RESEARCH
www.commprac.com
ISSN 1462 2815

THE IMPACT OF STRATEGIC MANAGEMENT IN THE INSTITUTIONAL PERFORMANCE DEVELOPMENT OF YEMENI COMMERCIAL BANKS OPERATING WITHIN THE CAPITAL SANA'A

Khalid Abdulla Mohammad Al-Asad [1] and Dr. Fadl Mohammad Al-Mahmoudi [2]

[1] Researcher, Business Administration Center, Sana'a University.
[2] Associate Professor, Business Administration Department,
Faculty of Commerce and Economics, Sana'a University.

DOI: 10.5281/zenodo.11059329

Abstract

The study aimed to assess how the Strategic Management includes its dimensions (environmental analysis, strategy formulation, strategy implementation, supervising and evaluation) affects Institutional Performance in its dimensions (efficacy and effectiveness) that present in Yemeni commercial banks that operate within the Capital Sana'a. The study adopted the analytical and descriptive method, and using a questionnaire to collect the primary data. The study community consisted of 1,452 individuals, distributed on seven commercial banks, a total of (304) questionnaire was distributed to the study sample, (220) were returned, data were processed by the Social Sciences Statistical Package Program (SPSS V.26), and Constructive Equation Modelling was processed using the Small Partial Boxes (Smart-PLS4). The study reached a set of conclusions, the most important of which are: that there is a statistically significant impact of Strategic Management on Institutional Performance of Yemeni commercial banks. Therefore, there is a statistically significant impact at the significant level of strategic management in developing effectiveness and efficacy of Yemeni commercial banks operating in the capital Sana'a.

Keywords: Strategic Management, Institutional Performance.

1. INTRODUCTION

Organizations seek to achieve the highest rates of performance, resulting from the organizations' targeted investment in their staff to increase their management efficiency. Investing in this field ultimately achieves the Organization's objectives easily and satisfies workers' desires, perspectives and aspirations while preserving the Organization's acquisitions and resources.

Performance is viewed as the outcome of the organization's operations and efforts. It is exemplified by its capacity to effectively employ its resources in conjunction with its internal and external surrounding environment to effectively and efficiently accomplish the tasks that are expected of it, in order to fulfill its intended objectives (Abdul Hadi, 42:2017). Strategic management is a key success to any organization seeking excellence since strategic management is classified as one of the most important management areas that organizations must adopt to advance management work and changing it from a static environment to a dynamic environment that is always up-to-date with administration developments, particularly in terms of technology, modern communications (automation), telecommuting, and banking. It is generally held that strategic management is a creative process, rational analysis, and combination of human intuition. Additionally, it is a constantly dynamic process, seeks to fulfill the organization's mission by effectively and efficiently managing the resources that are at its disposal, also it is capable of confronting the risks associated with the shifting business environment, such as threats, opportunities, competition, and other potential dangers, in order to attain a better future based on a fundamental focal in the present (Yassin,16:2010).

To achieve that ambition, organizations must achieve high rates of effectiveness and efficiency, which required to conduct a comprehensive analysis of all activities to facilitate the assessment of the quantitative performance of all components.

2. LITERATURE REVIEW

Today's world is rapidly changing, challenges abound and information becomes the most important possession of business organizations. In particular, banks face enormous challenges, most notably is the management approach, that may consider as a main obstacle to keeping abreast of developments and challenges in a changing and accelerated environment.

The fact that institutional performance is an important concept for business organizations and banks in particular, and the primer theme of all branches of management knowledge, which are concerned with the recent and much faster scientific and technological developments, that reflected in the activities of various organizations especially organizations whose performance requires sophisticated skills and high performance levels so that they can keep up with the accelerating changes in the world (Abu Samara, 2:2017).

Yemeni banks showed a low level of institutional performance based on reports from international organizations that are concerned with economic issues. According to the Forbes Middle East report on the 30 most powerful banks in the Middle East in 2022, none Yemeni banks are included in their lists, which indicates there are major challenges facing the management of these banks and the lacking of earnest of banking managerial leaders in overcoming the constraints of creating opportunities nor locating appropriate solutions to enhance Yemen's banking sector to at least compete with their counterparts in regional countries. This shows a clear gap in the institutional performance of Yemeni banks in general, that limit Yemeni banks from entering that list (Forbes Middle East, 2022).

