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# The Role of Strategic Management in Institutional Performance: An Applied Study at the University of Diyala, Iraq

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**Abstract**

This study aimed to examine the role of strategic management, through its planning, organizing, executing, and controlling dimensions, in institutional performance at the University of Diyala. A descriptive–analytical approach was employed, and questionnaires were distributed to a stratified random sample of 125 administrative leaders and employees. The findings revealed a statistically significant positive correlation between the dimensions of strategic management and institutional performance. Multiple regression analysis also showed that these dimensions explained 80.9% of the variance in institutional performance. The organizing dimension had the greatest influence, followed by controlling and planning, while executing had a negative coefficient, attributed to substantial multicollinearity among some dimensions. No statistically significant differences in institutional performance were found by gender or years of service. The study recommended strengthening the organizational structure, developing key performance indicators, addressing multicollinearity among the dimensions, and paying greater attention to strategic implementation.

**Keywords**: strategic management; institutional performance; University of Diyala; strategic planning; strategic control.

## Introduction

The contemporary world is undergoing rapid economic, technological, and knowledge-related transformations, requiring institutions to adopt modern management approaches that enable them to adapt to environmental changes, respond to challenges, and achieve their objectives efficiently and effectively. In this context, strategic management has emerged as an important managerial approach that helps institutions anticipate the future, determine their directions, and deploy their resources and capabilities in line with the requirements of their internal and external environments.

Strategic management is particularly important in educational institutions, especially universities, given their role in developing education and scientific research and improving service quality. Universities face growing challenges associated with technological advances, quality requirements, limited resources, and rising stakeholder expectations. These challenges require strategic planning and effective implementation, monitoring, and evaluation mechanisms to ensure the attainment of intended objectives. Strategic management is not limited to formulating plans and objectives; it also encompasses implementing strategies, evaluating their outcomes, and making necessary adjustments in response to changes in the institutional environment.

Institutional performance, in turn, is a fundamental indicator of an institution's ability to achieve its objectives and use its resources efficiently and effectively. It is reflected in several dimensions, including service quality, the efficiency of organizational processes, decision-making effectiveness, goal attainment, and continuous improvement. Accordingly, examining the relationship between strategic management and institutional performance is important because clear strategic directions, sound resource allocation, and effective implementation and monitoring may contribute to improving institutional performance and strengthening the capacity to address challenges.

Within this context, the University of Diyala is an Iraqi educational institution seeking to develop its institutional performance and keep pace with changes in higher education. The university prepared a central

strategic plan for 2021–2026 that included reviewing the plan and monitoring implementation progress, while emphasizing the need for the university's constituent units to implement the specified indicators. This orientation highlights the importance of identifying the extent to which adopted strategic practices are reflected in institutional performance and the contribution of implementation and monitoring mechanisms to achieving the stated objectives.

## Research Problem

The research problem arises from the pressing need to assess strategic management practices at the University of Diyala and establish their contribution to enhancing institutional performance, particularly in view of an institutional performance gap at the university presidency. The main research question is therefore:

What is the role of the various dimensions of strategic management in institutional performance at the University of Diyala?

The following subsidiary questions arise from this main question:

1. What is the level of implementation of strategic management dimensions at the University of Diyala (planning, organizing, executing, and controlling)?

2. What is the level of institutional performance at the University of Diyala according to its indicators (efficiency, effectiveness, and quality)?

3. What is the nature of the correlation between strategic management dimensions and institutional performance at the University of Diyala?

4. To what extent do strategic management dimensions affect improvements in institutional performance at the University of Diyala?

## Significance of the Research

The significance of this research lies in examining the relationship between two vital variables—strategic management and institutional performance—within Iraqi educational institutions, and in providing practical solutions to problems faced by the University of Diyala on the basis of the findings of the applied study. Its significance also stems from addressing variables central to the success of educational institutions: strategic management and institutional performance are essential pillars of this success and strongly influence the university's ability to adapt to its internal and external environments.

## Research Objectives

The research seeks to achieve the following objectives:

1. Identify the level of implementation of strategic management dimensions at the University of Diyala (planning, organizing, executing, and controlling).

2. Assess institutional performance at the University of Diyala according to its principal indicators (efficiency, effectiveness, and quality).

