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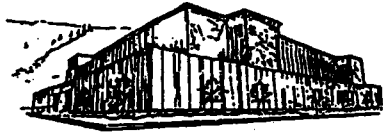
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The Relationship Between
President's Leadership Style and Faculty's Job Satisfaction at
Upgraded Universities of Technology in Taiwan

by

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Presented in Partial Fulfillment of the Requirements

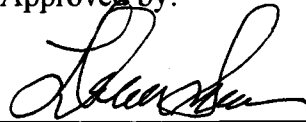
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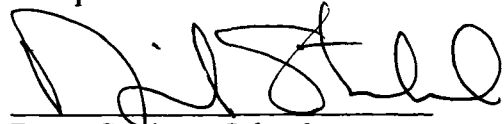
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Dean, Graduate School

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The Relationship between President's Leadership Style and Faculty's Job Satisfaction at Upgraded Universities of Technology in Taiwan

Chairperson: Dr. Dean Sorenson 

The institutes of technology were facing a critical problem of recruitment that might cause the termination of these institutes of technology, especially private ones. This study was to examine the relationship between faculty job satisfaction and leadership style at universities of technology, which could be used as a predictor in success of upgrading from institutes of technology to universities of technology.

A survey in Chinese was conducted because of the low return rate done in English version. A total of 19 presidents and 380 randomly selected teachers at universities of technology participated in this study. Three questionnaires, Minnesota Satisfaction Questionnaire and Multifactor Leadership Questionnaire Leader Form and Rater Form were administered to collect information. There were 13 presidents and 236 teachers responding, which provided an effective rate of 68% and 62% respectively.

The analysis of the data indicated that faculty job satisfaction in public universities of technology was 66%, and 71% in private ones. In self-evaluation, 10 out of 13 presidents exhibited their preference in transformational leadership style. Of 19 universities of technology, faculty members from 11 universities agreed that the leadership style used in their school was transformational and the rest of them were both transformational and transactional.

Based upon the results of this study, there was very little correlation between job satisfaction and perception of leadership style by either faculty or presidents, which meant that faculty job satisfaction and leadership styles had very weak relationship with upgrading from institutes of technology to universities of technology. The relationship between presidents' leadership style and faculty's job satisfaction at universities of technology in Taiwan, therefore, could not be thought as a predictor of success in upgrading

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CHAPTER ONE

INTRODUCTION

High school education in Taiwan had two categories: academic high schools and vocational high schools. Both of these were run by the government and the private sector. General high school students had the option of whether to take the competitive Joint University Entrance Examination (JUEE) before applying to attend universities or colleges. Before 1990, however, graduates from senior vocational high schools either went directly into the workplace for their living or went to two-year junior colleges after passing the qualifying tests. The Ministry of Education (MOE) of the Republic of China promulgated goals for education in vocational high schools which aimed to provide the students with basic technical skills and help them develop good work force ethics (MOE, A Brief Introduction to the Technological and Vocational Education of the Republic of China, 2002, p. 11). Those who chose to go to two-year junior colleges would not obtain bachelors degrees when they graduated.

As Taiwan moved forward into a high technology, more competitive, rapidly growing economic and globalized century, the long-term vision for the Taiwan government was to nurture a new generation with advanced technological knowledge and skills. Educational institutions had to take the responsibility to respond to a milieu in which the skills learned by students were highly advanced, practical and relevant. Rivlin (1965) pinpointed the significance of education. He proposed that education was to enhance:

1. Growth in intellectual skills: critical thinking, cogent expression, computation, and accurate and interpretative reading.

2. Awareness of the physical world and the social worlds, their nature and history, problems and prospects.
3. A deepened appreciation in aesthetics, philosophy, and religion.
4. Responsible participation in organized society.
5. Vocation choice, usually at the professional level, and the beginning of preparation for it. (p. 2)

In 1977, the Carnegie Foundation proclaimed its research findings, stating that: education consisted of a series of events and activities that are designed to help individuals to increase their intellectual, social, personal, and other potentials.

[Education] prepares [people] for productive activity. It opens their minds to alternative ways of learning and makes it possible for them to educate themselves. It provides a foundation for making judgments, for determining personal and cultural values, and for choosing appropriate courses of action. It builds consensus and therefore can be an instrument of socialization and social control. It also increases the tolerance individuals have for diversity and therefore can enlarge freedom. The work of education is to make a positive difference in people's lives and also to change society, over time, through the works of those it educates. (p. 152)

Thomas Jefferson (in Heslep, 1969) had the conviction that the function of education was to "furnish all citizens with the knowledge and training that will enable them to pursue happiness as private persons..." (p. 50).

Vocational and technological educations have made an essential contribution to economic construction and development in Taiwan. Chang (2003) described in Sinorama

magazine, “Global education reveals that almost all countries have some form of technical and vocational education system. Even with improved innovative university research, the later-stage activities of manufacturing and mass production are always dependent on the vocational system” (p.14). To make it easier for technical and vocational students to continue their education, in 1996 the then Education Minister, Wu Chin, proposed a two-track education policy which encouraged five-year-colleges to transform themselves into institutes of technology (Ministry of Education, Taiwan).

Many scholars reacted well to this education policy as a crucial vehicle for the cultivation of the high technology professionals necessary to comprehensively advance national economic development. Chu, Yun-pen, President of Jin-Wen Institute of Technology, in Sinorama in 2003 made the following observation:

The technical and vocational system is a major part of secondary and higher education. Whether it is able to successfully transform itself will to a certain extent be an important indicator as to whether the Taiwanese economy can be smoothly upgraded (p. 8).

Yang, Tsao-hsiang, chairman of the National Policy Foundation’s Education and Culture Group, added in the report, “We not only possess breadth and depth in the field of vocational education, we have in the past also trained many experts in economic construction which played an important role in the creation of the Taiwan Miracle” (2003, p. 17).

Statement of the Problem

In order to maintain the reputation of the aforesaid Taiwan Miracle and move manufacturing technology upward to increase competitive competence, the Ministry of

Education of Taiwan in 1997 proclaimed a new deregulatory policy which was engaged to promote the best performing and qualified institutes of technology to become universities of technology. Up to February 2004, 19 out of 70 institutes of technology had been upgraded to universities of technology (Ministry of Education of Taiwan, 2004). The total number of universities, colleges, and institutes, including both general and vocational/technical tracks, had grown rapidly from 50 to 154 in the past decade (Ministry of Education of Taiwan, 2004). However, Chang (2003) reported that “the number of children born each year in Taiwan has decreased from over 410,000 in the 1980s to only somewhat over 250,000 in 2001” (p.11). Low birth rate implied low recruitment compared with the number of schools. The private institutes of technology in Taiwan, therefore, faced a critical problem, the loss of students, which connoted the termination of the institution. Intense competition among institutes of technology for student enrollment and survival was certain. Institutes of technology were more likely to survive if they were considered by students to be more attractive because they achieved a higher status (upgraded).

Purpose of the Study

The primary purpose for this study was aimed to explore the relationship between presidents' leadership style at universities of technology of president's self-evaluation and the faculty's perception with their faculty's job satisfaction.

In this study, the dependent variable was teachers' satisfaction. Creswell (2003) pointed out that dependent variables were “variables that depend on the independent variables; they are the outcomes or results of the influence of the independent variables” (p. 94). As a dependent variable, teachers' satisfaction was subject to the influence of

autonomy, incentives such as benefit packages, workloads, continuing professional in-service training and opportunities for major research, social relations, and actualization.

Austin and Gamson (1983) pointed out:

Because a close relationship exists between the college or university where professors are employed and the nature of their academic work, external pressures on their institutions have considerable impact on the worklife of faculty members. The particular allocations of faculty members' time to teaching, research, service and publishing relate to the type of college or university where they work....As financial pressures affect colleges and universities, professors carry heavier workloads and face conflicting demands. Restricted opportunity for growth is a major problem as well (p.2).

The independent variable, which Creswell (2003) defined as "probable cause, influence, or affect of outcomes" (p. 94), would be the practice of leadership styles that introduced the leaders' values, direction, and purpose into their daily duties. As an independent variable, presidents were considered to be a major cause of change, directly influencing the actions and motivations of teachers towards their job, the learning conditions and atmosphere within the school campus, and students' learning outcomes. The intervening variables, which Creswell defined as "variables stand between the independent and dependent variables, and they mediate the effects of the independent variable on the dependent variable" (p. 94), for teachers were gender, teaching experience, age, tenure, and level of education. As for presidents, the intervening variables were age, gender, level of education, and administrative experience.

Significance of the Study

In the wake of the declaration of the new policy by the Ministry of Education, the leadership styles of presidents at institutes were attracting attention. This study was significant because the results could contribute benefits to institutes of technology, their presidents, their teachers, their students, and the field of education in general across the island of Taiwan. Most of the institutes of technology have currently been upgraded from five-year colleges, a worthy undertaking, although burdened with many challenges. Following the Deregulation Act of the Education System that provided for institutes of technology to be approved for higher educational level, institutes of technology and their presidents have been working to meet this new challenge—namely to upgrade their institutions academically in order to compete with the already established universities. “What do we need to do, and how will we do it?” was a major problem for every president.

Up to the present, there has been no empirical research of this type conducted at the private and public universities of technology in Taiwan. This research intended to provide some insights for the presidents of private institutes of technology to help them better understand their new roles. These roles would have to play out in their mission to successfully change and adapt their institutions in order to achieve parity, and compete with the established public institutes of technology and universities. As educational leaders, they had to realize that a gap between these two systems existed and that utilizing suggestions from this study to adjust their leadership style would help to assure success. In order to meet the new qualifications, the institute presidents had to become more aware of their need for improving faculty’s job satisfaction and for encouraging and

reinforcing their relationship with faculty members toward the direction of upgrading. In executing this, their faculty would benefit in gaining expertise in the performance of instruction and research. With the improvement in faculty members, students would be the beneficiaries and could enjoy learning in promising and progressive new environments.

Research Question

This research was planned to address the relationship between presidents' leadership style and faculty's job satisfaction in both private and public universities of technology in Taiwan. The research question for this study, therefore, was: Does leadership style have relationship with faculty satisfaction? Questions that this study would also endeavor to answer were as follows:

1. Do presidents in both private and public universities of technology have the same inclination to utilize leadership style?
2. Is there any president who does not utilize transformational leadership style, but can still make his or her institute of technology promoted to a university of technology?
3. Do all of the presidents request their subordinates to put extra effort on their job?
4. Do all of the presidents consider themselves as effective leaders?
5. Are all presidents satisfied with their way and style of leading subordinates?
6. Do faculties in both private and public universities of technology think that their presidents' leadership styles are similar?

7. Is there any apparent tendency to show that faculty members at the universities of technology are satisfied with their hygiene issues such as (a) the way my boss handles his/her workers, (b) the competence of the boss in making decisions, (c) being able to do things that don't go against my conscience, (d) the way one's job provides for steady employment, (e) the way company policies are put into practice, (f) pay and the amount of work one does, (g) the working conditions, and (h) the way co-workers get along with each other?
8. Is there a noteworthy tendency to exhibit that faculty members at the universities of technology are satisfied with motivators such as, (a) being able to keep busy all the time, (b) the chance to work alone on the job, (c) the chance to do different things from time to time, (d) the chance to be somebody in the community, (e) the chance to do things for other people, (f) the chance to tell people what to do, (g) the chance to do something that makes use of my abilities, (h) the chances for advancement on this job, (i) the freedom to use one's own judgment, (j) the chance to try one's own methods of doing the job, (k) the praise one gets for doing a good job, and (l) the feeling of accomplishment one get from the job?

Role of Faculty and Satisfaction

Faculty members at institutes of technology, including instructors, professors, administrators, and deans were supposed to fulfill the tasks and achieve the goals of teaching, service, and scholarship. The faculty had to create an authentic learning environment for students so that she/he could expand opportunities for learning and

achievement through sharing knowledge and skills and collaboration among students and with their faculty. In the learning process, the catalyst had to be aware of his/her pedagogy which included teaching methods and techniques used in classrooms and which might foster students to think critically and deeply. Ultimately, students would understand and maintain the concept that learning was a life-long activity.

Service offered to students could be both in academy and in life. The faculty was concerned about students' food, housing, clothing, transportation, and recreation during the time they were studying at the school, and thus provided students with their experiences in daily life. Furthermore, the faculty perceived students' potentials and treated them as individuals in order to help them construct their own cultural and personal values. According to interests and abilities, the faculty guided students to set their own goals and endeavored to encourage them toward success.

Traditionally, faculty members were viewed as knowledge transmitters and behavioral engineers. The concept, however, had been replaced. McLaughlin, Talbert, and Cohen (1993) pointed out, "In this view of teaching and learning, teachers' central responsibility is to create worthwhile activities and select materials that engage students' intellect and stimulate them to move beyond acquisition of facts to sense making in a subject area" (p. 2). In this high technology age, faculty had to become aware of their scholarly role which was to follow the wave of the globalized world and develop themselves in order to provide students with the latest information about their subject matter. To attain this objective, faculties had to capitalize on every opportunity to do research to broaden their minds. McLaughlin, et al. (1993) stated, "[Faculty] who have mastered the rich interconnections and multiple forms of knowledge found in a subject

area would have the substantive control of a subject needed to develop the kinds of activities and strategies...” (pp. 2-3).

Faculty was the heart of an institution in which all instructional processes focused on them. Faculty members designed curricula, delivered teaching activities, and took the responsibilities of students’ achievement inside school and after graduation. They shouldered a profound and weighty educational burden which would crush and discourage them when their working conditions associated with job satisfaction did not correspond to what these teachers had expected. If the situation sustained or even deteriorated, whether these satisfiers were short- or long-term, faculty’s responses to instruction and administration would have led to unexpected outcomes, such as inactiveness, cheerlessness, un-cooperation, tardiness, turnover. Ford (1969) concluded, “...man is increasingly concerned with meeting these human needs—to achieve and to grow psychologically....If he cannot do so in the job he now holds, he will go elsewhere if possible....If he feels he cannot leave, he will tend to become a ward of the company with the company as his custodian until retirement or death does them part (p. 26).

Role of Presidents

Presidents at the institutes of technology, on one hand, were responsible for the quality of instructional programs and ensured students’ learning outcomes. On the other hand, presidents were school leaders who took into account the providing of direction and administrative purpose in the academy, student affairs, and general affairs across the whole school, and so forth. They had to ensure the organization’s effectiveness and successfulness. To conclude, presidents were both instructional leaders and managers “What Matters Most: Teaching for America’s Future” compiled by the National

Commission on Teaching and America's Future (1996) reported that the role of the principal needs to be re-created:

The vision relies on school leadership that understands why and how learning and teaching must and can improve. We look to you to help create a learning organization in your school, and to develop a range of leadership roles by creating new possibilities for shared work and learning among staff ... (p.128)

It was reasonable that presidents of institutes of technology would act in the same role as principals.

Function of being president at an institution of higher education had much to do with the utilization of an effective leadership style and its impact on teachers' satisfaction. Essentially, an effective and efficient school was determined by the successful leadership through which individual teacher wanted and needed—satisfactions—were achieved and institutional objectives were met. Barnard (1938) noted that [leaders] needed to balance the needs and aspirations of the individuals in an organization with the needs and purposes of the organization (pp. 19-21).

Upgrading Regulations

According to evaluating regulations proclaimed by Ministry of Education (2004), institutes of technology which had established for three years and met the following requirements were able to apply and be upgraded to universities of technology. First, the institute of technology had to own sufficient campus area. Second, there should be enough rooms for learning activities. Third, the ratio of teachers to students should be less than 35% and the ratio of full-time teachers with the ranks of assistant professor and higher, to lecturers should be larger than 40%. Fourth, the equipment, instruments, and

rooms for doing experiments and research should be opportune and adequate. The collection of professional books and journals in the school library was expected to be more than 150000 copies. Each and every department was required to possess at least 20 different professional journals. Fifth, at the time of application, the institution had to have at least 12 departments, including graduate schools. Six, the institute was required to earn high-quality merits in teaching, researching, and education-promoting. Administration and educational activities in each department should be evaluated as class-A.

From the sixth criterion aforementioned, it was unquestionably convinced that the relationship between leadership style of presidents and teachers' job satisfaction was intimately related. Whether or not the implementation of leadership style satisfied the needs and concerns of teachers determined the involvement and cooperation that were expected to unsurprisingly exhibit in educational activities and administration. Teachers who were not contented with the leading style performed by their president were not cheerful, vigorous, and sincere in offering education. Learners, therefore, did not display satisfactory performance. Furthermore, those who did both instruction and administration could bring more damage to the school, if their needs in teaching and administrating were not appreciated, because they were in two positions, did two jobs, and took more than one responsibility.