Many studies have highlighted the significance of having a strategic plan for the organization that enhances and increases institutional performance in order to find successful solutions, as (Ismail, 2021) study concluded that building up a clear strategic vision defines the organization's current and future activity, that lead the organization to achieve its objectives by leveraging its range of organizational, managerial, and technological competencies. (Ben Merry, 2021) study found that the strategic management of human resources required to be given full authority to develop human resource's policies, plans and strategies, considering as a strategic partner in the formulation of the Organization's total strategies. The study (Mohammed, 2020) emphasizes the importance of strategic management in developing services, specifically electronic services, due to its critical importance, also the study (Hamian, 2019) stressed the significance of focusing on strategic planning application and development at every level of the Organization to stay informed of significant and accelerated developments regarding institutional performance.

Based on the foregoing, the study's literature review can be formulated in the main question:

What is the impact of strategic management in developing the institutional performance of Yemeni commercial banks operating in the Capital Sana'a?

3. STUDY OBJECTIVES

The study aimed to:

1) Identify the level of strategic management in Yemen's commercial banks operating in the capital Sana'a through:
    - Evaluating the extent of application of strategic planning practices in the targeted banks.
    - Analyze the effectiveness of the strategic decision-making tools.
    - Evaluating the ability of target banks to adapt to changes in the external environment.
2) Identify the level of institutional performance in Yemen's commercial banks operating in the capital Sana'a through:
    - Measuring the efficiency of operational processes in target banks.
    - Evaluating the effectiveness of internal control systems.
    - Evaluating the extent of client contentment with the bank's services.
3) Determine the impact of strategic management on institutional performance in Yemen's commercial banks operating in the capital Sana'a through:
    - Testing the relations between strategic management practices and institutional performance indicators.
    - Identifying the most important strategic management practices that affect institutional performance.
    - Analyzing the role of strategic management in achieving competitive advantage for target banks.

    By fulfilling these goals, the study aims to:

    - Providing a better understanding of the strategic management realities and institutional performance in Yemeni commercial banks operating in the capital Sana'a.
    - Assisting banks in strengthening their institutional performance and management processes.
    - Supplying recommendations to banking decision-makers to enhance the efficiency and effectiveness of the banking sector in the Republic of Yemen.

4. SIGNIFICANCE OF THE STUDY

At the country level, Yemeni commercial banks are the foundation of the national economy and the main focus of the banking sector; therefore, the purpose of this study is to demonstrate the significance of strategic management on improving the institutional performance of Yemeni commercial banks. The importance of this study emerges from the following:

The scientific significance is based on the following:

The novelty of the topic is a qualitative addition that benefits researchers and libraries by examining the philosophical and intellectual framework of strategic management and institutional performance's concepts. Additionally, the study is valuable resource for Yemeni and Arab libraries regarding the subject matter.

The practical significance is based on the following:

This study contributes to the preparation of recommendations and proposals based on the conclusions that will be drawn, thereby will strengthen strategic management banks' leadership as an input for institutional performance development.

5. RESEARCH MODEL OF THE STUDY

In this study, cognitive model was arrived at expressed the direction logical influence relationship between study variables and reflects the expected relationships between the independent variable and the dependent variable.

Strategic management dimensions were identified as (environmental analysis, strategy formulation, strategy implementation, supervising and evaluation) based on previous studies of table (1):

Table (1): strategic management models and dimensions addressed in previous studies

No.	Study model	Measurement dimensions
1	(Al-Samawi, 2021)	Strategic analysis of the environment, strategic planning, strategy implementation and application, strategic evaluation and control.
2	(Al Mahbashi, 2019)	Environmental analysis (external environment), environmental analysis (internal environment), strategy formation, strategy implementation, strategic evaluation and control.
3	(Ali, 2019)	Environmental analysis, strategy development, strategy formulation, strategy implementation, strategy evaluation.
4	(Al-Derawi, 2018)	Objectives of strategic management, formulation of strategic management, preparation for strategic management, application of strategic management, monitoring and evaluation of strategic management.

