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Role of participative leadership in the improvement of academic performance of students in the University of Tehran, Iran

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Abstract

This study aimed to evaluate the effect of components of participative leadership style on the academic performance of students at the University of Tehran, Iran. This descriptive and correlational research was performed on 43 senior managers of the university selected through random cluster sampling using the Morgan table. In addition, data were collected applying the standard questionnaire of 'are we making progress?' by Malcolm Baldrige. Moreover, data analysis was performed using Pearson's correlation coefficient. The test results confirmed the majority of the research hypotheses. The organisation can provide mutual trust and respect between senior leaders and faculty members of the university and, thereby, improve academic performance of students by creating a suitable environment for applying supportive and participative leadership in the university.

Keywords: University, leadership, management, quality, academic performance.

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1. Introduction

Organizational leaders can determine the fate of organizations by affecting performance (Kaiser, Hogan & Craig, 2008). While some experts believe that the effectiveness of organizations depends on something more important than leadership, the data from the research clearly shows the considerable influence of leaders on the effectiveness of organizations. The results of several studies conducted on the succession and shifting of leaders using various indicators have confirmed the correlation between leadership change and academic and organizational performance (Barney, 1991; Barick, Day, Lord & Alexander, 1991; Joyee, Nohria & Roberson, 2003). According to the mentioned studies, replacing and changing the leaders of the organizations examined was associated with a change in the performance of those organizations. Therefore, it could be concluded that leadership plays an important role in the academic and organizational performance of students in universities. Therefore, this study aimed to evaluate the influence of this role.

In terms of the importance of the role of leadership in the improvement of academic performance of university students, it should be noted that higher-education leaders play a strategic role in improving the performance of universities and the sustainability of their service quality. From a qualitative point of view, university management is one of the key issues since higher education is currently undergoing various crises in the world. Factors such as financial constraints and false employment of graduates have led universities to justify their activities economically. In this regard, Gourchian et al. (2004) have written: 'while high-quality education is not a new and innovative concept, it has become a decisive factor in scientific issues related to policy making for the development and improvement of higher education'.

Every year, a number of students are enrolled in universities and some students are graduated from universities. In this continuous cycle, focusing on the educational quality of these individuals has a special place. An appropriate leadership style will help improving the spirit of the faculty members and other staff and students, increasing productivity, and providing higher quality education services to domestic and foreign stakeholders. University leaders respond to the needs and expectations of faculty members, students, and other stakeholders by determining the vision, mission, and values, and enhancing the performance and evaluating the university's processes and management. Therefore, it could be concluded that leadership is an important factor in the stability of continuous improvement of organizations, including universities. Without a doubt, this concept plays a considerable role in the performance and realization of goals of higher education institutions, including improving the academic performance of university students.

Similar to any other business, higher education needs quality. Higher education is a foundation, products of which, such as graduates and research, can have a direct impact on the quality of all organizations, both public and commercial (Owlia & Elaine, 1996). Management philosophies (e.g., comprehensive quality management) that have been successful in business organizations and have worked to improve the effectiveness, efficiency, coherence, flexibility and competitive ability of organizations and companies as a successful management system, have entered the field of education as well (Owlia & Elaine, 1997).

The University of Tehran is the leading and the first-rate university and one of the top universities in the Islamic Republic of Iran and has a high value and importance in terms of politics and education. Various students from across the country have attended this university to study and gain different skills. Therefore, the evaluation of different educational issues in this university has a high priority and value. As such, we mainly focused on this university in the present study, the major goal of which was the evaluation of perspective of senior managers of University of Tehran, as the first modern university of Iran, towards the role of participative leadership and its association with the academic performance of students. Our findings provided solutions to improve the spirit and motivation of faculty members and the academic performance of students.

2. Total quality management (TQM) models in higher education

Various models have been presented for quality implementation and auditing in higher education institutions. Recognised as a non-profit organization in Massachusetts (the United States), the GOAL/QPC Research Company has introduced six administrative models for TQM (Coat, 1990). In this organization, it is believed that higher education institutions use one of the following six models to improve their quality:

Elemental approach to TQM: used during the early 1980s, this approach applied some quality improvement programs, such as quality ranges, statistical process control, or quality function deployment instead of the implementation of TQM.

Elites approach: this approach is based on the writings of quality veterans and teachers (e.g., Deming, Juran and Crosby) and used as a modeling tool for determining the shortages of an organization and applying these issues to modify the organization.