Definition of Terms

Upgrading: Institutes of technology are encouraged to move to a higher status of educational system if they meet the criteria set by Ministry of Education.

Institutes of Technology: Institutes of technology are a legitimate branch of higher education but they are currently regarded as encompassing a lower level of education

than universities of technology and general universities where students are required to learn and develop more advanced technological skills.

Two-track education: Education in Taiwan has two tracks which begin in secondary schools and continue up to universities—one is general high schools and general universities, and the second is vocational and technical high schools and institutes of technology/universities of technology.

Five-year colleges: In Taiwan, five-year colleges recruit graduates from junior high schools and these students are expected to study for an additional five years to earn their diplomas after they have finished all required and optional courses.

Two-year junior colleges: Two-year colleges recruit students who have graduated from vocational high schools and have passed the entrance examinations. Students are required to accomplish the entire curricula within two years.

Taiwan Miracle: The Taiwan Miracle is the experience of high growth rates in the Taiwanese economy. In a lecture in International Business and Asian Studies on May 3, 2000, Dr. Andrew Papadimos stated:

From 1953 to 1990, the annual economic growth rate averaged 8.7 %. During the 1970s, it averaged 9.7%. Gross National Product (GNP) per capita income increased from US\$ 3478 in 1986 to US\$ 7510 in 1989, with an average growth of 8.5% between 1981 and 1990.

Job Satisfaction: It has to do with the feeling or mind-set in regard to the nature of work. Morse (1953) explains “when a person likes his job, the [school] he works for and his pay and status, we can say he is generally satisfied with his life in the organization” (p. 40).

Vroom (1964) describes job satisfaction as “affective orientations on the part of individuals toward work roles which they are presently occupying” (p. 99).

Leadership: According to Cunningham and Cordeiro (2000), “Leadership concentrates on vision, the direction and organization should take. It draws others into the active pursuit of the strategic goals. Leadership is doing the right things” (p. 153).

Multifactor Leadership Questionnaire (Form 5X): According to Bass and Avolio (1992), Multifactor Leadership Questionnaire is used to survey leaders’ and their followers’ perception of leadership style. The leadership is described on each item using a frequency scale that ranged from 0 = not at all, to 4 = frequently, if not always. The survey tested in the current study contained behavioral items for all leadership scales, except charisma. Since charisma can be viewed as either a behavior or impact (Bass, 1990), a separate scale was included in the revised survey to capture these non-behavioral and/or impact items.

Delimitations

This study was accomplished on the island of Taiwan and therefore may or may not be generalized to the other geographic regions. This study pertained only to the leadership styles of presidents at private institutes of technology and hence may or may not be generalized to either principals of elementary schools or high schools. The institutional levels may differ too much for the results to be relevant to other educational levels or cultures.

Limitations

This study focused on the presidents’ leadership styles at private and public universities of technology. However, since public universities of technology had

advantages over private universities of technology, the results might or might not be generalizable to both private and public universities of technology. The findings in the study were acquired only by the researcher through data collection and analysis, and therefore they needed to be confirmed by further quantitative and qualitative researches.

Another limitation was the reliance on the presidents giving the 20 names of faculty. Faculty respondents were randomly selected and sent to presidents. These presidents might distribute the questionnaire to those who they thought were more compliant in order to not to affect high level of job satisfaction with him or her. Besides, the hierarchy exists in private universities of technology. The president in a private university of technology has the power to dismiss any faculty who he/she think does not perform well, which might influence faculty's viewpoint on leadership style or job satisfaction.

Because of the cultural issues between the West and the East, different version used in the survey may be a limitation to the research and have impact upon the results of the survey...

CHAPTER TWO

REVIEW OF THE LITERATURE

Through the academic year of 2000, 55 five-year colleges had been promoted to institutes of technology. They had made significant contributions to aggressively uphold manufacturing skills and the quality of human labor, and had sought to channel the ambition of vocational and technical high school graduates into further study (The Ministry of Education, 2001). In order to develop broader, multifunctional freedoms in the educational system to raise practical professional traits both in employees and vocational and technical educators, the Ministry of Education in Taiwan in 1997 declared the deregulatory policy that encouraged the best performing and qualified institutes of technology to be upgraded to universities of technology.

The last half-decade of the twentieth century had led to a dramatic reform movement of institutes of technology since the announcement of the new policies. Since then, institute presidents had discovered the importance of leadership styles, effectiveness and qualities of successful schools, and other perspectives endeavoring to improve school performance. The responsibility attached to a recruiting crisis of the institutes had placed institute presidents under enormous pressure.

This review of the literature was to briefly describe the concept of change and its impact. The review also explores the linkage between the current researches on the characteristics of effective leadership styles and job satisfaction and its underlying influence on creating a harmonious and energetic climate in private institutes of technology. This chapter begins with theories about change, stresses the importance of

leaders' attitude, provides an overview of leadership theories and styles, then discusses theories of job satisfaction, and finally concludes with the significance of motivation.

Change

In response to the incentive policy that was proclaimed by the Ministry of Education, institutes of technology were faced with the challenging issue of school transformation which meant change. Rossman, Corbett, and Firestone (1988) explained, “[Change]...is directed intentionally at achieving the acceptance of new cultural norms, for example, by defining and shaping a different school climate or tone” (p. 15). Change was inevitable, especially in the information age. Kotter (1996) indicated, “The problem for us today is that stability is no longer the norm” (p.15).

To change was to make what now existed different from what it would look like in the future, although not necessarily complete dissimilarity. Goodman and Kurke (1982) explained, “Change is the alteration of one state to another....Change...comes about when an agent introduces techniques [and concepts] in some intentional manner to modify or alter the organization or its members or both” (pp. 2-3). Since change concentrated on the process not the consequence, it turned out to be not a simple job; it was an enormous piece of business. Lawler (1982) pointed out, “Change is an ongoing process....An end state cannot be reached, studied, and assessed” (p. 305).

Change brought acceptance and resistance, because it was accompanied by threats to employees who have been accustomed to the old working settings and behavior and were not ready for new concepts and policies. Rossman, et al. (1988) commented, “Organizational members' norms, beliefs, and values may be threatened because change requires modifying their behavior and their beliefs in some way” (p. 13). Fullan (1982)

added, "...real change, whether desired or not, whether imposed or voluntarily pursued, represents a serious personal and collective experience characterized by ambivalence and uncertainty" (p.26). Employees might exhibit unstable feelings about and urgent concern with the potential anxiety and influence on their current position or work. Tannenbaum, Weschler, and Massarik (1987) explained:

Often, these changes bring a great deal of pressure to bear on the individuals and work units that must adapt to them. Employees may experience considerable stress because they can no longer do their work in the way they formerly did. They may have to face uncertainties that are unsettling to them; thus they may react negatively to change—either individually or as members of groups. (p.80)

Fullan (2001) stated, "Change is a double-edged sword....Its relentless pace these days runs us off our feet....If you ask people to brainstorm words to describe change, they come up with a mixture of negative and positive terms" (p. 1). The change process in organizations might be peaceful, satisfactory, and fraught with happiness and laughter. On the contrary, anger, disappointment, restlessness, conflict, and turmoil might come at any time, with or without obvious symptoms during the process.

In addition, change brought both a chance and a crisis. An energetic, farsighted, and ambitious organization took advantage of the opportunity to manage change processes, rearranged the prioritization of the organization, implemented risk-taking capabilities, and minimized the impact of change in order to create the highest benefits. Those organizations that neglected the importance of change and did nothing to it would face a dreadful destiny. Kahn (1982) stated:

Neither opposition to change nor acceptance of it is an absolute virtue or even an organizational advantage. Every organization must have some resistance in its circuits; and an organization that changed in response to every input for change would be no organization at all, for it would lack the day-to-day consistency of patterned behavior that is the defining characteristic of an organization. An organization that refuses change under all circumstances is doomed. (p. 416)

Kotter (1996) added:

To date, major change efforts have helped some organizations adapt significantly to shifting conditions, have improved the competitive standing of others, and have positioned a few for a far better future. But in too many situations, the improvements have been disappointing and the carnage has been appalling, with wasted resources and burned-out, scared, or frustrated employees. (pp. 3-4)

Undeniably, in terms of the change process, either turbulence or joyfulness emerged in the context. The consequence of transformation could be a disaster or a triumph. Undergoing change was risky business. Undoubtedly, the accountability of the task went to the leader of an organization. Kotter (1996) stated, "...change is often said to be impossible unless the head of the organization is an active supporter" (p. 6). Locke and Associates (1999) added, "Leaders who do not anticipate this changing world, or at least respond to it, risk allowing their organizations to stagnate and ultimately fail" (p.6). Best of all leaders were those who accepted and adapted to new circumstances and who made implementations that were in agreement with transformation.

Attitude

Attitude demonstrated the response elicited when a person encountered people, animals, situation, challenge, and any pleasurable or disagreeable news. He or she could either withdraw immediately or conceive of some method to deal with a situation courageously and straightforwardly. A leader's attitude toward his or her task determined the direction and the success or failure of an organization. In the past decades, scholars also had attempted to offer their definitions of attitude. Allport (1935) stated, "An attitude is a mental and neural state of readiness, organized through experience exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (p. 810). Rosenberg (1956) explained, "[An attitude is a] relatively stable affective response to an object" (p. 367). Katz and Stotland (1959) defined an attitude as a "tendency or disposition to evaluate an object or the symbol of that object in a certain way" (p. 428). Sherif, Sherif, and Nebergall (1965) pointed out, "Attitudes can refer to the stands the individual upholds and cherishes about objects, issues, persons, groups, or institutions....The referents of a person's attitudes may be a way of life, economic, political or religious institutions, family, school or government" (p.4).

Every individual did not respond the same way once his or her psychological tendencies started to respond. Some were pessimistic, others were optimistic, and still others might hold a laissez faire attitude. Chowhury and Amin (2001) exhibited their thinking on their website by saying that "Attitudes are evaluative statements—either favorable or unfavorable—concerning objects, people or events." Murphy, Murphy, and Newcomb (1937) proposed, "Attitude is primarily a way of being set toward or against

certain things” (p. 889). Petty and Cacioppo (1981) added, “[Attitude] should be used to refer to a general positive or negative feeling about some person, object, or issue” (p. 7).

People with pessimistic attitudes had hopeless thoughts and less vitality. They could become easily depressed without apparent reasons. Conversely, those who had optimistic attitudes were more dynamic, manifest hope any time anywhere, and had healthy and joyful influences upon people around them. A positive attitude might not assert a promise of 100% success, but it would be powerful enough to arouse people’s sense of endeavor.

A person with an attitude of optimism was healthy both physically and mentally. A report done by West Chester University (2004) pointed out,

Studies show that usually people with an optimistic attitude return to normal recreational, social, and sexual activities within six months after diagnosis and treatment of a serious illness. Health psychologists have found new evidence showing that optimism assists people in remembering information about their own health risk behavior; this in turn helps them over time to be avoiding behaviors that threaten their health.

It is true that healthy and optimistic leaders were vigorous, fraught with hopes and ready to encounter and cope with challenges and would also exhibit behaviors which established an organization or institution in envisioning its ideal goals and successful future.

Leadership

Introduction

Although there might be a society, country, or organization that did not have a leader, the condition in a group without leadership could easily be imagined. Bennis and Nanus (1985) stated, “A business short on capital can borrow money, and one with a poor location can move. But a business short on leadership has little chance for survival” (p. 20). There had been many diverse definitions of leadership. During the years from 1940s to 1950s, hundreds of studies were completed on leadership. Dubin (1951) concentrated his definition of leadership on the application of authority and making decisions. Homans (1950) stated that in any group, there were standards that the group values in a leader. A person who had characteristics which were close to the most valued standards of the group would attract people to him/her and enable him/her to control the group, because he/she possessed the traits that the group valued in a leader. People knew and would follow the person who best fitted their idea of what a leader should be. Reuter’s (1941) ideal leadership was democratic; the leader did not exercise power but put much effort in communicating. This was close to the definition of leadership by Bass (1949). Bass explained that leadership required taking responsibilities for initiating, organizing, clarifying, questioning, motivating, summarizing, and formulating conclusions. These responsibilities called for the use of language, therefore, the person who spent time talking with the group would have the most/best information from the group and would be their leader. During this period, Stogdill (1950) pointed out that leadership was a process and that a leader had to have a clear direction in order to for the subordinates to follow.

Additionally, in the last five decades, exhaustive studies on leadership have also been conducted which have proposed various definitions. According to Fiedler (1967), a leader in a specific group, whether a permanent one or a temporary substitute, was a person who was granted authority or power. This leader, therefore, had to be responsible to play the role well in order to fulfill the purposes of the group. Fiedler's leadership focused on the performance of tasks; it was task-oriented. Tannenbaum et al. (1961) not only emphasized the importance of goal-achieving, but they also called attention to the necessity of interpersonal relationship through skilled communication ability. They stated, "Leadership [is] interpersonal influence, exercised in situation and direction, through the communication process, toward the attainment of a specified goal or goals" (p. 24).

Kotter and Northouse were the representative scholars who noticed the importance of progressing condition before reaching the goal or goals in performing the job as a leader. Kotter (1990) explained, "Leadership is a set of process which creates organizations in the first place or adapts them to significantly changing circumstances and then defines what the future should look like, and then aligns people with that vision and inspires them to make it happen despite the obstacle" (p. 5). Northouse (2001) summarized the definition as, "Leadership is a process whereby an individual influences a group of individuals to achieve a common goal" (p. 3).

In spite of the multitudinous ways that these scholars defined leadership, their central components taken together led to certain conclusions. One was that leadership occurred when a person led and a group of people, through interrelationship and the power of his/her influence, worked toward attaining a goal or goals.

Theory of Leadership

In addition to the importance of understanding the definition of leadership, it was also necessary to realize several other ongoing disputed issues among writers. The following section would briefly address some theories of leadership, such as trait, contingency, situational, and path-goal.

Trait theory

Trait theory, which was close to the great man methodology, was primarily studied in the early 1900s. These scholars believed that great men had specific inborn traits which distinguished leaders from subordinates. Northouse (2001) stated, "It was believed that [leaders] were born with these traits and only the great people possessed them" (p.15). Trait approach originated from the belief that an organization could be successful because its leader possesses distinctive characteristics.

Two surveys on this approach completed by Stogdill spanned nearly 30 years. In these two studies, he found that leaders were different from followers, because they possessed certain important leadership traits. According to Stogdill (1974), the leader surpassed the average group members in the following ten ways:

- (a) drive for responsibility and task completion,
- (b) vigor and persistence in pursuit of goals,
- (c) venturesomeness and originality in problem solving,
- (d) drive to exercise initiative in social situation,
- (e) self-confidence and sense of personal identity,
- (f) willingness to accept consequences of decision and action,
- (g) readiness to absorb interpersonal stress,
- (h) willingness to tolerate frustration and delay,
- (i) ability to influence other persons' behavior, and
- (j) capacity to structure social interaction systems to the purpose at hand.

Theories concentrating upon the traits considered leaders those who possessed inborn personality traits that told leaders apart from subordinates. However, did these special personality traits that the leaders had in common entirely included the list of traits that successful leaders were supposed to have? In addition, could these personality traits endure long enough for the leaders to fit for various situations? Hoy and Miskel (1987) concluded that personality traits were important, the evidence, though, showed that admitting the impact of both traits and situations on leadership was a more unbiased and prudent perspective.

Contingency theory

Different from trait theory, contingency theory shifted from a focus on the leader to such variables as leader-member relationship, situation favorableness, task-structure, and position power (Northouse, 2001). Fiedler was the most widely recognized contingency theorist. In his contingency theory of leadership effectiveness, Fiedler (1967) wrote:

[Contingency Theory is] a theory which states that the group's performance will be contingent upon the appropriate matching of leadership style and the degree of favorableness of the group situation for the leader, that is, the degree to which the situation provides the leader with influence over his group members. The model suggests that group performance can be improved either by modifying the leader's style or by modifying the group-task situation. (p. 262)

Contingency approach did not agree with trait theory that concentrated the leading process completely on the leaders. According to this approach, there was no single leader who could successfully carry out his/her mission only buy using personality traits. There

were no standard ways to operate a business or an organization. Leadership depended on a wide variety of factors, such as the relationship between a leader and the followers, circumstances, goals, contexts, and the authority.