3. Test the nature of the correlation between strategic management dimensions and institutional performance at the University of Diyala.

4. Analyze the extent to which strategic management dimensions influence improvements in institutional performance at the University of Diyala.

5. Identify the dimension of strategic management that has the greatest influence on institutional performance at the University of Diyala.

## Research Hypotheses

Main hypothesis: There is a statistically significant correlation between strategic management dimensions and institutional performance, as well as a statistically significant effect at the University of Diyala.

Subsidiary hypotheses:

1. There is a statistically significant correlation between planning and institutional performance at the University of Diyala.

2. There is a statistically significant correlation between organizing and institutional performance at the University of Diyala.

3. There is a statistically significant correlation between executing and institutional performance at the University of Diyala.

4. There is a statistically significant correlation between controlling and institutional performance at the University of Diyala.

5. Strategic management dimensions have a statistically significant effect on institutional performance at the University of Diyala.

**Sixth: Scope of the Research**

1. Spatial scope: University of Diyala.

2. Temporal scope: The period during which the field study will be conducted. Second semester.

3. Human scope: Administrative leaders at the University of Diyala (the university president, vice-presidents, college deans, department heads, and administrative employees).

## Research Methodology

**Research approach:**

The research adopts the descriptive–analytical approach, one of the most suitable approaches for educational and administrative studies, as it goes beyond collecting information to interpreting it, identifying relationships among variables, and drawing meaningful conclusions.

**Research population and sample:**

The research population comprises all administrative leaders and administrative employees at the University of Diyala. stratified random sample A representing the different administrative levels will be selected.

**Research instrument:**

A questionnaire is used as the principal data-collection instrument and consists of three parts:

– Part One: Demographic information (gender, age, academic qualification, and years of service).

– Part Two: Items addressing the four dimensions of strategic management (planning, organizing, executing, and controlling).

– Part Three: Items concerning indicators of institutional performance at the university.

**First: Arabic Studies**

– Khamis (2018), “Strategic Orientation and Its Impact on Institutional Performance: A Survey Study at the Directorate General of Curricula, Iraqi Ministry of Education.”

This study sought to identify the strategic orientation of the institution examined and its impact on strengthening indicators of institutional performance. It used a descriptive–analytical approach and a questionnaire administered to a purposive sample of 33 administrative leaders at the directorate, with the data analyzed using

SPSS. The study found a statistically significant correlation between strategic orientation and institutional performance, as well as a statistically significant effect of strategic orientation on indicators of institutional performance.

– Al-Shantaf and Waqfa (2019), "The Role of Strategic Management in Improving Institutional Performance: An Applied Study of Public University Colleges."

This study examined the role of strategic management in improving institutional performance at public university colleges in the southern governorates. It employed a descriptive–analytical approach and a questionnaire distributed to a stratified random sample of 240 employees, of whom 205 returned questionnaires. The findings showed a statistically significant relationship between strategic management and institutional performance at $\alpha \leq 0.05$, as well as a statistically significant effect.

**Second: Foreign Studies**

– Alobaidy et al. (2025), "Strategic Management and Sustainable Growth: The Mediating Effect of Institutional Excellence in the Petrochemical Industry."

This study examined the influence of strategic management on sustainable growth, with institutional excellence as a mediator in the petrochemical industry. It used a descriptive–analytical approach and a questionnaire administered to 350 employees of the company under investigation. The results revealed a statistically significant positive effect of strategic management on sustainable growth and a partial mediating role of institutional excellence.

– Pratama and Setiawan (2025), "Integrating Strategic Management into Academic Administration: Enhancing Institutional Performance in Universities."

This study aimed to integrate strategic management into academic administration to enhance institutional performance in universities. It relied on a literature review and analysis of previous studies in the field. The findings indicated that effective strategic management—including continuous assessment of internal capabilities, environmental scanning, and aligning resources with institutional objectives—contributes substantially to improving university institutional performance.