Japanese model approach: users of this model rely on Deming's research, similar to the use of Deming's 14 points.

Approach of Japanese companies: in this approach, individuals visit the companies that employ TQM to determine their successes and integrate their information with their own approach. Most of the winners of Baldrige National Quality Award used this method in the late 1980s.

Hoshin's planning approach: this approach was developed by Bridgestone Corporation in Japan and focuses on successful planning, expansion, implementation, and finding the source of problems monthly.

In the following section, the theory of Baldrige is presented as the theoretical framework of the current research.

2.1. Malcom Baldrige approach

In this approach, organizations use the criteria for Malcolm Baldrige National Quality Award to determine the areas requiring improvement. These criteria cover seven key categories related to TQM. In addition, they are created based on a set of interrelated main values and concepts, including vision of leadership, learning-based education, organizational and individual learning, recognising faculty members, staff, and partners as valuable concepts, agility and speed of action, foresight, innovation management, responsibility towards society and citizenship, and emphasis on results and value creation. The vision of leadership is presented below based on the research topic and goals.

2.2. Leadership vision of Baldrige model

Senior university leaders should direct their leadership to a direction that focuses on student and learning-based education, as well as clear values and high expectations. The directions, values and expectations should be the regulator of the needs of all stakeholders. Organizational leaders must ensure that the creation of strategies, systems and methods for achieving excellence is the stimulation of innovation, the production of knowledge and abilities. Values and strategies should be the guideline for all activities and organizational decisions.

Senior leaders should inspire all workforce and encourage all faculty members and staff to participate, develop and learn innovation and creativity. Senior university leaders should be responsible for the performance of the university management body. On the other hand, the university management body should be responsible for the ultimate stakeholder's overall responsibility in ethics, attitudes, actions, and organizational performance to respond to senior executives.

Moreover, senior leaders must act as an organizational model through ethical behaviour and individual involvement in planning. Senior leaders should be a model in the field of communication, mentoring, training and upbringing of future leaders, reviewing organizational performance, and identifying the ability and appreciation of the faculty and staff of the organization. As models, senior leaders can strengthen the ethics, values and expectations of the organization.

2.3. Higher-education institutes winning the Malcolm Baldrige National Quality Award

2.3.1. Wisconsin-Stout University

In 2001, the Wisconsin-Stout University was the first higher-education institution to win the Malcolm Baldrige National Quality Award due to employing a mission-oriented approach to improvement across the university. This approach included listening to the opinions of students and receiving feedback from these individuals. The mission, vision and values of the university are guidelines for their activities in order to improve their short- and long-term performance. This university has designed its leadership system in a way that it provides the possibility of cooperation and collaboration of all stakeholders in defining, informing, implementing and modifying guidelines and realising their strategies.

2.3.2. Monfort College of Business

In 2004, the Monfort College of Businesses received the Malcolm Baldrige National Quality Award as the first college that initiated its activity under the supervision of University of Northern Colorado (the United States), mainly focusing on offering a bachelor of business administration. The mission, vision and values of this college indicate its performance improvement efforts. In addition, its leadership system is founded based on a systematic decision framework, an organizational cooperative effort and an integrated commitment to college missions based on a student-centered process framework. In this regard, by attracting students as inputs, they will provide college leaders with the necessary tools for graduating students and entering the labor market as the output product of this framework. By doing so, it can focus on those key areas that create value for stakeholders. During 1994–2004, there has been a 34% improvement in the performance of this college in the index of academic achievements of students in educational testing services. In addition, the rank of this college was significantly higher than the national mean, and it was recognised among the first 10% of educational institutions during 2003–2004. Every semester, students receive a letter from the college dean containing information on their GPA, the level of academic achievement and student's future efforts, the name and timing of the consultants to attend their office, and other information related to communication with the authorities and faculties of the university.

2.3.3. Two-year Richland College

This college won the Malcolm Baldrige National Quality Award in 2006. The leadership system of this educational institution is guided by its leadership team, which is a coherent approach that collects information from all stakeholders as the system input and guarantees the updates, communicates, vision implementation, mission, goals, values and strategic planning priorities. The council and committee structure of this college includes professors, students and other key stakeholders in decision-making through their representatives and gathers the required data. In this college, the academic achievement of students is evaluated in two methods: 1) GPA of students based on class performance assessment (a more superior index of the college, compared to the other competitors) and 2) realization of educational goals of students (a less improved index of the college, compared to others). The performance of the college in these indexes has been improved since 1999. In addition, the total percentage of students obtaining a C or higher increased from 65% in the academic year of 1999–2000 to 70% in the academic year of 2004–2005.

