

# The Role of the Mediating Variable in Explaining Statistical Relationships: A Case Study of Feedco Investment Company - The Kingdom of Saudi Arabia – 2024AD

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## Abstract:

This study aimed to explore the role of mediating variables in explaining statistical relationships between variables, considering administrative leadership as a mediating variable that interconnects strategic management application and performance improvement at Feedco Investment Company In the Kingdom of Saudi Arabia. The study tested several hypotheses alongside the primary hypothesis, which posits that “the application of strategic management has a statistically significant impact on performance, with administrative leadership as a mediating variable at Feedco Investment Company. The study adopted the descriptive-analytical approach and used a questionnaire as the main tool for data collection from a randomly selected sample of 132 participants. Key findings included the significant role of mediating variables in explaining statistical relationships among institutional variables. It was also found that administrative leadership could play a vital role as a mediator between strategic management and institutional performance improvement. The study recommended that senior management recognize the importance of effective administrative leadership as a critical factor in enhancing institutional performance. Additionally, further studies on mediating variables were suggested due to their importance in clarifying relationships between multiple variables.

**Keywords:** Independent variable, dependent variable, mediating variable, Strategic Management, Administrative Leadership

## دور المتغير الوسيط في تفسير العلاقات الإحصائية - دراسة حالة شركة فيدكو

للاستثمار - المملكة العربية السعودية - 2024م

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المستخلص:

هدفت هذه الدراسة إلى الكشف عن دور المتغيرات الوسيطة في تفسير العلاقات الإحصائية بين المتغيرات، ذلك باعتبار القيادة الإدارية متغيراً وسيطاً يتوسط العلاقة بين تطبيق الإدارة الاستراتيجية و تحسين الأداء بشركة فيدكو للاستثمار بالمملكة العربية السعودية، اختبرت الدراسة عدة فروض بجانب الفرض الرئيس والقائل بأنه (يوجد تأثير ذو دلالة إحصائية لتطبيق الإدارة الاستراتيجية على الأداء باعتبار ان القيادة الادارية متغير وسيط بشركة فيدكو للاستثمار)، استخدمت الدراسة المنهج الوصفي التحليلي، و اعتمدت الاستبانة كأداة رئيسة لجمع المعلومات من عينة عشوائية تم اختيارها بطريقة العينة العشوائية البسيطة و قد بلغ حجمها (231) مفردة. توصلت الدراسة إلى عدة نتائج كان أبرزها ان المتغيرات الوسيطة تلعب دورا مهما في تفسير العلاقات الإحصائية بين المتغيرات المؤسسات، كذلك فإن القيادة الإدارية يمكن ان تلعب دورا مهما كمتغير وسيط بين الإدارة الاستراتيجية وتحسين أداء المؤسسات، توصلت الدراسة لبعض التوصيات وكان أبرزها انه على الإدارات العليا للمؤسسات إدراك دور وأهمية القيادة الإدارية الناجحة كعامل مهم لتحسين ادائها. كذلك اوصت الدراسة بإجراء المزيد من الدراسات حول المتغيرات الوسيطة لما لها من أهمية في توضيح العلاقات بين المتغيرات المتعددة.

الكلمات المفتاحية: المتغير المستقل، المتغير التابع، المتغير الوسيط، الإدارة الاستراتيجية، القيادة الادارية

### Introduction:

Mediating variables play a crucial role in research studies by helping to explain relationships between independent and dependent variables. This study aims to examine the importance of mediating variables in statistics and their role in improving the accuracy of analysis and conclusions.

As stated by Baron and Kenny (1986), "The mediating variable is the factor that explains the relationship between the independent and dependent variables and helps clarify how or why an effect occurs." Considering that administrative leadership represents a mediating variable explaining how strategic management influences performance at Feedco Investment Company, this research will address this subject.

### **Research Problem:**

The research problem revolves around the role mediating variables play in explaining statistical relationships. The study aims to answer the primary question:

### **Does strategic management affect performance, considering administrative leadership as a mediating variable at Feedco Investment Company?**

From this primary question, the following sub-questions emerge:

- What is the role of mediating variables in explaining statistical relationships between variables?
- To what extent does the application of strategic management impact performance at Feedco Investment Company?
- How does strategic management influence administrative leadership at Feedco Investment Company?
- To what extent does administrative leadership impact performance at Feedco Investment Company?
- What is the role of administrative leadership as a mediating variable in explaining the relationship between strategic management and performance?

### **Research Hypotheses:**

1. The application of strategic management has a statistically significant impact on performance at Feedco Investment Company.
2. Strategic management has a statistically significant impact on administrative leadership at Feedco Investment Company.
3. Administrative leadership has a statistically significant impact on performance at Feedco Investment Company.
4. Strategic management significantly influences performance, considering administrative leadership as a mediating variable at Feedco Investment Company.
5. Mediating variables play a significant role in explaining statistical relationships between variables.

### **Objectives of the Study:**

The primary objective of this study is to identify the role of mediating variables in explaining statistical relationships.

- To examine the effect of strategic management on performance at Feedco Investment Company.
- To analyze the impact of strategic management on administrative leadership at Feedco Investment Company.
- To investigate the influence of administrative leadership on performance at Feedco Investment Company.
- To assess the effect of strategic management on performance, considering administrative leadership as a mediating variable.

### **Research Significance:**

The significance of this study stems from its focus on an important subject, namely the role of mediating variables in explaining statistical relationships.

### **Scientific Importance:**

- Contributing to the study of the role of administrative leadership as a mediating variable in the interactive relationship between strategic management and performance at Feedco Investment Company.

### **Practical Importance:**

- Assisting researchers in understanding the potential role of mediating variables in explaining various relationships between variables.

### **Research Methodology:**

The study employed the **descriptive-analytical method** and the **case study approach**.

### **Research Tools:**

- **Primary Sources:** The questionnaire.
- **Secondary Sources:** Academic books, articles, dissertations, journals, official reports, and related electronic and printed publications.

### Research Scope:

- **Thematic Scope:** The study addressed the role of administrative leadership as a mediating variable in the relationship between strategic management and institutional performance.
- **Human Scope:** Employees of Al-Hammadi Hospital, selected via simple random sampling.
- **Spatial Scope:** Feedco Investment Company - Saudi Arabia.
- **Temporal Scope:** The year 2024.

