

## *Developing a Model for Science Academic Deans' Leadership Styles in the UAE*

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### **Abstract**

Leadership in higher education has been the focus of increasing debate and concern for nearly two decades. Although academic deans play a critical role in the success of higher education institutions and they study a great range of subjects, they have not been widely studied themselves, particularly research addressing their leadership styles. The purpose of this study is to develop a model for deans' leadership styles in the UAE to improve the quality in science higher education and fill the gap in the related literature. The study is a small qualitative empirical interpretive which has used full range leadership theory (Avolio & Bass, 1991) as its theoretical framework. This theory includes three main categories: transformational, transactional, and laissez-faire. The data have been gathered by a face-to-face, semi-structured in-depth interview guide designed by the researcher. The interviewee was the dean of colleges of sciences in one of the universities in the UAE. Analysis of the data has revealed that the dean of this study was practicing both transformational and transactional leadership styles with an emphasis on the former. The results from this study may help policy-makers, academic deans, and faculty make better decisions and improve the quality of science higher education. The developed model, suggestions, and guidelines for future research have also been provided.

**Keywords:** academic deans, leadership, leadership styles, science higher education, United Arab Emirates

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## **Introduction**

Leadership in higher education has been the focus of increasing debate and concern for nearly two decades. Although academic deans study many subjects, they have not been widely studied themselves (Sypawka, 2008), particularly in terms of research addressing deans' leadership styles (Almgadi & Alnaji, 1994; Al-Omari et al., 2008; Bryman, 2007). There is a gap in the related academic literature, and the gap is much larger when it comes to science deans' leadership styles in the UAE. Science is one of the key disciplines for building a knowledgeable society and competing globally, and the UAE Vision 2021 emphasises its improvement in higher education.

Most studies on leadership styles are conducted in Western countries rather than in developing countries (Shah, 2010). Since leadership styles are underpinned by context and culture, the preferred leadership styles in different cultural contexts are different (Shah, 2006; Shahin & Wright, 2004). Therefore, the results in developed countries cannot be applied in developing countries without modifications (Rodwell, 1998). Furthermore, deans' leadership qualities will not necessarily be the same as in other countries, particularly western countries.

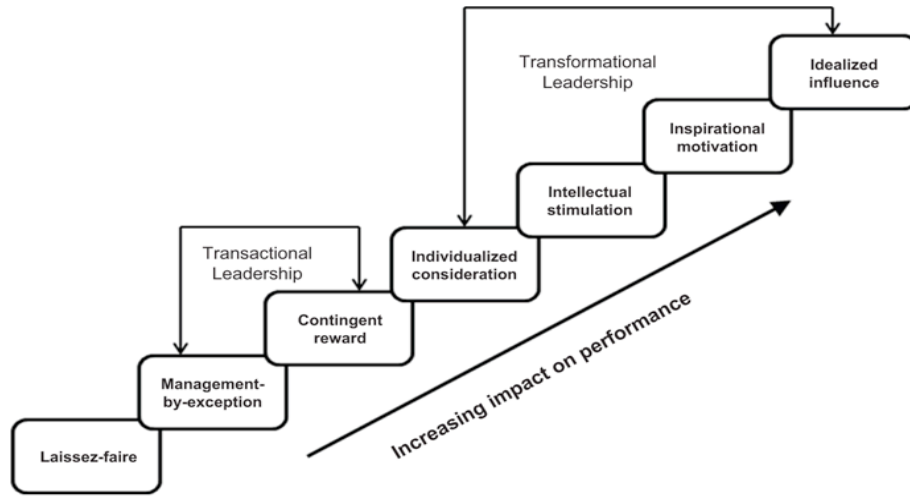
This study investigates the leadership styles of one academic science dean as an exploratory study in three dimensions, including organisation, teaching, and research, all of which are associated with effectiveness in higher education in the UAE context. The ultimate goal was to develop model for science deans' leadership styles in the UAE to improve the quality in science higher education and to fill the gap in the literature. The results from this study may help academic deans and faculty (academic deans are usually faculty role models) obtain awareness of others' leadership styles in the UAE to make better decisions and to be more effective.

