RESEARCH ARTICLE

The Role of Administrative Leadership in Supporting Culture of Quality and Excellence Based on Kaqa Excellence Model: An Implementation Study

Mohammed A. Nasseef
Assistant Professor of Quality Management, Economy and Management College, Business Department, King Abdulaziz University, Jeddah, Saudi Arabia

Corresponding Author: Mohammed A. Nasseef, E-mail: manassief@kau.edu.sa

ABSTRACT

Based on the King Abdullah Quality Award (KAQA) excellence model, this study seeks to understand management leadership's role in supporting quality and excellence. The study applied in Saudi Electricity Company, estimated to have (33957) employees in all Saudi Arabian branches (KSA). The current study used a constructed questionnaire with 32 items spanning six dimensions. The first dimension assesses management leadership's role in determining the company's strategic direction, while the second assesses management leadership's role in monitoring the management system and institutional performance. On the other hand, the third dimension is about the enhancement of the relationship with all in concern. The fourth dimension aims to assess management leadership's role in promoting a company culture of quality, excellence, and innovation. The fifth dimension is the measurement of a management leadership role in implementing governance and social responsibility. The last dimension is the measurement of a management leadership role in managing changes, risks, and crises. The current study found statistically significant differences between participants in an administrative leadership role in monitoring, reviewing management system, and institutional performance. Thus, the organization should evaluate administrative leadership's role in management. Administrative leadership also fosters quality, excellence, and creativity. This demonstrates the need for leadership to review, develop, and improve the company's strategic direction.

KEYWORDS

Leadership, KAQA Excellence Model, Excellence, Culture of Quality, Excellence, Creativity, Business Excellence, Administrative Leadership

ARTICLE DOI: 10.32996/jbms.2022.4.1.12

1. Introduction

In today's ever-changing world, organizational leadership is critical in fostering the strategic fit within its environment to provide the essential competitive advantage to stay ahead of the competition creating a strategic fit between a company and its environment is critical to achieving the necessary competitive advantage (Waheeda et al., 2021). Organizational leadership is critical in this process. Through successful syndication and resource application, leading management exerts influence over company leadership, resulting in business evolution and, as a result, fiscal and non-financial improvement (Davis et al., 2000).

From the viewpoint of organizational excellence, Bohoris and Vorria (2007, 2009), among other writers, have emphasized the distinctions between management and leadership. According to their study, managers may be thought of as individuals who are assigned management duties to accomplish particular objectives, including regulating and problem-solving, budgeting and planning, and hiring and coordinating employees and other resources (Aladwan et al., 2016). On the other hand, leaders establish the direction of an organization and encourage, inspire, and align employees in accordance with that direction (Kotter, 2001). In addition, leaders supported by "efficient" supervision of quality improvement processes will achieve improved performance outcomes (Zairi, 1994; Anning-Dorson et al., 2017; Jung et al. 2008; Santora et al., 1999; state that Organizational leadership is an important element in competitive advantage strategies. Their orientation, culture, skill, and competence are progressively seen as
The Role of Administrative Leadership in Supporting Culture of Quality and Excellence Based on Kaqa Excellence Model: An Implementation Study

a vital advantage of strength. Leaders are also seen as an essential part of enterprise success, which will lead eventually to desired quality performance and impacts on desired button-line results; also, leaders play a vital part in fostering the strategic fit in its environment (Purcell et al., 2004). Leaders can play crucial roles in determining organizational policies and processes as well as resource allocations and performance improvement. For this reason, this study is trying to answer the following questions: What is the role of administrative leadership at Saudi Electricity Company in determining the company’s strategic orientation? What is the role of administrative leadership at Saudi Electricity Company to follow up and review the management system and institutional performance? How does the administrative leadership at Saudi Electricity Company enhance the relation with all in concern? To what extent is the administrative leadership contributing to supporting the culture of quality, excellence, and creativity in the company?

2. Literature Review

In today’s competitive, dynamic, and innovation-based markets (Edgeman and Eskildsen, 2016), the role of a leader is vital for the survival and progress of an organization. In their study on leadership and organizational performance, Al Khajeh (2018) and Bhargavi & Yaseen (2016) suggest that the role of leadership is critically important for an organization to achieve a high level of performance and survival in a highly competitive marketplace. Maintaining this level of performance excellence is a great deal and huge responsibility on leaders shoulders. According to Vorria and Bohoris (2009), responsible leaders should match their personal ethics and beliefs with the culture of the organization in order to guarantee that emerging benefits can be sustained.

Organizational excellence is defined by several critical concepts, according to Goetsch and Davis (2014), who concluded that these concepts include a focus on leadership, consistent goals, organization bottom-line results and customer satisfaction, employee development and participation. He added that these concepts could vary depending on the context. According to Ferdowsian (2016), current Business Excellence/National Quality Awards/Total Quality Management approaches begin with leadership and end with excellent business outcomes. Employee motivation, innovation, organizational culture, and human resource strength, according to Akpar et al., 2019; are all critical factors in enabling organizations to achieve outstanding performance. He added that this could be accomplished by focusing on both external and internal critical factors that drive change and improvement, such as organizational culture and human resource strength.

Zairi (2010), Brown (2013), McAdam et al. (2013), and Tizard (2012) have all demonstrated that leadership has a direct impact on excellence through the development of the capabilities of employees, the provision of moral support and materials, and the encouragement of their creativity, allowing for the establishment of effective work-based relationships. Therefore, meanings Najmi and Housieni, 2006 are around activities in organization management to reach results, customer focus, leadership and consensus, process-based management, facts and staff involvement, continuous improvement and innovation, common interests of partners and social responsibility (Najmi and Housieni, 2006).

A quality award-based framework for workplace performance excellence is now available (Miguel, 2015). To reward organizational achievement, Japan established the Deming Prize in 1951. Malcolm Baldrige National Quality Award (MBNQA) The European Foundation for Quality Management (EFQM) created the European Quality Award in 1991. The MBNQA and EFQM have been adopted, absorbed, and developed globally over the last two decades (Mann et al., 2011). Most OECD countries have National Quality Awards (NQAs) to boost local firms’ competitiveness (Moon et al., 2011). It also allows for global benchmarking and comparison of quality award systems (Pipan et al., 2011). International organizations use Nations Quality Awards, also known as performance excellence awards, to help improve their performance and their country’s profile (Tan, 2002).