### Key Terms:

- **Independent Variable:** “A factor presumed to influence the dependent variable, controlled or manipulated by the researcher to evaluate its effect.” (Hair et al., 2010)
- **Dependent Variable:** “The outcome or result measured to determine the effect of the independent variable.” (Cresswell, 2014)
- **Mediating Variable:** “A factor that explains how and why the independent variable causes a change in the dependent variable.” (Barnett, 2012)

### Theoretical Framework and Previous Studies

#### The Concept of Strategic Management:

Strategic management involves identifying organizational objectives, formulating policies and plans to achieve these goals, and allocating the resources necessary for implementation. It focuses on defining the organization's general direction and ensuring all activities align with set goals.

Mintzberg et al. (1998) define strategic management as “the process of developing future visions for the organization, setting its mission and long-term objectives, determining expected relationships between the organization and its environment, and outlining the organization's strengths and weaknesses to exploit opportunities and mitigate risks.”

Similarly, Mohamed Hanafy (2011) describes strategic manage-

ment as “a process comprising several steps through which senior management analyzes external opportunities and constraints, internal strengths and weaknesses, and sets the organization’s mission and goals. Strategies are then developed, implemented, and strategically monitored to align internal strengths and weaknesses with external opportunities and threats.”

### **The Concept of Administrative Leadership:**

Administrative leadership is defined as “the ability to guide and motivate individuals within the organization to achieve shared goals. It encompasses decision-making, effective communication, and conflict resolution in ways that promote productivity and innovation” (Northouse, 2018).

### **The Concept of Institutional Performance:**

Institutional performance refers to the collective efforts of management and employees in executing tasks and activities to achieve organizational objectives.

As noted by Ramadan et al. (2019), it is “an integrated system of business outcomes within the organization based on its interaction with internal and external elements, following established regulations and standards to deliver the required services to clients.”

Al-Madhoun (2014) states that performance is “the total inputs and outputs resulting from the interaction of an integrated system of administrative operations and their components with the internal and external environment, aiming to achieve organizational goals effectively and efficiently.”

From these definitions, institutional performance can be understood as the degree of progress achieved by employees toward organizational goals, influenced by their interaction with the internal environment and their adaptability to external changes.

### **Case Study: Feedco Investment Company**

**Feedco Investment Company** is a Saudi closed joint-stock company established in 1983 with a capital of SAR 100 million. The company specializes in producing and supplying animal feed across Saudi Arabia, prioritizing the food security sector.

Feedco is headquartered in Riyadh, with regional offices in Dammam and Jeddah, ensuring comprehensive market coverage. The company focuses on promoting food security in Saudi Arabia by providing integrated feed solutions that support livestock and contribute to sustainable development in the sector.

### **Previous Studies:**

#### **1. Al-Kandari (2019):**

This study examined the impact of strategic management dimensions (environmental analysis, strategy formulation, strategy implementation, evaluation, and monitoring) on employee performance dimensions (personal traits, employee behaviors, and objective outcomes) in government agencies and ministries in Kuwait. It identified change management as a mediating variable. Results indicated a statistically significant effect of strategic management practices on employee performance and change management.

#### **2. Al-Derawi, Ayman Hassan (2018):**

This research explored the impact of organizational culture on the relationship between strategic management and the performance of non-governmental organizations (NGOs) in Gaza. It highlighted organizational culture as a mediating variable that enhances performance. The study recommended leveraging expertise when preparing strategic plans and raising awareness among management and employees about the importance of strategic management for achieving organizational culture and performance.

#### **3. Ben Abbas (2017):**

This study focused on understanding the role of strategic management in improving institutional performance. It concluded that strategic initiatives grant organizations a competitive advantage and that there is a positive relationship between strategic management and performance indicators from the balanced scorecard perspective (financial, customer, and internal operations).

**4. Hayes (2013):**

This study presented a practical methodology for analyzing mediation and moderation in complex statistical relationships. It emphasized that relationships between variables are often influenced by mediating factors, which clarify how independent variables affect dependent variables.

**5. Fischer and Brown (2012):**

This research used mediating variables to examine the relationship between social interaction and psychological well-being. Results showed that social communication plays a mediating role between social support and happiness.

**Field Study****Study Population:**

The study population consisted of employees at Feedco Investment Company across various job titles. A simple random sample of 132 individuals was selected from a total population of 200, based on Morgan's table for determining sample size.

**Study Instrument:**

To collect the necessary data, the researcher utilized a questionnaire as the primary tool. The questionnaire included:

- **Demographic data** of the respondents, such as gender, educational qualification, job position, and years of experience.
- **Seven main sections** corresponding to the study hypotheses, containing 32 questions in total.
- Responses were measured using a **five-point Likert scale** with the options: "Strongly Agree," "Agree," "Neutral," "Disagree," and "Strongly Disagree."

**Statistical Methods:**

To achieve the study objectives and test its hypotheses, the following statistical methods were used:

1. Frequency tables, percentages, and graphical representations.
2. Mean and standard deviation.
3. Cronbach's Alpha test for reliability.

4. T-tests, correlation analysis, and simple and multiple regression tests.

**Application of the Study Instrument:**

Cronbach’s Alpha coefficient was used to assess the reliability of the study tool. Reliability indicates the accuracy of measurement, ensuring that repeated studies yield consistent results. It also measures the consistency of responses for the variables studied and the reliability of the results.

**Table 1: Cronbach’s Alpha Coefficient for Questionnaire Reliability**

Cronbach’s Alpha	Number of Items	Section Title
0.96	5	Vision
0.95	5	Mission
0.96	5	Objectives
0.94	4	Leadership Methods
0.83	4	Leadership Influence on Work Environment
0.93	4	Leadership Impact on Strategy Evaluation
0.90	5	Performance
0.99	32	All Questionnaire Items

**Source:** Prepared by the researcher (Questionnaire Data - 2024)  
The table above shows that the Cronbach’s Alpha coefficient for all questionnaire items is **0.99**, indicating very high reliability. Similarly, all sections of the questionnaire demonstrate very high reliability, confirming its validity as a measurement tool.

