드백을 준다.
5. 회사의 조직 구성원들은 언제든지 자신의 의견을 말할 수 있고, 다른 사람들의 의견을 물어볼 수 있다.
6. 회사의 조직 구성원들은 상호간에 신뢰를 쌓기 위해 시간을 투자한다.
7. 회사의 조직 구성원들은 필요시 자신의 업무목표를 자유롭게 수립할 수 있다.
8. 회사의 조직 구성원들은 수집된 정보나 부서내 토론의 결과에 따라 자신의 생각을 수정한다.
9. 우리는 회사가 우리의 의견과 건의사항을 수용할 것이라고 믿는다.
10. 회사는 현재의 성과와 예상되는 성과간의 차이를 측정할 수 있는 시스템을 갖고 있다.
11. 회사는 구성원들이 습득한 정보를 모든 임직원들이 이용하고 공유할 수 있도록 한다.

12. 회사는 구성원들이 교육받고 학습하는데 들어간 시간과 자원대비 얼마만큼의 성과를 거두었는지 측정한다.
13. 회사는 기획안을 처음으로 기획한 구성원을 인정해 준다.
14. 회사는 구성원들이 업무를 수행하는데 필요한 자원을 스스로 관리하고 사용할 수 있도록 권한을 준다.
15. 회사는 구성원들이 위험요소가 있는 업무도 추진할 수 있도록 지원한다.
16. 회사는 구성원들이 글로벌 시각으로 생각할 수 있도록 독려한다.
17. 회사는 상호간의 요구를 충족시키기 위하여 지역사회 또는 외부자원들과 함께 협력한다
18. 회사는 구성원들이 문제를 해결할 때 다양한 시각과 관점으로부터 답을 얻을 수 있도록 독려한다
19. 회사의 리더 또는 상사들은 구성원들의 멘토와 코치의 역할을 해준다.
20. 회사의 리더 또는 상사들은 구성원들이 지속적으로 학습할 수 있도록 기회를 찾아준다.
21. 회사의 리더 또는 상사들은 조직의 행동이 회사의 가치와 일치하도록 노력한다.

**APPENDIX B:**

**IRB Approval and Recruitment Letter (English and Korean Version)**

## Recruitment Letter

Hello, my name is Jin Yong Kim, a doctoral student at the Penn State University in the U.S.A. I am conducting my doctoral dissertation, and I would like to invite you to participate in a research study. You were selected, as a possible participant because your company agreed to take part in this research under the condition your participation is completely voluntary. In order to participate in this research, you need to be employed currently in your companies and you are 18 years of age and older. Please read this form carefully and ask any questions you may have before agreeing to be in the study.

Your decision of whether or not participate will not affect your current or future relations with Penn State University or your company. No physical or psychological risks are expected during your participation in this study. The benefit of participation of your company and participants is to receive only a summary of the results if should you and/or your company desire a copy. Individual or team results will not be given to your leader or your company.

All data will be kept in a locked password personal laptop computer. Employers will NOT have access to any individual responses. In the completed report, we will not include any information that will make it possible to identify any of your individual subjects.

You may contact the following with any questions:

Jin Yong Kim at [juk214@psu.edu](mailto:juk214@psu.edu), 814-933-6783 (USA) at any time if you have any questions and need additional information or Dr. Judith A. Kolb (thesis advisor) at [jak18@psu.edu](mailto:jak18@psu.edu), 814-865-1876 (USA)

If you are considering participation in this study, please read the following document before you make any decisions.

Sincerely

Researcher Jin Yong Kim



## 연구 참여 초청서

안녕하십니까, 저는 미국 펜실베니아 주립대학 박사 과정 중에 있는 김진용입니다. 진행중인 저의 박사 학위 논문을 위한 데이터 수집을 위한 설문에 귀하를 초청하고자 합니다. 귀하는 귀하 회사의 동의를 통해, 가능한 응답자로 선택 되셨습니다. 또한 설문 참여는 전적으로 자발적인 참여에 의해 이루어집니다. 설문 참여를 위해서 귀하는 현재 근무중인 임직원이어야 하며 18세 이상의 성인 이어야 함을 알려드립니다. 본 초청장을 잘 읽어보시고 참여를 결정해 주시면 됩니다.