When competing, business excellence means constantly improving staff and systems (Arasli, 2012). Business Excellence Models evolved from TQM. TQM, a new solution and philosophy for organizations, gained popularity in the mid-1980s. “Business Excellence” gradually replaced “Quality”, and “TQM” as TQM was applied to many aspects of business improvement (Fok-Yew et al., 2021). A Brazilian study found that the National Quality Award (NQA) improved service quality and overall organizational performance (Cauchick Miguel and Campos, 2013). According to Ismail (2011), Western experts studied organizational excellence performance models in 1980. Quality management has become a primary strategy for improving market position and financial results in Europe. They were among the first to form the “European Foundation of Quality Management” in 1988. (Najeh & Zaitri, 2007).

The award benefits both winners and applicants, thus benefiting the economy (Hertz, 2012). The winners’ superior reputation can also be used to market. The winners must help other organizations improve their performance. Runners-up can teach businesses a lot of Quality and organizational excellence awards that have grown in popularity globally. Numerous studies have proven that nourishing local service and product quality and allowing organizations to compete in an ever-changing business environment.

These days, many countries see business excellence models as a major way to boost organizational performance Companies can use them to improve business performance and reach world-class levels, also for national award programs. To measure business
performance, quality improvement methods have been proposed due to increased global competition and consumer demand for quality. Many organizations self-assess against a quality model based on the National Quality Award (NQA). Participants in a NQA program are considered a good way to evaluate a company’s quality management. The primary driver for business performance evaluation has been suggested as national quality assurance programs (Xie, 1998).

The King Abdulaziz Quality Award (KAQA) is the National Quality Award (NQA) of the Kingdom of Saudi Arabia, established by Royal Decree No. 7 / B / 18670 on the fourth of March 2000 released by the Council of Ministers. It is comparable to its equivalents in other nations, both regionally and internationally, in that it aims to create a uniform, criteria-based model for organizational excellence at the regional and worldwide levels. In this regard, the Kingdom of Saudi Arabia’s Quality and Excellence Authority has issued a national model that incorporates its excellence criteria to serve as the primary driver of quality and excellence best practices in all organizations throughout the Kingdom of Saudi Arabia, regardless of sector, size, or type of business. As a result of the establishment of the King Abdulaziz Quality Award (KAQA), which represents a significant step forward in the Kingdom of Saudi Arabia’s journey toward quality and organizational excellence, the government of Saudi Arabia has placed a high value on the adoption of quality and organizational excellence concepts. For the above-mentioned reason, authorities on the King Abdullah Quality Award (KAQA) launched its new Model in (2015) to serve as a framework of reference for the implementation of quality and organizational excellence ideas in the Kingdom.

Each of KAQA’s eight criteria has a weight and is split into two main categories: enablers and results. Each of the eight criteria has a total weight of 1,000 points. The five-enabler criteria are concerned with the methods and processes that an organization employs to achieve the desired outcomes. They are as follows: Leadership weight of 150, Strategic Planning weight of 100, Human Resources weight of 100, Partnerships and Resources and Processes weight of 100, and Managing Processes, Products, and Services weight of 150. On the other hand, the three results criteria are concerned with both the company’s performance and the current results produced by the Enablers. They are as follows: Customer Results weight 150, Human Resources Results weight 100, and Key Performance Results weight 150. Each of the eight criteria is driven by a culture of learning, creativity, and innovation.

3. Methodology

3.1 Research problem

Leadership in organizations have more roles to play in organizations management. One of the most important roles is to think strategically to achieve the organization strategic objectives. In this current century, organizations have been faced with tremendous, rapid, and critical changes. Therefore, leadership must lead the organizations according to strategic orientation to achieve organizations excellency and to make the employees do their jobs in innovative ways. The problem of the current study can be cited in the main research question:

How management leadership in Saudi electricity company contributes to the culture of quality, excellence, and innovation based on the King Abdullah Quality Award (KAQA) excellence & innovation model.

Research questions:

What is the role of administrative leadership at Saudi Electricity Company in determining the company strategic orientation?

What is the role of administrative leadership at Saudi Electricity Company to follow up and review the management system and institutional performance?

How does the administrative leadership at Saudi Electricity Company enhance the relation with all in concern?

To what extent is the administrative leadership contributing to supporting the culture of quality, excellence, and creativity in the company?

Which is the role of administrative leadership in governance and social responsibility?

What is the role of administrative leadership at the Saudi Electricity Company in the management of change, risk, and crises?

3.2 Research hypotheses

H1: There is a statistically significant effect of administrative leadership on supporting the culture of quality, excellence, and creativity in the Saudi electricity company.

H2: There are no statistically significant differences between participants' perceptions regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity related to gender, experience, and job position inside the company.
3.3 Research methodology and procedures
This section outlines the research methodology and procedures used to achieve the study’s main objective and the sub-objectives. The main objective of this current research is to understand the role of management leadership in supporting quality and excellence based on the King Abdullah Quality Award (KAQA) excellence & innovation model. The study was applied to Saudi Electricity Company. In this section, the researcher focuses on determining the scientific research approach adopted, specifying the population and sample of the study, and the tool used for data collection (questionnaire), in terms of its reliability and validity to ensure its efficiency to collect accurate information. In addition to that, the researcher would determine the statistical techniques used for data analysis. The details of research methodology procedures are presented as follows:

3.4 Research approach
Researchers use a variety of methods to conduct their research. (Mohajan, 2017) defines a research approach as a strategy for conducting research systematically and efficiently. In practice, three main research approaches exist; quantitative (structured), qualitative (unstructured), and mixed-method. Creswell (2014) defined the quantitative approach as examining the relationship between variables that can be measured on an instrument and data analyzed using statistical procedures. The current study uses descriptive analytics to examine management leadership’s role in supporting KAQA’s quality, innovation, and excellence culture. The descriptive approach has the advantage of analyzing, interpreting, and relating existing phenomena or events.