**Likert Scale and Weighted Average:**

The five-point Likert scale was used for the questionnaire, with the following weights assigned:

**Table 2: Likert Scale Weights**

Opinion	Weighted Average	Weight
Strongly Disagree	1.00 - 1.79	1
Disagree	1.80 - 2.59	2
Neutral	2.60 - 3.39	3
Agree	3.40 - 4.19	4
Strongly Agree	4.20 - 5.00	5

**Source:** Prepared by the researcher (Questionnaire Data - 2024)  
 The interval length used was calculated as  $45=0.80\frac{4}{5} = 0.80$ , based on the five options provided (1, 2, 3, 4, 5).

### Presentation of Questionnaire Data

#### Basic Demographics

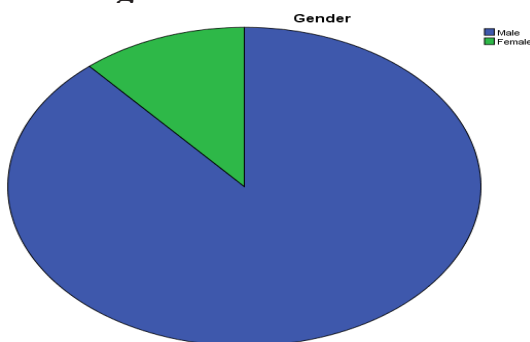
##### 1. Gender

**Table 3: Gender Distribution**

Gender	Frequency	Percentage (%)
Male	117	88.6
Female	15	11.4
<b>Total</b>	<b>132</b>	<b>100</b>

**Source:** Prepared by the researcher (Questionnaire Data - 2024)  
 From the table above, it is evident that the majority of respondents were male (117, 88.6%), while females constituted 11.4% of the sample.

**Figure 1: Gender Distribution**



**Source:** Prepared by the researcher (Questionnaire Data - 2024)

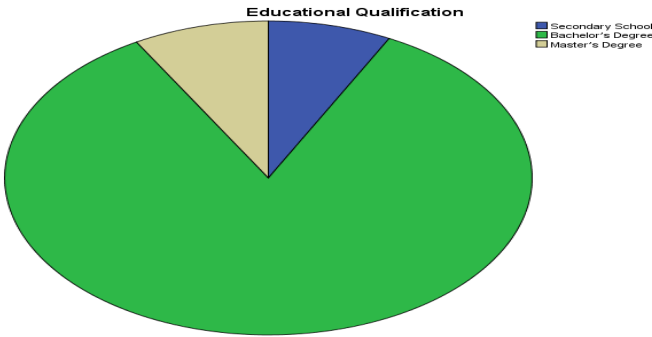
2. Educational Qualification

Table 4: Educational Qualification Distribution

Qualification	Frequency	Percentage (%)
Secondary School	10	7.6
Bachelor's Degree	111	84.1
Master's Degree	11	8.3
PhD	0	0
Total	132	100

**Source:** Prepared by the researcher (Questionnaire Data - 2024)  
The table shows that most respondents held a bachelor's degree (111, 84.1%), while 11 respondents (8.3%) held a Master's degree. This indicates a high level of educational attainment among the participants.

Figure 2: Educational Qualification Distribution



**Source:** Prepared by the researcher (Questionnaire Data - 2024)

3. Job Position

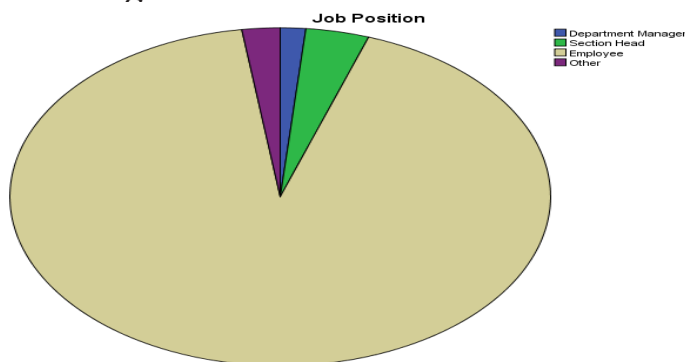
Table 5: Job Position Distribution

Job Position	Frequency	Percentage (%)
Department Manager	2	1.5
Section Head	5	3.8
Employee	122	92.4
Other	3	2.3

Job Position	Frequency	Percentage (%)
Total	132	100

**Source:** Prepared by the researcher (Questionnaire Data - 2024)  
The data reveals that the majority of respondents were employees (122, 92.4%).

**Figure 3: Job Position Distribution**



**Source:** Prepared by the researcher (Questionnaire Data - 2024)

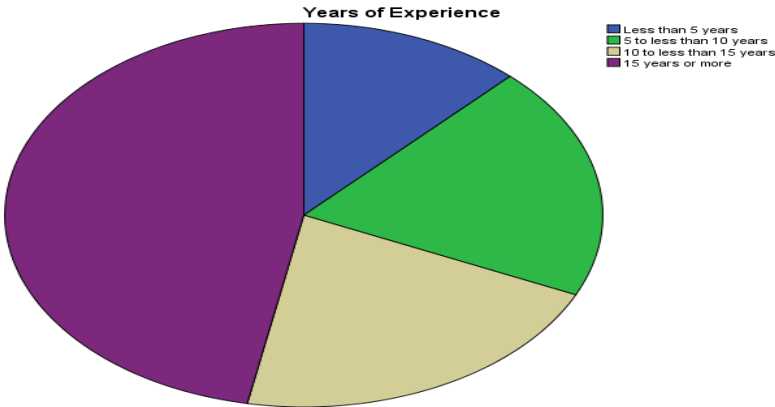
#### 4. Years of Experience

**Table 6: Years of Experience Distribution**

Years of Experience	Frequency	Percentage (%)
Less than 5 years	16	12.1
5 to less than 10 years	26	19.7
10 to less than 15 years	28	21.2
15 years or more	62	47.0
Total	132	100

**Source:** Prepared by the researcher (Questionnaire Data - 2024)  
The table indicates that most respondents (62, 47%) had 15 or more years of experience, suggesting a sample with substantial expertise.