귀하의 본 설문에 대한 참여는 귀하의 회사와 펜실베니아 주립대학의 관계에 어떠한 영향도 미치지 않음을 알려드립니다. 또한 본 설문 참여에 있어서 어떠한 물리적, 심리적 위험 요소가 존재 하지 않음을 알려 드립니다. 본 연구의 결과는 요청에 의해 귀하 혹은 귀하의 회사에 제공되어 질 수 있습니다. 개인 또는 팀 결과는 귀하의 리더 또는 귀하의 회사에 제공되지 않을 것입니다.

본 연구를 위한 수집된 자료는 연구자의 개인 컴퓨터에 보관 될 것이며, 귀하의 회사에는 개개인의 응답에 접근 할 수 있는 권한이 없음을 알려 드립니다. 본 연구의 진행 중에 수집된 모든 개인 정보는 개인의 사생활 보호를 위해 삭제 됨을 알려 드립니다.

본 연구에 대한 어떠한 문의 사항이 있으시면 다음의 연락처로 연락해 주시면 됩니다.

연구자: 김진용 – 이메일: [juk214@psu.edu](mailto:juk214@psu.edu) / 전화: 1-814-933-6783

지도교수: Dr. Judith A. Kolb – 이메일: [jak18@psu.edu](mailto:jak18@psu.edu) / 전화: 1-814-865-1876

본 연구의 참여 결정은 다음 장의 연구 개요를 잘 읽으신 후 결정하시면 됩니다.

연구자 김진용 드림



**Implied Informed Consent Form for Social Science Research**  
The Pennsylvania State University

**Title of Project:**

THE RELATIONSHIP AMONG LEADERSHIP STYLE, ORGANIZATIONAL CULTURE AND THE LEARNING ORGANIZATION: The moderating effects of organizational culture on the relationship between leadership style of middle management and the learning organization in the Korean business setting

**Principal Investigator:** Jin Yong Kim / 409J Keller Building,  
The Penn State University, University Park, PA 16802  
Juk214@psu.edu / 814-863-4364

**Advisor:** Dr. Judith A. Kolb / 310A Keller Building  
The Penn State University, University Park, PA 16802  
jak18@psu.edu / 814-865-1876

1. **Purpose of the Study:** The purpose of this research is to examine the relationship among leadership style, organizational culture and the learning organization. Especially, this study examines the moderating effects of organizational culture on the relationship between leadership style of middle management and the learning organization in the Korean business setting
2. **Procedures to be followed:** You will be asked to take an online survey, which has five parts: 1-Leadership style (45 items); 2-Organizational culture (24 items); 3-Learning organization concepts (21 items); 4-demographic questions (5 items); and 5-Short answer questions (4 items).
3. **Duration/Time:** It will take about 30 to 35 minutes to complete the survey.
4. **Statement of Confidentiality:** Your participation in this research is confidential. The survey does not ask for any information that would identify who the responses belong to. In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared because your name is in no way linked to your responses. Your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties.
5. **Right to Ask Questions:** Please contact Jin Yong Kim at (814) 933-6783 with questions or concerns about this study.
6. **Payment for participation:** There will be no financial compensation for participating in this study.
7. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.

You must be 18 years of age or older to take part in this research study.



## 사회과학 연구를 위한 연구 지원 동의서

### 펜실베이니아 주립대학교

Completion and return of the survey implies that you have read the information in this form and consent to take part in the research. Please print off this form to keep for your records.

#### 연구제목:

리더십 스타일, 조직문화, 그리고 학습조직 사이의 관계: 한국의 기업에서 중간관리자의 리더십스타일과 학습조직 사이의 관계에 대한 조직문화의 조절효과