3.5 Population and sampling
The current study population is represented by employees working at Saudi Electricity company, estimated to count to (33957) employees in all the company branches in the Kingdom of Saudi Arabia (KSA). The probability sampling technique was used to select a representative sample to the population of the study. The researchers use statistical equation formula to determine the sample size of the current study, which was developed by (Krejcie & Morgan, 1970), which is as follows:

\[ S = \frac{X^2 NP(1-P)}{d^2(N-1) + X^2 P(1-P)} \]

Whereas:
- \( S \) = required sample size
- \( X^2 \) = the table value of Chi-square for 1 degree of freedom at the desired confidence level (3.841)
- \( N \) = the population of the study
- \( P \) = the population proportion (assumed to be 0.5 since this would provide the maximum sample size).
- \( d \) = the degree of accuracy expressed as a proportion (0.05).

Based on the previous formula, for a population of size (8191793) of the current study, the required sample size is calculated as follows:

\[ S = \frac{3.841*33957*0.5(0.5)}{0.05*0.05(33956) + 3.841*0.5(0.5)} = \frac{32607.21}{85.85025} = 380 \]

Therefore, the required sample size is equal to (380).

After addressing the survey questionnaire to the target sample, around (230) valid responses were received from employees working at the general administration of the company, which represented about 61% of the target sample.

3.6 Data collection
The researcher created a survey questionnaire to collect data. The questionnaire method is widely used by researchers to collect primary data. The current study used a constructed questionnaire with 32 items spanning six dimensions. The first dimension assesses management leadership’s role in determining the company’s strategic direction, while the second assesses management leadership’s role in monitoring the management system and institutional performance. On the other hand, the third dimension is about the enhancement of the relationship with all in concern. The fourth dimension aims to assess management leadership’s role in promoting a company culture of quality, excellence, and innovation. The fifth dimension is the measurement of a management leadership role in implementing governance and social responsibility. The last dimension is the measurement of the management leadership role in managing changes, risks, and crises. The survey also asks about participants’ gender, experience, and job position.
3.7 Testing questionnaire method reliability and validity

Reliability is important as it refers to the consistency across the parts of a measuring instrument. Among the most important measures of internal consistency is Cronbach's Alpha coefficient, which was developed by Lee Alpha in 1951, to provide a measure of internal consistency of a test or scale (Mohsen T., & Reg D., 2011). According to (Feng & Yamat 2019), the Cronbach's Alpha coefficient is the most used internal consistency measure. It is viewed that the value of Cronbach's Alpha coefficient extended between (0to 1). If the value is close to 1, that means the survey instrument achieves a high internal consistency among the items. To test the questionnaire method in this current study, a pilot study was conducted by selecting (32) participants from the population of the study. The researcher uses Cronbach Alpha Coefficient as a measure for internal consistency (the overall reliability estimate). The results are presented as in table (2.1):

Table 1.1: Questionnaire reliability (internal consistency)

| Subscales                                                                 | N  | Cronbach's Alpha Coefficient |
|---------------------------------------------------------------------------|----|------------------------------|
| Dimension 1: The role of management leadership in determining the company strategic orientation | 4  | 0.926                        |
| Dimension 2: The role of management leadership in follow up and reviewing the management system and institutional performance | 4  | 0.952                        |
| Dimension 3: Enhancement of the relationship with all in concern           | 3  | 0.918                        |
| Dimension 4: The role of management leadership in supporting the culture of quality, excellence & innovation. | 8  | 0.969                        |
| Dimension 5: The role of management leadership in governance and social responsibility | 8  | 0.976                        |
| Dimension 6: The role of management leadership in managing changes, risks, and crisis | 5  | 0.970                        |
| Overall Reliability                                                       | 32 | 0.991                        |

As it is evident from table 2.1, the overall survey instrument reliability is reaching (0.991), which indicates that the survey instrument is highly reliable. This confirms the consistency of the survey instrument to achieve the research objectives.

Validity of the survey instrument:

Validity is a critical criterion that indicates how an instrument measures what it is supposed to measure (Kothari, 2004). In the current study to measure survey instrument validity, Person’s Correlation Coefficient was used to measure the degree of association between each item with the total scores of the subscale to which it is related. The results are demonstrated as in table 2.2, below:

Table 2.2 Validity of subscale technologies

| Item No. | Correlation coefficient | Item No. | Correlation coefficient | Item No. | Correlation coefficient |
|----------|-------------------------|----------|-------------------------|----------|-------------------------|
| 1        | 0.858**                 | 12       | 0.885**                 | 23       | 0.888**                 |
| 2        | 0.909**                 | 13       | 0.949**                 | 24       | 0.949**                 |
| 3        | 0.959**                 | 14       | 0.908**                 | 25       | 0.937**                 |
| 4        | 0.894**                 | 15       | 0.899**                 | 26       | 0.962**                 |
| 5        | 0.946**                 | 16       | 0.838**                 | 27       | 0.952**                 |
| 6        | 0.922**                 | 17       | 0.916**                 | 28       | 0.924**                 |
The Role of Administrative Leadership in Supporting Culture of Quality and Excellence Based on Kaqa Excellence Model: An Implementation Study

The results in table 2.2 reveal that all items included in the survey questionnaire method are statistically correlated with the overall scores of the subscale to which it is related, meaning that almost all items achieve the measurement objective.

3.8 Statistical techniques for data analysis
The researcher enters the data collected using a survey questionnaire into the Statistical Package for Social Science (SPSS). Various descriptive and inferential statistical methods were used to interpret the data. The mean and standard deviation are used to assess the participants of the study in relation to subscale items. In addition, multiple regression analysis is used to test research hypotheses. ANOVA was used to examine if there are statistically significant differences related to experience, educational level, and position in the company. Moreover, one sample T-test was used to examine if there are significant variations among participants perceptions in relation to the questionnaire items. The survey instrument’s reliability was also tested using Cronbach’s Alpha. Person’s correlation coefficient was used to test survey method validity.

Instrumentation: A 5-point Likert Scale based on mean values was used to assess participants’ responses to the questionnaire items.

Table 2.3, mean values assessment according to Likert scale

| Mean values range          | Response         |
|----------------------------|------------------|
| 1-To less than 1.80        | Strongly disagree|
| 1.8 – to less than 2.60    | Disagree         |
| 2.60 –to less than 3.40    | Neutral          |
| 3.40- to less than 4.20    | Agree            |
| 4.20 – to 5                | Strongly agree   |

3.9 Data analysis results
Based on the King Abdullah Quality Award (KAQA) excellence and innovation model, the current research seeks to understand the impact of management leadership in the Saudi electricity company. To achieve the research objectives and answer the research questions, data were collected by sending a survey questionnaire to various employees of the Saudi electricity company. The SPSS program is used for data entry and data analysis using descriptive and inferential statistical methods. As a result, this section’s data analysis includes demographic analysis and testing research hypotheses. Here are the findings:

3.10 Analysis of demographic characteristics
The demographic characteristics, including gender, experience and job position illustrated in table 2.4.