**Distinctiveness from Previous Studies:**

The present study is distinctive in combining two variables—strategic management across its various dimensions and institutional performance across its indicators—in an applied study of the University of Diyala. To the researcher's knowledge, previous studies have not addressed these variables in an integrated manner: some focused exclusively on strategic orientation or on institutional performance separately. Most previous studies also examined different sectors (industry, health, and general education) in various Arab and international contexts, whereas the current research seeks to offer an integrated account of the role of strategic management in improving institutional performance at the University of Diyala, an Iraqi higher education institution.

## Theoretical Framework

### The Concept and Characteristics of Strategic Management

**First: The Concept of Strategic Management**

Strategic management is a modern managerial concept that has attracted considerable attention from researchers and practitioners because of its pivotal role in guiding institutions toward achieving their objectives and ensuring continuity in an environment characterized by continuous change and growing complexity (Alobaidy et al., 2025: 37).

Researchers have offered various definitions of strategic management, reflecting differences in perspective and disciplinary approach. It may be defined as a method of setting objectives and making strategic decisions to

attain competitive advantage and high-quality performance in both the short and long term, by specifying an action plan, its mode of implementation, and methods of evaluation (Garad et al., 2025: 3).

Strategic management is therefore a comprehensive process encompassing a series of long-term decisions and plans adopted by an institution, the selection of an appropriate strategic approach to achieve future objectives, the allocation of necessary resources, and the evaluation of planning and implementation activities (Al-Shantaf & Waqfa, 2019: 408).

Strategic management can also be defined as an integrated system of processes concerned with analyzing the internal and external environments, formulating a strategy appropriate to changes in both environments, implementing it, and monitoring and evaluating its application to achieve institutional objectives and ensure growth and continuity (Pratama & Setiawan, 2025: 3).

Strategic management has several characteristics distinguishing it from other management approaches, including comprehensiveness and integration, the linkage between strategic thinking and implementation, sequential stages, continuity, dynamism, and flexibility (Khamis, 2018: 256).

## Dimensions of Strategic Management

Strategic management comprises four principal dimensions through which its essential stages are carried out. These dimensions are considered outcomes of managerial decisions in educational and administrative institutions (Al-Shantaf & Waqfa, 2019: 412).

### 1. Planning Dimension

This dimension addresses several fundamental questions: What are the principal internal and external challenges likely to affect the institution in the future? Which strategic options are most appropriate for reconciling internal challenges with those prevailing in the external environment? What basic choices are necessary to put the proposed strategic options into practice and monitor and evaluate their implementation? The planning function addresses these questions. Its main outputs are decisions concerning the design of the strategic plan and the functional and operational plans that serve as the core roadmap (Pratama & Setiawan, 2025: 5).

The planning dimension includes identifying the university's future vision, mission, philosophy or values, and objectives; analyzing its internal and external environments (SWOT analysis); and formulating appropriate strategies to achieve the stated objectives. Strategy formulation and planning are among the most important stages in determining an educational institution's direction and enabling it to seize opportunities and respond to challenges (Alobaidy et al., 2025: 39).

### 2. Organizing Dimension

This dimension addresses questions concerning the appropriate organizational structure, including how the activities necessary to implement the previous plans should be grouped, the organizational responsibilities of administrative units, and the relationships among the units responsible for implementation. The organizing function considers alternative organizational arrangements and selects the most suitable. Its outputs are organizational decisions that translate the preceding plans (mission, vision, objectives, strategies, projects, and programs) into practice. The organizing dimension includes distributing roles and responsibilities, defining organizational relationships, establishing structures appropriate for strategy implementation, and allocating the human, material, and financial resources required to attain strategic objectives (Khamis, 2018: 259).

### 3. Executing Dimension

This dimension focuses on translating strategic thinking into concrete organizational action by directing implementation processes and managing human, financial, and technological resources (Pratama & Setiawan, 2025: 6). It includes decisions concerning strategy application, resource allocation, employee training, and the creation of appropriate conditions for effective implementation. Strategic implementation is the most

challenging stage of strategic management because it requires substantial coordination and integration among the institution's different administrative and organizational units (Alobaidy et al., 2025: 40).

**4. Controlling Dimension**

This dimension evaluates actual performance against the stated (planned) objectives and then takes action to correct any deviations (Khamis, 2018: 260). Feedback consists of signals, information, and indicators received by senior management through monitoring and follow-up mechanisms. It is a continuous process spanning all stages of strategic management, from formulating the strategy and institutional philosophy to conducting SWOT analysis and implementing the strategy. Feedback may take the form of verbal observations or written reports submitted by designated departments or bodies within the institution for which these tasks constitute major responsibilities.