The dimensions of institutional performance were identified as (efficiency and effectiveness) based on previous studies of table (2):

Table (2): Models and dimensions of institutional performance

No.	Study model	Measurement dimensions
1	(Khurais, 2021)	Efficiency, effectiveness.
2	(Hashim, 2019)	Efficiency, effectiveness.
3	(Faqir, 2018)	Efficiency, effectiveness.
4	(Ahmed, 2017)	Efficiency, effectiveness.
5	(Al-Ansi, 2016)	Financial performance, administrative performance (efficiency - effectiveness), operational performance, social performance.

By taking into account the problem, objectives, and significance of the study, and utilizing previous studies in tables (1) and (2), the researcher has reached the cognitive model as depicted in figure (1):

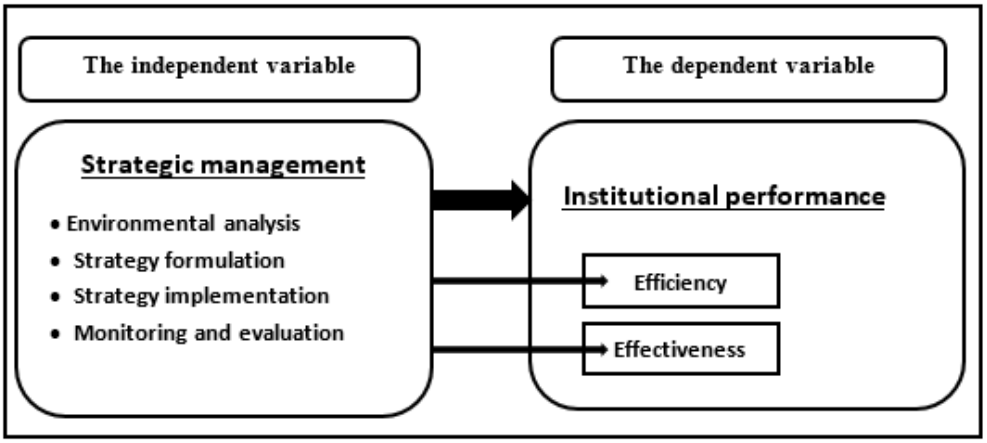

Figure (1): The cognitive model of the study

6. STUDY HYPOTHESES

The study hypotheses are represented in one main hypothesis:

There is a statistically significant effect at the indicative level (0.05) of strategic management in developing the institutional performance of Yemen's commercial banks operating in the capital, it has the following sub-next hypotheses:

1. There is a statistically significant effect at the indicative level (0.05) of strategic management in enhancing effectiveness of Yemen's commercial banks operating in the capital Sana'a.
2. There is a statistically significant effect at the indicative level (0.05) of strategic management in enhancing efficiency of Yemen's commercial banks operating in the capital Sana'a.

7. LIMITATION OF THE STUDY

The following limits were set for the study:

First: Objectivity limitation:

the current Study covered the impact of strategic management in its dimensions (environmental analysis, strategy formulation, strategy implementation, supervising and evaluation) in developing the performance of Yemeni commercial banks including efficiency and effectiveness dimensions'.

Second: Spatial limitation:

The spatial boundaries of the study involved the Yemen's commercial banks operating in the capital Sana'a in the Republic of Yemen and represented in: Yemen Bank for Reconstruction and Development, National Bank of Yemen, International Bank of Yemen, Bank of Yemen and Kuwait, Agricultural Cooperative Credit Bank, Yemen Commercial Bank, Bank of Yemen and Gulf.

Third: Human limitation:

The study targeted seven administrative leaders of commercial banks including (general manager, department director, department head, specialist) in the capital Sana'a as they are concerned with implementing the strategic leadership directions

8. TERMINOLOGICAL AND PROCEDURAL DEFINITIONS

The study includes several terminological and procedural definitions that adopted within, and it is consisted of the following:

- **Strategic management:**

It is a group of processes that involve multiple fundamental tasks that connect, which is strategic planning including (analyzing the environment that representing in strategic analysis, determining the strategic direction, and formulating strategies), implementing strategies and evaluating strategies (Al-Ariqi, 2018: 15). Strategic management is defined as the process consisting of a set of steps through which senior management analyses opportunities and constraints in the external environment, along with the organization's strengths and weaknesses, and defining the mission and goals, and then develops strategies at the organizational, business and functional levels that correspond to the organization's strengths and weaknesses, also the opportunities and threats of the external environment, , then applying those strategies and exercising strategic control (Ahmed, 2017: 23).