Situational theory

The situational approach developed by Hersey and Blanchard (1969a) was based on the assumption that leaders should change their behavior to meet what was needed in a particular situation. The primary variable was maturity which referred strictly to two factors—job maturities (the ability to do a job), and psychological maturity (the willingness to do the work). Vroom and Jago (1988) offered a perspective:

Hersey and Blanchard refer to the model as a life-cycle theory and draw an analogy between leader-follower and parent-child relations. Just as parents should relinquish control as a function of the increasing maturity of their children, so too should leaders share more decision-making power as their subordinates acquire greater experience with and commitment to their tasks (p. 52).

Situational approach maintained that there was no single paramount and fixed leadership style that could not only be adopted but also generate the most successful and satisfactory achievement in all situations. Leadership style varied from one situation to another. An effective leader was created by the situation. While this was true, a leader had to have the idea about what situation it was in advance in order to implement the correct style and accomplish the organizational goal or goals. The question (when to use what leadership approach) would, therefore, always haunt a leader.

Path-goal theory

The theory emphasized the paths—the subordinates' perception of work goals and personal goals—that were available to leaders to attain the goals. Motivation and satisfaction of followers were crucial elements on the way toward reaching their goal. The path-goal theory was based on the assumption of subordinates' "expectancy" (House, 1971; House & Dessler, 1974; House & Mitchell, 1974). Northouse (2001) summarized, "The basic principles of path-goal theory are derived from expectancy theory, which suggests that employees will be motivated if they feel competent, if they think their efforts will be rewarded, and if they find the payoff for their work is valuable" (p. 108).

The path-goal theory proposed by House (1971) suggested that in order to (1) motivate followers to put more effort in their jobs, (2) to improve satisfaction and (3) to elevate performance level, a leader should select a clear and easy method in which the leader clarified the path leading to the goal, eliminates the obstruction in the way, and proffer attractive motive to achieve success. According to House and Mitchell (1974), in order to attain the goal or goals a leader could take one of the four approaches based on situation—supportive behavior, directive behavior, participative behavior, or achievement-oriented behavior.

This theory assumed that in an organization the effective leader was the only knower who could perceive and predict the goal, had a clear understanding of the way, and directly or indirectly helped his/her followers to perform toward the goal or goals. The subordinates in this group completely depended on or obtain support from their leader and were rational in terms of how they were stimulated and encouraged.

Leadership Styles

The studies of leadership styles have been conducted for years. Leadership styles emphasized the various methods that a leader implemented in one or more contexts to generate influence upon subordinates. Leaders' behaviors were viewed as determinants of subordinates' commitment and task fulfillment. Fiedler (1967) stated that leadership style would be defined here as the underlying need-structure of the individual which motivates his behavior in various leadership situations (p.36). Northouse (2001) added, "The style approach focuses exclusively on what leaders do and how they act" (p. 35). Some remarkable leadership styles would be discussed in the following section.

Theories X and Y

Douglas McGregor, who perceived the relationship between an administrator's style and human behavior, proposed X-Y theory in 1960. The conventional view of the X pattern claimed that man was born to have a dislike for labor. The average man was by nature passive and tried to get away from their responsibility. Punishment and control were the effective way toward success, which made possible the formulation of "autocratic style." Theory Y, on the other hand, valued the existence of human beings and the relationship of social life. People were willing and active to put their physical and mental effort to their work. Followers' potential would be exhibited if they were well conducted. This theory was a dynamic process and built a "democratic style" (Cunningham & Cordeiro, 2000, p. 156). McGregor (1983) noted:

The central principal of organization which derives from Theory X is that of direction and control through the exercise of authority—what has been called the scalar principle. The central principle which derives from theory Y is that of

integration: The creation of conditions such that the members of the organization can achieve their own goals best by direction of their efforts toward the success of the enterprise. (p. 117).

In the autocratic style, leaders “announce decisions, sell decisions, and invite questions about what is expected of others” (Cunningham & Cordeiro, 2000), whereas subordinates were persuaded, rewarded, punished, controlled, and directed (McGregor, 1966). The style of X-theory relied heavily on external control and leaders were granted the authority to enforce their power. The democratic style leaders, on the contrary, delegated authority, assumed responsibility, created opportunities, encouraged growth and participation in making decision, and provided guidance. Followers continuously developed themselves and were challenged to take responsibility (Cunningham & Cordeiro, 2000; McGregor, 1966).

According to McGregor (1966), followers were divided into two groups that were completely separate. The leadership style utilized in each group, therefore, diverged. Theory X assumed that subordinates exhibited to be inactive and flinch from their duties deliberately. What subordinates pursued from their job was money and security. These followers needed clear and severe direction so that the goal or goals could be accomplished. On the contrary, people described in Theory Y displayed much aggression and maturity and actively committed themselves to employment objectives if they were properly induced. This leadership style, if appropriately put into operation, would bring about higher level of employee performance.

The Ohio State Studies

Researchers at Ohio State conducted studies and found that subordinates

responded to their leaders with two types of behaviors: consideration and initiating structure (Stogdill, 1974). Initiating structure behaviors included organizing and scheduling group activities, defining role responsibilities, and structuring work context. Consideration behaviors included listening to followers and showing receptivity, building mutual trust, respect, and rapport (Northouse, 2001; Cunningham & Cordeiro, 2000).

Researchers who used the leader behavior description questionnaire (LBDQ) (sampled items in Table1) (Hemphill and Coons, 1957) found that effective leaders were in quadrant I (identified in Figure1). These leaders performed highly effectively on both of these dimensions; namely, leadership effectiveness was significantly associated with the ability to fulfill the goal and the compliance from the followers. Emphasis on both the importance of initiating structure and the importance of consideration was the determinant of success of this form of leadership.

Table 1

Sample LBDQ Items by Subscale

<i>Initiating Structure Items</i>	<i>Consideration Items</i>
He or she makes his/her attitudes clear to the staff.	He or she refuses to explain his/her action.
He or she maintains definite standards of performance.	He or she acts without consulting the staff.
He or she works without a plan.	He or she treats all staff members as equals.
He or she lets staff members know what is expected of them.	He or she is willing to make changes.
He or she sees to it that staff members are working up to capacity.	He or she is friendly and approachable.
He or she sees to it that the work of staff members is coordinated.	He or she puts suggestions made by the staff into operation.

Stated for use with male and female.

Scored negatively.

Source: Adapted and reprinted from Hoy, Wayne and Miskel, Cecil G. (1987)

Educational Administration. New York: Random House, P. 277.

Figure 1

Quadrants formed by using the LBDQ dimensions.

		Consideration	
		Low (-)	High (+)
Initiating Structure	High (+)	Quadrant II Low consideration (-) High= (-, +) II = (-, +)	Quadrant I High consideration (+) High initiating structure (+) I = (+, +)
	Low (-)	Quadrant III Low consideration (-) Low initiating structure (-) III = (-, -)	Quadrant IV High consideration (+) Low initiating structure (-) IV = (+, -)

Source: Adapted from Hoy and Miskel, Cecil G. (1987). Educational Administration. New York: Random House, P. 278.

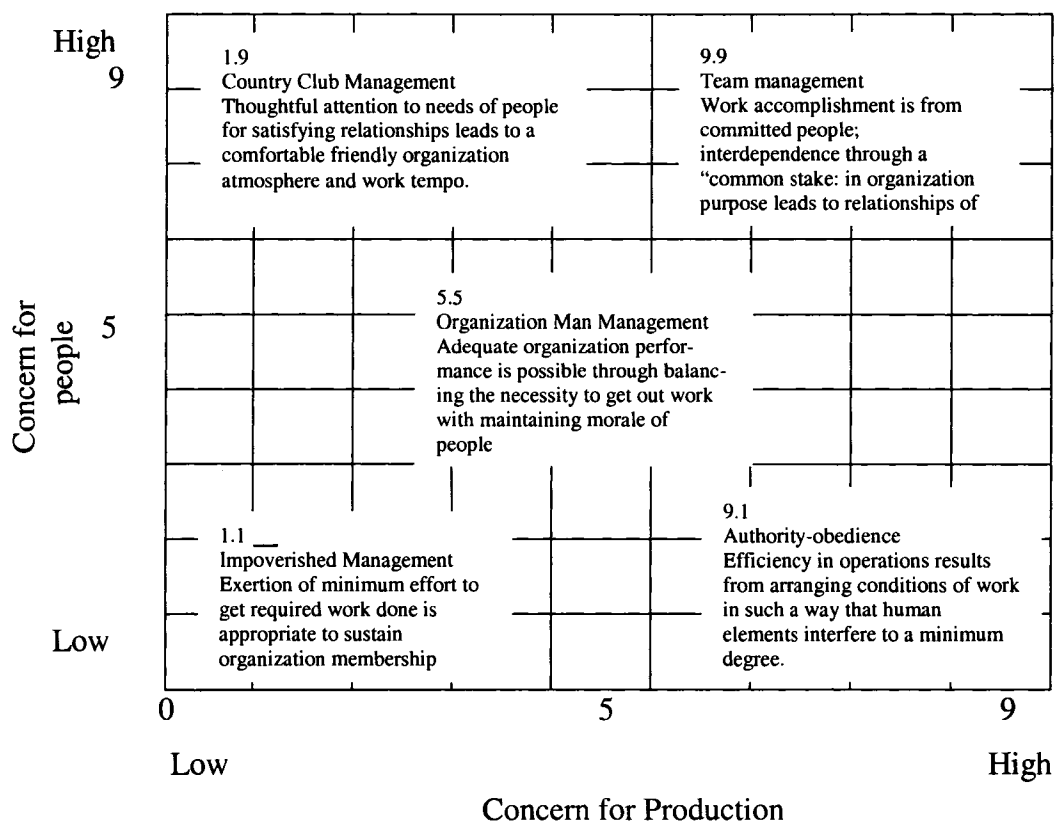
The Managerial Grid

The Managerial Grid, which appeared in the early 1960s, closely resembled the leadership behaviors in the Ohio State Studies (Blake & Mouton, 1964, 1978; Blake and McCauley, 1991). This Grid helped leaders to become proficient and successful and to predict what the influence their behavior would have on their followers. The Grid was based on either 9, 1; 1, 9; 5, 5; 1, 1; or 9, 9 assumptions (presented in Figure 2) with two concerns: concern for production and concern for people.

The 1, 1 style was categorized as a form of leadership with the least concern for both people and production. The leader's relationship with subordinates and ambition to reach the goal were very weak and lacking. The 9, 1 style featured high concern for task achievement with low concern for people, which might result in a powerful leader and a strict relationship in the organization. Therefore, in order to animate the organization to

function well toward goal accomplishing, much effort on communication should be exerted on subordinates. The 1, 9 style, on the contrary, was characterized by a friendly and harmonious working atmosphere. The goal accomplishment appeared to be not crucial and might be neglected. The leadership of 5, 5 style revealed a tug-of-war in which the leader was continually trying to equilibrate the satisfactory concerns for both people and production. Compromising between workers and productivity might be the ideal way through which subordinates would remain reasonable self-confidence and achieve expected organization performance. The 9, 9 style leaders had such a clear understanding of the needs of the people and the organization that high concerns for both employees and production were exhibited. Followers committed themselves to their goal-achievement, and the leader tried to develop agreeable relationship with followers.

Figure 2

The Managerial Grid

Note: Blake & Mouton (1985, p 12). *The Managerial Grid III*. Houston: Gulf Publishing Company,

Blake and Mouton (1985) indicated that the 9, 9 leaders in the Managerial Grid were sound and ideal. These leaders displayed a high concern for both mission achievement and interpersonal relationship. The 9, 9 leadership style built reciprocal trust and respect, and integrates teamwork, participation, contribution, commitment, and decision making (Hoy & Miskel 1987). Northouse (2001) concluded that the 9, 9 leader stimulated participation, acted determined, got issues into the open, made priorities clear, followed through, behaved open-mindedly, and enjoyed work (p. 42).

By using five grid positions, Blake and Mouton (1985) provided leaders with explicit, extensive, and practical concepts of leadership styles. Knowing the accessible resources and working environments, a leader could modify his or her strategy and fulfill the vision and mission through a concentration upon concerns on their employees and production.

The University of Michigan Studies

According to Cunningham and Cordeiro (2000), the studies were originally established by Likert in 1967, and were thought to closely parallel the Ohio State Studies and those studies revised by Blake and Mouton and Blake and McCaule. The studies identified two types of leadership styles: task-oriented behaviors, and subordinate-oriented behaviors (Northouse, 2001). Leaders concentrating on task orientation treated employees as a means for achieving goals. They did not trust subordinates, or welcome participation in making decisions and solving problems. They motivated followers by fears, threats, and occasional rewards (Cunningham and Cordeiro, 2000). Hierarchy was used in communication. Leaders who were concerned about subordinates planned and scheduled work for subordinates, coordinated subordinate activities, provided technical

assistance and resources, emphasized human relations, and considered individual needs (Locke and Associates, 1999; Northouse, 2001).

In his research, Likert (1967) identified the four systems of leadership styles: (a) exploitative authoritative—a system in which little trust in subordinates was given and in which threats and punishments instead of rewards were given in motivating, (b) benevolent authoritative—a system where a leader conveyed condescending concept to his/her followers and expected to obtain loyalty and compliance as a feedback, (c) consultative—a system where trust in followers seemed to be obvious and communication for suggestions from below takes place, and (d) participative group—a system where a leader had total trust in followers and enthusiastically invited them to be completely involved in and committed to their job. Rewards were brought forward in order to achieve the common goal. Likert recognized that the ideal and more effective leadership style was the participative style (Cunningham, & Cordeiro, 2000). This style of leader was likely to foster relationships with followers to earn their support and develop subordinates' confidence. These leaders tended to value teamwork and set high principles for goal achieving.

Contingency leadership

This leadership style depended on several variables as aforementioned, and the theorists of this approach maintained that a leader was unlikely to change his or her style—different types of situations require different types of leadership (Cunningham & Cordeiro, 2000; Short & Greer, 1997). Based on the research findings, three factors in situations determined the favorableness of the organization: (a) position power, (b) task structure, and (c) leader-member relations (Hoy & Miskel, 1987; Northouse, 2001).

Position power referred to the degree of authority that was rested in the leader who could reward and punish subordinates. The power a position carried could be either strong or weak, depending on what the organization mandates.

The second situational characteristic was task structure; that was, the extent to which a task was clearly spelled out and verified. With thoroughly structured tasks, the leader tended to have more control over the situation, whereas the leader decreased his influence when tasks were considered ambiguous and indistinct.

Leader-member relations, the third factor, referred to the degree to which the leader attracted his or her followers. The quality of relations was defined by the leader's personality and behavior (Hoy & Mickel, 1987; Northouse, 2001).

Although contingency leadership had made a considerable contribution to the perception of leadership style, the question, "Which style of leadership is most effective?" still remained. According to Fiedler, leadership was determined by the situation that the leader was in. To be effective, their model put the right person to the right situation that matched his or her style (Cunningham & Cordeiro, 2000).

Situational leadership

The leadership style was based on the assumption that "leader effectiveness depended on the appropriate matching of leader behavior with the maturity of the group or individual" (Hoy & Miskel, 1987, p. 302). The only variable was the maturity—the competence and commitment of the followers needed in a particular situation. Situation determines what style should be used (Cunningham & Cordeiro, 2000). Situational leadership suggested that leaders demonstrated a strong flexibility; different skills were

used in different situations. Followers were encouraged to actively participate in developing knowledge, skills, and shared vision (Cunningham & Cordeiro, 2000).

Hersey and Blanchard (1969a) classified situational leadership into four styles: S1, S2, S3, and S4 which had also been widely used as a prescriptive approach to leadership (Northouse, 2001). S1 was high directive-low supportive—a task-inclined behavior. The leader was much more concerned about the achievement of the goal, dictated to subordinates, and strictly monitored the proceeding and performing of the task. S2 was high directive-high supportive—a coaching behavior in which the leader established interactive communication skills to inspire and motivate employees in order to promote high level of performance. The leader, however, still held the power to make decisions. S3 was low directive-high supportive—a supporting behavior in which the leader was much concerned about people and actively displayed the enthusiasm and willingness to listen to employees. S4 was low directive-low supportive—a delegation behavior in which the decision-making turned over to subordinates who would have impact upon job performance. There was, however, no succinct description of effectiveness in situational leadership, because this style was “influenced by the maturity and development level of the work group, the individual subordinates, and it varied from subordinate to subordinate” (Cunningham & Cordeiro, 2000, p. 163). Excellent leadership depended on the degree of positive correlation between behavior and situation.