The controlling dimension also includes using key performance indicators to assess attainment of strategic objectives, analyzing deviations, taking appropriate corrective action, and ensuring continuous improvement and development in institutional performance (Pratama & Setiawan, 2025: 7).

## Institutional Performance

**First: The Concept of Institutional Performance**

Institutional performance is a central concept in management, serving as a key indicator of an institution's ability to achieve its objectives and maintain continuity in a competitive environment (Al-Azzi & Al-Shahrabali, 2019: 112). Researchers have defined institutional performance in different ways, reflecting differing perspectives and disciplinary approaches.

Institutional performance is defined as a form of cooperation and collective work among members of an institution aimed at improving the efficiency and effectiveness of institutional work to accomplish one or more specified objectives (Al-Shantaf & Waqfa, 2019: 422). In higher education, it is defined as the outcomes generated through interactions between a university's activities and resources. It is manifested in the university's capacity to attract capable individuals and maintain favorable institutional outcomes and is measured using the dimensions of the balanced scorecard (Alobaidy et al., 2025: 42).

The importance of institutional performance in higher education lies in its reflection of an institution's ability to fulfill its mission and objectives in education, scientific research, and community service, rather than merely indicating administrative efficiency (Khamis, 2018, p. 263). Performance measurement is particularly important in universities because it helps meet academic accreditation requirements and the needs of agencies and assessment centers, while enhancing transparency, accountability, and participation in decision-making (Al-Azzi & Al-Shahrabali, 2019: 113; Al-Shantaf & Waqfa, 2019: 424).

**Third: Indicators of Institutional Performance in Universities**

Higher education institutions use various indicators to measure institutional performance. These fall into two broad categories, quantitative and qualitative indicators, each measuring different aspects of performance (Al-Azzi & Al-Shahrabali, 2019: 114).

1. Key performance indicators (KPIs): These are among the most important modern strategic instruments for assessing performance in higher education and have become crucial tools for measuring and improving institutional performance. Applying KPIs helps develop an effective, integrated university performance evaluation system, enhances the quality of educational and research outputs, and strengthens the competitiveness of higher education institutions nationally and internationally (Khamis, 2018: 264). KPI dimensions in higher education include academic performance, research productivity, and institutional efficiency, highlighting their broad applicability.

2. Efficiency indicators: In higher education, these include final-year pass rates, average time to graduation, faculty-to-student ratios, rates of academic achievement, and efficient use of financial and human resources.

These indicators are essential for assessing an institution's ability to attain its objectives at the lowest possible cost and with the greatest possible efficiency (Al-Shantaf & Waqfa, 2019: 426).

3. Effectiveness indicators: These include attainment of strategic objectives and implementation plans, satisfaction among students, faculty, and staff, fulfillment of the university's mission and objectives, and the quality of educational and research services. Such indicators are essential for assessing the extent to which an institution achieves its stated objectives (Alobaidy et al., 2025: 43).

4. Quality indicators: These include the quality of academic programs, scientific research, and community service, academic accreditation status, and international university rankings. These indicators are necessary for assessing excellence and quality in educational institutions (Pratama & Setiawan, 2025: 12).

**The Relationship Between Strategic Management and Institutional Performance**

The relationship between strategic management and institutional performance rests on several theoretical foundations explaining how strategic management can improve institutional performance. Resource-based theory is among the most prominent: it holds that an institution's competitive advantage derives from valuable, rare, and inimitable internal resources and capabilities, and that strategic management helps identify, develop, and make optimal use of these resources (Pratama & Setiawan, 2025: 15).

The relationship also draws on environmental contingency theory, which emphasizes that institutions do not operate in isolation but are influenced by their surrounding environment and that strategic management enables them to adapt and respond effectively to environmental changes (Khamis, 2018: 267).