Figure 4: Years of Experience Distribution



Source: Prepared by the researcher (Questionnaire Data - 2024)

Second: Study Data:

Strategic Management:

- The frequency distribution, percentages, arithmetic mean, standard deviation, T-test probability value, and trend for the items of the first axis (Vision): Table No. (7)

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Arithmetic Mean	Standard Deviation	Calculated T Value	P-Value	Trend
Fedco has a clear vision.	F	6	0	17	64	45	4.08	0.94	49.926	0.000	Agree
	%	4.5	0	12.9	48.5	34.1					
Fedco has a vision announced to the community.	F	9	0	16	67	40	3.98	1.02	44.695	0.000	Agree
	%	6.8	0	12.1	50.8	30.3					
The company's vision is measurable by the progress it makes.	F	6	3	26	61	36	3.89	0.98	45.524	0.000	Agree
	%	4.5	2.3	19.7	46.2	27.3					

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Arithmetic Mean	Standard Deviation	Calculated T Value	P-Value	Trend
The company's vision aligns with its set objectives.	F	6	3	24	61	38	3.92	0.97	45.747	0.000	Agree
	%	4.5	2.3	18.2	46.2	28.8					
The company's vision drives administrative change towards goals.	F	6	7	15	66	38	3.93	1.01	44.600	0.000	Agree
	%	4.5	5.3	11.4	50	28.8					
Average of Axis Statements							3.96	0.93	49.135	0.000	Agree

**Source:** Prepared by the researcher (from the survey data – 2024)

From the above table, we can observe the following:

- All respondents answered the questions in this section, with a total sample size of (132), representing 100% of the sample.
- All respondents' answers to the statements in this section tended to agree. Notably, in the statement "The company has a publicly stated vision for the community," the highest frequency of responses was "Agree," with a frequency of 67, which accounts for 50.8% of the total sample. The rest of the statements can also be tracked similarly.
- Most statements in this section had the lowest frequency for the response "Strongly Disagree." For instance, in the statement "The company has a clear vision," no respondent chose this option.
- All p-values were below the significance level (0.05), indicating statistically significant differences in the distribution

of the sample's responses to the different answer options (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), meaning that the sample's responses were biased towards certain statements.

- The mean values for all statements in this section ranged from (3.40 to 4.19), which was pre-designated as "Agree," indicating that the overall trend of the respondents' opinions on these statements was agreement.
- The standard deviation for the statements in this section ranged from (0.94 to 1.02), indicating consistency in the respondents' answers.
- The average for the statements in this section was 3.96, which indicates agreement. Therefore, we can confirm that the vision of the company is clear.

- **The frequency distribution, percentages, arithmetic mean, standard deviation, p-value for the (T) test, and trend for the items of the second axis (Mission): - Table No. (8)**

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Arithmetic Mean	Standard Deviation	Calculated T Value	P-Value	Trend
The company has a mission that distinguishes it from other competing companies	F	0	9	27	50	46	4.01	0.91	50.478	0.000	Agree
	%	0	6.8	20.5	37.9	34.8					

Statement		Strongly Disagree	Dis-agree	Neu-tral	Agree	Strongly Agree	Arithme-tic Mean	Standard Deviation	Calcu-lated T Value	P-Val-ue	Trend
The company's mission includes values and beliefs that serve the community	F	6	3	16	66	41	4.01	0.97	47.519	0.000	Agree
	%	4.5	2.3	12.1	50	31.1					
The company's mission contributes to achieving its goals	F	3	6	22	59	42	3.99	0.94	48.958	0.000	Agree
	%	2.3	4.5	16.7	44.7	31.8					
The company's mission is characterized by being clearly defined	F	4	9	31	50	38	3.83	1.02	42.983	0.000	Agree
	%	3	6.8	23.5	37.9	28.8					

Statement		Strongly Disagree	Dis-agree	Neu-tral	Agree	Strongly Agree	Arithme-tic Mean	Standard Deviation	Calcu-lated T Value	P-Val-ue	Trend
The com-pany's man-agement pre-pares its mis-sion in a bal-anced man-ner ac-cord-ing to avail-able re-sourc-es	F	4	5	27	52	44	3.96	0.98	46.267	0.000	Agree
	%	3	3.8	20.5	39.4	33.3					
Aver-age of Axis State-ments							3.96	0.89	51.273	0.000	Agree

**Source:** Prepared by the researcher (from the survey data – 2024)

From the table above, the following observations can be made:

- All respondents answered the questions in this section, with a sample size of (132), representing a 100% response rate.
- Responses leaned towards agreement across all items in this section. Notably, the statement “The company’s mission includes values and beliefs that serve the community” received the highest frequency of agreement (“Agree”), with a count of 66 responses, representing 50% of the total sample. Similar trends can be observed for the other statements in the section.
- Most items received the lowest frequency for the response “Strongly Disagree.” For instance, in the statement “Fedco

has a clear vision,” no participant selected “Strongly Disagree,” and this trend is consistent across other statements in the section.

- All p-values were less than the significance level (0.05), indicating statistically significant differences in the distribution of responses across the different options (“Strongly Agree,” “Agree,” “Neutral,” “Disagree,” “Strongly Disagree”). This suggests that the responses tended to favor certain statements over others.
- The means of all items in this section ranged between (3.40 to 4.19), which falls within the predetermined range for “Agree.” This indicates that the general trend of respondents’ opinions about these statements was agreement.
- The standard deviations for the items in this section ranged from (0.91 to 1.02), indicating consistency and homogeneity in the respondents’ answers.
- The overall mean for the section’s items was 3.96, which also indicates agreement. This supports the conclusion that Fedco Investment Company has a clear and well-defined mission.
- **The frequency distribution, percentages, arithmetic mean, standard deviation, p-value for the T-test, and direction for the items of the third section (Objectives):**

**Table No. (9)**

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Arithmetic Mean	Standard Deviation	Calculated T Value	P-Value	Trend
Fedco has long-term objectives	F	0	13	19	62	38	3.95	0.91	49.798	0.000	Agree
	%	0	9.8	14.4	47	28.8					
The company's objectives are characterized by flexibility	F	4	9	20	56	43	3.95	1.01	44.732	0.000	Agree
	%	3	6.8	15.2	42.4	32.6					
The company's objectives are motivating for employees' capabilities	F	3	10	12	75	32	3.93	0.92	49.211	0.000	Agree
	%	2.3	7.6	9.1	56.8	24.2					
The company achieves its objectives in light of its available resources	F	1	13	18	68	32	3.89	0.91	48.884	0.000	Agree
	%	0.8	9.8	13.6	51.5	24.2					
Employees participate in formulating the company's objectives	F	3	16	17	56	40	3.86	1.05	42.113	0.000	Agree
	%	2.3	12.1	12.9	42.4	30.3					
Average of Axis Statements							3.92	0.90	50.041	0.000	Agree