Strategic management terminology is defined by (Al-Ariqi, 16: 2018–17) as follows:

- Environmental analysis is known as monitoring and evaluating data regarding the organization's internal and external environments in order to provide management with the information.
- Strategy formulation is known as determining the appropriate strategic path for the organization, that is, developing appropriate strategic alternatives at the level of the organization, sector, and functions to determine the strategic option to achieve the organization's goals.
- Strategy implementation is known as applying the processes that bring strategies into action through the organizational structure, annual objectives, policies, procedures, regulations, programs, and budgets.
- Supervising and evaluating is known as the process of monitoring and assessing the stages of strategic management generally to guarantee sure it is applied correctly and comparing it to the established strategic objectives, afterwards recognizing the scope of the assessment findings and suggesting suitable solutions in order to obtain suitable investments.

Strategic management is defined procedurally as: Choosing the best methods which include a set of right decisions, that lead to fulfill the Yemeni commercial banks' vision, mission and goals due to the strategic environmental analysis, and implement it, then monitoring and evaluation to obtain best practices in this aspect.

The strategic management's dimensions are procedurally known as follows:

- Environmental analysis is known as the process of determining and analyzing both internal and external variables influencing the performance of Yemeni commercial banks, in order to leverage the strengths points and mitigate the shortcomings, seize internal opportunities, and steer clear of external risks and impediments.
- Strategy formulation is known as the process of establishing and defining Yemeni commercial banks' primary objectives in light of their adopted mission and vision

with determining the strategies needed and selecting the appropriate strategic alternative for the following stage.

- Strategy implementation is the stage of forming the organization environment involves creating a clear vision for work plans and policies, constructing the organizational structure of the organization, and designating qualified cadres and administrative executives, and assigning the resources required to oversee the various operations of Yemeni commercial banks.
- Supervising and evaluation is the stage where the strategy is examined and assessed. The stage main objective is to modify and shape the future in a manner that aligns with the established strategic objectives.

- **Institutional performance:**

The concept of institutional performance is one of the most recent and important topics in the field of management organizations, especially with global challenges, and the increasing intensity of competition to provide high-quality service to beneficiaries; besides, Several firms now aim to attain excellence in an ever-evolving and fast-paced competitive environment that demands accuracy, adaptability, and creativity, while only exceptional and creative organizations may succeed, advance, and attain excellence. To achieve this, administrative units must work extremely hard to improve institutional performance's distinction and originality (Buckman, 2004:14).

The institutional performance's terms are defined as follows:

- Effectiveness, according to (Saidi and Sawle, 2023:61), is a crucial criterion and indication for assessing how well an organization achieves its goals in relation to its operating environment.
- Effectiveness, according to Johnson and Scholes (2002, 168-169), is an organization's capacity to meet objectives and take advantage of environmental opportunities in order to maintain its existence, sustainability, and ability to meet the demands of the general public.
- Efficiency is defined as obtaining the greatest amount of outputs with the least amount of inputs, and productive efficiency is described as the capacity to accomplish the essential goals with the least amount of labor or expense. In other words, it is the ideal utilization of the available productive resources, both human and material, according to (Muhammad et al., 2015: 289).
- Efficiency, according to (Philippe Lorino,1998:18-20), is everything that aids in maximizing value and minimize expenses. This is because anything that assists attain both objectives will also be efficient in lowering costs and raising value.

Institutional performance is defined procedurally as: the Yemeni commercial banks' ability to use funds in the most efficient manners and possible capacities to provide the finest goods and services to anticipated consumers, along with achieving the firm and employees' goals efficiently and effectively. The dimensions of institutional performance are defined procedurally as follows:

- Efficiency is the capacity of Yemeni commercial banks to utilize its resources and accomplish its tasks in a way that promotes its profits.
- Effectiveness is the rate to which Yemeni commercial banks achieve the predetermined goals.