## **Literature Review and Theoretical Framework**

Since the time of Aristotle and Plato, the various kinds of leadership styles have been a subject of thought and debate (McCaffery, 2004). Studies of leadership include the Ohio State leadership research by Blake and Mouton (1964), the contingency model of leadership by Fiedler (1967), participative leadership by Lewin (1978), and the full range leadership theory by Avolio and Bass (1991). Among them, the last one is a favorite for research in literature and debates in scholarly communities and the most researched and validated leadership theory worldwide (Kirkbride, 2006). Full range leadership theory (FRLT) is based on the transformational leadership theory proposed by Burns in 1987. In 1991, Avolio and Bass proposed the full range leadership theory, which includes transformational, transactional and non-transactional laissez-faire.

Transformational leadership refers to its followers' personal development and intrinsic motivation. This leadership style aligns followers' aspirations and needs with desired organisational outcomes (Bass, 1985, 1999; Bass & Riggo, 2005). Transactional leadership refers to the exchange relationship between leader and follower to meet their own self-interests (Bass, 1997). They engage followers by offering rewards in exchange for the achievement of desired goals (Burns, 1978). Laissez-faire leadership (passive leadership/non-leadership) exhibits frequent absence and lack of involvement during critical junctures. It is usually negatively correlated with effectiveness.

Figure (1) depicts the whole range of leadership styles from non-leadership (laissez-faire) to more transformational styles. There is a hierarchy in activity leadership from passive to transformational leadership.



Source: Adapted from Kirkbride (2006)

Figure (1). The Full Range Leadership Styles

Full range leadership theory (Avolio & Bass, 1991) includes nine distinct features: five transformational features, including idealised influence attributed, idealized influence behavior, inspirational motivation, intellectual stimulation, and individualized consideration, three transactional features, including contingent reward, management-by-exception active, and management-by-exception passive, and one laissez-faire feature. Table (1) represents each feature briefly.

FRLT Categories	Features
<b>Transformational Leadership</b>	<p><b>Idealized Influence (Attributed &amp; Behavior):</b> Provides vision and sense of mission, instills pride, gains respect and trust</p> <p><b>Inspirational Motivation:</b> Communicates high expectations, uses symbols to focus efforts, expresses important issues simply</p> <p><b>Intellectual Stimulation:</b> Promotes intelligence, rationality, and problem- solving</p> <p><b>Individualized Consideration:</b> Gives personal attention, coaches, and advises</p>
<b>Transactional Leadership</b>	<p><b>Contingent Reward:</b> Contracts exchange of rewards for effort, promises rewards for good performance, recognizes accomplishment</p> <p><b>Management by Exception (Active &amp; Passive):</b>            Active: Watches and searches for deviations from rules and standard, takes corrective action.            Passive: Intervenes only if standards are not met</p>
<b>Laissez- Faire</b>	Abdicates responsibilities, avoids making decisions

Table (1). FRLT Categories and Features (Avolio & Bass, 1991; Bass, 1997)

FRLT has been called the cutting-edge leadership theory (Robbins, 2005), and it has been demonstrated to be the mainstream in leadership research (Stordeur et al., 2001).

As a result, the full range leadership theory (FRLT) developed by Avolio and Bass (1991) provides the theoretical framework for this study. It addresses the research question and the selected design and instrument. Several research studies have applied this theoretical framework and have determined the effectiveness of transformational and transactional leadership styles with an emphasis on the effectiveness of the former (Avolio, 1999; Bass, 1985, Judge & Bono, 2000; Lowe & Gardener, 2000; Tickle et al., 2005). Zhu (2007) stated that transactional and transformational leadership styles impact on employees' receptivity and attitudes. Chaudhry and Javed (2012) emphasized the positive, strong, and significant relationship between transformational leadership and the employee's commitments.