3. Research background

Several studies have been conducted on the implementation of quality management in higher education institutions in developed and other countries, particularly in the area of leadership. Some of these methods are presented below:

Woods (2007) performed a study in Phoenix University and showed that both the transformational and pragmatic leadership styles are important to motivate faculty members for transcendental performance. In terms of transformational leadership, the faculty assigns managers to clearly inform the groups about the goals of the university. In addition, for actual motivation, managers should seek the formation of an intrinsic motive in professors, in which case the professors will achieve success through the realization of their goals. This research eventually provided a model for the formation of strategic committees of the college and special programs for training professors with the aim of improving their teaching methods.

In a study by Frust-Bowe and Bruer (2007) on best performance in quality sustainability in higher education with the approach of the European Excellence Model in the UK, the findings of the research led to the identification and classification of leadership performance into weak, good, better and excellent groups based on the effectiveness and efficiency of leaders in sustainability of improving the quality of higher education. Finally, a conceptual framework was presented for improving the poor performance of academic leaders.

In another study by Bikmorade, Brommels, Shoghi, Shorabi and Masiello (2008), it was concluded that the structure of Iran's academic system does not support effective academic leadership. However, the perspective of elites attending this research toward effective academic leadership was in line with articles found in Western literature. It means that if the managers create the necessary conditions for the acquisition of supportive and transformational leadership types, they can establish mutual trust and respect among academics and faculty members and increase their scientific productivity. The research variables are explained below:

Leadership: having the perspective, mission, and organizational values that result in students' academic performance.

Academic performance: increasing the internal efficiency of the educational system, which leads to improving the process of academic achievement and preventing students' academic failure, evaluated in this study by calculating mean scores.

Quality management: a management function that identifies and implements quality policies.

University: the highest level of the educational institution for the education of students and provision of an academic degree and a location for scientific research.

4. Research hypotheses

In the present study, the following hypotheses are expressed based on the theoretical framework of the research:

1. The knowledge of faculty members of the university's mission is correlated with the academic performance of students.
2. The compliance of senior leaders of the university with its values is correlated with the academic performance of students.
3. Providing a suitable workplace for faculty members by the senior leaders of the university is correlated with the academic performance of students.
4. Sharing university information with faculty members by the senior leaders of the university is correlated with the academic performance of students.

5. Motivating learning and progress in the career path of faculty members by the senior leaders of the university is correlated with the academic performance of students.
6. Asking for opinions of faculty members by the senior leaders of the university is correlated with the academic performance of students.

5. Research method

This research had an applied design in terms of goal and its results can be used in decision-making, policy-making, and planning of universities. On the other hand, the research was descriptive in terms of data collection and correlational due to measuring the relationship between the variables. The statistical population included all senior managers of the University of Tehran. In total, 100 subjects were selected by random cluster sampling and based on Morgan table. In order to collect data related to the perspective of senior managers of the university as an independent variable, the standard questionnaire of 'are we making progress?' was exploited, which is a standard scale designed by Malcolm Baldrige Quality Institute. In fact, this questionnaire is a tool used by organizations to understand the thoughts of their employees and make organizational progress by focusing on their weaknesses. The mentioned questionnaire is fitted to the hypotheses of the current research. In organizations that apply Baldrige criteria for excellence, this questionnaire is adjusted based on the mentioned seven groups of Baldrige criteria. However, the criterion of leadership was added to the questionnaire applied in the present study due to its topic and goal. Moreover, the mean GPAs of students were used to assess the dependent variable (i.e., the academic performance of students). It is worth noting that the students' GPAs were collected and submitted by the University of Tehran Informatics Unit at the official request of the university authorities.

Despite the fact that the questionnaire was a standard tool and was previously used in various foreign and Iranian studies, its validity was reapproved by experts in the field. In addition, the reliability of the questionnaire was estimated at Cronbach's alpha of 0.81, which has high reliability. Moreover, data analysis was performed in SPSS using descriptive (mean and frequency) and inferential (Pearson's correlation coefficient and regression analysis) statistics. The mean GPAs or the academic performance of students is presented in Figure 1, according to which the schools of entrepreneurship and basic sciences had the lowest GPAs while the schools of foreign languages and literature and environment had the highest GPAs.