Transactional and transformational leaderships

Burns (1978) proposed and distinguished between transactional and transformational leadership. Transactional leadership concentrated on the exchange

between leaders and followers. As Burns (1978) stated, "...transactional leadership, in which leaders approach followers with an eye to exchange one thing for another" (p. 4). Hughes (1999) commented that the transactions involve relationship with both the supra organization and the employees (p. 15). Snowden and Gorton (2002) added that this type of leadership required the leader to integrate the expectations of the organization with the personal needs of the people who worked in that organization (p. 72). Transactional leaders got things done by defining needs, making clear tasks, immediately and tangibly rewarding members who performed congruently with organizational expectations, and having a command-and-control character (Cunningham and Cordeiro, 2000; Hughes, 1999).

As mentioned above, transactional leadership focused on individual personal needs and performance outcomes, the initiative structure needed to be promoted to clarify role and task requirements. This leadership style could be effective. Leaders used contingent reinforcement and motivated followers by rewards and/or threats of punitive actions. Furthermore, consideration for people to create a warm climate helped to move toward success.

In contrast to transactional leaders, transformational leaders, as Burns (1978) explained,

recognize and exploit an existing need or demand for potential motives in followers, seek to satisfy higher needs, and engage the full person of the follower. The result of transforming leadership is a relationship of mutual stimulation and evaluation that converts followers into leaders and may convert leaders into moral agents.

Transformational leaders initiated and implemented new directions, inspired innovation and creativity, induced subordinates to achieve for the good of the organization, developed followers, welcomed opposing viewpoints, empowered and supported followers, secured and mobilized old and new resources, responded to challenges and strived to create change (Cunningham & Cordeiro, 2000; Northouse, 2001). In education, Leithwood, Jantzi and Dart (1993) stated that transformational leadership was a commitment-building strategy wherein principals were devoted to the vision-building process. Snowden and Gorton (2002) concluded that transformational leadership was composed of three elements: (a) a collaborative, shared decision-making approach; (b) an emphasis on [followers] professionalism and empowerment; and (c) an understanding of change, including how to encourage change in others (p. 73).

Effective transformational leadership was more concerned about changing and uniting followers' beliefs and values and, in the long run, exhibited four interrelated characteristics: (a) idealized influence, (b) inspirational motivation, (c) intellectual stimulation, and (d) individualized consideration (Northouse, 2000). The first characteristic was idealized influence that was also called charisma (Northouse, 2000). When leaders were charismatic, they were well-liked as role models with high moral and ethical standards. Subordinates trusted these leaders and wanted to emulate them.

The second characteristic was termed inspirational motivation. Transformational leaders developed a vision of the future and challenged followers with high and clear expectations. An inspirational leader creating environments to ensure tasks are executed successfully. This type of leader was enthusiastic and optimistic and ready to provide encouragement.

The third characteristic was labeled intellectual stimulation. Leaders stimulated followers to be innovative and creative in dealing with things, solving problems, questioning traditional values and beliefs, as well as supporting new ideas.

The fourth characteristic, individualized consideration, described leaders who dealt with and supported followers individually; dispensed responsibility; listened attentively to an individual's needs; advised and coached; and promoted further professional growth and development.

Laissez-faire leadership

Laissez-faire leadership, low productive and complete permissive, was a subcategory of leadership style divided from transactional form. Bass (1996) explained, “[Laissez-faire (LF)] is the avoidance or absence of leadership and is, by definition, most inactive as well as most ineffective according to almost all research on the style. As opposed to transactional leadership, laissez-faire represents a non-transaction” (p. 7). Glickman, Gordon, and Ross-Gordon (2001) asserted that laissez-faire leadership promoted the smallest leader contribution to the organizational development process. Northouse (2001) concluded, “This leader abdicates responsibility, delays decisions, gives no feedback, and makes little effort to help followers satisfy their needs. There is no exchange with followers or any attempt to help them grow” (p. 141).

Conclusion

The role of education in Taiwan was essential, but the function of institutional leaders did not use to be treated as important as they should be. The issue that the presidents of institutes of technology took an extremely important role in school

transformation had been boosted up since the Ministration of Education of Taiwan declared a new deregulatory policy in 1997.

There had been a wide variety of definitions of leadership known to the public and there had been various approaches taken to study leadership styles. Based on the literature reviewed by this researcher and the conclusions made by Hoy and Miskel (1987) regarding effective leaders, no conclusive consensus could be reached.

Accordingly, there was a need for further research on effective leaders in institutes of technology which were upgraded to universities of technology. Furthermore, since not many studies had been conducted recently to investigate the leadership style of presidents of universities of technology, there was also a need for more research on the leadership style of presidents of universities.

Job Satisfaction

Satisfaction was a mental state which responded to the consequence of what a person expected and what he/she received. Job satisfaction referred to an individual person's feeling about the job position that he/she held. A high performance institution promoted advanced teaching method, innovative training, and ongoing self-development, and allowed teachers to devotedly dedicate their quality services. Vroom (1964) defined job satisfaction as "affective orientations on the part of individuals toward work roles which they are presently occupying" (p. 99). Locke (1976) added, Job satisfaction meant that one displayed a positive emotional state that resulted from the appraisal of his/her job or job experiences. Thus, job satisfaction depended on the employee's perception and evaluation of the job and the context where he/she worked.

It was apparent that there were many variables, including inside and outside elements (such as salary, self actualization, self-recognition, autonomy), which affected the level of job satisfaction. Katzell, Yankelovich, Fein, Ormail, and Nash (1975) proposed, "...adequate hygiene conditions must exist, including competent and considerate supervision, fair pay and fringe benefits, job security, good working conditions, and sound employee relations" (p. 39). Gruenberg (1980) asserted that all workers, including teachers, might base their view of job satisfaction on a model in which extrinsic satisfaction (such as recognition) was tempered by intrinsic satisfaction (such as communication and support). Despite individual difference, employees experienced satisfaction in three particular components: "(a) organizational policies and practices (e.g., compensation, promotions, and job security), (b) people they work with, including superiors and colleagues, and (c) the work itself" (Heneman, Schwab, Fossum, & Dyer, 1983).

Considering the influences of job satisfaction, a high level was equivalent to high morale toward the job, which led to greater employee involvement and productivity. When teacher morale was high, teachers exhibited both agreeable feelings about each other among colleagues and a sense of accomplishment from their profession (Hoy & Miskel, 1987). According to Locke (1976), "A person who is involved in his job is one who takes it seriously, for whom important values are at stake in the job, whose moods and feelings are significantly affected by his job experiences and who is mentally preoccupied with his job." Katzell et al. (1975) concluded if workers were more satisfied with their job, there would be greater productivity [in the organization] (p. 17).

Conversely, a person who had low level of job satisfaction held low morale toward various factors of the job. Undoubtedly, the employees under this condition would demonstrate a disappointing performance. Holt (in Mendel, 1987) pointed out that low levels of satisfaction and morale could lead to diminished teacher productivity and exhaustion, which was associated with “a loss of concern for and detachment from the people with whom one works, decreased quality in teaching, depression, greater use of sick leave, efforts to leave the profession, and a cynical and dehumanized perception of students.”

Since teacher commitment and collaboration were such all-important components of school upgrading, and there was no indication of a decline in the importance of collaboration and commitment, any effort to enhance teacher job satisfaction at work at institutes of technology would indisputably improve the overall quality of the institution. Abraham (1994) found that faculty with high and medium levels of satisfaction were more effective than those with low job satisfaction. These teachers increased vigor and uniqueness to the educational atmosphere and helped students develop their ambitions.

Motivation

Educational effectiveness became to some extent a question of teachers' job satisfaction and motivation, and, therefore, an understanding of the subject was essential. There was an old saying that you could lead a horse to water, but you could not make him drink. People responded to the environment, because there was an incentive or incentives to do so. This brought forward the importance of motivation, whether intrinsic or extrinsic, which was affiliated with the attaining of certain goals. Motivation was a kind of strong desire that pushed one to perform an action to fill up the hole of need. Steers

and Porter (1991) mentioned, “The term ‘motivation’ was originally derived from the Latin word *movere*, which means ‘to move’” (p. 5). The aforementioned definition did not seem to completely elucidate what motivation really was. Motivation was the media between characteristics of man and characteristics of his environment, which would direct and actualize certain desired behavior (McGregor, 1966). Vroom (1964) pointed out, “[motivation is] a process governing choices made by persons or lower organisms among alternative forms of voluntary activity” (p. 6). McGregor (1966) asserted:

Man—if he is freed to some extent, by his presence in an affluent society, from the necessity to use most of his energy to obtain the necessities of life and a degree of security from the major vicissitudes—will by nature begin to pursue goals associated with his higher-level needs. (p. 211)

Motivation began with a longing, then directed a person to action, and then ended up with a desired purpose. Webb (2000) underscored the three basic elements of motivation:

1. Motivation starts with a need, vision, dream or desire to achieve the seemingly impossible. Creativity is associated with ideas, projects, and goals, which can be considered a path to freedom.
2. [Motivation requires] developing and maintaining a love-to-learn lifestyle, becoming involved with risky ventures, and/or continually seeking new opportunities to learn what works and does not work.
3. [Motivation includes] developing and maintaining a desire to overcome barriers and to bounce back from discouragement or failure. Individuals learn to tolerate the agony that failure brings. In any endeavor that is worthwhile, barriers

and failure will be present. Successfully bouncing back requires creative thinking as it is a learning process. In addition, bouncing back requires starting again at number one. (pp. 5 & 6)

Motivation comprised a strong feeling of momentum which pushed an individual to do or pulled an individual back from doing something. Steers and Porter (1991) concluded motivation was as followed:

First of all, this conceptualization points to energetic forces within individuals that drive them to behave in certain ways and to environmental forces that trigger these drives. Second, there is the notion of goal orientation on the part of the individual; their behavior is directed toward something. Third, this way of viewing motivation contains a system orientation; that is, it considers those forces in individuals and in their surrounding environments that feed back to the individuals either to reinforce the intensity of their drive and the direction of their energy or to dissuade them from their course of action and redirect their efforts. (p. 6)

Like animals, human beings were born with a strong intrinsic desire to survive in whatever condition of environment they find themselves. With the gaining of age and because of their unique ability to think and speak, humans start to transfer their concentration from just survival to the ultimate goal of individual self-fulfillment and self-contentment. Herzberg, a psychologist, (1966) categorized the human animal need into two sets. He proclaimed,

One set stems from his animal disposition, that side of him previously referred to as the Adam view of man; it is centered on the avoidance of loss of life, hunger, pain, sexual deprivation, and on other primary drives, in addition to the infinite

varieties of learned fears that become attached to these basic drives. The other segments of man's nature, according to the Abraham concept of the human being, is man's compelling urge to realize his own potentiality by continuous psychological growth [of the individual in terms of his motivation]. (p. 56)

Based upon these two categories of human needs, Herzberg (1965) proposed two theories of incitement to action or change—hygiene theory and motivation; these concepts were a great contribution to human relations and motivation. As Herzberg (1966) described, the hygiene theory, also called maintenance theory, was humans' basic need to keep away from pain and "is motivated in the direction of temporary satisfaction" (p. 81).

The hygiene components, the first part of motivation, included (a) the company, (b) company policies and its administration, (c) the kind of supervision which people receive while on the job, (d) working condition, (e) interpersonal relations, (f) salary, (g) status, and (h) security (Herzberg, 1966). These events led to basic or low level motivation. However without them, job dissatisfaction emerged.

Herzberg's second theory was concerned with motivation which actually involved people in what they performed while doing a job. The factors for motivation consisted of (a) achievement, (b) recognition, (c) growth/advancement and (d) interest in job (Herzberg, 1966). These elements resulted in "approaching self-fulfillment or psychological growth through the accomplishment of tasks" (p. 76) and led to higher level of motivation and job satisfaction.

Summary and Conclusion

To explore the relationship between the level of job satisfaction and motivation, many researchers had proposed a wide variety of theories associated with the definition and ways of motivation. Based on the literature review aforementioned, theorists assume that motivation was a spiritual arousal affected by outside stimulus or stimuli, thus being converted into a powerful impetus to achieve a goal or goals by following the correct direction. University lecturers or professors were highly educated and qualified scholars who earned either masters' or doctors' degrees and who possessed abundant intelligence, knowledge, and teaching, researching, and managing skills.

As aforementioned, the leader could only exist with followers and a clearly articulated vision which was one of the key elements for effective leadership in organizational situations. Nanus (1992) explained that a desirable, meaningful, and attainable vision of the future should be shared by followers and must be the most powerful engine that drove the organization toward excellence and long-range success. Moreover, Hoy and Miskel (1991) mentioned that a vision could only be achieved when teachers' level of gratification and motivation was taken into consideration. For institutes of technology in Taiwan, their vision was to be upgraded to universities of technology. The relationship between leadership style and faculty's job satisfaction was tightly related to each other.

CHAPTER THREE

METHODOLOGY

The Research Design

The foremost purpose of this study was to determine whether or not a president's leadership style had a relationship with teachers' job satisfaction and its impact upon the upgrading of institutes of technology, which was based upon the statement and theory reviewed in the proceeding chapters. This would be accomplished through a quantitative research design and analysis using a survey study technique with questionnaires to conduct data collection. Vroom (1964) explained that "job satisfaction [is] typically measured by ...questionnaires in which [teachers] are asked to state the degree to which they like or dislike various aspects of their work roles" (p.100). Rea and Parker (1992), explained, "Surveys have become a widely used and acknowledged research method in most of the developed countries of the world" (p. 1). They added, "Surveys have broad appeal, particularly in democratic cultures, because they are perceived as a reflection of the attitudes, preference, and opinions of the very people from whom the society's policy makers derive their mandate" (p. 1).

Population and Sample

Sampling was done by selecting a small proportion of the entire population in order to generate a result or knowledge that could be generalized to the whole population. Rea and Parker (1992) provided the essence of sampling. They stated, "Sampling is necessary because it is generally not practical or feasible to seek information from every member of a population....A sample, therefore, is intended to become a microcosm of a larger universe" (p. 107). Alreck and Settle (1985) added, "There is no need to survey

every individual. Only a fraction of the entire population ordinarily provides sufficient representation of the group as a whole as well as enough accuracy to base decisions on the results with confidence” (p. 63)

While sampling was extremely important in every survey, giving every individual a chance and having a large enough sample size were even more crucial in order to minimize bias or error. Alreck and Settle (1985) explained, “The more the respondents are likely to differ on the key items of the survey, the larger the sample must be in order to reach a given level of confidence” (p. 88).

This section described the entire population of presidents and the sample of teachers from public and private universities of technology in detail.

The population for conducting survey on leadership style consisted of all the presidents from both public and private universities of technology. Since the total number of presidents of universities of technology was 19, all of the presidents from both private and public universities of technology were selected for the survey in order to ensure the reliability.

The sampling process for teachers was a random sample design. This sampling was originally planned to sample 380 participants from the population of all the full-time faculties (around 5700) teaching at either public or private universities of technology. There were 19 universities of technology as of February, 2004. In order to produce 380 participants, faculties were randomly selected from each university according to the randomly chosen number provided by the researcher. These selected faculties must have taught at the school for at least one year. After the data collected, the questionnaires were

encoded, four styles were adopted to select for the presidents' leadership whereas three criteria were developed to identify teachers' job satisfaction.

In this research, survey was conducted two times. All of the presidents received both English and Chinese version of documents because there were 19 presidents and they were all selected. However, some of the faculty might have been different as they were randomly chosen.

Confidentiality

All the collected data in this research were kept confidential in order to create trusting environment and, furthermore, to encourage participants to share their private information with regard to the names of the schools, and the gender, the age, the position in the school, and education status of each individual.

Instrumentation

In this study, two instruments were utilized. The following was the detailed description of these two instruments. First, presidents at universities of technology were surveyed to determine their leadership styles through the use of the Multifactor Leadership Questionnaire Leader Form (5X short) (see Appendix J). The MLQ included such factors as idealized influence (attributed and behavior), inspirational motivation, intellectual stimulation, individualized consideration, contingent reward, management-by-exception (active and passive), and laissez-faire leadership. All of the leadership scales had four items. In addition, extra effort had three items, effectiveness had four items, and satisfaction had two items. Totally, there were 45 items in this questionnaire. Each of the items had five frequency scales that ranged from 0 (meaning not at all) to 4 (meaning frequently, if not always). An amount score was calculated for these 45 items.

Higher scores in the areas of individualized consideration and inspirational motivation indicated a strong tendency of transformational leadership. The second highest scores would be for factors of contingent reward and management-by-exception, which were in favor of transactional leadership. Low scores were indicative of “hands-off” (Northouse, 2001, p. 155) or laissez-faire leadership.

The Multifactor Leadership Questionnaire has become widely used in assessing transformational leadership. This survey was originally constructed by Bass in 1985; it was based on a series of interviews conducted in South Africa. Bass and Avolio (1992) developed an abbreviated version of the MLQ. Since it was designed, the MLQ has gone through many revisions, and it continued to be modified to strengthen its reliability and validity (Bass & Avolio, 1993). The questionnaire used in this study was copy-righted in 1995.