Many researchers have identified transformational leadership as the most effective leadership style (Al-Hourani, 2013; Bass, 1990; Eagly et al., 2003; Lopez-Zafra et al., 2012). Transformational leadership can create valuable and positive change in the followers (Chou et al., 2013). It is highly effective in terms of followers' development, performance, and decision-making skills, and can facilitate team performance (Bass & Avolio, 1994; Dvir, Eden, Avolio, & Shamir, 2002; Walumbwa et al., 2004; Wang & Howell, 2012). Transformational leadership has been widely used in different fields such as education, industry, business, hospitals, and the military. It supports a wider range of thought about leadership than other theories and focuses on followers' needs, values, and morals (Bass & Avolio, 2000; Northouse, 2004; Northouse 2010; Shamir et al., 1993; Yukl, 1999).

In terms of practising the particular styles of leadership, Bolda (2010) showed that 265 faculty members in public and private districts in Pakistan were using transformational and laissez-faire (passive) leadership styles. Greiman's (2009) study of American agricultural deans found that they prefer transformational leadership style over the transactional style. The same result has been found for American agricultural and life science leaders (Jones & Rudd, 2009), Taiwanese nursing deans (Chen, 2004), and American university presidents (Levin, 2000). Studies in Arab countries regarding deans' leadership styles are very limited. A recent study of three university deans in Egypt and Lebanon by Al-Hourani (2013) demonstrated that female leaders at the three universities practiced transformational leadership style while male leaders used transactional styles. The transformational leadership style is by far the most and laissez-faire is the least dominant styles that have been identified.

No study has focused on science deans' leadership styles, but obviously, to be a successful dean of a science department, academic deans in science disciplines need different skills to be more effective. They are responsible for various activities to promote and be capable in producing science. They attract and establish creative, enthusiastic, and satisfied reputable scientists and transfer and apply scientific knowledge to the external environment (Keller & Holand, 1975; Gieryn, 1983; Siegel et al., 2004; Shapin, 2008). Science deans also are responsible for communicating and creating internal and external organisational goals (O'Leary, 1995; Sapienza, 2005). They have to ensure that all necessary equipment and resources are properly allocated to the related labs, centers, departments, university, or disciplines. In addition, Jones (2011) pointed out that leaders in hard disciplines (e.g., chemistry, physics, engineering) usually prefer a leadership style in which decisions are based on measurability and linear thinking.

According to Sapineza (2005), effective science leaders are caring and compassionate, possess managerial skills (communicating effectively and listening well, resolving conflict, being organised, and holding informative meetings), are technically accomplished to lead a scientific effort, and are good role models. Furthermore, Parker and Welch (2011) demonstrated that academic science leadership is related to both academic reputation and network structure. As a result, due to the lack of literature about leadership styles of science deans and the fact that “no one leadership style” can improve the productivity of institutions in all cultural contexts (Al-Omari, 2007), there is a need to identify effective leadership styles in the UAE with its particular societal culture and context.

## **Methodology and Methods**

The purpose of this study is to develop a model for science deans’ leadership styles in the UAE. It will answer one main question: “What is an appropriate model for science deans’ leadership styles in UAE universities?” This study is a small qualitative empirical interpretation that explores how a science dean describes his leadership experiences, how he builds up quality in higher education through his own leadership styles, and how he exercises his role and styles of leadership through organisational, teaching and research dimensions. According to Cohen et al (2011), a qualitative approach is undertaken for approaching knowledgeable people who can provide researchers with in-depth information about their professional roles, expertise, or experiences.

The interviewee is a science dean in one of the universities in the UAE who was selected through a purposive sampling strategy for this study. The data have been gathered through a face-to-face, semi-structured, in-depth interview using an interview guide that the researcher designed. It contains two main sections: a demographic section and a main section. The main section is divided into seven sub-sections, including idealised influence (attributed and behavior), inspirational motivation, intellectual stimulation, individualised consideration, contingent reward, management-by-exception (active and passive), and laissez-faire leadership questions. The validity of the results has been considered to establish confidence about the results’ accuracy.

## **Discussion and Results**

The related questions to all three categories of full range leadership theory, including transformational, transactional, and laissez-faire, have been answered by the participant and analyzed and discussed by the researcher.