- **Commercial banks:**

These are the banks that hold clients' deposits and return them to clients on demand or for predetermined times, as these banks assist the national's economy and work toward achieving the development plan through internal and external finance operations, as starting initiatives to promote financial investment and savings both domestically and internationally, and assisting in establishing projects and requirements for banking, commercial, and financial operations in compliance with the guidelines authorized by the Central Bank (Hanafi and Abu Qahf, 200026-25:).

The relations between strategic management and institutional performance:

Any organization's objectives are to survive, stabilize, maintain, and expand, and the performance of those firms is closely correlated with their pursuit of strategic management. As organizations adopting the strategic management approach outperformed those that did not employ it in terms of performance (Hamid,67:2020).

according to (Gaza, 2018:77), strategy is a necessity for every organization, that raises the organization's performance in the foreseeable future, and aids the organization in realizing a number of advantages, the key ones is as follows:

1) Drafting a plan for the organization that outlines its position within the geography of future business.
2) Contributing in increasing the organization's ability to withstand fierce domestic, regional, and global competition.
3) Granting the organization the potential to maintain a continuous competitive advantage.
4) Enabling the organization to actually employ resources.
5) Allowing participation in the administrative process for all administrative levels, as this promotes uniformity in the officials' administrative practices and ways of thinking.
6) Fostering managers to formulate plans strategically and creatively will encourage them to demonstrate initiative to plan events rather than merely accepting them.

9. PREVIOUS STUDIES

A number of previous studies related to the topic of the current study were review ed, as follows:

1) **Al-Samawi (2021) conducted a study entitled "The Impact of Applying Strategic Management on Improving the Performance of Yemen's Non-Governmental Organizations in the Capital Sana'a",** the study's most significant finding was that, overall, there is a positive statistically significant impact indicating the level of providing strategic management in Yemeni private universities has elevated.
2) **Al-Saadi (2021) conducted a study entitled "The Impact of Strategic Flexibility in Achieving Organizational Performance through Creativity, A Field Study in Community Faculty in the Republic of Yemen",** according to the study, there is a positive impact of strategic flexibility on achieving

organizational performance through creativity in community colleges in the Republic of Yemen.

3) **Saad (2021) conducted a study entitled "The Role of the Administrative Control System in Improving Institutional Performance, a Field Study on Libya's Sirte Oil and Gas Industrial Company"**, the study indicated that administrative control's dimensions had a beneficial impact on institutional performance.

4) **Al-Mabrouk (2021) conducted a study entitled "Applications of Strategic Management and its Effect on Enhancing the Effectiveness Level of Organizational Performance - an Applied Study on the Libyana Mobile Phone Company in Tripoli",** the study reached a set of results, the most important of which there is an increase in the measured aspects of strategic management, including strategic formulation, strategic decisions, and strategic alternatives.

5) **Muhammad (2020) conducted a study entitled "The Impact of Strategic Management on Electronic Banking's Development",** the study's findings are noteworthy in that the study revealed the existence of an impact of strategic management in developing electronic banking in banks, with differences in that the impact benefit the oldest (Sudanese) banks.

6) **Ali (2019) conducted a study entitled "The Impact of Strategic Management on Institutional Performance in the Cement Industry Sector - Applied to the Nile River State Cement Company",** numerous conclusions were drawn from the study, the most noteworthy of which being that there is a statistically significant influence for strategic management for institutional application in the cement manufacturing sector.

7) **AlHarethi & AlMaamari's study (2018) entitled "The Impact of Strategic Formulation on Improving the Institutional Performance at Limkokwing University Creative Technology in Malaysia ",** the results proved a favorable association between enhancing institutional performance and strategic planning in all dimensions.

8) **Thomas (2014) conducted a study entitled "Organizational Change and Its Impact on Corporate Performance in Nigerian Telecommunications Organizations."**, the study yielded a set of results, the most significant of which are: Effective change management ensures the reduction of detrimental effects on institutional performance, also long-term institutional performance is always improved by changes, despite the fact that they typically spark resistance inside the company.

10. STUDY METHODOLOGY AND PROCEDURES

The current study used a descriptive and analytical approach to meet its goals. since it is the most appropriate for research Data were gathered using a survey. They are intended to evaluate the study's goals and put its hypotheses to the test.