Table 2.4, Demographic characteristics

| 1. Gender   | Frequency | Percent % |
|-------------|-----------|-----------|
| Male        | 206       | 89.6      |
| Female      | 24        | 10.4      |
| 2. Experience |          |           |
| Two years & less | 11 | 4.7      |
Regarding participants’ distribution according to gender, the male participants comprised the majority by 89.6%, while females represented only 10.4%. Whereas participants’ distribution according to experience, the results show that the majority, 77%, had experienced more than 10 years, 11.3% had an experience between 7-to 10 years, 7% had an experience between 3-to 6 years, while only 4.7% had an experience of two years or less. The distribution of participants according to job position inside the company the results found that 43.9% employees, 30.5% department managers, 19.1% administrative managers, whereas 6.5% supreme management.

3.11 Research questions
This section was devoted to providing evidence supporting the research questions. To do that, the respondents’ perceptions assess by calculating the mean values for each item and the mean to the overall subscale to which related and standard deviations values, in addition to running one sample T-test to examine whether there are statistically significant differences between participants' perceptions. Research question One: stated that what is the role of administrative leadership at Saudi Electricity Company on determining the company strategic orientation? To answer these questions, participants responses are illustrated in the below table:

Table 2.5, Participants' perceptions regarding management leadership's role in determining the company strategic orientation.

| No | Strategic orientation items | Mean | SD  | Ranking | T-test | P-value |
|----|----------------------------|------|-----|---------|--------|---------|
| 1  | Leadership contributes to determining the vision, mission, priorities, objectives, and shared values clearly, revising them, and distributing them to all and personally participating. | 3.52 | 1.4 | 1 | 5.648 | 0.00** |
| 2  | The leadership seeks to nurture the values of the organization and make it a role model (good example) in integrity, social responsibility and ethical behaviour at the internal and external levels. | 3.51 | 1.44 | 2 | 5.411 | 0.00** |
| 3  | Leadership works to unify and direct all human resources towards achieving the strategic direction of the organization | 3.50 | 1.36 | 3 | 5.515 | 0.00** |
| 4  | The leadership is keen to create an appropriate and encouraging environment for participatory leadership, evaluate leadership performance and personal behaviours, work to improve them, and prepare and develop the next generation of leadership. | 3.33 | 1.43 | 4 | 3.495 | 0.001** |
| Overall mean value | 3.47 | 1.32 | |

**Indicated that the difference is significant at the (0.01) level.

Table 2.5 shows that the overall mean value of participants' perceptions of the role of administrative leadership in determining the company's strategic direction is 3.47, with SD 1.32. The mean value indicates that respondents agree, but a sample t-test shows that there are statistically significant differences among participants. Therefore, the company leadership must focus and think
The Role of Administrative Leadership in Supporting Culture of Quality and Excellence Based on Kaqa Excellence Model: An Implementation Study

strategically to determine the company vision, mission, priorities, and strategic objectives. Moreover, the company’s leadership should plan to create an environment that encourages employees to improve their performance and invest in future generations' training. Research question two: stated that what is the role of administrative leadership at Saudi Electricity Company to follow up and review the management system and institutional performance? To solicit information to answer this research question, the participants’ perceptions illustrated as Perceptions of administrative leadership in Saudi Electricity Company in follow-up, reviewing the management system, and institutional performance are shown in table 2.6. It appears that not all respondents believe that effective follow up, management system revision, and institutional performance are covered by effective leadership in the company. The results of one sample t-test show the wide range of opinions among respondents on the role of leadership in monitoring the company's activities. Therefore, Saudi Electricity Company leadership must monitor, review, and continuously assess institutional performance while developing standards to measure overall company performance.

Table 2.6, Participants’ perceptions regarding the role of administrative leadership in follow up and review the management system and institutional performance.

| No | Description                                                                 | Mean | SD  | Ranking | T-test | P-value |
|----|-----------------------------------------------------------------------------|------|-----|---------|--------|---------|
| 1  | The leadership urges the development of an administrative system for the organization, through follow-up improvement, including setting and evaluating performance indicators for the administrative system and other improvements to ensure sustainability. | 3.38 | 1.37 | 3       | 4.233  | 0.00**  |
| 2  | The administrative leadership works to identify and develop the main capabilities of the organization in line with effective institutional management systems. | 3.37 | 1.34 | 4       | 4.123  | 0.00**  |
| 3  | Leadership is keen to make decisions based on realistic and reliable information on the results of institutional performance | 3.50 | 1.38 | 1       | 5.559  | 0.00**  |
| 4  | The leadership urges to analyze the results of institutional performance and to benefit from the results of self-assessment with the aim of continuous improvement | 3.40 | 1.40 | 2       | 4.341  | 0.00**  |
|    | Overall mean value                                                          | 3.40 | 1.28 |         |        |         |

**Indicated that the difference is significant at the (0.01) level.

Research question 3: stated how the administrative leadership at Saudi Electricity Company enhance the relation with all in concern? To answer this research question, the participants’ opinions are presented in table 2.7.

Table 2.7, Participants’ perceptions regarding the role of administrative leadership in the enhancement of the relation with all stakeholders.

| No | Description                                                                 | Mean | SD  | Ranking | T-test | P-value |
|----|-----------------------------------------------------------------------------|------|-----|---------|--------|---------|
| 1  | The leadership is keen to identify different stakeholders and understand, anticipate, and respond to their different needs and aspirations. | 3.29 | 1.42 | 3       | 3.074  | 0.00**  |
| 2  | Leadership emphasizes communication and ensure stakeholders participation to improve processes, products and services and generate innovative ideas for mutual benefit | 3.40 | 1.38 | 2       | 4.400  | 0.00**  |
| 3  | Leadership works to strengthen sustainable strategic partnerships and alliances considering the institutional needs, capabilities, and strengths of the organization. | 3.50 | 1.35 | 1       | 5.567  | 0.00**  |
|    | Overall mean value                                                          | 3.39 | 1.30 |         |        |         |

**Indicated that the difference is significant at the (0.01) level.
Table 2.7 shows that the overall mean value of participants’ perceptions of the role of administrative leadership in Saudi Electricity Company in improving stakeholder relations is 3.39, with SD 1.30. The mean value indicates that participants have neutral views on the role of administrative leadership in improving relations with all company stakeholders. To build strong relationships with stakeholders, the company’s leadership should identify them, understand their needs, anticipate and respond quickly, and ensure the quality of products and services.