Second, faculties chosen from universities of technology were asked to do the Multifactor Leadership Questionnaire Rater Form (5X short) (see Appendix K) to determine the presidents’ leadership style and the Minnesota Satisfaction Questionnaire (MSQ) (see Appendix I) developed by Weiss, Dawis, England, and Lofquist (1967) to rate teachers’ satisfaction with their job in this study. The Minnesota Satisfaction Questionnaire (MSQ) had both long form and short form, and the latter was employed in this study. The short form inventory contains 20 items and each item was scored on a scale from 0 (not satisfied) to 4 (extremely satisfied). The manual indicated that factor analysis of the 20 items resulted in two main factors—hygiene issues and motivators, and one sub-factor—general satisfaction. The manual also indicated that hygiene issues scale

coefficients ranged from .84 to .91, motivators scale coefficients ranged from .77 to .82, and that general satisfaction scale coefficients ranged from .87 to .92.

The manual pointed out that the Minnesota Satisfaction Questionnaire could be administered to groups or individuals, and was appropriate for individuals who could read at the fifth grade level and higher. The MSQ was highly valid and reliable because it was easy to use, easy to understand, and applicable to any organization, and did not take long to complete (Heneman et al. 1983).

The survey both for leadership style and teacher job satisfaction was administered twice. The first time, it was conducted in English and response coming back was not satisfactory. Due to low return rate, the survey was carried out again by using the Chinese version.

Variables and Level of Data

These data were gathered in numerical score from the questionnaire scale and the measurement was calculated on nominal and/or ordinal scales. There were four variables for leadership style in this study and they are (a) transformational, (b) transactional, (c) management-by exception, and (d) laissez-faire. The response to this survey resulted in nominal data.

The calculation conducted by collecting responses to the Minnesota Satisfaction Questionnaire (MSQ) was ordinal.

Null-hypothesis

Primarily, this study addressed the relationship of presidents' leadership style and teachers' job satisfaction, in both public and private universities of technology, upon the upgrading of universities of technology from institutes of technology. The null hypothesis

to be examined in this research was that there was no experimentally important or consistent relationship between leadership style and faculty's job satisfaction, in both public and private universities of technology, which meant that the faculty's job satisfaction was lower than 60%.

A Priori Assumption

The assumption of normality was met by having a sufficient sample size. All indicators were independent of each other.

A priori definition

The experimental importance was defined at the predictability of 60 % and the experimentally consistent predictability was defined at the level of $\alpha = .05$

Treatment of Data

Questionnaires were mailed out to private and public universities of technology represented in northern, southern, and central parts across the island of Taiwan in order to minimize a potential bias created by different regions. For the purpose of statistical analysis, the SPSS (statistical program) 12.0 for Windows was used to conduct one-way analysis of variance (ANOVA), frequency, t-test, mean, and standard deviation.

Threats to Validity

External validity

External validity was concerned about the inquiry of generalizability. Campbell and Stanley (1963) explained, “[external validity is] to what populations, settings, treatment, variables, and measurement variables this effect could be generalized” (p. 5). Channels (1985) added, “This concept refers to the extent to which the study's findings can be generalized beyond its boundaries to other settings and population” (p. 64). The

sample represented what the study was going to inquire about. The large sample in this study was randomly and carefully selected and, therefore, would control external validity. In this study, the universities of technology both from private and public were generalized to populations.

Internal Validity

In this quantitative research internal validity, which was related to the findings and the causes of the trends being investigated, was an indispensable thing. Campbell and Stanley (1963) claimed, "Internal validity is the basic minimum without which any experiment is uninterpretable" (p. 5). However, there were many crucial factors that created a threat to internal validity. Campbell and Stanley (1963) proposed these elements and they were "history, maturation, testing, instrumentation, statistical regression, experimental mortality, selection of respondents and selection-maturation interaction" (p. 5). The Multifactor Leadership Questionnaire (MLQ) and the Minnesota Satisfaction Questionnaire (MSQ) were administered simultaneously in order to control the threats to internal validity.

CHAPTER FOUR

RESULTS

Introduction

In order to sustain the Taiwan Miracle, the Taiwan government has experienced the pressure of global competition and the importance of higher education, especially in the vocational and technical system. In 1997, the Ministry of Education (MOE) deregulated the establishment of higher education institutions, which intimidated institutes of technology to face the problem in recruiting if they were not upgraded to universities of technology. The purpose of this research was to investigate and determine if presidents' leadership styles had a relationship with faculty job satisfaction in upgrading. Surveys were conducted through the Multifactor Leadership Questionnaire (MLQ), the Multifactor Leadership Questionnaire Rater Form (5X short), and the Minnesota Satisfaction Questionnaire (MSQ) forms.

Return Rate

Questionnaires were initially sent out in an English version to 19 presidents of universities of technology and 20 randomly selected faculty from these universities of technology, both private and public, throughout the island of Taiwan. Initially 4 out of 19 presidents and 79 out of 380 faculties responded. Follow-up surveys were sent to appropriate universities in the Chinese version. After the second mailing, a total of 13 (68%) presidents responded with six choosing not to participate. A final total of 236 faculties (62%) completed their questionnaires.

President's return rate is summarized in Table 2.

Table 2

Presidents' Response Rate by University Type

University Type	Sent Out	Returned	Percentage
Public	8	7	88%
Private	11	6	55%
Total	19	13	68%

The distribution of responses by university type is summarized in Table 3.

Table 3

Distribution of President Respondents by Public and Private Universities

University Type	Frequency	Percentage
Public	7	54%
Private	6	46%
Total	13	100%

Both public and private universities were included in this research. There were 89 participants from the public universities and 147 participations from the private universities responding to the survey, accounting for the rate of 38% and 62% respectively.

Table 4 shows inventories of faculty return rates for job satisfaction and faculty perception of presidential leadership style.

Table 4

Faculty Return Rates for Job Satisfaction and Faculty Perception of Presidential Leadership Style Inventories by University Type

University Type	Sent Out	Returned	Percentage
Public	160	89	56%
Private	220	147	67%
Total	380	236	62%

Table 5 shows the distribution of participating faculties according to university type.

Table 5

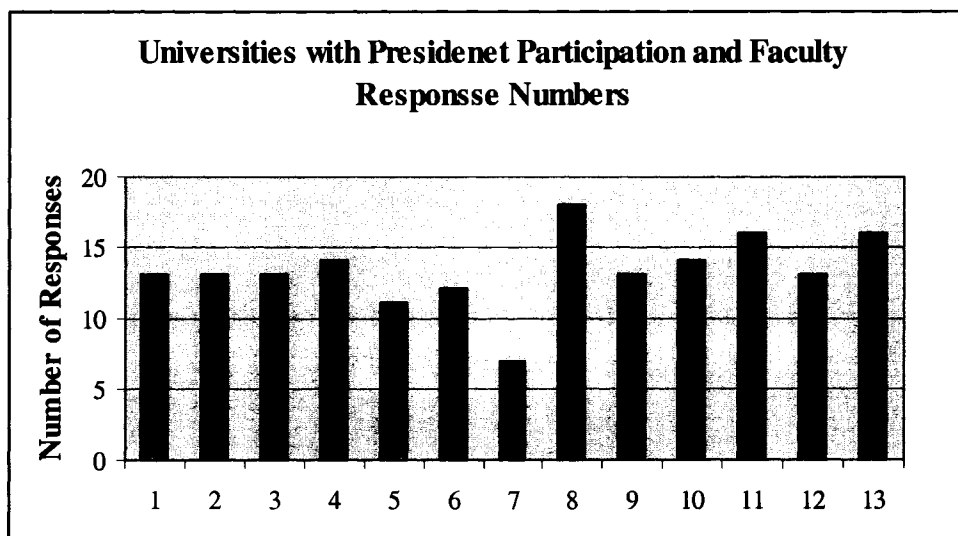
Distribution of Faculty Participating by University Type

University Type	Frequency	Percentage
Public	89	38%
Private	147	62%
Total	236	100%

The 13 universities having presidents who participated in this research had a total of 171 faculty members respond to the two faculty questionnaires. The distribution of these faculty members by institution is presented in Figure 3.

Figure 3

Response Numbers of the 13 Universities; 1 to 7, public; 8 to 13, private



In order to preserve anonymity, the 13 universities have been coded so that the public universities have a Pub extension while the private universities have a Pri extension. A total of seven public and six private universities comprised the sample for most of this analysis.

Faculty Job Satisfaction Questionnaire

Faculty job satisfaction was calculated through the use of Minnesota Satisfaction Questionnaire by Weiss, Dawis, England, and Lofquist (1967). This short-form survey contained 20 questions that had relevance to hygiene issues (items 5, 6, 7, 8, 12, 13, 17, 18) and motivators (items 1, 2, 3, 4, 9, 10, 11, 14, 15, 16, 19, 20) in participants' job. In this form, each item had five scales for respondents to choose from, which range from very dissatisfied (0) to very satisfied (4). The closer the score of the answer was to 4, the more satisfied the faculty was with that item.

Hygiene Issues

According to Herzberg (1966), hygiene issues were described as personal physiological needs, which were only the maintenance factors and did not determine the real level of satisfaction. Hygiene factors were short-term consideration. In the present survey, faculty members from both public and private universities of technology displayed high average rank score of satisfaction with their hygiene issues.

Motivators

Motivators were different from hygiene issues which created from physiological personal inherent needs. Herzberg (1966) contended that motivators were not formed from the essential conditions but psychological needs. In this survey, motivator scale included feelings of accomplishment, praise, ability of judgment, autonomy, self-competence, and caring. Herzberg (1966) reasoned that motivators could be fulfilled and maintained for long and even grew if people thought their achievement, recognition, advancement, responsibility, and personal growth were fulfilled and work itself was comfortable. Faculty showed high average rank scores of satisfaction in motivators.

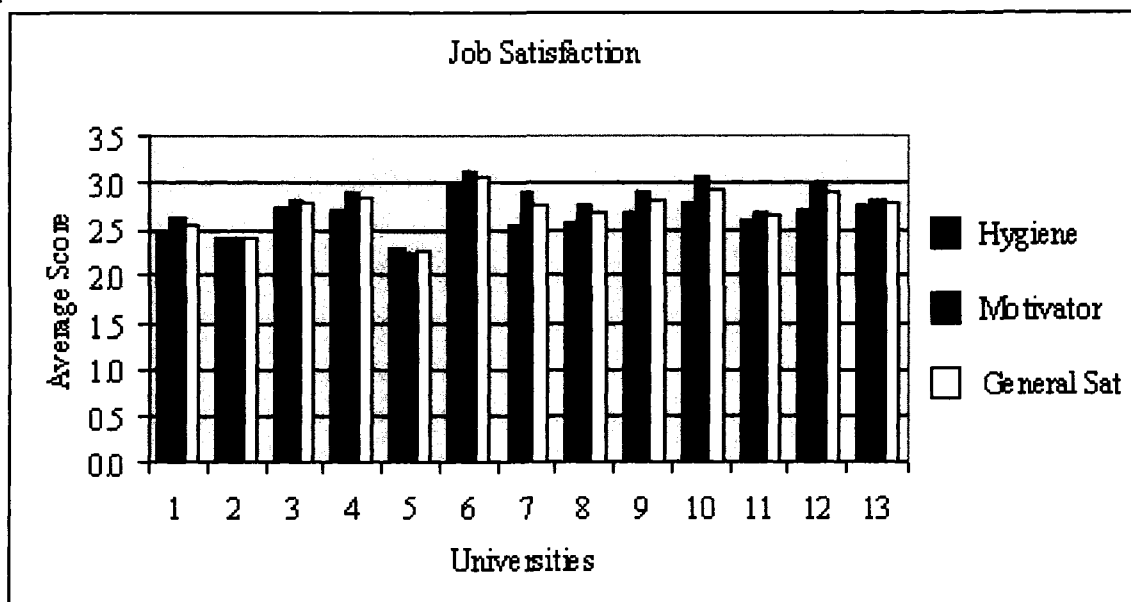
General Satisfaction

General satisfaction was composed of hygiene issues and motivators. According to the survey, faculty members also displayed high level of satisfaction with an average rank score of 2.8.

The results of job satisfaction of respondents from 13 universities of technology are summarized in figure 2. Items 5, 6, 7, 8, 12, 13, 17, 18 are hygiene issues and Items 1, 2, 3, 4, 9, 10, 11, 14, 15, 16, 19, 20 are motivators. There are five scales which range from 0 to five.

Figure 4

The Average Rank Scores of Job Satisfaction; 1 to 7, public; 8 to 13, private



The average rank score of faculty job satisfaction responding from 19 universities is summarized in Table 6 in which three items are displayed respectively.

Table 6.

Faculty Job Satisfaction in Hygiene Issues, Motivators, and General Satisfaction. Faculty

Job Satisfaction Score: 0=Very Dissatisfied; 1= Dissatisfied; 2= Neither Dissatisfied

Nor Satisfied; 3=Satisfied; 4=Very Satisfied;

	Average	Average	Average
PU=1-8 PR=9-19 University	hygiene issues	motivators	General Satisfaction
1	2.5	2.6	2.6
2	2.4	2.4	2.4
3	2.7	2.8	2.8
4	2.7	2.9	2.8
5	2.3	2.2	2.3
6	3.0	3.1	3.1
7	2.6	2.9	2.8
8	2.6	2.8	2.7
9	2.6	2.8	2.7
10	2.7	2.9	2.8
11	2.8	3.1	2.9
12	2.6	2.7	2.6
13	2.7	3.0	2.9
14	2.8	2.8	2.8
15	3.2	2.9	3.0
16	3.5	3.4	3.4
17	2.7	2.5	2.6
18	2.8	2.7	2.7
19	3.1	3.0	3.0
Average	2.7	2.8	2.8

Table 7 explains the detailed results and comparison of job satisfaction from all faculty respondents and selected faculty respondents.

Table 7

Detailed Results of Job Satisfaction

	All Faculty Respondents					VS	Selected Faculty Respondents				
	Job Satisfaction						Job Satisfaction				
	V dis	Dis	Neither	Sat.	V Sat		V dis	Dis	Neither	Sat	V Sat
Frequency	8	23	46	129	30		7	20	27	92	25
Q1	3%	10%	10%	55%	13%		4%	12%	16%	54%	15%
Frequency	0	20	26	145	45		0	17	17	104	33
Q2	0%	8%	11%	61%	19%		0%	10%	10%	61%	19%
Frequency	2	19	39	132	44		2	16	24	98	31
Q3	1%	8%	17%	56%	19%		1%	9%	14%	57%	18%
Frequency	4	16	80	110	26		4	12	58	85	12
Q4	2%	7%	34%	47%	11%		2%	7%	34%	50%	7%
Frequency	5	26	68	106	31		4	24	47	77	19
Q5	2%	11%	29%	45%	13%		2%	14%	27%	45%	11%
Frequency	1	24	62	123	26		1	21	45	87	17
Q6	0%	10%	26%	52%	11%		1%	12%	26%	51%	10%
Frequency	2	14	39	121	60		2	11	31	90	37
Q7	1%	6%	17%	51%	25%		1%	6%	18%	53%	22%
Frequency	3	9	31	123	70		3	6	26	90	46
Q8	1%	4%	13%	52%	30%		2%	4%	15%	53%	27%
Frequency	1	8	25	133	69		1	8	14	101	47
Q9	0%	3%	11%	56%	29%		1%	5%	8%	59%	27%
Frequency	1	8	25	133	69		1	9	25	100	36
Q10	0%	3%	11%	56%	29%		1%	5%	15%	58%	21%
Frequency	1	12	27	134	62		1	10	21	95	44
Q11	0%	5%	11%	57%	26%		1%	6%	12%	56%	26%
Frequency	3	25	92	91	25		3	24	60	72	12
Q12	1%	11%	39%	39%	11%		2%	14%	35%	42%	7%
Frequency	4	24	46	118	44		4	20	37	86	24
Q13	2%	10%	19%	50%	19%		2%	12%	22%	50%	14%
Frequency	4	26	59	107	40		4	23	42	82	20
Q14	2%	11%	25%	45%	17%		2%	13%	25%	48%	12%
Frequency	0	21	40	127	48		0	16	26	95	34
Q15	0%	9%	17%	54%	20%		0%	9%	15%	56%	20%
Frequency	1	14	33	136	52		1	10	26	100	34
Q16	0%	6%	14%	58%	22%		1%	6%	15%	58%	20%
Frequency	4	18	28	137	49		3	17	18	105	28
Q17	2%	8%	12%	58%	21%		2%	10%	11%	61%	16%
Frequency	1	13	41	139	42		1	12	36	95	27
Q18	0%	6%	17%	59%	18%		1%	7%	21%	56%	16%
Frequency	2	12	64	121	49		2	12	45	85	37
Q19	1%	5%	27%	55%	12%		1%	7%	26%	54%	12%
Frequency	1	13	52	121	49		1	12	36	85	37
Q20	0%	6%	22%	51%	21%		1%	7%	21%	50%	22%

Multifactor Leadership Questionnaire (MLQ) Form 5X

In this survey, Multifactor Leadership Questionnaire Leader Form was sent to presidents who did the self-evaluation on their own leadership style, whereas Multifactor Leadership Questionnaire Rater Form was posted to teachers who appraised their president's leadership style. In the survey, four leadership styles were assessed; they are transformational leadership style, transactional leadership style, management-by-exception, and laissez-faire leadership style. There are nine factors to measure these four styles. Five out of nine were used to measure transformational leadership style, one to measure transactional leadership style, 2 to measure management-by-exception, and 1 to measure laissez-faire. Each item was scored according to the response to a 5-point scale. The score for transformational leadership was determined by summing 20 specified items for five factors on the questionnaire and then divided it by five. The score for transactional leadership was determined by totaling four items. The score for management-by-exception was determined by summing eight items on the questionnaire, and then divided by 2. The score for laissez-faire leadership was determined by totaling the four items. Leadership style was, therefore, determined by the largest score obtained from calculation.