**Source:** Prepared by the researcher (from the survey data – 2024)  
 From the table above, the following can be observed:

- All respondents answered the questions in this section, with a sample size of 132, representing 100% of the total sample.
- All responses to the statements in this section leaned toward agreement. For instance, the statement “The company’s objectives are motivating for employees’ capabilities” received the highest frequency for the opinion “Agree,” with 75 responses, accounting for 56.8% of the total sample. The same trend can be followed for the other statements in this section.
- All statements in this section received the lowest frequency for the opinion “Strongly Disagree.” For example, no respondent selected “Strongly Disagree” for the statement “Fedco has long-term objectives.” This trend can also be observed across the other statements in this section.
- All p-values are below the significance level (0.05), indicating statistically significant differences in the distribution of respondents’ answers across the different response options (“Strongly Agree,” “Agree,” “Neutral,” “Disagree,” “Strongly Disagree”). This suggests that the respondents’ answers were inclined toward certain statements over others.
- The arithmetic means for all statements in this section, without exception, fell within the range of 3.40 to 4.19, which corresponds to agreement, as predetermined. Thus, the general trend of respondents’ opinions on these statements was agreement.
- The standard deviation for the statements in this section ranged between 0.91 and 1.05, indicating consistency in the respondents’ answers.
- The average arithmetic mean for the statements in this section was 3.92, indicating agreement. Therefore, it can be confirmed that Fedco Investment Company has high-quality objectives.

### Administrative Leadership:

The frequency distribution, percentages, arithmetic mean, standard deviation, p-value for the (T) test, and the overall

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Arithmetic Mean	Standard Deviation	Calculated T Value	P-Value	Trend
The company's top management encourages innovation and creative thinking	F 9 % 6.8	10 7.6	13 9.8	51 38.6	49 37.1	3.92	1.18	38.168	0.000	Agree
Department managers and team leaders in the company support open communication among team members	F 6 % 4.5	13 9.8	14 10.6	61 46.2	38 28.8	3.85	1.09	40.653	0.000	Agree
The company's top management provides clear guidance to achieve objectives	F 0 % 0	8 6.1	19 14.4	53 40.2	52 39.4	4.13	0.88	54.074	0.000	Agree
The company's top management deals fairly and transparently with all employees	F 6 % 4.5	11 8.3	19 14.4	58 43.9	38 28.8	3.84	1.08	41.013	0.000	Agree
Average of Axis Statements						3.93	0.98	46.270	0.000	Agree

**Source:** Prepared by the researcher (from the survey data – 2024)

From the table above, the following can be observed:

- All respondents answered the questions for this dimension, with a total sample size of 132, representing 100%.
- Responses to all statements in this dimension leaned toward agreement. The statement “*Department managers and team leaders in the company support open communication among*

*team members*” received the highest frequency for the opinion “Agree,” with 61 responses, representing 46.2% of the total sample. The rest of the statements for this dimension follow a similar trend.

- All statements in this dimension received the lowest frequency for the response “Strongly Disagree.” For instance, no one in the sample chose “Strongly Disagree” for the statement “*The company’s top management provides clear guidance to achieve objectives.*” Similar trends can be observed for other statements.
- All p-values were less than the significance level of 0.05, indicating statistically significant differences in the distribution of responses across the different options (“Strongly Agree,” “Agree,” “Neutral,” “Disagree,” “Strongly Disagree”). This suggests that responses are skewed toward specific statements.
- Without exception, all statements had mean scores within the range of 3.40 to 4.19, predetermined to indicate agreement. This shows that respondents generally leaned toward agreement with these statements.
- The standard deviation for statements in this dimension ranged from 0.88 to 1.18, indicating consistent responses among respondents.
- Additionally, the overall mean score for the dimension was 3.93, reflecting agreement. Therefore, the quality of leadership styles at Fedco Investment Company can be affirmed.
- The Frequency Distribution, Percentages, Arithmetic Mean, Standard Deviation, T-Test Probability Value, and Trend for the Items of the Fifth Dimension (**The**

**Impact of Leadership on the Work Environment):  
Table No. (11)**

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Arithmetic Mean	Standard Deviation	Calculated T Value	P-Value	Trend
The senior leadership of the company contributes to creating a positive and motivating work environment	F	0	7	17	64	44	4.10	0.82	57.544	0.000	Agree
	%	0	5.3	12.9	48.5	33.3					
The senior leadership of the company enhances collaboration among team members to achieve common goals	F	0	4	16	60	52	4.21	0.77	62.691	0.000	Strongly Agree
	%	0	3	12.1	45.5	39.4					
The senior leadership of the company helps reduce stress and resolve conflicts among employees.	F	0	11	17	66	38	3.99	0.87	52.767	0.000	Agree
	%	0	8.3	12.9	50	28.8					
The senior leadership of the company works to motivate its outstanding employees	F	0	0	11	76	45	4.26	0.60	81.455	0.000	Strongly Agree
	%	0	0	8.3	57.6	34.1					
<b>Average of Axis Statements</b>							<b>3.93</b>	<b>0.98</b>	<b>46.270</b>	<b>0.000</b>	<b>Agree</b>

**Source:** Prepared by the researcher (from the survey data – 2024)

From the table above, the following can be observed:

- All participants in the sample answered the questions in this axis, with a sample size of (132), representing 100%.
- All responses from the participants to the statements in this axis leaned towards agreement. The statement “The senior leadership of the company works to motivate its outstanding employees” received the highest frequency of the opin-

ion “I agree,” with 76 responses, representing 57.6% of the total sample. The rest of the statements in the axis can also be traced.