### **Transformational Category**

The first category of full range leadership is transformational, in which leaders are charismatic and proactive. They encourage followers by inspiring them, helping them achieve extraordinary aims, stimulating their intellectual needs, and taking care of them individually. Microsoft’s founder and former CEO Bill Gates and Chrysler Corporation’s former CEO Lee Iacocca are examples of transformational leaders (Bass & Riggio, 2005). Transformational leaders use the following features to affect employees and generate commitment to the organisation's purposes.

### **Idealised Influence (Attributed and Behavior)**

The first feature is idealised influence, which takes two forms: attributed and behavioral. Idealised influence attributed relates to the leaders' socialized charisma. They are viewed as influential, assured, and confident leaders who emphasise higher order purpose and values. Idealised influence behavior relates to the leaders' charismatic actions, which focus on morals, trust, and a sense of mission. Idealised influence is also called charisma; charismatic leaders are appealing to employees and their behavior can produce faith and admiration.

Analysis of the results from the idealised influence questions shows that the interviewee of this study could make large changes in the science college, prioritise the faculty's comfort, make short- and long-term strategic plans in line with the market, international community, latest technology, and sustainability for the far future with the science faculty's collaboration, serve as a positive role model ("walk the talk"), excite faculty with visions of accomplishing goals through teamwork, and make faculty members feel and act like leaders. The academic science dean of this study could provide vision and a sense of mission, instill pride, gain respect and trust, display conviction, take stands on difficult issues, present his important values, generate trust, loyalty, confidence, and alignment around a shared purpose, and focus on the importance of purpose, commitment, and the ethical consequences of his decisions.

### **Inspirational Motivation**

The next feature of transformational leaders is inspirational motivation in which leaders create a vision to inspire employees. It relates to the approaches leaders use, such as looking at the future optimistically, creating an idealised vision, and talking to employees about accomplishments of the vision (Northouse, 2010). Analysis of the results from inspirational motivation questions shows that the interviewee of this study could cooperate with faculty to accomplish the vision, allocate time and budget to the faculty and staff for attending conferences and seminars, publishing papers, and particularly for creating and innovating in teaching and researching, express significant and high-order goals in simple ways, articulate the vision clearly and confidently, have a "can do" attitude, and show how science faculty's work applies to the real world. It seems that expressing significant and high-order goals in simple ways and articulating the vision optimistically and enthusiastically have inspired motivation in the faculty and staff successfully; the college of sciences has been selected as the best college in the university several times.

### **Intellectual Stimulation**

The third feature of transformational leaders is intellectual stimulation, by which the leaders question organisational routines and encourage followers to think creatively and solve issues by applying new ways (Antonakis et al., 2003; Bass & Avolio, 1994). Analysis of the results from the intellectual stimulation questions shows that the interviewee of this study could stimulate the faculty and staff to challenge old assumptions and traditions by creating new reasons and ideas such as publishing research by graduate students for the first time in the science faculty, encourage followers to think creatively and solve issues by applying new strategies, discuss

disagreements as the best way of solving problems, identify faculty's idea through voting, and re-examine their assumptions about their work. It seems that the science dean promotes intelligence, rationality, and careful problem-solving. He challenges old assumptions and stimulates new perspectives and approaches of solving problems in his followers.

### **Individual Consideration**

The last feature of transformational leaders is individualised consideration, by which the leaders give personal attention and express concern for their followers' well-being. The leaders attempt to content followers by coaching and taking care of their individual requirements and assist them in becoming developed and self-actualised (Antonakis, et al., 2003). Analysis of the results from individual consideration questions shows that the interviewee of this study could coach science faculty, take care of their individual requirements, and assist them in becoming developed and self-actualised, listen to everybody attentively and consider their perspective, and maintain a close relationship.

It seems that giving personal attention, treating the faculty individually, and considering their individual needs, abilities, and aspirations have been some approaches to establishing a close relationship between the science dean of this study and his faculty, which can also encourage the faculty to give better performances and achieve the set goals. According to Bass and Avolio (1996), "such individualised treatment reflects the leaders' ability diagnose their associates' requirements for further development and the leaders' ability to design appropriate strategies to satisfy as well as elevate their associates to higher levels of motivation, potential, and performance" (p. 13).