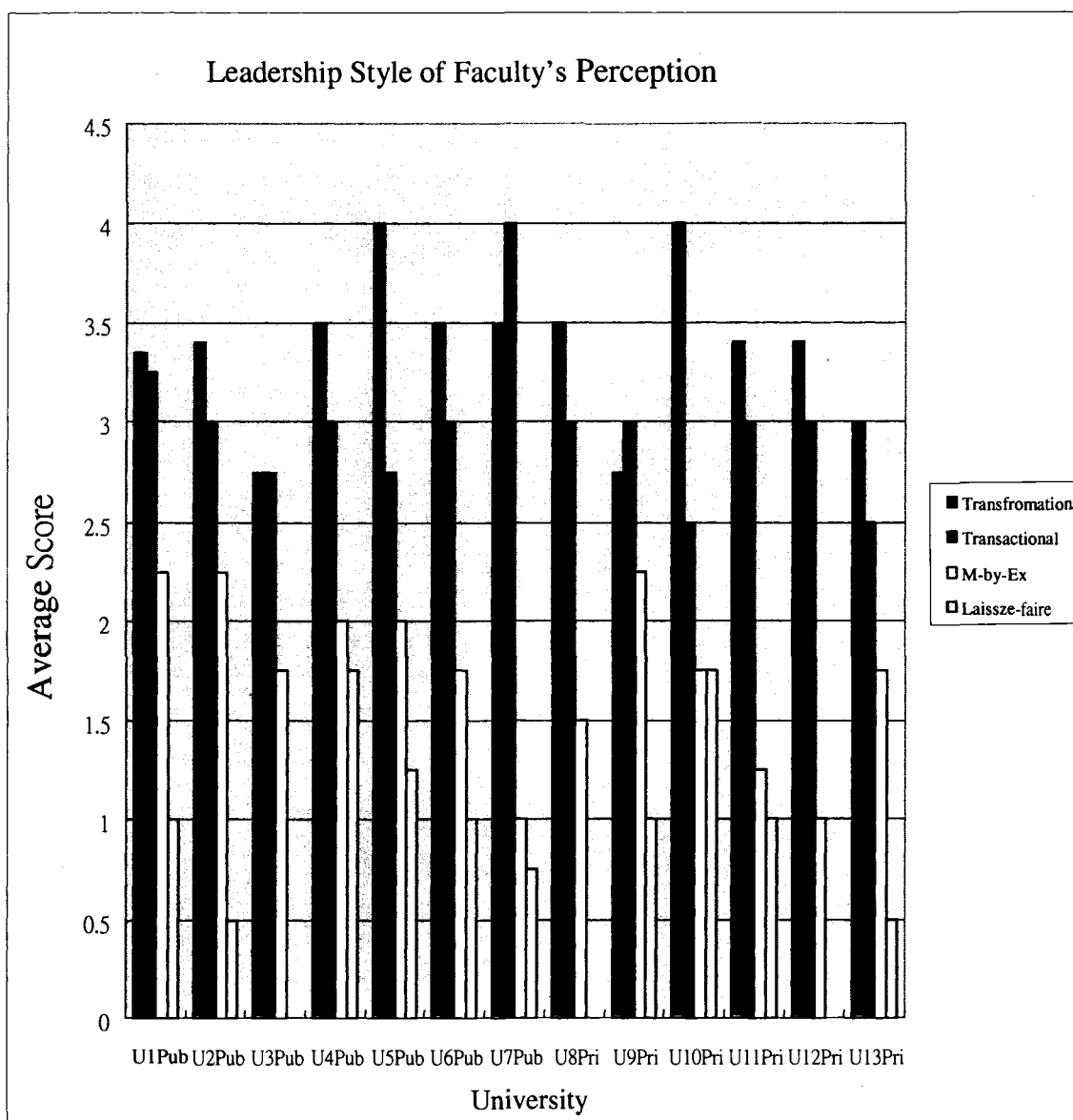
Presidents' Leadership Styles

According to presidents' response, transformational leadership style, with 10 out of 13 was ranked top one, transactional leadership style, with 3 out of 10 was ranked top two and left management-by-exception and laissez-faire.

President's leadership style of faculty's perception from 13 universities is summarized in figure 5.

Figure 5

Distribution of President's Leadership Style of Faculty's Perception; 1 to 7, public; 8 to 13, private



Faculty's Perception of Leadership Styles

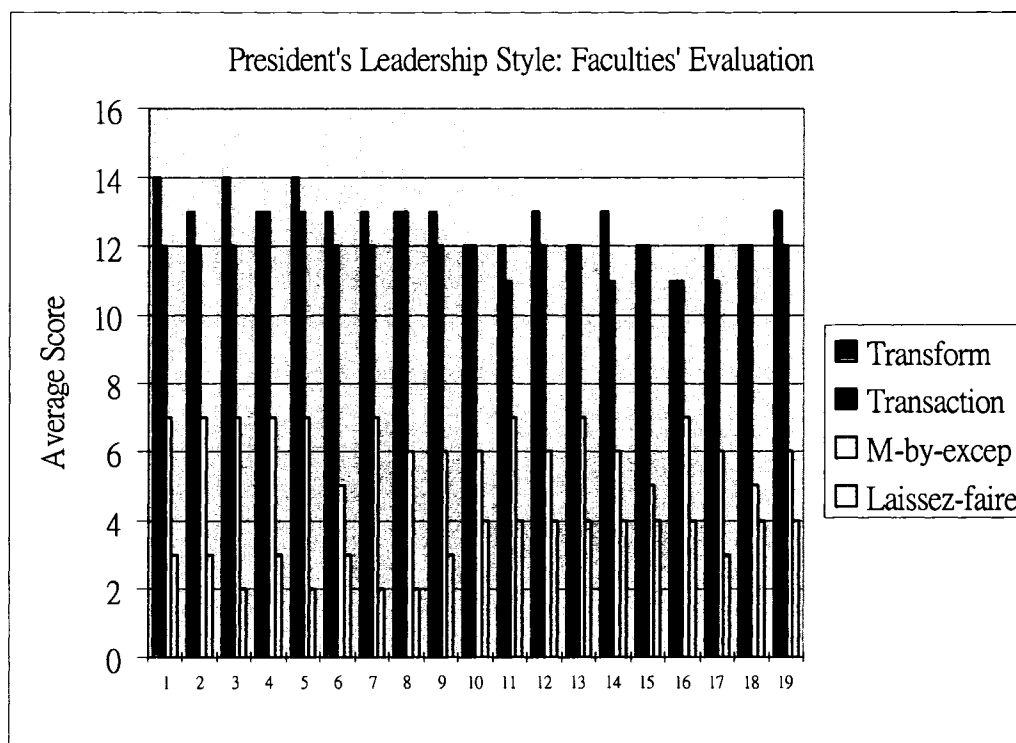
Interestingly, the results from faculty responses displayed that faculties from 12 universities believed that their presidents executed transformational leadership style and 7

considered their presidents' leadership were both the transformational and transactional.

The results were reported in figure 6.

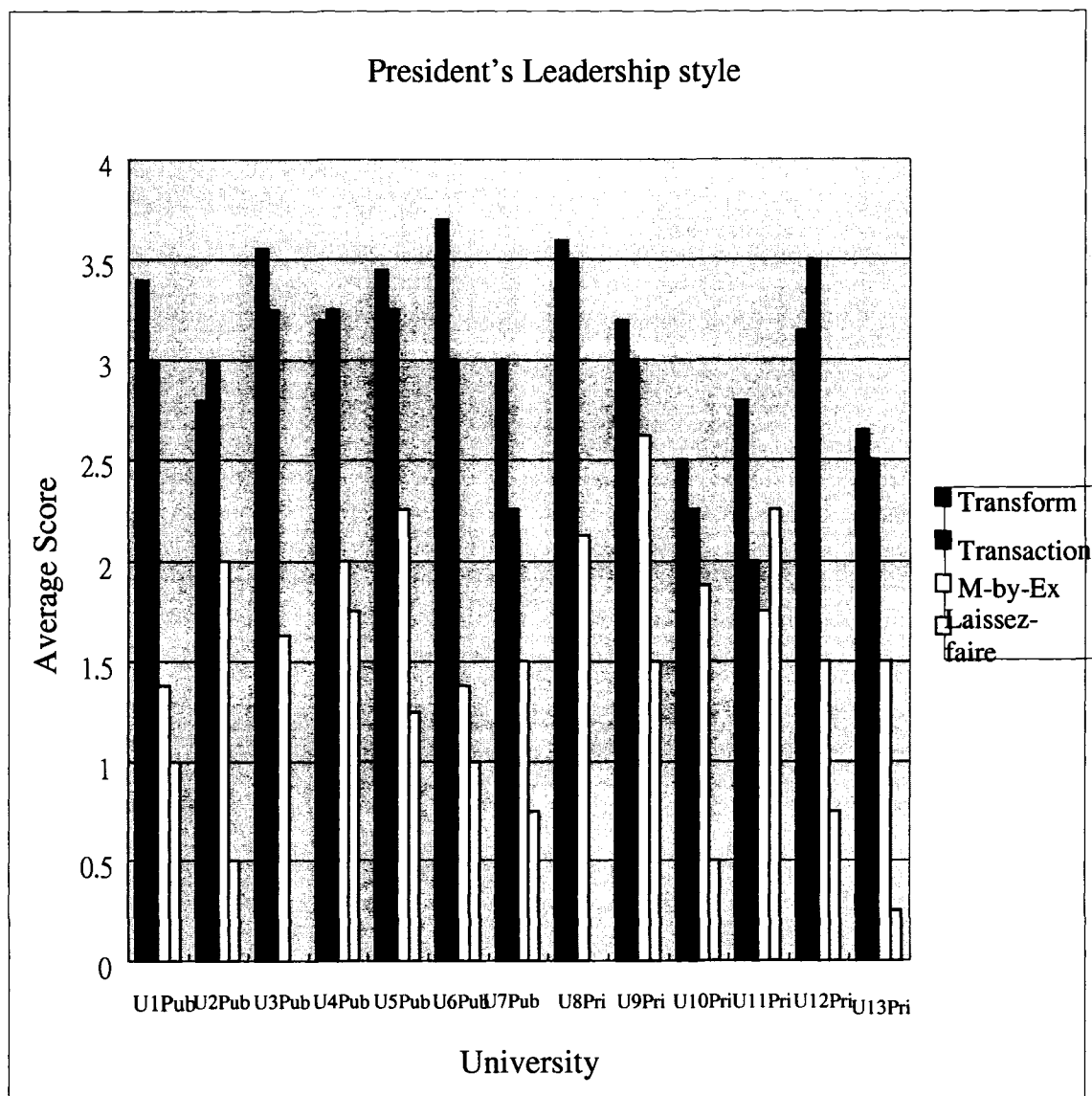
Figure 6

Average Rank Score of Faculty's Perception on President's Leadership Style from 19 Universities; One to Eight, Public; Nine to 19, Private.



Leadership style of president perception from 13 responding presidents is summarized in figure 7.

Figure 7

Distribution of President Leadership Style

Analysis of Job Satisfaction and Perceived Leadership Style

Perceived Leadership Style of Presidents vs. Faculty

Recognizing the limitations of ordinal data subjected to parametric procedures, an initial investigation of the presidents' and faculties' perception of leadership style was conducted using the Pearson r correlation on the mean rank scores for the leadership

inventories as reported by both groups. As such, the findings here will be interpreted in a way to provide information about tendencies and indicators of those tendencies, without either firm correlations or suggestions of causality.

The mean rank scores for the perception of both the transformational and transactional leadership styles had very small, negative correlations to job satisfaction, approximately $r = .12$. In both leadership styles, the presidents ranked themselves, on the average, a bit higher than did their faculty. The other two, less dominate leadership styles, that is, management by exception and laissez-faire, had stronger positive correlations of the order of .43 and .60 respectively. The faculty tended to rank their presidents stronger in these latter two leadership styles than did the presidents. In general, the differences in rank tend to be small directional differences with the actual magnitude of the rank difference to be quite small and presidents and faculty perceive nearly the same leadership style.

Perceived Presidential Leadership Style by Faculties and Presidents vs. Job Satisfaction

The correlations between the two perceptions of leadership style and the components of job satisfaction are provided in Table 8. Only the two dominate leadership styles will be analyzed as the remaining two leadership styles do not appear to be part of the primary leadership style used in day to day organizational leadership.

Table 8

Pearson r Correlation of Leadership Style with Job Satisfaction

Leadership Style	Faculty Perception			President Self-Perception		
	Hygiene	Motivators	Gen Satisf	Hygiene	Motivators	Gen Satisf
Transformational	-0.34	-0.23	-0.29	-0.23	-0.18	-0.21
Transactional	-0.38	0.00	-0.16	-0.26	-0.43	-0.38

Table 8 indicates that transformational or transactional leadership has very little or no relationship with hygiene, motivators, or general satisfaction, at least to the degree that leadership style is perceived by the faculty. Furthermore, transformational or transactional leadership also has very little association with hygiene, motivators, or general satisfaction, to the extent that leadership style is perceived by presidents.

Tables nine to 12 explain Spearman Rho correlation between two variables of leadership styles and faculty job satisfaction.

Table 9

Leadership Style as Perceived by the Presidents

Leadership	Satisfaction	correlation	p-value
Transformational	Hygiene	0.19	0.53
Transformational	Motivator	0.20	0.51
Transformational	Overall	0.16	0.60
Transactional	Hygiene	0.08	0.80
Transactional	Motivator	-0.04	0.89
Transactional	Overall	0.04	0.89
M-by-exception	Hygiene	-0.29	0.34
M-by-exception	Motivator	0.01	0.98
M-by-exception	Overall	-0.11	0.72
Laissez-faire	Hygiene	-0.03	0.91
Laissez-faire	Motivator	-0.13	0.68
Laissez-faire	Overall	-0.08	0.79

Table 10

Leadership Style as Perceived by the Presidents: Sorted

Leadership	Satisfaction	correlation	p-value
Transformational	Motivator	0.20	0.51
Transformational	Hygiene	0.19	0.53
Transformational	Overall	0.16	0.60
Transactional	Hygiene	0.08	0.80
Transactional	Overall	0.04	0.89
M-by-exception	Motivator	0.01	0.98
Laissez-faire	Hygiene	-0.03	0.91
Transactional	Motivator	-0.04	0.89
Laissez-faire	Overall	-0.08	0.79
M-by-exception	Overall	-0.11	0.72
Laissez-faire	Motivator	-0.13	0.68
M-by-exception	Hygiene	-0.29	0.34

Table 11

Leadership Style as Perceived by the Faculty

Leadership	Satisfaction	correlation	p-value
Transformational	Hygiene	-0.22	0.47
Transformational	Motivator	-0.27	0.37
Transformational	Overall	-0.31	0.30
Transactional	Hygiene	-0.23	0.46
Transactional	Motivator	0.14	0.64
Transactional	Overall	0.02	0.96
M-by-exception	Hygiene	-0.32	0.28
M-by-exception	Motivator	-0.54	0.06
M-by-exception	Overall	-0.57	0.04
Laissez-faire	Hygiene	0.62	0.02
Laissez-faire	Motivator	0.53	0.06
Laissez-faire	Overall	0.63	0.02

Table 12

Leadership Style as Perceived by the Faculty: Sorted

Leadership	Satisfaction	correlation	p-value
Laissez-faire	Overall	0.63	0.02
Laissez-faire	Hygiene	0.62	0.02
Laissez-faire	Motivator	0.53	0.06
Transactional	Motivator	0.14	0.64
Transactional	Overall	0.02	0.96
Transformational	Hygiene	-0.22	0.47
Transactional	Hygiene	-0.23	0.46
Transformational	Motivator	-0.27	0.37
Transformational	Overall	-0.31	0.30
M-b-Exception	Hygiene	-0.32	0.28
M-b-Exception	Motivator	-0.54	0.06
M-b-Exception	Overall	-0.57	0.04

Summary

Initially, questionnaires were conducted in English version and sent to 19 presidents and 380 randomly selected faculty members from these 19 universities of technology. There were 15 (79%) presidents and 201 (53%) faculty members choosing

not to respond. Follow-up surveys were sent to appropriate universities in Chinese version. A final total of 13 (68%) presidents and 236 (62%) faculty members responded.