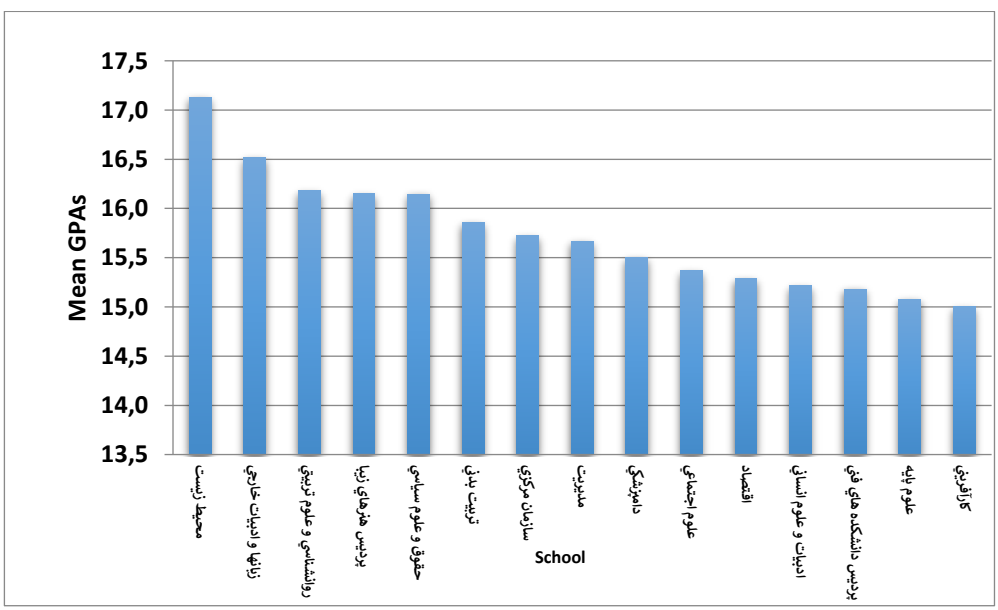


Figure 1. Mean GPAs of students

The frequency and percentage of responses of senior managers of the university to items of the questionnaire are shown in Table 1.

Table 1. Frequency and percentage of response to items of the questionnaire

Items	Very Low		Low		Moderate		High		Very High	
	frequency	%	frequency	%	frequency	%	frequency	%	frequency	%
1. Awareness of mission	1	2.3	5	11.6	2	4.7	28	65.1	7	16.3
2. University values	10	23.3	6	14.0	-	-	23	53.5	4	9.3
3. Provision of a suitable environment	1	2.3	13	30.2	12	27.9	16	37.2	1	2.3
4. Sharing the information	-	-	12	27.9	17	5.39	12	27.9	2	4.7
5. Motivation creation	1	2.3	18	41.9	13	30.2	9	20.9	2	4.7
6. Opinion poll			17	39.5	14	32.6	8	18.6	4	9.3
7. Importance of opinions	1	2.3	18	41.9	12	27.9	11	25.6	1	2.3

As shown in Table 1, the majority of senior managers agreed with item 1. In addition, the least answers were related to the item of 'completely agree'. This shows that most senior managers believed that informing the faculty members about the mission of the university affected the academic performance of students. Some of the managers added to the questionnaire that they have aimed to realise the most important mission of the university, which was the academic performance of students. They believed that their faculty members had high scientific ability and dedicated extensive efforts to the learning of students. The unfavorable academic performance of students might be due to lack of motivation, undesirable economic status and unemployment of students after graduation.

Regarding item 2, the majority of the faculty members selected the alternative of 'agree'. Moreover, the least answers were related to the alternative of 'completely agree', which demonstrated the belief of most university senior managers in the effectiveness of adherence to the values of the university by senior managers in the guidance of faculty members in the academic performance of students.

In terms of item 3, most senior managers selected the alternative of 'agree'. In the distribution and collection of the data, the researcher deduced that most managers, who have recently appointed this position, had a positive attitude toward this issue. Meanwhile, managers who did not have a more stable situation or were actually scientific individuals were dissatisfied with their work environment. Some of these individuals complained about the lack of incentives at the level of their dignity or lack of support provided by higher-level managers and the relation-oriented situation in the education environment. Some school deans believe that the structure of the university is educational and there is no proper environment to realise this issue.