Table 2.8, Participants’ perceptions regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity

| No | Perception                                                                 | Mean | SD  | Ranking | T-test | P-value |
|----|-----------------------------------------------------------------------------|------|-----|---------|--------|---------|
| 1  | The leadership adopts the dissemination and promotion of a culture of quality and excellence inside and outside the organization. | 3.57 | 1.34| 1       | 6.418  | 0.00**  |
| 2  | Leadership works to spread and promote the culture of creativity and participation in professional groups | 3.37 | 1.37| 3       | 4.139  | 0.00**  |
| 3  | Leadership work to empower and provide resources for development, improvement, and innovation projects | 3.44 | 1.39| 2       | 4.826  | 0.00**  |
| 4  | The leadership is personally involved in implementing development, improvement, and innovation projects | 3.26 | 1.40| 8       | 2.827  | 0.005** |
| 5  | The leadership urges to benefit from the best local and global practices in the field of development, improvement, and innovation. | 3.33 | 1.38| 4       | 3.620  | 0.00**  |
| 6  | The leadership is keen to provide an environment that encourages creativity and innovation in the organization. | 3.27 | 1.44| 6       | 2.832  | 0.005** |
| 7  | Leadership is keen to sponsor creative employees within the organization. | 3.26 | 1.45| 7       | 2.720  | 0.007** |
| 8  | The leadership encourages human resources to contribute to achieving continuous successes and innovations for themselves and the organization while ensuring participation and teamwork. | 3.30 | 1.39| 5       | 3.235  | 0.001** |
|    | Overall mean value                                                          | 3.35 | 1.31| 1       |        |         |

**Indicated that the difference is significant at the (0.01) level.

Research question 4, stated that to what extent is the administrative leadership contribute to supporting the culture of quality, excellence, and creativity in the company? To solicit evidence to answer this research question, participants’ perceptions illustrated as in table 2.8, also participants’ views on the role of administrative leadership in fostering a culture of quality, excellence, and innovation. The results show a mean of 3.35 with a standard deviation of 1.31. A neutral view on the role of administrative leadership in supporting a culture of quality, excellence, and creativity. This means that administrative leadership in Saudi Electricity Company does not support the culture of quality, excellence, and creativity among employees. Moreover, leadership adopts the dissemination and promotion of a culture of quality and excellence within and outside the organization.

Table 2.9, Participants’ perceptions regarding the role of administrative leadership in governance and social responsibility.

| No | Perception                                                                 | Mean | SD  | Ranking | T-test | P-value |
|----|-----------------------------------------------------------------------------|------|-----|---------|--------|---------|
| 1  | The leadership is keen to ensure transparency, justice, integrity and accountability at all levels in the implementation of procedures and regulations for the Board of Directors and the leadership committees, as well as in the management of human and financial resources. | 3.29 | 1.43| 7       | 3.047  | 0.003** |
The leadership urges the submission of credible periodic review reports to the parties and agencies concerned with governance in line with the requirements of the system.

| Research Question | Perceptions of Administrative Leadership | T-test Value |
|-------------------|-----------------------------------------|--------------|
| 2                 | The leadership ensures clarity and disclosure of the selection policies for members of the boards and steering committees and guarantees the rights and aspirations of shareholders | 3.37 1.34 5 4.239 0.00** |
| 3                 | Leadership works to promote and ensure equal opportunity and diversity at all levels inside and outside the organization | 3.08 1.38 8 0.860 0.39 |
| 4                 | Leadership contributes to limiting the impact of the organization's activities and decisions on society and the environment | 3.35 1.27 6 4.160 0.00** |
| 5                 | Leadership emphasizes that the organization follows a sound ethical behaviour towards the environment and society and integrates it into the policies, values, and strategy of the organization | 3.54 1.34 1 6.117 0.00** |
| 6                 | The leadership adopts initiatives and social responsibility within the strategic and operational plans and places them among its priorities | 3.41 1.31 3 4.740 0.00** |
| 7                 | The leadership contributes to national development from an economic point of view and plays a strategic and competitive role in diversifying the sources of the national economy | 3.47 1.38 2 5.177 0.00** |
| Overall Mean Value| 3.36 1.24 | |

*Indicated that the difference is significant at the (0.01) level.

Research question 5 stated that what is administrative leadership’s role in governance and social responsibility? Table 2.9 shows the participants’ responses to this research question: Perceptions of administrative leadership in governance and social responsibility are summarized in table 2.9. The results show a mean of 3.36 with an SD of 1.24. Regarding administrative leadership in governance and social responsibility, participants are generally neutral. The T-test values are statistically significant at (0.01) regarding how administrative leadership role in governance and social responsibility. Leadership promotes and ensures diversity at all levels within and outside the organization. Leadership emphasizes that the organization follows sound ethical behaviour towards the environment and society and integrates it into the organisation’s policies, values, and strategy. In addition to that, the leadership contributes to national development from an economic point of view and plays a strategic and competitive role in diversifying the sources of the national economy to some extent.
Table 2.10, Participants’ perceptions regarding the role of administrative leadership in managing change, risk, and crisis level.

| No | The leadership has identified the drivers of change and the extent to which it is needed to promote and support change processes and make the right decisions at the right time. | Mean  | SD   | Ranking | T-test | P-value |
|----|-------------------------------------------------------------------------------------------------------------------------------------|-------|------|---------|--------|---------|
| 1  | 3.37  | 1.30  | 5    | 4.346   | 0.00** |
| 2  | Leadership works on managing organizational change from determining readiness and managing risks at all levels.                      | 3.43  | 1.30  | 4       | 5.062  | 0.00**  |
| 3  | The leadership is keen on the commitment and participation of all relevant stakeholders to contribute to the success of the change processes. | 3.43  | 1.36  | 3       | 4.843  | 0.00**  |
| 4  | The leadership emphasizes the need to identify all types of potential risks and crises, assess the degree of their impact on the organization, and alternative plans to control and deal with them. | 3.48  | 1.38  | 1       | 5.248  | 0.00**  |
| 5  | Leadership provides the necessary resources and support for the processes of change and risk management according to potential scenarios to ensure effectiveness and efficiency | 3.44  | 1.36  | 2       | 4.962  | 0.00**  |