**연구자:** 김진용/ 미국 펜실베이니아 주립대학교, 409J Keller 빌딩  
[Juk214@psu.edu](mailto:Juk214@psu.edu)/814-863-4364 (미국)

**논문 지도교수:** Dr. Judith A. Kolb/310A Keller 빌딩  
 펜실베이니아 주립대학교  
[Jak18@psu.edu](mailto:Jak18@psu.edu)/814-865-1876

1. **연구목적:** 본 연구의 목적은 리더십 스타일, 조직문화, 그리고 학습조직 사이의 관계를 규명하기 위함입니다. 특히 본 연구는 한국의 기업에서 중간관리자의 리더십스타일과 학습조직 사이의 관계에 대한 조직문화의 조절효과를 조사할 예정입니다
2. **연구진행:** 귀하는 귀사의 온라인을 통해 설문에 참여하시게 됩니다. 본 설문은 5부분의 영역으로 구성되어 있습니다? 1- 45개의 문항을 통한 리더십 스타일 진단; 2- 24개의 문항을 통한 조직문화에 대한 진단; 3- 21개의 문항을 통한 학습조직에 대한 진단; 4- 5문항의 일반적인 개인정보; 그리고 5- 4문항의 부가적인 주관식 응답
3. **소요시간:** 설문을 완성하는데 약 30분에서 35분 소요예정

4. **개인정보 보호:** 본 연구의 참여는 익명으로 보호됩니다. 본 설문은 누가 응답했는지에 대한 어떠한 정보도 요구하지 않습니다. 본 연구 결과의 발표와 논문 게재 시에는 귀하의 성함이 익명으로 처리되기 때문에 개인적 정보는 공유되지 않을 것입니다. 귀하의 개인정보는 이용된 기술적 시스템에 의해 허용되는 정도로 보호될 것입니다. 인터넷을 통해 보내진 데이터에 대해서는 다른 제3자에 의한 중도유출에 대해 보장될 수 없습니다.
  
5. **문의사항에 대한 연락:** 본 연구에 대한 모든 문의 사항은 연구자: 김진용 ([juk214@psu.edu](mailto:juk214@psu.edu))로 문의해 주십시오
  
6. **연구참여에 대한 보상:** 본 연구의 참여는 자발적이며, 참여에 대한 어떤 금전적 보상도 없음을 알려 드립니다
  
7. **연구참여:** 본 연구 참여는 자발적인 의사 결정에 의해 이루어지며, 참여 중에도 언제든지 응답을 중단 할 수 있으며, 그로 인한 불이익은 발생하지 않음을 알려 드립니다

본 연구의 참여를 위해 귀하는 반드시 18세 이상의 성인이어야 합니다

설문의 완성과 응답은 귀하가 본 동의서를 읽고 연구에 참여하는 것에 동의하시는 것을 의미합니다. 귀하의 기록을 위해 본 페이지를 프린트하시기 바랍니다.

## **APPENDIX C:**

### **Permission Letters for Using the Instrument**

- **IRB approval letter**
- **Permission letter: Multifactor Leadership Questionnaire (MLQ)**
- **Permission letter: Organizational Culture Assessment Instrument (OCAI)**
- **Permission letter: The Dimensions of the Learning Organization Questionnaires (DLOQ)**

## IRB approval letter

From "Brown, Amanda" <aeb29@rtto.psu.edu>  
To "'juk214@psu.edu'" <juk214@psu.edu>

Subject:  
IRB#35807 THE RELATIONSHIP AMONG LEADERSHIP STYLE,  
ORGANIZATIONAL  
CULTURE AND THE LEARNING ORGANIZATION

Date Thu, Dec 16, 2010 04:43 PM  
CC "'jak18@psu.edu'" <jak18@psu.edu> □

IRB#35807 THE RELATIONSHIP AMONG LEADERSHIP STYLE,  
ORGANIZATIONAL CULTURE AND THE LEARNING ORGANIZATION: The  
moderating effects of organizational culture on the relationship between leadership style  
of middle management and the learning organization in the Korean business setting

Jin Yong Kim,

The Office for Research Protections (ORP) has reviewed the eSubmission application for your research involving human participants and determined it to be exempt from IRB review. You may begin your research. This study qualifies under the following category:

**Category 2:** Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observations of public behavior unless: (i) information obtained is recorded in such a manner that human participants can be identified, directly or through identifiers linked to the participants; **and** (ii) any disclosure of the human participants' responses outside the research could reasonably place the participants at risk of criminal or civil liability or be damaging to the participants' financial standing, employability, or reputation. [45 CFR 46.101(b)(2)]