- All statements in the axis received the least frequency for the opinion “Strongly disagree,” as noted in the statement “The senior leadership of the company helps reduce stress and resolve conflicts among employees,” where no participant leaned towards this opinion. The rest of the statements can also be traced.
- It is observed that all the p-values are below the significance level (0.05), indicating that there are statistically significant differences in the distribution of the participants’ responses across the different answer options (Strongly agree, Agree, Neutral, Disagree, Strongly disagree). This means that the sample’s responses tend to favor one statement over the others.
- The statements “The senior leadership of the company enhances collaboration among team members to achieve common goals” and “The senior leadership of the company works to motivate its outstanding employees” had mean scores ranging from (4.20 to 5), which was pre-defined as “Strongly agree,” indicating that the general direction of the respondents’ opinions on these statements was strongly favorable.
- The statements “The senior leadership of the company contributes to creating a positive and motivating work environment” and “The senior leadership of the company helps reduce stress and resolve conflicts among employees” had mean scores ranging from (3.40 to 4.19), which was pre-defined as “Agree,” indicating that the general direction of the respondents’ opinions on these statements was favorable.
- The standard deviation for the statements in this axis ranged from (0.60 to 0.87), indicating consistency in the participants’ responses.

- It is also noted that the overall mean for the statements in this axis was 4.14, indicating agreement. Therefore, it can be confirmed that the leadership's impact on the work environment at Fedco Investment is positive.

The frequency distribution, percentages, mean, standard deviation, and p-value for the (T) test and the trend for the items of Axis Six (**The Impact of Administrative Leadership on Strategy Evaluation and Development**):

**Table No. (12)**

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Arithmetic Mean	Standard Deviation	Calculated T Value	P-Value	Trend
The top leadership in the company influences the monitoring of strategic performance	F	6	13	4	74	35	3.90	1.05	42.795	0.000	Agree
	%	4.5	9.8	3	56.1	26.5					
The top leadership in the company reviews strategies based on internal and external conditions	F	6	0	15	69	42	4.07	0.92	50.917	0.000	Agree
	%	4.5	0	11.4	52.3	31.8					
The top leadership in the company supports a culture of continuous improvement in strategic management	F	6	0	8	77	41	4.11	0.88	53.747	0.000	Agree
	%	4.5	0	6.1	58.3	31.1					
The top leadership in the company provides the necessary feedback to improve strategies	F	13	3	7	71	38	3.89	1.15	38.985	0.000	Agree
	%	9.8	2.3	5.3	53.8	28.8					
<b>Average of Axis Statements</b>							<b>3.99</b>	<b>0.91</b>	<b>50.587</b>	<b>0.000</b>	<b>Agree</b>

**Source:** Prepared by the researcher (from the survey data – 2024)

From the table above, the following can be observed:

- All individuals in the sample answered the questions of this section, with the sample size being 132, which is 100%.

- All responses from the participants to the statements in this section were in agreement. It is observed that the statement “The top leadership in the company supports a culture of continuous improvement in strategic management” received the highest frequency of agreement (“Agree”), with 77 responses, which represents 58.3% of the total sample. The rest of the statements in this section can also be traced.
- Most of the statements in the section received the lowest frequency of responses as “I do not agree.” It is observed that for the statement “The top leadership in the company reviews strategies based on internal and external conditions,” no individual from the sample chose this response. The rest of the statements in the section can also be traced.
- It is noted that all probability values were less than the significance level (0.05), indicating statistically significant differences in the distribution of responses from the sample on the different response options (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), meaning that the responses of the sample were biased towards one statement over the others.
- All statements in the section, without exception, had mean values ranging between (3.40 to 4.19), which was pre-defined as agreement. Therefore, the general trend of the respondents’ opinions on these statements was agreement.
- It can be observed that the standard deviation of the statements in this section ranged from (0.88 to 1.15), indicating homogeneity in the responses of the participants.
- It is also noted that the average of the statements in the section had a mean value of 3.99, which indicates agreement. Therefore, it can be confirmed that the administrative leadership positively influences the evaluation and development of strategies at Fedco Company.
- Here is the translation:  
The frequency distribution, percentages, mean, standard de-

viation, p-value for the (T) test, and the trend for the items of Section Seven **(Performance): - Table No. (13)**

Statement		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Arithmetic Mean	Standard Deviation	Calculated T Value	P-Value	Trend
Fedco employees perform their tasks with the required efficiency and effectiveness	F	0	7	5	75	45	4.20	0.75	64.648	0.000	Strongly Agree e
	%	0	5.3	3.8	56.8	34.1					
The employees at the company put in sufficient effort to complete tasks on time	F	4	1	18	64	45	4.10	0.88	53.437	0.000	Agree
	%	3	0.8	13.6	48.5	34.1					
Employees are ready to work outside official working hours to achieve the required job performance level	F	5	5	13	64	45	4.05	0.97	48.129	0.000	Agree
	%	3.8	3.8	9.8	48.5	34.1					
The employees of the company have knowledge and familiarity with the nature of the tasks assigned to them	F	1	10	4	75	42	4.11	0.84	56.004	0.000	Agree
	%	0.8	7.6	3	56.8	31.8					
The management offers training programs to employees to improve their level of performance and carry out tasks with the required efficiency	F	4	7	16	70	35	3.95	0.94	48.477	0.000	Agree
	%	3	5.3	12.1	53	26.5					
Average of Axis Statements							4.04	0.84	54.877	0.000	Agree

**Source:** Prepared by the researcher (from the survey data – 2024)

From the table above, the following can be observed:

- All individuals in the sample answered the questions of this section, with the sample size being 132, which is 100%.
- All responses from the participants to the statements in this section were in agreement. It is observed that the statement

“Employees of the company have knowledge and familiarity with the nature of the tasks assigned to them” received the highest frequency of agreement (“Agree”), with 75 responses, which represents 56.8% of the total sample. The rest of the statements in this section can also be traced.

- Most of the statements in this section received the lowest frequency of responses as “Strongly Disagree.” It is observed that for the statement “Fedco employees perform their tasks with the required efficiency and effectiveness,” no individual from the sample chose this response. The rest of the statements in this section can also be traced.
- It is noted that all probability values were less than the significance level (0.05), indicating statistically significant differences in the distribution of responses from the sample on the different response options (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), meaning that the responses of the sample were biased towards one statement over the others.
- The statement “Fedco employees perform their tasks with the required efficiency and effectiveness” had a mean value ranging between (4.20 to 5), which was pre-defined as strongly agree, indicating that the general trend of the respondents’ opinions on this statement was strongly agree.
- The statements (“The employees at the company put in sufficient effort to complete tasks on time,” “Employees are ready to work outside official working hours to achieve the required job performance level,” “Employees of the company have knowledge and familiarity with the nature of the tasks assigned to them,” and “The management offers training programs to employees to improve their level of performance and carry out tasks with the required efficiency”) had mean values ranging between (3.40 to 4.19), which was pre-defined as agree, indicating that the general trend of the respondents’ opinions on these statements was agreement.