Overall mean value

| Mean  | SD   |
|-------|------|
| 3.43  | 1.28 |

**Indicated that the difference is significant at the (0.01)

Research question 6, stated, what is the role of administrative leadership at the Saudi Electricity Company in the management of change, risk, and crises? To solicit information to answer these research questions, the participants’ perceptions are presented as in table 2.10 below:

Table 2.10 shows the study’s participants’ views on administrative leadership’s role in managing change, risks, and crises in Saudi Electricity. The results show a mean of 3.43 with a standard deviation of 1.28. This mean value indicates that participants value administrative leadership’s role in managing company change, risks, and crises. The leadership emphasizes the need to identify all types of potential risks and crises, assess their impact on the organization, and formulate an alternative plan to control and deal with such changes, risks, and crises. A mean of 3.48 with an SD of 1.38 is a good indicator. The table also shows that there are statistically significant differences between respondents in how the company’s administrative leadership manages change, risks, and crises. That is, respondents have no strong opinions on the subject. So, the administrative leadership should inform the employees about their plans to manage various risks.

3.12 Results of testing research Hypotheses

This section specified mainly to test the research-underlined hypotheses.

Multiple regression analysis techniques are used to test this hypothesis to examine the impact of administrative leadership on supporting the culture of quality, excellence, and creativity in Saudi Electricity Company results illustrated as in table 2.11.

Table 2.11, Results of Multiple Regression Analysis to examine the impact of administrative leadership on supporting the culture of quality, excellence, and creativity

| Model                                      | Coefficients | Beta  | T-test | P-value | F-statistics | P-value |
|--------------------------------------------|--------------|-------|--------|---------|--------------|---------|
| Constant                                   | 0.003        | 0.038 | 0.97   |         |              |         |
| Setting strategic direction                | -0.059       | -0.059| -0.958 | 0.33    |              |         |
| Monitoring and reviewing the management system and institutional performance | 0.337        | 0.331 | 3.586  | 0.00**   | 313.95      | 0.00    |
| Enhance the relation with all stakeholders | 0.105        | 0.105 | 1.382  | 0.17    |              |         |
A multiple regression analysis model is efficient to estimate changes in the dependent variable (support of the culture of quality, excellence, and creativity) in the electricity company, as shown in table 2.11. Moreover, the regression model’s factors can interpret changes in the culture of quality, excellence, and creativity by approximately 80%. In table 2.11, the most important factor influencing the culture of quality, excellence, and creativity is managing change, risks, and crises with a beta value of (0.337) and statistically significant (201). Managing change, risks, and crises are strongly linked to the Saudi Electricity Company’s quality, excellence, and creative culture. Table 2.11 shows that monitoring and reviewing the management system and institutional performance is the second factor that influences the culture of quality, excellence, and creativity, with a beta value of (0.331), statistically significant at the (0.01) level. In other words, creating a culture of quality, excellence, and creativity is linked to managing management systems and institutional performance.

Table 2.11 shows that the implementation of governance standards and social responsibility policies is the third factor that influences the culture of quality, excellence, and creativity, with a beta value of (0.240) and statistical significance at (0.01). This confirms the link between a culture of quality, excellence, creativity, governance standards, and social responsibility policies. Results show that two independent variables in the regression model have no significant impact on the culture of quality, excellence, and creativity. Setting the company’s strategic direction and improving relations with all stakeholders are examples. Thus, the Saudi Electricity Company must work to establish its strategic direction by defining its vision and mission and setting long-term goals based on accurate data. Results of research hypothesis two: stated that there are no statistically significant differences between participants’ perceptions regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity related to gender, experience, and job position inside the company.

To test this hypothesis, the independent sample T-test was run to examine differences related to gender, while One-Way analysis of variances (ANOVA) was conducted to examine differences related to experience and job position. The results are illustrated as in the following tables:

Table 2.12, Results of T-test to examine whether there are statistically significant differences between perceptions regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity related to gender.

| Gender | N | Mean | SD  | T-test | Df  | P-value |
|--------|---|------|-----|--------|-----|---------|
| Male   | 206 | 3.33 | 1.34| -0.635 | 228 | 0.53    |
| Female | 24  | 3.51 | 0.96|        |     |         |

The results of T-test statistics in table 2.12 do not detect any statistically significant differences between participants' perceptions towards the role of administrative leadership in supporting the culture of quality, excellence, and creativity in Saudi Electricity company related to gender, which means that gender can not be regarded as a factor that influences on the role of administrative leadership in the company.

Table 2.13, Results of One-Way analysis of variances to examine whether there are statistically significant differences between participants’ perceptions regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity, related to experience.

|                | Sum of Squares | df | Mean Square | F    | Sig   |
|----------------|----------------|----|-------------|------|-------|
| Between Groups | 17.336         | 3  | 5.779       | 3.502| .016* |
| Within Groups  | 372.927        | 226| 1.650       |      |       |
| Total          | 390.263        | 229|             |      |       |

*Indicated that the difference is significant at the (0.05) level.

The One-Way Analysis of Variance results in the above table detects a statistically significant difference between participants of the current study regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity
related to their work experience. Multiple comparison analysis was conducted to understand to which level of experience the significant difference exists, and the results as in table 2.14.

Table 2.14, Multiple comparison analysis for the significant differences regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity, related to experience.

| Years of experience | Two years and less | 3-6 years | 7-10 years | More than 10 years |
|---------------------|--------------------|-----------|------------|-------------------|
| Two years and less  | -                  | 1.14*     | -          | -                 |
| 3-6 years           | -1.14*             | -         | -0.81*     | -1.06*            |
| 7-10 years          | -                  | 0.81*     | -          | -                 |
| More than 10 years  | -                  | 1.06*     | -          | -                 |

The results in table 2.14 show that the significant difference regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity, exist between participants whose years of experience two years and less, 7-10 years, more than 10 years on one side, compared with participants whose years of experience between 3-6 years. It is obviously seen that the significant difference is to the side of the three categories of years of experience two years or less, 7-to 10 years and more than 10 years.