Strategic management contributes to improving institutional performance through integrated mechanisms encompassing improvements in planning, organizing, executing, controlling and evaluation, the promotion of innovation and development, and improvements in output quality (Pratama & Setiawan, 2025: 16). These mechanisms can be summarized in the following table:

**Table 1. Strategic Management Mechanisms for Improving Institutional Performance**

| Mechanism | Brief description |
|---|---|
| Improving planning | Defining the vision, mission, and objectives; analyzing the environment; and selecting strategies. |
| Improving organization | Developing the structure, assigning roles, and defining organizational relationships. |
| Improving implementation | Allocating resources, training personnel, and creating appropriate conditions. |
| Improving control and evaluation | Using performance indicators, analyzing deviations, and taking corrective action. |
| Promoting innovation and development | Encouraging initiatives, supporting scientific research, and developing academic programs. |
| Improving output quality | Emphasizing the quality of education, scientific research, and community service. |

Source: Prepared by the researcher based on Pratama and Setiawan (2025).

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**The Relationship Between Strategic Management and Institutional Performance at the University of Diyala**

At the University of Diyala, the relationship between strategic management and institutional performance is complementary in both theoretical and applied terms. It is reflected in the various mechanisms the university uses to improve performance: planning, organizing, executing, controlling and evaluation, promoting innovation, and improving output quality. This relationship can be analyzed theoretically as follows (Al-Azzi & Al-Shahrabali, 2019: 120; Al-Shantaf & Waqfa, 2019: 401).

1. Improving planning: The university developed a central strategic plan (2021–2026) incorporating a comprehensive environmental analysis, specifying its vision, mission, and objectives, and including international standards of quality and excellence, thus reflecting forward-looking planning grounded in scientific principles.

2. Improving organization: This was reflected in the establishment of specialized central and subsidiary committees to prepare and monitor the plan and in the clear specification of roles, responsibilities, and organizational relationships, ensuring smoother implementation and higher-quality outputs.

3. Improving implementation: This involved providing resources, continuously training personnel, and creating appropriate conditions for implementing the strategy in accordance with the stated vision and objectives.

4. Improving control and evaluation: This was reflected in periodic meetings to review the plan, monitor performance indicators, examine objectives, and track implementation rates across colleges and departments, ensuring continuous corrective adjustments.

5. Promoting innovation and development: The university sought to develop academic programs, connect scientific research to sustainable development, and conclude local and international scientific agreements to promote a culture of innovation (Garad et al., 2025).

6. Improving output quality: The university emphasized quality in education, scientific research, and community service, as well as curriculum development to match reputable universities regionally and internationally (Alobaidy et al., 2025: 36).

Field studies confirm a statistically significant correlation between strategic leadership and strategic performance, as well as a statistically significant effect at the University of Diyala, highlighting the need to utilize this relationship in strategic planning to achieve institutional objectives (Jumaa, 2019). Thus, the relationship between strategic management and institutional performance is dynamic and interactive: strategies are translated into implementation plans, their outcomes are assessed through precise indicators, and their trajectories are corrected through continuous evaluation, creating an ongoing cycle of organizational learning (Khamis, 2018: 254).

**Practical Framework of the Research**

The practical framework describes the research population and sample, instrument administration procedures, and statistical methods used. The University of Diyala was established on 18 September 1999 and currently comprises fourteen colleges in different scientific and humanities disciplines. The study will be conducted at the university presidency and affiliated colleges. A stratified random sample of administrative leaders and employees will be selected, including the president and vice-presidents, deans and vice-deans, heads of academic and administrative departments, and administrative employees at the presidency and colleges. Instrument administration entails obtaining official approvals from the university presidency, distributing the questionnaires, collecting them, excluding invalid responses, and coding and analyzing the data with SPSS. Statistical methods include descriptive statistics—frequencies, percentages, arithmetic means, and standard deviations—and inferential statistics—Pearson correlation, regression analysis, t-tests, and F-tests.

**First: Description of the Research Population and Sample**

Questionnaires were distributed to a stratified random sample of administrative leaders and employees, and 125 valid questionnaires were obtained. Table 2 presents the frequency and percentage distributions of the sample.