- It can be observed that the standard deviation of the statements in this section ranged from (0.75 to 0.97), indicating homogeneity in the responses of the participants.
- It is also noted that the average of the statements in this section had a mean value of 4.04, which indicates agreement. Therefore, it can be confirmed that the performance quality at Fedco Investment Company is positive.

### Third: Hypothesis Tests:

#### First Hypothesis:

- **There is a statistically significant effect of strategic management on performance at Fedco Investment Company.** To test the first main hypothesis, a simple linear regression method was used to illustrate the effect of the independent variable (strategic management) on the dependent variable (performance), as well as to find a linear relationship that represents these two variables. The table below shows the results of the regression analysis.

**Table No. (14)**

Model Summary				ANOVA				Regression Coefficients				
Dependent Variable	Correlation Coefficient	R-Squared (R²)	Adjusted R-Squared	F Calculated	DF		Significance Level	Independent Variable	Regression Intercept	$\hat{\beta}$	T Calculated	Significance Level
Performance	0.88	0.77	0.77	437.76	Regression	1	0.000	Strategic Management	1.16	0.75	20.92	0.000
					Residuals	13						
					Total	13						
				Durbin-Watson Value		2.10						

**Source:** Prepared by the researcher (from the survey data – 2024)

**From the table above, the following observations can be made:**

- **The correlation coefficient (R)** between the variables (strategic management and performance) is **0.88**, and considering the significance level, the value (**0.000**) is less than (**0.05**), indicating the statistical significance of the correlation coefficient between the two variables. The positive sign of the correlation coefficient indicates a direct relationship between the variables.
- **The squared correlation coefficient ( $R^2$ )** is used to understand the proportion of the independent variables used to estimate the dependent variable. It is observed that the estimated model explains **77%** of the data, meaning the proposed model is well-suited for estimation.
- **The adjusted determination coefficient (Adjusted  $R^2$ )** indicates that **77%** of the variance in the dependent variable (performance) is explained by the independent variable (strategic management), while the remaining **23%** is due to other factors not included in the model.
- **Durbin-Watson test** has a value of **2.10**, which is close to **2**, indicating that the model does not suffer from autocorrelation issues.
- **The calculated F-value** is **437.76**, and considering the significance value (**0.000**), which is less than the significance level (**0.05**), this indicates the significance of the regression model.
- **The calculated T-value** for the regression coefficient of the independent variable (strategic management) is **20.92**, which is greater than the critical T-value (**1.96**), making it statistically significant. This means that the independent variable (strategic management) indeed affects the dependent variable (performance).
- **The regression equation**, based on the model parameters, is as follows:

$$\text{Performance} = 1.16 + 0.75 (\text{Strategic Management})$$

From the analysis of the data above, it can be concluded that the hypothesis stating there is a statistically significant effect of applying strategic management on performance at Fedco Investment Company is proven.

**The Second Hypothesis:**  
**There is a statistically significant effect of applying strategic management on administrative leadership at Fedco Investment Company.**

To test the second main hypothesis, the simple linear regression method was used to clarify the impact of the independent variable (strategic management) on the dependent variable (administrative leadership), as well as to establish a linear relationship between these two variables. The table below shows the results of the regression analysis.

**Table No. (15)**

Model Summary				ANOVA				Regression Coefficients				
Dependent Variable	Correlation Coefficient	R-Squared (R²)	Adjusted R-Squared	F Calculated	DF		Significance Level	Independent Variable	Regression Intercept	$\hat{\beta}$	T Calculated	Significance Level
Administrative Leadership	0.94	0.88	0.88	942.71	Regression	1	0.000	Strategic Management	0.67	0.86	30.70	0.000
					Residuals	13						
					Total	13						
					Durbin-Watson Value		1.71					

**Source:** Prepared by the researcher (from the survey data – 2024)

**From the table above, the following observations can be made:**

- **The correlation coefficient (R)** between the variables (strategic management and administrative leadership) is **0.94**, and considering the significance level, the value (**0.000**) is less than (**0.05**), indicating the statistical significance of the correlation coefficient between the two variables. The positive sign of the correlation coefficient indicates a direct relationship between the variables.
- **The squared correlation coefficient ( $R^2$ )** is used to determine the extent to which the independent variables are used to estimate the dependent variable. It is noted that the estimated model explains **88%** of the data, and an increase in this value indicates that the proposed model is suitable for estimation.
- **The adjusted determination coefficient (Adjusted  $R^2$ )** indicates that **88%** of the explained variance in the dependent variable (administrative leadership) is due to the independent variable (strategic management), while the remaining **12%** is attributed to other factors not included in the model.
- **The Durbin-Watson test**, with a value of **1.71**, is close to **2**, indicating that the model does not suffer from autocorrelation issues.
- **The calculated F-value** is **942.71**, and the significance level (**0.000**) is less than (**0.05**), confirming the significance of the regression model.
- **The calculated T-value** for the regression coefficient of the independent variable (strategic management) is **30.70**, which is greater than the critical T-value (**1.96**), making it statistically significant. This means that the independent variable (strategic management) has a real effect on the dependent variable (administrative leadership).
- **The regression equation**, based on the model parameters, is as follows:

- **Administrative Leadership = 0.67 + 0.86 (Strategic Management)**

Based on the above data analysis, it can be concluded that the hypothesis stating there is a statistically significant effect of applying strategic management on administrative leadership at Fedco Investment Company is confirmed.

### The Third Hypothesis:

There is a statistically significant effect of administrative leadership on performance at Fedco Investment Company.

To test the third main hypothesis, the simple linear regression method was used to clarify the impact of the independent variable (administrative leadership) on the dependent variable (performance), as well as to establish a linear relationship between these two variables. The table below shows the results of the regression analysis.