Table 2.15, Results of One-Way analysis of variances to examine whether there are statistically significant differences between participants’ perceptions regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity, related to job position inside the company.

| Sum of Squares | df | Mean Square | F      | Sig.  |
|----------------|----|-------------|--------|-------|
| Between Groups | 37.028 | 3 | 12.343 | 7.897 | .000** |
| Within Groups  | 353.234 | 226 | 1.563 |       |       |
| Total          | 390.263 | 229 |        |       |       |

**indicated that the difference is significant at the (0.01) level.

The results of One-Way Analysis of Variance in the above table detect that there is a statistically significant difference at the (0.01) level between participants of the current study regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity related to their job position in the company. Meaning that job position is considered an independent factor influencing their perceptions.

To understand to which job position the significant differences exist, multiple comparison test was run by using the Least Square Difference method, and the results are presented as in table 2.16 below:

Table 2.16, multiple comparison analysis for the significant differences related to job position inside the company regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity.

| Job position | Supreme management | Administrative manager | Department manager | Employee |
|--------------|--------------------|------------------------|--------------------|---------|
| Supreme management | -                  | -0.93*                 | -                  | -       |
| Administrative manager | 0.93*              | -                      | -                  | 1.00*   |
The results in table 2.16 show that the significant difference regarding the role of administrative leadership in supporting the culture of quality, excellence, and creativity related to the job position, exist between administrative manager compared with supreme management and employees and positive to the side of administrative manager. On the same, a significant difference exists between department manager and employee, and positive to the side of department manager. This result indicates that the administrative manager and department manager conceived that the administrative leadership effectively supports the culture of quality, excellence, and creativity in the Saudi Electricity company.

### 4. Results and Discussion

Given the study's main objective, which is to examine the role of administrative leadership in supporting a culture of quality, excellence, and creativity in Saudi Electricity, the outcomes are as follows:

1. The current study results show that administrative leadership has a positive role in determining the strategic direction of Saudi Electricity Company. The most important evidence is that the leadership personally participates in determining the vision, mission, priorities, and shared objectives and values. Moreover, the leadership strives to make the company values a model of integrity, social responsibility, and ethical behaviour that can be adopted locally and globally. The results found that there are statistically significant variations at the (0.01) level regarding the role of leadership in determining the company's strategic direction.

2. The results show that there are statistically significant differences between participants in the role of administrative leadership in monitoring, reviewing the management system, and institutional performance. Thus, the company should review the role of administrative leadership in managing and reviewing the management system.

3. The role of administrative leadership in Saudi Electricity Company in improving relations with stakeholders such as customers, distributors, suppliers, and employees. The results show that this role is not required, allowing all employees to focus on improving the company’s products and services.

4. The study found that Saudi Electricity’s administrative leadership promotes a moderate level of quality, excellence, and creativity. This indicates the need for leadership to support a culture of quality, excellence, and creativity by reviewing, developing, and improving the company’s strategic direction.

5. The study found that almost all participants agree that administrative leadership works to improve overall equality of opportunity and diversity. Thus, the leadership should work to improve and ensure equality of opportunity. The results also revealed statistically significant variations in participant responses regarding the implementation of governance and social responsibility, highlighting the need to review the administrative leadership role.

6. The results show that administrative leadership is moderately effective in managing change, risks, and crises. The results also show statistically significant differences in participants’ perceptions of administrative leadership in managing change, risks, and crises. Thus, it is necessary to identify the priorities that require change.

7. The study found that managing changes, risks, and crises, monitoring, reviewing the administrative system and institutional performance, applying the concept of governance, and social responsibility are the most important factors supporting the culture of quality, excellence, and creativity in Saudi Electricity. The model's factors explain 88% of the changes in supporting a culture of quality, excellence, and creativity.

8. The study found no statistically significant gender differences in the role of administrative leadership in fostering a culture of quality, excellence, and creativity.

There are statistically significant differences in participants’ perceptions of administrative leadership in supporting a culture of quality, excellence and creativity based on their years of experience.

9. The ANOVA results show statistically significant differences in the role of administrative leadership in a culture of quality, excellence, and creativity based on job position within the company.
5. Conclusion
Based on the study's findings, the researcher made useful suggestions for the company to consider. 1. The Saudi Electricity Company's administrative leadership should develop a management system for the company, carefully monitor its improvement, and set appropriate performance indicators. Aside from that, the leadership should identify the company's basic skills and develop them to match the institutional effective management systems. 2. Administrative leadership should work to create an environment that fosters future leadership development. 3. The administrative leadership must be eager to strengthen partnerships and strategic alliances with all stakeholders based on the company's needs, capabilities, and strengths. In addition, the administrative leadership should actively participate in development, improvement, and innovation projects as well as sponsoring innovators within the company. 4. Encouraging the company's human resources and management units to benefit from the best local and international practices. 5. Encouraging continuous success and innovation.

6. Ensuring transparency, justice, integrity, and accountability in the application of procedures and regulations is an important principle that administrative leadership should carefully apply and focus on. The Saudi Electricity Company must also review the governance reports and ensure that the selection policies for members of leadership council and committees are clear and transparent. 7. Change is inevitable in any organization, and administrative leadership must identify the drivers of change, support constructive change processes, and leverage that to make timely decisions that contribute to gaining the flexibility required to deal with ongoing levels of change, especially in the digital field.

Funding: This research received no external funding

Conflicts of Interest: The authors declare no conflict of interest.