### **Transactional Category**

Another category of full range leadership is transactional leadership, by which leaders identify tasks clearly and supervise performances carefully to reach goals and fulfill contractual obligations by offering a reward system. Transactional leadership includes contingent reward and management by exception (active and passive) features.

### **Contingent Reward**

The first feature of transactional leadership is contingent reward, meaning that leaders consistently reward their employees for their good performances. The leaders discuss the task expectations with employees and provide all the required equipment and resources to achieve the desired results (Northouse, 2010). Analysis of the results from contingent reward questions shows that the interviewee of this study could discuss task expectations with employees and prepare all required equipment and resources to achieve the desired results, purchase books, lab equipment, technology, or other resources based on the faculty's requirements and the budget, and allocate rewards to encourage the faculty and staff to put in more effort and be more creative. It seems that the dean clarifies his expectations, negotiates and provides for resources, and promises commendations and rewards to encourage the faculty and staff to make more effort and to create good performances.

### **Management by Exception (Active and Passive)**

The next lower level of transactional leadership is management by exception, by which the leaders do not interfere with employees when they are doing their tasks. Bass and Avolio (1994) identified two kinds of managements by exception: active and passive. In active management by exception, leaders watch employees for any issues or deviations from standards and attempt to impede them from happening. In passive management by exception, the leaders do not intervene until standards are not met and issues occur. They wait until mistakes are brought to their attention, and then they start to solve the problems (Antonakis et al., 2003). Analysis of the results from management by exception questions shows that the interviewee of this study could observe science faculty for any difficulties by allocating one free day to meet with all faculty, take corrective actions if any deviations from rules occur, and enforce standards to prevent errors. It seems that the science dean in this study is an active vigilant who monitors his faculty's and staff's performance continuously and helps them before any issues arise.

### **Laissez-Faire Category**

The third classification of full leadership model is laissez-faire, which is considered as the least effective and actively involved (Antonakis et al., 2003). These leaders abdicate their accountability, avoid decision-making or following problems, and actually do nothing (Coad & Berry, 1998). Analysis of the results from laissez-faire questions shows that the interviewee of this study could show a dissimilar leadership style to laissez-faire. The questions regarding laissez-faire were not applicable for the interviewee of this study because he does use his authority, expresses his views on issues, and accepts all his responsibilities. Responding to requests for assistance, presenting when needed, and making decisions as quickly as possible are also some characteristics of the interviewee, which are counter to the laissez-faire leadership style.

### **Conclusions and the Developed Model**

In recent years, due to rapid changes in the academic environment, academic deans have been confronted with new leadership challenges that are increasingly complicated and intense (Pence, 2003). Therefore, employing appropriate styles of leadership can play a significant role in the deans' organisations', teaching, and research successes. There is a big gap in the literature regarding science deans' leadership styles. This study fills the gap and improves the quality of science higher education, particularly in the developing world, with a focus on the UAE with new universities that are developing in some fields.

This study is a small qualitative empirical interpretive study that has used full range leadership theory (Avolio & Bass, 1991) as its theoretical framework. The required data have been gathered through a face-to-face, semi-structured, in-depth interview guide designed by the researcher. The participant was the dean of college of sciences in one of the UAE universities. Analysis of the data has shown that the science dean of this study was practicing both transformational and transactional leadership styles with an emphasis on the former. The culture of the dean and his faculty, who are rooted in different Arab countries, is almost the same and thus has been a positive factor in running his plans. In Figure (2), the researcher depicts the developed model for science deans' leadership styles in the UAE.