The survey found that the average rank score of faculty job satisfaction of the 13 universities whose presidents' responded was 2.7 in hygiene issues, 2.8 in motivators, and 2.8 in general satisfaction. The average rank score of the 19 universities was the same, which was 2.7, 2.8, and 2.8 in each individual item.

As to leadership style, an analysis of the relationship between presidents' self-perceived leadership style and their faculty's found a tendency for the presidents to slightly rank themselves higher in transformational and transactional leadership and lower in the areas of management by exception and laissez-faire than their faculties did.

A correlation analysis of perceptions of leadership style with job satisfaction resulted, for the most part, in moderately low negative correlations between the degrees to which presidents are perceived as well as perceive themselves to be transformational and/or transactional.

CHAPTER FIVE

CONCLUSIONS

Introduction

Institutes of technology in Taiwan were facing the problem of recruitment and even termination. The purpose of this study was to evaluate faculty job satisfaction as an indicator of presidents' leadership styles in both public and private universities of technology in Taiwan and to determine if a president's leadership style had a relationship with the upgrading from institutes of technology to universities of technology.

Twenty questions from the Minnesota Satisfaction Questionnaire (MSQ) were used to calculate faculty job satisfaction and 36 cue questions from four leadership components from the Multifactor Leadership Questionnaire (MLQ) and the Multifactor Leadership Questionnaire Rater Form (5X short) were employed to help identify which leadership style was influential on school improvement...

An examination of studies on leadership indicated that a successful organization did not focus on an effective leader because the leader functioned only in cooperation with his or her subordinates. An effective leader possessed a blend of factors or qualities, such as skills, characteristics, and charisma. Furthermore, the most effective leader also dealt with followers and satisfied their needs within physical, mental, positional, social, and cultural perspectives (Tannenbaum, Weschler, & Massarik, 1987). As a result, when faculty members were satisfied with their jobs, constructive and long-term motivation and commitment in instructing, administrating, and doing research would be developed and enhanced, which would help the school's upgrading to take place.

Job Satisfaction

Job satisfaction is a person's feelings of gratification that has reference to the nature of his or her work and that either enhanced or diminished the motivation in his or her position and, therefore, their commitment to the organization. In this survey, faculty job satisfaction was examined through 20 items consisting of ability utilization, achievement, activity, advancement, authority, company policies, compensation, co-workers, creativity, independence, moral values, recognition, responsibility, security, social service, social status, supervision—human relations, supervision—technical, variety, and working conditions. The findings indicated that faculties displayed strong satisfaction in the domains of hygiene and motivators.

Leadership Style

Leadership is both an art and science. That a leader utilized a scientific method and rational behavior such as autocratic, democratic, delegative, or managerial, to direct a group of unique individuals to complete a project (a goal or goals) was described as a leadership style. In this study, the findings focused upon the four leadership styles of presidents from universities of technology—transformational, transactional, management-by-exception, and laissez-faire.

Transformational leaders were enthusiastic, energetic, and often charismatic. They had tremendous passion and clear views of the future that intellectually stimulated subordinates. Transformational leaders considered their followers as unique individuals and appreciated each and every individual uniqueness so that followers felt that they were held in great reverence and would highly commit themselves to the achievement of the common goal or goals (Bass & Avolio, 1992).

As effective transactional leadership style was contingent upon feedback and reinforcement and highlighted the importance of transactions between the leader and his or her followers (Bass, 1990). This leadership had been described as an exchange processes through which subordinates were required and motivated to display satisfactory performance through the use of rewards and punishments.

A leader using management-by-exception style would not step in until his or her subordinates were unable to attain the required performance standards there were serious problems. This leadership style focused on the negative sides of their follower's performance.

The laissez-faire leadership style authorized followers to determine goals, make decisions, and solve problems. Followers were given as large a degree of freedom as possible. This was also known as hands-off or permissive leadership (Glickman, Gordon, and Ross-Gordon (2001).

Null Hypothesis

The null hypothesis in this study suggested that there would be no experimentally important or consistent predictability in relationship between leadership style and faculties' job satisfaction in both public and private universities of technology. The findings, however, failed to reject the null because there is very little correlation between job satisfaction and perception of leadership style by either faculty or presidents, which means that faculty job satisfaction and leadership styles have very weak relationship with upgrading from institutes of technology to universities of technology.

In addition to Pearson's r correlation, Spearman Rho correlation which is used for comparing rank order exhibits that there is little association between leadership style

and faculty job satisfaction. When leadership style is perceived by the presidents, the strongest positive correlation between ranks is when leadership is ranked by transformational leadership with the rank order of motivators resulting in a correlation of .20 and a p-value of 0.51. While this is a weak correlation and poor p-value, it is worth noting that the three highest correlations with the rank of job satisfaction were with transformational leadership. The research concludes that while the correlations were weak, the only leadership style that correlated with job satisfaction when rank order was compared was transformational. Transactional leadership essentially had a very small correlation with job satisfaction. Laissez-faire had a very weak negative correlation and management-by-exception had a weak negative correlation. The degree to which an increase in transformational leadership style resulted in an increase in job satisfaction was about equal to the degree in to which an increase in management-by-exception leadership style resulted in a decrease in job satisfaction.

The other two job leadership style suggest that an increase in each of those leadership styles did not mean an increase or decrease in job satisfaction, that is, there was no correlation.

However, when leadership is ranked as perceived by the faculty, quite a different finding results. It is relatively noticeable that there are some strong Spearman Rho correlations for these rankings with laissez-faire having a strong positive correlation and management-by-exception having a strong negative correlation. Transformational now has a negative correlation with about the same magnitude as it had with presidents' perception except it was positive there. Transactional continues to have little correlation either way.

Research Questions

This section summarizes the answers to the research questions and discussed the major findings of this research.

Question 1: Do presidents in both private and public universities of technology have the same inclination to utilize leadership style?

The results of question one showed that five out of seven presidents in public universities of technology had a dominant tendency of using transformational leadership style, leaving two tending to use transactional leadership style. On the other hand, one out of six thought his style was more transactional, leaving five being likely to employ transformational style. In one word, three out of 13 presidents believed that their leading style was more transactional than transformational, which meant that presidents in both private and public universities of technology had an inclination to executing the same leadership style—transformational style.

Question 2: Is there any president who does not utilize transformational leadership style, but can still make his or her institute of technology promoted to a university of technology?

The results of the second question indicated that there were three presidents who employed transactional leadership style, which was different than the other 10 presidents, and could still succeed in promoting their schools, which meant one size did not fit all. Every leadership style was not considered perfect.

Question 3: Do all of the presidents request their subordinates to put extra effort on their job?

Of all presidents participating in this survey, 86 percent of them thought they increased followers desire to succeed and 100% thought they heighten followers' willingness to try harder. These two survey questions highlighted that presidents were willing and ready to provide support in order to enhance teachers' motivation to enlarge commitment to the common task of the school. On the contrary, 43% of these presidents showed that they fairly often or frequently if not always required their subordinators to do more than they expected to do. This explained that presidents took faculty's work load into consideration; they did not put in extra weights upon faculty's shoulders unless something urgent happened.

Question 4: Do all of the presidents at universities of technology consider themselves as effective leaders?

Among these presidents, one was a professor with a doctorate degree and retired from a public general university; three of them were deans of either student affairs or academics of the previous institutes of technology; three of them used to be vice presidents of the previous institutes of technology; there were six who used to be the presidents of the previous institutes of technology.

The answer to question number four was that one 100% of presidents self-confidently believed that they were effective in meeting others' job-related needs and organizational requirements, and 86% agreed that they were effective in leading their educational group. Among all presidents, although 58% thought they were effective in representing others to higher authority, 28% believed they were sometimes effective and 18% thought they were less than effective. As a whole, presidents considered themselves as competent leaders.

Question 5: Are all presidents satisfied with their way and style of leading subordinates?

Among these presidents participating in this survey, one hundred percent of them thought they were confident and content in terms of successful leaders. The results of question five indicated that all of the presidents were satisfied with the methods they used in leading their group and the ways they worked with their followers. That indicated that presidents felt their vision and direction were clear, and their communication with followers were excellent.

Question 6: Do faculty members in both private and public universities of technology think that their presidents' leadership styles are similar?

According to the results of research question six, 12 out of 19 presidents were thought to be transformational than transactional in using leadership style, which left seven being considered to be both transformational and transactional. The rates were 63% and 37% respectively. Clearly, among presidents in public universities of technology, only faculties from one university considered their president to be both transformational and transactional; the rest were all transformational. Clearly this finding conveyed an important message that there was a difference between public and private universities of technology. Public universities had the privilege of applying for supports from the government, such as annual budget. Furthermore, presidents in public universities of technology were undoubtedly less worried than presidents in private universities about being dismissed from office during their terms. They have sufficient resources.

Question 7: Is there any apparent tendency to show that faculty members at the universities of technology are satisfied with their hygiene issues?

The answer to this research question clearly indicated that faculty in both private and public universities of technology displayed high level of gratification in hygiene factors. The average rank scores are 2.6 and 2.9 respectively. This finding displayed that both private and public universities provided faculty with sufficient physiological needs. Dissatisfaction with these factors in these universities was low.

Question 8: *Is there a significant tendency to exhibit that faculty at the universities of technology is satisfied with motivators?*

The results of the survey revealed that the average rank score in these motivator factors displayed by faculty members in both private and public universities were 2.7 and 2.9 respectively. Faculty's inner necessities were sufficiently content and their psychological desire to demonstrate competence was commended, and would like to accept challenges that came up from the organization. They were ready and eager to grow, not just to stay where they were.

Other Findings

Other findings showed that in terms of hygiene factors and motivators the average rank score for all 19 universities are 2.7 and 2.8 respectively. The highest level of satisfaction was revealed in a private university with the average rank score of 3.2 and 3.1 respectively, which means that not every public university has higher lever of job satisfaction because they have some advantage over private universities.

Another finding also indicated that presidents of universities of technology in Taiwan appear to be utilizing the western leadership styles for the majority of their organizational interactions, which means that all of presidents responding to the survey tend to employ transformational and transactional leadership styles. In general, regarding

the dominant leadership styles for all 19 universities are transformational and transactional in the faculty perception as well.

Recommendations

Based upon research findings and the increasing importance to enhance the high-quality education and training in higher education in Taiwan, this present research offers the following recommendations for the Ministry of Education, presidents, and faculty of universities of technology.

Recommendation for the Ministry of Education

A university's success in upgrading does not imply that the leadership style implemented is effective because leadership style does not guarantee that every educational activity and training would run well forever or that graduates from this university would achieve better in their career or further study. The Ministry of Education should employ, regularly or irregularly, observation and assessment upon these universities of technology and their presidents in order for the educational institutions to maintain a high-standard performance in the organization that offers superior education and training to those vocational high school graduates who select that school. The Ministry of Education should also encourage presidents of institutes of technology to examine their organization and make improvement in order to become as attractive as universities of technology.

On the other hand, education and training in those institutes of technology that were not qualified as a university for the time being or have not applied for being upgraded should not be neglected. High school graduates have the right to choose any university or institute as intended. Every educational institution is obliged to foster these

young people to gain an access to and success in entering the workplace. The Ministry of Education should take its policy into more consideration before executing it so that the competition between universities and institutes can be alleviated while simultaneously putting more effort into reinforcing and solidifying education and activities in those schools from which learners could positively benefit.

In addition, the Ministry of Education should encourage entrepreneurs to provide financial support to those institutes of technology in order to enforce educational structure and function instead of establishing new universities of technology or general universities and increasing more and more competition because of the low birth rate

Recommendation for Presidents of Universities of Technology

The president whose school was already upgraded deserved approbation, for their implementing leadership style was supported and approved. He or she, however, should not be the focus of the victory or take pride in achieving the organization's goal or goals. Knippenberg and Hogg (2003) underscored, "Leaders alone do not accomplish the tasks of group" (p. 11). An effective group was organized and structured by unique individuals who had the same vision and would willingly and enthusiastically involve themselves in reaching the goal or goals. In addition, the findings pointed out that the average rank score of faculty's job satisfaction did not reach a degree of being "very satisfied."

These evaluations and data analysis would definitely contribute to the improvement of leadership. Presidents of universities of technology, as educational leaders, might perceive that these results were valuable and adoptable in making appropriate decisions and structuring an efficient communication system with teachers.

These findings might also help presidents to develop into being less subjective and more objective while running an organization.

Recommendation for Faculty

People in Taiwan place extensive reverence upon faculty and believe that they are doubtlessly the most important group of professionals for the nation's prospects.

Literature review showed that the role of a teacher or an administrator in education was surely very important, and, therefore, faculty's successful participation and wholehearted contribution of knowledge and skills are the key points of organization improvement and students' competence development.

From these results, faculty members may find that their satisfaction should be improved in some way. Faculties, however, should take the analysis from the leadership style rater into consideration that most of the presidents were transformational. These presidents used the approaches of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration to execute school policy and fulfill the common goal or goals. This style was a democratic one which allowed faculty to make a direct communication and contribute their opinions to the leader. Faculty members should be more positive and optimistic in facing and solving the problems that may happen between the leadership style and job satisfaction in order for students to have the advantage of learning high-quality skills through academic instruction and for the organization to be more improved.

Conclusion

This research was mainly intended to explore the relationship between faculties' job satisfaction and presidents' leadership style in universities of technology by

conducting Minnesota Satisfaction Questionnaire and Multifactor Leadership Questionnaire (MLQ) Form 5X. The influence of many variables upon the factors under consideration was unable to be eradicated. Nevertheless, this research produced some findings that might be proper and applicable in various educational organizations.

Implication for Further Study

In the past decade, the Taiwan government has made great progress in improving higher education by deregulating in order to sustain the reputation of the Taiwan Miracle. By February 2004, 19 out of 70 institutes of technology succeeded in upgrading to universities of technology and the rest are still working hard toward reaching that aim. This study, conducted in universities of technology, focused on presidents' leadership styles and faculty's job satisfaction. An implication may be made for further study in institutes of technology and general universities with the consideration of other variables.

Comparing the two return rates, the findings also revealed a fact that president participants responding to the survey displayed more enthusiastically doing questionnaire in their native language than in other languages. Undoubtedly, presidents at universities of technology were all qualified privileged scholars with the highest education degrees earned overseas, knowledge, capability, and administrative experience. Presidents at these universities of technology were thought to be competent in English. The other implication may be made for further research on presidents' work load which might have an influence upon implementing their leadership style.

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Appendices

Appendix A
Presidents' Cover Letter

Presidents' Cover Letter

Dear President:

My name is Liao, Lung-Chuan and I am a doctoral student at The University of Montana. I am writing this letter to ask you for help in collecting data for my research. This study is to learn how leadership style may affect teachers and help all who are interested in enhancing the effectiveness of leadership as it is practiced in institutes and/or universities of technology. I would be most appreciative if you could spend a few minutes completing the survey form and returning it in the addressed and stamped envelope within 3 weeks. You will be asked 45 questions in the Multifactor Leadership Questionnaire (MLQ) Form 5X-short. The questionnaire identifies five leadership styles, including transformational, transactional, contingent reward, management-by-exception, and laissez-faire, effort, extra effort, and satisfaction.

The survey is coded and your anonymity is guaranteed. The participation in this survey is voluntary; you can choose to drop out any time.

Sincerely,

Liao, Lung-Chuan

Appendix B
Presidents' Survey Letter

Dear President:

My doctoral dissertation focuses on the relationship of presidents' leadership and teachers' job satisfaction and its association with upgrading, I am requesting your permission to gather data from some of your teachers.