**Table 2. Frequency and Percentage Distribution of Respondents by Demographic Characteristics**

| Variable | Category | Frequency | Percentage (%) |
|---|---|---|---|
| Gender | Male | 71 | 56.8 |
| | Female | 54 | 43.2 |
| Age | Under 30 years | 20 | 16.0 |
| | 30–40 years | 45 | 36.0 |
| | 41–50 years | 45 | 36.0 |
| | Over 50 years | 15 | 12.0 |
| Academic qualification | Bachelor's degree | 44 | 35.2 |
| | Master's degree | 47 | 37.6 |
| | Doctorate | 34 | 27.2 |
| Years of service | Under 5 years | 20 | 16.0 |
| | 5–10 years | 42 | 33.6 |
| | 11–15 years | 22 | 17.6 |
| | Over 15 years | 41 | 32.8 |
| Job title | University president/vice-president | 7 | 5.6 |
| | Dean/vice-dean | 18 | 14.4 |
| | Department head | 33 | 26.4 |
| | Administrative employee | 67 | 53.6 |

Source: Prepared by the researcher using SPSS output.

Table 2 shows that the sample comprised men (56.8%) and women (43.2%), with most respondents aged 30–50 years (72%), holding postgraduate degrees (64.8%), having more than 10 years of service (50.4%), and occupying administrative employee positions (53.6%).

**Second: Description of Study Variables**

**Table 3. Means and Standard Deviations of Composite Variables and Their Dimensions**

| Variable | N | Minimum | Maximum | Mean | Standard deviation | Level |
|---|---|---|---|---|---|---|
| Planning | 125 | 3.00 | 5.00 | 4.0480 | 0.70036 | High |
| Organizin | 125 | 3.00 | 5.00 | 4.0080 | 0.67131 | High |

| | | | | | | |
|---|---|---|---|---|---|---|
| g | | | | | | |
| Executing | 125 | 3.00 | 5.00 | 4.1400 | 0.45614 | High |
| Controlling | 125 | 3.33 | 5.00 | 4.1707 | 0.52126 | High |
| Efficiency | 125 | 2.33 | 5.00 | 3.9467 | 0.57486 | High |
| Effectiveness | 125 | 3.33 | 5.00 | 4.1707 | 0.52126 | High |
| Quality | 125 | 3.67 | 5.00 | 4.4987 | 0.50379 | Very high |
| Overall strategic management (SM_Total) | 125 | 3.17 | 5.00 | 4.0917 | 0.54352 | High |
| Overall institutional performance (IP_Total) | 125 | 3.44 | 5.00 | 4.2053 | 0.39487 | High |

Source: Prepared by the researcher using SPSS output.

The results showed that all strategic management dimensions were assessed as high, with means ranging from 4.0080 to 4.1707. Controlling had the highest mean (4.1707), followed by executing, indicating favorable controlling and implementation practices at the university. Organizing had the lowest mean among the dimensions, although it remained in the high category. For institutional performance, quality ranked first, followed by effectiveness and efficiency, all of which were assessed as high. The overall mean was 4.0917 for strategic management and 4.2053 for institutional performance, both in the high category, reflecting positive perceptions of the study variables among respondents.

**Third: Validity and Reliability Testing**

The reliability of the research instrument was assessed using Cronbach's alpha. Table 4 presents the results.

**Table 4. Reliability Test Results (Cronbach's Alpha)**

| Group | Number of items | Cronbach's alpha | Rating |
|---|---|---|---|
| Entire instrument (Q1–Q20) | 20 | 0.947 | Excellent |
| First group (Q1–Q11) | 11 | 0.943 | Excellent |
| Second group (Q12–Q20) | 9 | 0.813 | Good |

Source: Prepared by the researcher using SPSS output.

Table 4 indicates very high Cronbach's alpha values, reaching 0.947 for strategic management and 0.943 for institutional performance, while the value for the instrument as a whole was good (0.813). This indicates high instrument reliability and suitability for application.

**Fourth: Testing Correlations**

**Table 5. Correlation Matrix for Strategic Management Dimensions and Institutional Performance**

| Variable | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1. Planning | 1 | | | | |
| 2. Organizing | 0.946** | 1 | | | |
| 3. Executing | 0.665** | 0.668** | 1 | | |
| 4. Controlling | 0.900** | 0.918** | 0.594** | 1 | |
| 5. Institutional performance (IP_Total) | 0.862** | 0.874** | 0.493** | 0.864** | 1 |

Source: Prepared by the researcher using SPSS output.