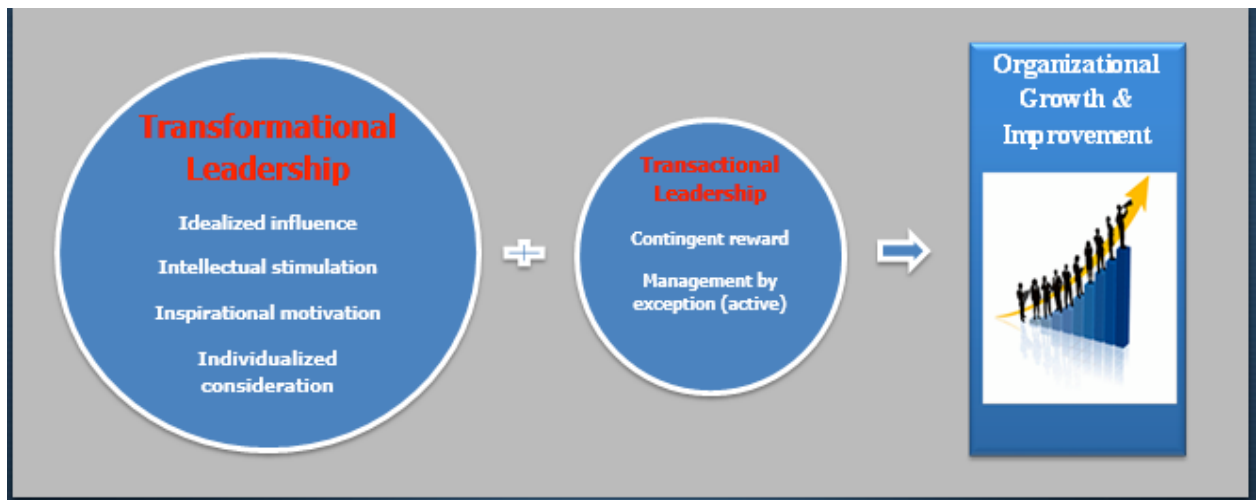


Figure (2). The developed model for science deans' leadership styles in the UAE

Several studies have demonstrated that if leaders exhibit both transformational and transactional styles, their efficiency and productivity will be maximized (Judge & Piccolo, 2004). According to Bass and Avolio (1994), practicing transformational leadership elevates both leaders and followers. It is ethically and morally uplifting (Avolio, 1999). This model agrees with previous studies such as Bolda (2010), Chen (2004), Greiman (2009), and Levin (2000) in which Pakistani faculty, Taiwanese nursing deans, American agricultural deans, and American university presidents were practicing both transformational and transactional leadership styles. The developed model is somehow counter to the study by Al-Hourani (2013) in an Arab context in which male university deans were using transactional leadership styles and female university deans were using transformational leadership styles.

### **Implications and Suggestions for Further Research**

A review of the related literature revealed that there is very limited research on the leadership styles of science academic deans. Therefore, this study adds to the knowledge and can be a foundation for further study on the academic deans' leadership styles, particularly in the UAE. Pounder (2005) demonstrated that using both transformational and transactional leadership styles is significantly and positively connected to classroom outcomes in higher education. Knowing and employing the leadership style that is most appropriate to the culture of a particular context such as UAE might result in higher productivity and performance, lower faculty stress and burnout, higher faculty job satisfaction, lower turnover rates, improvement of the financial situation of the university, better approaches for decision-making by leaders, and improvement of the quality of universities.

Of course, many questions still need to be answered. For instance, since transformational leadership improves both leaders and followers, studying followers including faculty, staff, and students would deepen the analysis and confirm or contradict the leadership styles (Xin & Pelled, 2003). In this regard, further study might use a mixed method approach for including a large number of participants. Also, future research can focus on the role of independent variables such as age,

gender, years of experience, and the number of faculty supervised as some factors to identify different leadership styles (Gmelch,& Wolverton, 2002).

This study is limited in some respects. Firstly, according to Avolio (1999), the FRLT ranges from passive leadership to a very charismatic leadership model, so it does not contain all of the leadership dimensions. Obviously, other leadership styles need to be investigated. Secondly, although the number of participants of this study was valid for an exploratory study, the findings and developed models are not conclusive. If the number of engaged science deans increases, more insight might be attained. Also, the findings might be generalised. Finally, since the site has been limited to only one Emirati private university, including public and international universities could be some options for further research. Bolda (2010) found that academic deans in private sectors were practicing transactional style at significantly higher rates than deans in public sector universities. Therefore, adding variety to the selection of sites would improve the results.

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