Regarding item 4, most managers selected the alternative of 'no comment', and the least answers were related to the alternative of 'completely agree'. Evidence shows that the majority of managers tended to select the alternative of 'disagree' but selected the alternative of 'no comment' due to some considerations. It could indicate that the sharing of information with faculty members (by senior managers of the university) had no impact on the academic performance of students. Some managers believed that some of the higher-level managers might not be informed of the university's information.

In terms of item 5, most managers selected the alternative of 'completely disagree'. In other words, most managers believed that asking for the opinion of faculty members had no effect on the academic performance of students. Regarding item 6, most managers selected the alternative of 'completely disagree', which demonstrated that the majority of senior managers believed that asking for the opinion of faculty members of the university by senior managers had no impact on the academic performance of students. Some managers expressed that their office door is always open to the faculty members and they are prepared to hear the opinions and comments of faculty members. However, it is not clear why the faculty members avoid providing feedbacks. These managers added that senior leaders of the university must act on their performance and giving slogans is not enough.

Regarding item 7, most senior managers selected the alternative of 'disagree', which means that they did not believe in the effectiveness of convincing faculty members about the importance of opinions of senior managers on the academic performance of students.

6. Inferential analysis

The most common method to examine the relationship between two variables is using the correlation coefficient. Spearman's rank correlation coefficient only examines the linear relationship between two variables while Pearson's correlation test can be exploited provided that the test conditions are met. Considering that in this research, one of the variables was measured by Likert scale and on the ordinal scale, Spearman's correlation coefficient can be preferred to the Pearson's correlation test. If two variables are non-linear (for example, the second degree), they cannot be detected by this method. Therefore, the linearity of this relationship was first evaluated. In this regard, the most simple and appropriate method is the Scatter plot.

6.1. Test of research hypotheses

Evaluation of hypothesis 1 regarding the relationship between university mission and academic performance of students: evaluation of the relationship between the null hypothesis and its alternative hypothesis is presented below

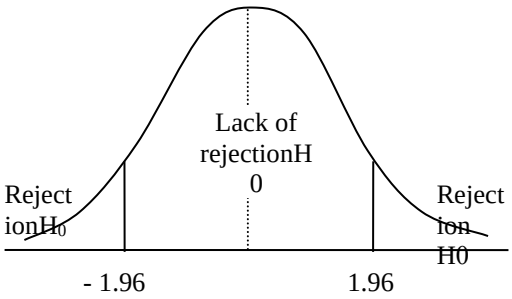
$$\begin{cases} H_0 : \rho_{x,y} = 0 \\ H_1 : \rho_{x,y} \neq 0 \end{cases}$$

$$\begin{cases} H_0 : \text{There is no association between the method of informing about the mission and academic achievement.} \\ H_1 : \text{There is a relationship between the method of informing about the mission and academic achievement.} \end{cases}$$

The test statistic for testing the assumption above is calculated as follows:

$$t = r\sqrt{\frac{n-2}{1-r^2}} = 0/175\sqrt{\frac{43-2}{1-(0/175)^2}} = 48/72$$

where *r* and *n* are values of Pearson's correlation coefficient and number of samples, respectively. The statistical distribution of test statistic had a t-student distribution with n − 2 degree of freedom. However, since the number of samples was above 30, the distribution of the mentioned statistic can be approximated by a standard normal distribution. Therefore, the rejection or acceptance area of the null hypothesis for 95% confidence is, as follows:



The value of test statistic (*t* value) was equal to 1.14, which is in the range of lack of rejection of the null hypothesis. Therefore, the null hypothesis was not rejected at 95% confidence interval. It could be concluded that no significant linear relationship was detected between the two variables studied. In addition, the value of this correlation was reported to be 0.175, which showed a weak relationship.

Evaluation of the relationship between university values and academic performance of students: the value of test statistic (*t* value) was equal to 0.96, which was in the area of lack of rejection of the null hypothesis. Therefore, the null hypothesis was not rejected at the 95% confidence level. As such, no significant linear relationship was found between the two variables evaluated. In addition, the value of this correlation was reported to be 0.149, which showed a weak association in this regard.

Evaluation of the relationship between the establishment of a suitable workplace and academic performance of students: the value of test statistic (*t* value) was equal to 2.64, which was in the area of rejection of the null hypothesis. Therefore, the null hypothesis was rejected at the 95% confidence level. As such, a significant linear relationship was found between the two variables evaluated. In addition, the value of this correlation was reported to be 0.382, which showed a positive and moderate association in this regard.