References
[1] Akparep, J. Y., Jengre, E., & Mogre, A. A. (2019). The influence of leadership style on organizational performance at Tumakavi development association, tamale, the northern region of Ghana. The TQM Journal.
[2] Aladwan, S. A., & Forrester, P. (2016). The leadership criterion: challenges in pursuing excellence in the Jordanian public sector. The TQM Journal.
[3] Hasan, A. (2021). Impact of Development-oriented HR practices on Organizational Performance in Information Technology Industry. PIMT Journal of Research, 13(3).
[4] Anning-Dorson, T., Odoom, R. K., Acheampong, G., & Tweneboah-Koduah, E. (2017). Innovation and organizational development: the role of organizational leadership. African Journal of Economic and Management Studies.
[5] Arasi, H. (2012). Towards business excellence in the hospitality industry: A case for 3-, 4-, and 5-star hotels in Iran. Total Quality Management & Business Excellence, 23(5-6), 573-590.
[6] Bhargavi, S. and Yaseen, A., 2016. Leadership styles and organizational performance. Strategic Management Quarterly, 4(1), 87-117.
[7] Bohoris, G. A., & Vorria, E. P. (2008). Criteria Requirements of the European Business Excellence Model.
[8] Brown, A. (2013). Quality: where have we come from, and what can we expect? The TQM Journal.
[9] Cauchick Miguel, P. A., & Campos, L. M. D. S. (2013). Environmental and social responsibility practices in companies that adopt the Brazilian award for performance excellence. International Journal of Business Excellence, 6(4), 488-503.
[10] Creswell, J. W. (2014). Qualitative, quantitative and mixed methods approach. Sage.
[11] Davis, J. H., Schoorman, F. D., Mayer, R. C., & Tan, H. H. (2000). The trusted general manager and business unit performance: Empirical evidence of competitive advantage. Strategic management journal, 21(S), 563-576.
[12] Debanoj, D., & Tickle, M. (2011). Deployment of business excellence in Asia: an exploratory study. International Journal of Quality & Reliability Management.
[13] Edgeman, R., Neely, A. and Eskildsen, J., (2016). Paths to sustainable enterprise excellence. Journal of Modelling in Management.
[14] Feng, C. K., & Yamat, H. (2019). Testing on the validity and reliability of task-based language teaching questionnaire. International Journal of Academic in Research Business and Social Sciences, 9(12), 347-358.
[15] Ferdowsian, M.C., (2016). Total business excellence—a new management model for operationalizing excellence. International Journal of Quality & Reliability Management.
[16] Fok-Yew, O. O. N., & HAMID, N. A. A. (2021). The Influence of Lean Practices and Leadership on Business Excellence: Malaysian E&E Manufacturing Companies. Studies of Applied Economics, 39(4).
[17] Goetsch, D.L. and Davis, S.B., (2014). Quality management for organizational excellence. Upper Saddle River, NJ: Pearson.
[18] Hertz, H. S. (2012). The impact of Baldrige on organizational performance. The Journal for Quality and Participation, 35(1), 4.
[19] Ismail, W. K. W., Darestani, H., & Irani, M. A. (2011). Quality excellence model: A review of researches in Developing countries. International Journal of Fundamental Psychology and Social Sciences, 1(2), 35.
[20] Jung, D. D., Wu, A., & Chow, C. W. (2008). Towards understanding the direct and indirect effects of CEOs’ transformational leadership on firm innovation. The leadership quarterly, 19(5), 582-594.
[21] Kotter, J. P. (2001). What leaders really do. Harvard business review, 79(11).
[22] Kothari, C. R. (2004). Research methodology: Methods and techniques. New Age International.
[23] Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and psychological measurement, 30(3), 607-610.
[24] Mann, R., Adebanjo, D., Laosirihongthong, T., & Punnakitikashem, P. (2011). Awareness and impact of business excellence in Asia. Total Quality Management & Business Excellence, 22(11), 1237-1258.
The Role of Administrative Leadership in Supporting Culture of Quality and Excellence Based on Kaqa Excellence Model: An Implementation Study

[25] McAdam, R., Keogh, W., El Tigani, A. A., & Gardiner, P. (2013). An exploratory study of business excellence implementation in the United Arab Emirates (UAE) public sector: management and employee perceptions. International Journal of Quality & Reliability Management.

[26] Miguel, P. A. C. (2015). Receiving a national quality award three times: Recognition of excellence in quality and performance. The TQM Journal.

[27] Mohajan, H. K. (2017). Two criteria for good measurements in research: Validity and reliability. Annals of Spiru Haret University. Economic Series, 17(4), 59-82.

[28] Mohsen, T., & Reg, D. (2011). Making sense of Cronbach’s alpha. International Journal of Medical Education, 2(1), 53-55.

[29] Moon, J. Y., Lee, S. C., Yong-Seung, P., & Suh, Y. H. (2011). A study on the causal relationships in the Korean National Quality Award model. Total Quality Management & Business Excellence, 22(7), 705-726.

[30] Najeh, R. I., & Kara-Zaitri, C. (2007). A comparative study of critical quality factors in Malaysia, Palestine, Saudi Arabia, Kuwait and Libya. Total Quality Management & Business Excellence, 18(1-2), 189-200.

[31] Najmi, M. and S. Housieni, (2006). EFQM Excellence Model. Rounas Publication, Tehran.

[32] Pipan, K., Gomišček, B., & Kljajić, M. (2011). Slovenian national excellence award and total quality management deployment in Slovenian companies. Total quality management & business excellence, 25(7-8), 750-762.

[33] Purcell, J. (2003). Understanding the people and performance link: Unlocking the black box. CIPD Publishing.

[34] Tan, K. C. (2002). A comparative study of 16 national quality awards. The TQM Magazine.

[35] Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in research. How to test the validation of a questionnaire/survey in research (August 10, 2016).

[36] Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach’s alpha. International journal of medical education, 2, 53.

[37] Tizard, J. (2012). The challenges and opportunities in contemporary public sector leadership. International Journal of Leadership in Public Services.

[38] Vorria, E. P., & Bohoris, G. A. (2009). Criteria requirements of the European business excellence model: a suggested approach. The TQM Journal.

[39] Waheeda, M., Iftikharb, S., & Azharc, S. (2021). Integration of Cultural Fit, Strategy Fit and Strategic Fit to Harness the Competitive Advantage: A Dynamic Capabilities Paradigm. Integration, 15(5).

[40] Xie, M., Tan, K. C., Puay, S. H., & Goh, T. N. (1998). A comparative study of nine national quality awards. The TQM Magazine.

[41] Yang, Y., Hu, H., & Qian, X. (2012). Government quality control with excellence model: a case study on AQSIO, China. The TQM Journal.

[42] Zairi, M. (1994). Benchmarking: the best tool for measuring competitiveness. Benchmarking for Quality Management & Technology.

[43] Zairi, M. (2010). Critical factors for effective TQM implementation: A benchmarking approach. In Benchmarking for Best Practice 85-120. Routledge.