### PLEASE NOTE THE FOLLOWING:

- The principal investigator is responsible for determining and adhering to additional requirements established by any outside sponsors/funding sources.
- **Record Keeping**
  - o The principal investigator is expected to maintain the original signed informed consent forms, if applicable, along with the research records for at least three (3) years after termination of the study.
  - o This correspondence will also be available to you in PRAMS at [www.prams.psu.edu](http://www.prams.psu.edu).
- **Consent and Recruitment Document(s)**
  - o The exempt consent form(s) will no longer be stamped with the approval/expiration dates.

o The most recent consent form(s) that you uploaded for review is the one that you are expected to use

· **Follow-Up**

o The Office for Research Protections will contact you in three (3) years to inquire if this study will be on-going.

o If the study is completed within the three year period, the principal investigator may complete and submit a **Project Close-Out Report:**

<http://www.research.psu.edu/orp/areas/humans/applications/index.asp#other>

· **Revisions/Modifications**

o Any changes or modifications to the study must be submitted through the eSubmission application for this protocol in PRAMS ([www.prams.psu.edu](http://www.prams.psu.edu)).

Please do not hesitate to contact me if you have any questions or concerns.

Thank you,

Amanda E. Brown, CIP

Research Compliance Coordinator II

The Pennsylvania State University | Office for Research Protections | The 330 Building,  
Suite 205 | University Park, PA 16802

**Permission letter:**

**Multifactor Leadership Questionnaire (MLQ)**

For use by JIN YONG KIM only. Received from Mind Garden, Inc. on March 21, 2011



**[www.mindgarden.com](http://www.mindgarden.com)**

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material;

Instrument: *Multifactor Leadership Questionnaire*

Authors: *Bruce Avolio and Bernard Bass*

Copyright: *1995 by Bruce Avolio and Bernard Bass*

for his/her thesis research.

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Most", with a long horizontal stroke extending to the right.

Robert Most  
Mind Garden, Inc.  
[www.mindgarden.com](http://www.mindgarden.com)



**Permission letter:****Organizational Culture Assessment Instrument (OCAI)**

**From** "Cameron, Kim" <cameronk@umich.edu>  
**To** 'JINYONG KIM' <juk214@psu.edu>  
**Subject** RE: Permission to use the OCAI in dissertation research  
**Date** Thu, Dec 2, 2010 09:11 AM

Dear Jin Yong,

Thank you for your inquiry about using the Organizational Culture Assessment Instrument (OCAI).

The OCAI instrument (Organizational Culture Assessment Instrument) was copyrighted by Professor Kim Cameron in the 1980s, but because it is published in the Diagnosing and Changing Organizational Culture book, it is also copyrighted by Jossey Bass.

The instrument may be used free of charge for research or student purposes, but a licensing fee is charged when the instrument is used by a company or by consulting firms to generate revenues. Because you fall into the first category, Dr. Cameron grants you permission to use the OCAI free of charge. He would appreciate it if you would share your results with him when you finish your study.

Please let me know if you have other questions.

Best regards,

Meredith Mecham Smith

Assistant to Kim Cameron

**Permission letter:****The Dimensions of the Learning Organization Questionnaires (DLOQ)**

**From** "Marsick, Victoria" <marsick@exchange.tc.columbia.edu>  
**To** JINYONG KIM <juk214@psu.edu>  
**Subject** Re: Permission to use the DLOQ in dissertation research  
**Date** Wed, Dec 1, 2010 03:22 PM  
**CC** Karen Watkins <kwatkins@uga.edu>, "JAONEIL@aol.com" <JAONEIL@aol.com>

Dear Jin Yong Kim:

Your study looks very interesting. I don't know of any research that has used the OCAI, MLQ, and DLOQ as you propose to use them in your study either.

You have our permission to use the DLOQ for your dissertation. We allow students to use the DLOQ without charge for their research.

I am copying Dr. Watkins and Dr. O'Neil who are my colleagues using this instrument. Dr. Watkins is gathering research done on the DLOQ for a meta-analysis. We would appreciate it if you would share the results of your study with us, including the DLOQ scores, for our data base. If you need any other information, please let us know. Good luck with your studies.

Sincerely,  
Dr. Marsick