Evaluation of the relationship between sharing of information and academic performance of students: the value of test statistic (*t* value) was equal to 2.73, which was in the area of rejection of the null hypothesis. Therefore, the null hypothesis was rejected at the 95% confidence level. As such, a significant linear relationship was found between the two variables evaluated. In addition, the value of this correlation was reported to be 0.392, which showed a positive and moderate association in this regard.

Evaluation of the relationship between creating motivation for learning progress in the occupation path and academic performance of students: the value of test statistic (*t* value) was equal to 3.06, which was in the area of rejection of the null hypothesis. Therefore, the null hypothesis was rejected at the 95% confidence level. As such, a significant linear relationship was found between the two variables evaluated. In addition, the value of this correlation was reported to be 0.431, which showed a positive and moderate association in this regard.

Evaluation of the relationship between asking the opinions of leaders and academic performance of students: the value of test statistic (*t* value) was equal to 14.18, which was in the area of rejection of the null hypothesis. Therefore, the null hypothesis was rejected at the 95% confidence level. As such, a significant linear relationship was found between the two variables evaluated. In addition, the value of this correlation was reported to be 0.547, which showed a positive and moderate association in this regard.

Evaluation of the relationship between the importance of decisions and academic performance of students: the value of test statistic (*t* value) was equal to 3.62, which was in the area of rejection of the null hypothesis. Therefore, the null hypothesis was rejected at the 95% confidence level. As such, a significant linear relationship was found between the two variables evaluated. In addition, the value of this correlation was reported to be 0.493, which showed a positive and moderate association in this regard.

7. Discussion and conclusion

In the present study, all hypotheses were confirmed, with the exception of hypotheses 1 and 2, which included: 1) there was no significant linear relationship between informing the faculty members about the mission of the university and the academic performance of students, and 2) there was no significant linear relationship between adherence to the values of the university by its leaders and the academic performance of students.

In a research by Paige et al. (2010) at Morehead State University, the results obtained from the questionnaire of 'are we making progress?' were indicative of ranking of the university among the top ten universities. In addition, the highest mean of responses was related to the first item of leadership criterion (i.e., I am informed of the mission of my organization), estimated at 4.22. On the other hand, the lowest means were related to the leadership criteria of 'senior leaders of organization motivate me toward progress and development in my occupational path', 'my organization pays attention to my opinions', and 'senior managers have provided a suitable environment for me to do my job', estimated at 3.32, 3.24, and 3.21, respectively.

However, the lack of a correlation between the variable of being informed of the mission and vision of the university and academic performance of students limited the generalizability of the results. This could also be related to the operational definition of research about academic performance since no such association might exist in case of defining academic performance based on the mean GPAs of students. In addition, the GPAs of students were not considered in the mission and values of the university as the academic performance of these individuals. Furthermore, the mission and vision of the university, especially in terms of academic performance of students, were not clearly stated, and faculty members have no correct understanding of these notions or did not believe in them.

8. Recommendations

The university can establish and manage a feedback receiving system to understand the thoughts and beliefs of the academics. The efficient establishment of such systems could lead to easy access to and sharing of formation by individuals. In addition, it could be associated with decreased volume of bureaucracy, development of decision-making at lower levels, the possibility of cooperation of faculty members and the possibility of taking advantage of thoughts. It could be concluded that if university leaders are available, actively listen to the opinions of faculty members, understand the thoughts of these individuals and share their experiences, they can facilitate the academic performance of students. We can be informed of and benefit from the opinions of faculty members through their representatives and by establishing a council and committee structure in schools. By full participation of faculty members and sharing responsibilities among these individuals, senior leaders of universities can help faculty progress. In addition, by establishing a fair and effective reward system based on timely feedback, leaders can increase meritocracy and delegation of authority and positively affect the independence to direct resources to realise the goals and policies of the university, thereby creating a favorable workplace for the activity of faculty members. Moreover, investment of universities in improvement and training of faculty members, design and launch of specialised courses for higher education leaders, and continuous participation of senior leaders in seminars and workshops to learn the appropriate leadership techniques will be effective.

In general, the bureaucratic structures of the universities tend to suppress new ideas and concepts. As such, only a strong management and leadership with systematic approaches can neutralise the resistance of bureaucratic forces to new ideas. It is suggested that future studies be conducted on awareness of the role of quality management in the improvement of student performance in other public universities.

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