Your teachers will be asked to complete 20 questions in Minnesota Satisfaction Questionnaire (MSQ) short-form. The purpose of this questionnaire is to let your teachers tell how they feel about their present job, what things they are satisfied with and what things they are not satisfied with. On the basis of their answers and those people like them, I hope to get a better understanding of the things people like and dislike about their job.

In sampling, you will be asked to develop a list of all teachers numbered from one to n. You will be given a list of 20 random numbers generated from one to the total number of teachers in your school. You will match the random numbers provided by me with the appropriate teachers having that same numerical designation on an alphabetized list of teachers' names, then distribute a packet to each of the randomly selected teachers.

Thank you for your assistance in this project. With your cooperation, I hope to be able to make some useful determinations about the effectiveness of your work as presidents.

If you have any further questions, please feel free to contact me thru e-mail.

Regards,

Lung-chuan Liao

Email: lawrencwliao@yahoo.com.tw

PS. To thank you, enclosed is a postcard.

Appendix C
Faculties' Cover Letter

Faculties' Cover Letter

Dear Teacher:

I am writing this letter to ask for your help in collecting data for my research.

This research is intended to provide a description of school leadership style and faculties' job satisfaction and the relationship to the upgrading of institutes of technology to universities of technology.

You will be asked 20 questions in Minnesota Satisfaction Questionnaire (MSQ) short form and 45 questions in Multifactor Leadership Questionnaire (Rater Form).

The purpose of this questionnaire is to give you a chance to express how you feel about your present job, what things you are satisfied with and what things you are not satisfied with and your perception of presidential leadership style at your university. On the basis of your answer and those of people like you, I hope to get a better understanding of the things people like and dislike about their jobs.

To assist me, would you please do the following:

1. Complete the attached survey.
2. Please seal your survey in the stamped and self-addressed envelope provided, and send it back to me. I would be very grateful if you could return it within 3 weeks.

I appreciate the demands on your time, including this request for information. But I urge you to complete and return this survey, since those people actually involved in schools can best provide an accurate picture of how school work. The participation in this survey is voluntary; you can choose to drop out any time. **Your anonymity is guaranteed.**

I am grateful for your cooperation in completing this survey. Thank you very much for your help!

Sincerely,

Lung-chuan Liao (Lawrence)

Email address: lawrencwliao@yahoo.com.tw

Appendix D
Demographic Results
Gender

	All Faculty Respondents			Selected Faculty Respondents	
	Number	Percentage		Number	Percentage
Male	167	71%		123	72%
Female	69	29%		48	28%
Total	236	100%		171	100%

Appendix E

Age

Age	All Faculty Respondents		Selected Faculty Respondents	
	Number	Percentage	Number	Percentage
30-40	111	47%	75	44%
41-50	86	36%	67	39%
Above 51	32	14%	23	13%
Not reported	7	3%	6	4%
Total	236	100%	171	100%

Appendix F
Education Level

	All Faculty Respondents			Selected Faculty Respondents	
	Number	Percentage		Number	Percentage
Bachelor's	9	4%		6	4%
Master's	57	24%		48	28%
Doctorate	127	54%		74	43%
Not Reported	43	18%		42	25%
Total	236	100%		171	100%

Appendix G

Position

	All Faculty Respondents			Selected Faculty Respondents	
	Number	Percentage		Number	Percentage
Teacher	163	69%		129	75%
Administrator	38	16%		17	10%
Admin/Teacher	30	13%		20	12%
Not Reported	5	2%		5	3%
Total	236	100		171	100%

Appendix H
Teaching Experience

Years	All Faculty Respondents			Selected Faculty Respondents	
	Number	Percentage		Number	Percentage
1-10	120	51%		108	63%
11-20	92	39%		53	31%
Above 21	19	8%		10	6%
Not Reported	5	2%		0	0%
Total	236	100%		171	100%

Appendix I
Job Satisfaction Survey

MINNESOTA SATISFACTION QUESTIONNAIRE

(short-form)

David J. Weiss, Re4ne V. Dawis,

George W. England, and Lloyod H. Lofquist

Vocational Psychology Research

UNIVERSITY OF MINNESOTA

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Ask yourself: How satisfied am I with this aspect of my job?

Very Sat. means I am very satisfied with this aspect of my job.

Sat. means I am satisfied with this aspect of my job.

N means I can't decide whether I am satisfied or not with this aspect of my job.

Dissat. Means I am dissatisfied with this aspect of my job.

Very Dissat. Means I am very dissatisfied with this aspect of my job.

**PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES
CLOSEST TO REFLCECING YOUR OPINION ABOUT IT.**

On my present job, this is how I feel about...	Very Dissat.	Dissat.	N.	Sat.	Very Sat.
1. Being able to keep busy all the time.....	0	1	2	3	4
2. The chance to work alone on the job.....	0	1	2	3	4
3. The chance to do different things from time to time.....	0	1	2	3	4
4. The chance to be "somebody" in the community.....	0	1	2	3	4
5. The way my boss handles his/her workers.....	0	1	2	3	4
6. The competence of my supervisor in making decisions.....	0	1	2	3	4
7. Being able to do things that don't go against my conscience.....	0	1	2	3	4
8. The way my job provides for steady employment.....	0	1	2	3	4
9. The chance to do things for other people.....	0	1	2	3	4
10. The chance to tell people what to do	0	1	2	3	4
11. The chances for advancement on this job.....	0	1	2	3	4
12. The way company policies are put into practice.....	0	1	2	3	4
13. My pay and the amount of work I do.....	0	1	2	3	4
14. The chances for advancement on this job.....	0	1	2	3	4
15. The freedom to use my own judgment.....	0	1	2	3	4

	Very Dissat.	Dissat.	N.	Sat.	Very Sat.
16.The chance to try my own methods of doing the job.....	0	1	2	3	4
17.The working conditions.....	0	1	2	3	4
18.The way my co-workers get along with each other.....	0	1	2	3	4
19.The praise I get for doing a good job.....	0	1	2	3	4
20.The feeling of accomplishment I get from the job.....	0	1	2	3	4

Appendix J

Multifactor Leadership Questionnaire (MLQ)

Multifactor Leadership Questionnaire

Leader Form (5X-Short)

Bernard Bass and Bruce Avolio

Published by Mind Garden

Copyright 1995

Use the following scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

1. I provide others with assistance in exchange for their efforts.....0 1 2 3 4
2. I reexamine critical assumptions to question whether they are
appropriate.....0 1 2 3 4
3. I fail to interfere until problems become serious.....0 1 2 3 4
4. I focus attention on irregularities, mistakes, exceptions, and deviations
from standards.....0 1 2 3 4
5. I avoid getting involved when important issues arise.....0 1 2 3 4
6. I talk about my most important values and beliefs.....0 1 2 3 4
7. I am absent when needed.....0 1 2 3 4
8. I seek differing perspectives when solving problems.....0 1 2 3 4
9. I talk optimistically about the future.....0 1 2 3 4
10. I instill pride in others for being associated with me.....0 1 2 3 4

11. I discuss in specific terms who is responsible for achieving performance targets.....0 1 2 3 4
12. I wait for things to go wrong before taking action.....0 1 2 3 4
13. I talk enthusiastically about what needs to be accomplished.....0 1 2 3 4
14. I specify the importance of having a strong sense of purpose.....0 1 2 3 4
15. I spend time teaching and coaching.....0 1 2 3 4
16. I make clear what one can expect to receive when performance goals are achieved.....0 1 2 3 4
17. I show that I am a firm believer in “If it ain’t broke, don’t fix it”.....0 1 2 3 4
18. I go beyond self-interest for the good of the group.....0 1 2 3 4
19. I treat others as individuals rather than just as a member of a group.....0 1 2 3 4
20. I demonstrate that problems must become chronic before I take action...0 1 2 3 4
21. I act in ways that build other’s respect for me.....0 1 2 3 4
22. I concentrate my full attention on dealing with mistakes, complaints, and failures.....0 1 2 3 4
23. I consider the moral and ethical consequences of decisions0 1 2 3 4
24. I keep track of all mistakes.....0 1 2 3 4
25. I display a sense of power and confidence.....0 1 2 3 4
26. I articulate a compelling vision of the future.....0 1 2 3 4
27. I direct my attention toward failures to meet standards.....0 1 2 3 4
28. I avoid making decisions.....0 1 2 3 4

29. I consider an individual as having different needs, abilities and aspirations from others.....0 1 2 3 4
30. I get others to look at problems from many different angles.....0 1 2 3 4
31. I help others to develop their strengths.....0 1 2 3 4
32. I suggest new ways of looking at how to complete assignments.....0 1 2 3 4
33. I delay responding to urgent questions.....0 1 2 3 4
34. I emphasize the importance of having a collective sense of mission.....0 1 2 3 4
35. I express satisfaction when others meet expectations.....0 1 2 3 4
36. I express confidence that goals will be achieved.....0 1 2 3 4
37. I am effective in meeting others' job-related needs.....0 1 2 3 4
38. I use methods of leadership that are satisfying.....0 1 2 3 4
39. I get others to do more than they expected to do.....0 1 2 3 4
40. I am effective in representing others to higher authority.....0 1 2 3 4
41. I work with others in a satisfactory way.....0 1 2 3 4
42. I heighten others' desire to succeed.....0 1 2 3 4
43. I am effective in meeting organizational requirements.....0 1 2 3 4
44. I increase others' willingness to try harder.....0 1 2 3 4
45. I lead a group that is effective.....0 1 2 3 4

Appendix K
Multifactor Leadership Questionnaire
(Rater Form)

Multifactor Leadership Questionnaire

(Rater Form)

Use the following scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

1. Provides me with assistance in exchange for my efforts.....0 1 2 3 4
2. Reexamines critical assumptions to question whether they are
appropriate.....0 1 2 3 4
3. Fails to interfere until problems become serious.....0 1 2 3 4
4. Focuses attention on irregularities, mistakes, exceptions, and deviations
from standards.....0 1 2 3 4
5. Avoids getting involved when important issues arise.....0 1 2 3 4
6. Talks about their most important values and beliefs.....0 1 2 3 4
7. Is absent when needed.....0 1 2 3 4
8. Seeks differing perspectives when solving problems.....0 1 2 3 4
9. Talks optimistically about the future.....0 1 2 3 4
10. Instills pride in me for being associated with him/her.....0 1 2 3 4
11. Discusses in specific terms who is responsible for achieving
performance targets.....0 1 2 3 4
12. Waits for things to go wrong before taking action.....0 1 2 3 4
13. Talks enthusiastically about what needs to be accomplished.....0 1 2 3 4

14. Specifies the importance of having a strong sense of purpose.....0 1 2 3 4
15. Spends time teaching and coaching.....0 1 2 3 4
16. Makes clear what one can expect to receive when performance
goals are achieved.....0 1 2 3 4
17. Shows that he/she is a firm believer in "If it ain't broke, don't fix it".....0 1 2 3 4
18. Goes beyond self-interest for the good of the group.....0 1 2 3 4
19. Treats me as an individual rather than just as a member of a group.....0 1 2 3 4
20. Demonstrates that problems must become chronic before
taking action.....0 1 2 3 4
21. Acts in ways that build my respect0 1 2 3 4
22. Concentrates his/her full attention on dealing with mistakes,
complaints, and failures.....0 1 2 3 4
23. Considers the moral and ethical consequences of decisions0 1 2 3 4
24. Keeps track of all mistakes.....0 1 2 3 4
25. Displays a sense of power and confidence.....0 1 2 3 4
26. Articulates a compelling vision of the future.....0 1 2 3 4
27. Directs my attention toward failures to meet standards.....0 1 2 3 4
28. Avoids making decisions.....0 1 2 3 4
29. Considers me as having different needs, abilities and
aspirations from others.....0 1 2 3 4
30. Gets me to look at problems from many different angles.....0 1 2 3 4
31. Helps me to develop my strengths.....0 1 2 3 4
32. Suggests new ways of looking at how to complete assignments.....0 1 2 3 4

33. Delays responding to urgent questions.....0 1 2 3 4
34. Emphasizes the importance of having a collective sense of mission.....0 1 2 3 4
35. Expresses satisfaction when I meet expectations.....0 1 2 3 4
36. Expresses confidence that goals will be achieved.....0 1 2 3 4
37. Is effective in meeting my job-related needs.....0 1 2 3 4
38. Uses methods of leadership that are satisfying.....0 1 2 3 4
39. Gets me to do more than I expected to do.....0 1 2 3 4
40. Is effective in representing me to higher authority.....0 1 2 3 4
41. Works with me in a satisfactory way.....0 1 2 3 4
42. Heightens my desire to succeed.....0 1 2 3 4
43. Is effective in meeting organizational requirements.....0 1 2 3 4
44. Increases my willingness to try harder.....0 1 2 3 4
45. Leads a group that is effective.....0 1 2 3 4

Appendix L
Multifactor Leadership Questionnaire
Scoring Key

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

1	Contingent Reward.....	0	1	2	3	4
2	Intellectual Stimulation.....	0	1	2	3	4
3	Management-by-Exception (Passive).....	0	1	2	3	4
4	Management-by-Exception (Active).....	0	1	2	3	4
5	Laissez-faire.....	0	1	2	3	4
6	Idealized Influence (Behavior).....	0	1	2	3	4
7	Laissez-faire.....	0	1	2	3	4
8	Intellectual Stimulation.....	0	1	2	3	4
9	Inspirational Motivation.....	0	1	2	3	4
10	Idealized Influence (Attributed).....	0	1	2	3	4
11.	Contingent Reward.....	0	1	2	3	4
12.	Management-by-Exception (Passive).....	0	1	2	3	4
13	Inspirational Motivation.....	0	1	2	3	4
14	Idealized Influence (Behavior).....	0	1	2	3	4
15	Individualized Consideration.....	0	1	2	3	4
16	Contingent Reward.....	0	1	2	3	4
17	Management-by-Exception (Passive).....	0	1	2	3	4
18	Idealized Influence (Attributed).....	0	1	2	3	4
19	Individualized Consideration.....	0	1	2	3	4

20	Management-by-Exception (Passive).....	0	1	2	3	4
21	Idealized Influence (Attributed).....	0	1	2	3	4
22	Management-by-Exception (Active).....	0	1	2	3	4
23	Idealized Influence (Behavior).....	0	1	2	3	4
24	Management-by-Exception (Active).....	0	1	2	3	4
25	Idealized Influence (Attributed).....	0	1	2	3	4
26	Inspirational Motivation.....	0	1	2	3	4
27	Management-by-Exception (Active).....	0	1	2	3	4
28	Laissez-faire.....	0	1	2	3	4
29	Individualized Consideration.....	0	1	2	3	4
30	Intellectual Stimulation.....	0	1	2	3	4
31	Individualized Consideration.....	0	1	2	3	4
32	Intellectual Stimulation.....	0	1	2	3	4
33	Laissez-faire.....	0	1	2	3	4
34	Idealized Influence (Behavior).....	0	1	2	3	4
35	Contingent Reward.....	0	1	2	3	4
36	Inspirational Motivation.....	0	1	2	3	4
37	Effectiveness.....	0	1	2	3	4
38	Satisfaction.....	0	1	2	3	4
39	Extra Effort.....	0	1	2	3	4
40	Effectiveness.....	0	1	2	3	4
41	Satisfaction.....	0	1	2	3	4
42	Extra Effort.....	0	1	2	3	4

43	Effectiveness.....	0	1	2	3	4
44	Extra Effort.....	0	1	2	3	4
45	Effectiveness.....	0	1	2	3	4

Appendix M

Multifactor Leadership Questionnaire (Form 5X)

Number of Items Per Scale

Multifactor Leadership Questionnaire (From 5X)

Number of Items Per Scale

Scale	Number of Items	Question Number
Transformational Leadership		
Idealized influence (Behavior)	4	Q 6, Q14, Q23, Q34
Idealized influence (Attributed)	4	Q10, Q18, Q21, Q25
Inspirational motivation	4	Q9, Q13, Q26, Q36
Intellectual stimulation	4	Q2, Q8, Q30, Q32
Individualize consideration	4	Q15, Q19, Q29, Q31
Transactional Leadership		
Contingent rewards	4	Q1, Q11, Q16, Q35
Management-by-exception		
Active	4	Q4, Q22, Q24, Q27
Passive	4	Q3, Q12, Q17, Q20
Laissez-faire	4	Q5, Q7, Q28, Q33
Extra effort	3	Q39, Q42, Q44
Effectiveness	4	Q37, Q40, Q43, Q45
Satisfaction	2	Q38, Q41
Total	45	