**Table No. (16)**

Model Summary				ANOVA				Regression Coefficients				
Dependent Variable	Correlation Coefficient	R-Squared (R²)	Adjusted R-Squared	F Calculated	DF		Significance Level	Independent Variable	Regression Intercept	$\beta$	T Calculated	Significance Level
Performance	0.92	0.85	0.85	755.20	Regression	1	0.000	Administrative Leadership	0.63	0.86	27.48	0.000
					Residuals	13						
					Total	13						
				Durbin-Watson Value		2.06						

**Source:** Prepared by the researcher (from the survey data – 2024)

**From the table above, the following observations can be made:**

- **The correlation coefficient (R)** for the two variables (administrative leadership and performance) is 0.92. Considering the significance level, the value (0.000) is less than the significance threshold (0.05), indicating a statistically significant correlation between the variables. The positive sign of the correlation coefficient indicates a direct relationship between the two variables.
- **The squared correlation coefficient ( $R^2$ )** is used to understand the extent to which the independent variable data is used to estimate the dependent variable. The model explains 85% of the data, and the increased value of this metric indicates that the proposed model is appropriate for estimation.
- **Adjusted  $R^2$**  indicates that 85% of the explained variance in the dependent variable (performance) is due to the independent variable (administrative leadership), while the remaining 15% is attributed to other factors not included in the model.
- **Durbin-Watson test** value is 2.06, which is close to 2, indicating that the model does not suffer from autocorrelation issues.
- **The calculated F-test value** is 755.20, and the significance value (0.000) is less than the significance threshold (0.05), indicating the significance of the regression model.
- Considering the **calculated T-test value** (27.48) for the regression coefficient of the independent variable (administrative leadership), it is greater than the tabular T value (1.96), which is statistically significant. This means that the independent variable (administrative leadership) has an actual impact on the dependent variable (performance).
- **The regression equation**, based on the model coefficients, is as follows:  
**Performance = 0.63 + 0.86 (Administrative Leadership)**

From the above data analysis, it can be confirmed that the hypothesis stating that “**there is a statistically significant impact of administrative leadership on performance at Fedco Investment Company**” is valid.

**Hypothesis** **Four:**  
**There is a statistically significant impact of applying strategic management on performance, considering administrative leadership as a mediating variable at Fedco Investment Company.**

To test the fourth main hypothesis, the **multiple linear regression** method was employed to examine the effect of the independent variable (strategic management) on the dependent variable (performance), with the presence of the variable (administrative leadership) as a mediating variable.

**Table No. (17)**

Model Summary				ANOVA			Regression Coefficients					
Dependent Variable	Correlation Coefficient	R-Squared (R²)	Adjusted R-Squared	F Calculated	DF		Significance Level	Independent Variable	Regression Intercept	$\hat{\beta}$	T Calculated	Significance Level
Performance	0.92	0.85	0.85	378.40	Regression	1	0.000	Strategic Management	0.64	0.09	1.04	0.299
					Residuals	130						
					Total	13		Administrat				0.77

**Source:** Prepared by the researcher (from the survey data – 2024)

**From the table above, the following can be observed:**

- The correlation coefficient (R) in the model shows a value of 0.92. Looking at the significance level, the value (0.000) is less than the significance level (0.05), indicating the statistical significance of the correlation coefficient between the variables. The positive sign of the correlation coefficient suggests a direct relationship between the variables.
- The square of the correlation coefficient is used to determine the extent to which the data from the independent variables explains the dependent variable. It can be observed that the estimated model explains 85% of the data by the independent variables. Increasing this value indicates that the proposed model is suitable for estimation.
- Adjusted R<sup>2</sup> shows that 85% of the variance in the dependent variable (performance) is explained by the independent variables (strategic management and administrative leadership), while 15% is due to other factors not explained in the model.
- The Durbin-Watson test, with a value of 2.1, is close to the value of 2, indicating that the model does not suffer from autocorrelation issues.
- The computed F value (378.40), along with a significance level of (0.000), which is less than the significance level (0.05), indicates the statistical significance of the regression model.
- Looking at the computed T value (1.04) for the regression coefficient of the independent variable (strategic management), it is lower than the tabulated T value (1.96), which is not statistically significant. This means that the independent variable (strategic management) does not significantly af-

fect the dependent variable (performance) unless the independent variable (administrative leadership) is present.

- The computed T value (5.59) for the regression coefficient of the mediating variable (administrative leadership) is greater than the tabulated T value (1.96), which is statistically significant, meaning that the mediating variable (administrative leadership) has a significant effect on the dependent variable (performance).
- **The regression equation**, based on the model's parameters, is as follows: **Performance = 0.64 + 0.09 \* Strategic Management + 0.77 \* Administrative Leadership**

From the above analysis, it can be confirmed that there is a statistically significant effect of applying strategic management on performance, with administrative leadership acting as a mediating variable at Fedco Investment Company.

**Hypothesis Five: Mediating variables play an important role in explaining the statistical relationships between variables.**

To validate the fifth hypothesis, referring to the results of the multiple regression analysis in the fourth hypothesis, this hypothesis can be confirmed. It can be observed that in the model, the regression coefficient for the independent variable (strategic management) is not significant, while the mediating variable (administrative leadership) was the reason for the statistical significance of the regression model. This suggests that the mediation between the independent variable and the dependent variable was full mediation, meaning the model's significance was only achieved through the mediating variable.

**Conclusion: Including Findings and Recommendations:**

**First: Findings:**

- Administrative leadership can play an important role as a mediating variable between strategic management and improving institutional performance.
- There is a statistically significant effect of applying strategic management on the performance of Fedco Investment Company.

There is a statistically significant effect of applying strategic management on administrative leadership at Fedco Investment Company.

- (1) There is a statistically significant effect of administrative leadership on the performance of Fedco Investment Company.
- (2) There is a statistically significant effect of applying strategic management on performance, considering that administrative leadership acts as a mediating variable at Fedco Investment Company.
- (3) Mediating variables play an important role in explaining statistical relationships between variables, as they can mediate the relationship between the independent and dependent variables either partially or fully.
- (4) Second: Recommendations:
- (5) Senior management of institutions should recognize the role and importance of successful administrative leadership as a key factor in improving performance.
- (6) Senior management of institutions should ensure the application of strategic management as a major cause of improving performance.
- (7) Senior management of institutions should ensure the application of strategic management as a major cause of the effectiveness of administrative leadership.

- (8) Efforts should be made to study and reveal the relationships between multiple variables using appropriate statistical methods (such as path analysis).
- (9) Further studies should be conducted on mediating variables due to their importance in clarifying relationships between multiple variables.

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