** $p < 0.01$

Table 5 shows a positive, statistically significant correlation at the 0.01 level between every strategic management dimension and institutional performance. The strongest relationship was between organizing and institutional performance ($r = 0.874$), followed by controlling, planning, and finally executing. The relationship between executing and institutional performance was moderate but statistically significant, whereas the other relationships were very strong. These results support acceptance of the first four subsidiary hypotheses concerning significant correlations between each strategic management dimension and institutional performance.

**Multiple Regression Analysis**

**Table 6. Multiple Regression Model Summary**

| Model | R | $R^2$ | Adjusted $R^2$ | Standard error | Durbin–Watson |
|---|---|---|---|---|---|
| 1 | 0.899 | 0.809 | 0.802 | 0.17562 | 1.726 |

Source: Prepared by the researcher using SPSS output.

The multiple correlation coefficient was $R = 0.899$, and the coefficient of determination was $R^2 = 0.809$. Thus, the four strategic management dimensions explained 80.9% of the variation in institutional performance, a very high percentage. The Durbin–Watson statistic was 1.726, close to 2, suggesting no autocorrelation in the residuals.

**Table 7. ANOVA for the Regression Model**

| Source | Sum of squares | Degrees of freedom | Mean square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 15.634 | 4 | 3.908 | 126.720 | 0.000 |
| Residual | 3.701 | 120 | 0.031 | | |
| Total | 19.335 | 124 | | | |

Source: Prepared by the researcher using SPSS output.

Table 7 shows that F = 126.720 and p = 0.000, below 0.05. Thus, the regression model was statistically significant and the strategic management dimensions could be used to predict institutional performance.

**Table 8. Multiple Regression Coefficients**

| Independent variable | B | Standard error | Beta | t | Sig. | Tolerance | VIF |
|---|---|---|---|---|---|---|---|
| Constant | 2.153 | 0.183 | | 11.737 | 0.000 | | |
| Planning | 0.163 | 0.073 | 0.289 | 2.234 | 0.027 | 0.096 | 10.457 |
| Organizing | 0.248 | 0.084 | 0.421 | 2.956 | 0.004 | 0.078 | 12.741 |
| Executing | -0.146 | 0.047 | -0.169 | -3.103 | 0.002 | 0.538 | 1.858 |
| Controlling | 0.241 | 0.079 | 0.318 | 3.048 | 0.003 | 0.146 | 6.833 |

Source: Prepared by the researcher using SPSS output.

Table 8 shows that all independent variables were statistically significant at the 0.05 level. Organizing had the greatest influence on institutional performance, followed by controlling and planning. Executing had a negative, statistically significant coefficient, which may be attributable to multicollinearity with other dimensions, particularly given that the variance inflation factors (VIFs) for planning and organizing exceeded 10 (10.457 and 12.741, respectively).

Overall, the model supports the main hypothesis and the fifth subsidiary hypothesis concerning the statistically significant effect of strategic management dimensions on institutional performance.

**Testing Differences in Institutional Performance by Demographic Variables**

Table 9. Independent-Samples t-Test for Differences in Institutional Performance by Gender

| Gender | N | Mean | Standard deviation | t | df | Sig. (2-tailed) | Cohen's d |
|---|---|---|---|---|---|---|---|
| Male | 71 | 4.2254 | 0.39395 | 0.648 | 123 | 0.518 | 0.117 |
| Female | 54 | 4.1790 | 0.39824 | | | | |

Source: Prepared by the researcher using SPSS output.

The t statistic was 0.648 with p = 0.518, greater than 0.05, indicating no statistically significant difference in institutional performance by gender. The effect size (Cohen's d = 0.117) was very small, confirming the absence of a meaningful practical difference.

**Table 10. One-Way ANOVA for Differences in Institutional Performance by Years of Service**

| Source | Sum of squares | df | Mean square | F | Sig. |
|---|---|---|---|---|---|
| Between groups | 0.637 | 3 | 0.212 | 1.375 | 0.254 |
| Within groups | 18.697 | 121 | 0.155 | | |
| Total | 19.335 | 124 | | | |

Source: Prepared by the researcher using SPSS output.

The F statistic was 1.375 with p = 0.254, greater than 0.05, indicating no statistically significant differences in institutional performance by years of service. Tukey's test placed all categories of years of service in a single homogeneous group, confirming the absence of substantial differences.

## Exploratory Factor Analysis

**Table 11. Total Variance Explained in Factor Analysis**

| Component | Eigenvalue | Variance (%) | Cumulative (%) |
|---|---|---|---|
| 1 | 11.344 | 56.722 | 56.722 |
| 2 | 2.777 | 13.886 | 70.608 |
| 3 | 1.960 | 9.801 | 80.409 |
| 4 | 1.183 | 5.917 | 86.326 |

Source: Prepared by the researcher using SPSS output.

Factor analysis extracted four principal factors with eigenvalues exceeding 1. Together, they explained 86.326% of total variance, a very high percentage. This supports the instrument's factor structure. However, some overlap was evident in the rotated component matrix, with certain items loading on more than one factor. In addition, the correlation matrix was not positive definite, which may indicate multicollinearity among some items.

## Final Conclusions

The overall level of strategic management implementation was high, and the overall level of institutional performance was also high, both exceeding the hypothetical midpoint. This suggests that the university is moving in the right direction in adopting strategic management practices but needs further efforts to reinforce this direction amid growing environmental challenges.

Statistical analysis of field-study data revealed a strong, positive, statistically significant correlation between the dimensions of strategic management and institutional performance, with all correlations significant at the 0.01 level. Multiple regression analysis also showed a statistically significant effect of strategic management dimensions on institutional performance, with a multiple correlation coefficient of R = 0.899 and a coefficient of determination of $R^2 = 0.809$. In other words, strategic management dimensions explained 80.9% of the variance in institutional performance. It follows that strategic management is a fundamental pillar of efforts to improve institutional performance at the University of Diyala. This finding is consistent with Khamis (2018), Al-Shantaf and Waqfa (2019), and Alobaidy et al. (2025).

At the dimensional level, multiple regression analysis showed that all four dimensions were statistically significant at the 0.05 level. Organizing had the strongest positive influence on institutional performance, followed by controlling and planning, while executing had a negative standardized coefficient. This suggests that the organizing dimension—including clear structures, distribution of roles, and resource allocation—contributes most strongly to improving institutional performance and that the university needs to reconsider strategic implementation and review its items to avoid overlap with other dimensions. This finding partially agrees with Khamis (2018), Al-Shantaf and Waqfa (2019), and Pratama and Setiawan (2025).

Regarding demographic differences, the results revealed no statistically significant differences in institutional performance by gender or years of service; Tukey's test placed all groups defined by years of service within a single homogeneous group. Differences by academic qualification were not reported in the available statistical outputs, and this test could be performed subsequently if needed. Accordingly, the aforementioned demographic variables had no significant effect on respondents' evaluations of institutional performance, suggesting that these perceptions are formed independently of gender or years of service.

## Second: Recommendations

Based on the findings and conclusions, the following recommendations are offered:

Strengthen the organizational structure of the University of Diyala by periodically reviewing roles, responsibilities, and authority, and allocating resources more efficiently in accordance with strategic objectives, given that organizing had the greatest influence on institutional performance.

Reconsider the items of the executing dimension and review their wording; address multicollinearity between planning and organizing by redefining the dimensions or removing overlapping items to ensure clarity in the causal relationship between strategic management dimensions and institutional performance.

Increase participation by all administrative levels in formulating the strategic plan, conduct periodic analyses of the internal and external environments (SWOT analysis), and emphasize the planning dimension, which ranked third in influence.

Develop an integrated system of key performance indicators (KPIs) at the university, college, and departmental levels to measure strategic objective attainment accurately and support the controlling dimension, which ranked second in influence.

Strengthen control and evaluation systems through periodic analysis of deviations and linking evaluation results to incentives and rewards to help improve institutional performance.

Provide personnel with the training and qualifications needed to implement strategies effectively and establish appropriate conditions for effective execution. Academic qualifications and years of service should be considered when designing administrative development programs, making use of the experience of long-serving employees.

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