11. STUDY POPULATION

The study's population form up employees in supervisory roles at seven commercial banks in the capital, and for representing the research community objectively, the

random caste sampling approach was employed. Additionally, the study population size has arrived at (1452) as indicated by Table data results (3):

Table (3): Study population

Bank Name	Supervisory Positions' Number
Yemen Bank for Reconstruction and Development	441
National Bank of Yemen	198
International Bank of Yemen	164
Bank of Yemen and Kuwait	144
Agricultural Cooperative Credit Bank	322
Yemen Commercial Bank	160
Bank of Yemen and Gulf	23
The total number of members of the study population	1452

12. STUDY SAMPLE

It's been determining sample size class for a randomized study according Robert Mason equation

$$n = \frac{M}{[(S^2 \quad \times \quad (M-1)) \div pq] + 1}$$

whereas:

n Sample volume

M Community size

S The standard score corresponding to the significance level (0.95), i.e. dividing the error 0.05 by 1.96

P The property availability percentage is (0.50)

q The remaining percentage of the property is (0.50)" (Barnett, Vic,2002,100).

The study sample size was (304) Single, according to the results of table (4):

Table (4): Total study sample and percentage

Bank name	Community	Study sample	Percentage
Yemen Bank for Reconstruction and Development	441	92	30.37%
National Bank of Yemen	198	42	13.64%
International Bank of Yemen	164	34	11.29%
Bank of Yemen and Kuwait	144	30	9.92%
Agricultural Cooperative Credit Bank	322	67	22.18%
Yemen Commercial Bank	160	34	11.02%
Bank of Yemen and Gulf	23	5	1.58%
Total	1452	304	100%

13. SAMPLE DISTRIBUTION

Of the entire number of questionnaires distributed, 220 were retrieved from the 304 individuals who received them, which 72% of the total distributed questionnaires. The researcher was refused cooperation by the Bank of Yemen and Kuwait as well as the National Bank of Yemen. The distribution of the study sample is shown in Table (5).

Table (5): Distribution of the study sample

NO.	Bank name	Size of the study population	Sample volume	Sample to population ratio	Returned and analyzable forms	Ratio of returned questionnaires to sample size
1.	Yemen Bank for Reconstruction and Development	441	92	20.86%	87	94.57%
2.	National Bank of Yemen	198	42	21.21%	0	0
3.	International Bank of Yemen	164	34	20.73%	30	88.23%
4.	Bank of Yemen and Kuwait	144	30	20.83%	0	0
5.	Agricultural Cooperative Credit Bank	322	67	20.81%	65	97.01%
6.	Yemen Commercial Bank	160	34	21.25%	30	88.24%
7.	Bank of Yemen and Gulf	23	5	21.74%	8	160%
Total		1452	304	21.06%	220	75.44%

14. STUDY TOOL

The questionnaire was selected by the study as the main tool of data collection, and Table (6) illustrates how the questionnaire items were distributed:

Table (6): Distribution of questionnaire items

Variables	Dimensions	Number of paragraphs	percentage
Strategic management	Environmental analysis	7	15.9%
	Strategy formulation	7	15.9%
	Strategy implementation	7	15.9%
	Supervising and evaluation	7	15.9%
Institutional performance	Efficiency	8	18.2%
	Effectiveness	8	18.2%
Total		44	%100

15. STUDY MEASURE

The study applied the (Rensis Likert's measure), also known as the seven-point Likert scale, to gauge how effectively the sample responded to the questionnaire items.

For every response, Table (7) displays the degree of agreement of verbal expression, relative weight, range, percentage, and statistical significance:

Table (7): Scale of degree of approval

Verbal acknowledgment	Relative weight	Range	Percentage	Statistical significance
Strongly Agree	7	7.00 – 6.14	From 87.7% up to 100%	Very high
OK	6	6.14 – 5.29	From 75.6% and less than 87.7%	High
Fairly OK	5	5.29 – 4.43	From 63.3% and less than 75.6%	Fairly high
Neutral	4	4.43 – 3.57	From 51% and less than 63.3%	Medium
Somewhat disagree	3	3.57 – 2.71	From 38.7% and less than 51%	Fairly weak
Disagree	2	2.71 – 1.86	From 26.6% and less than 38.7%	Weak
Strongly Disagree	1	1.86 – 1.00	From 14.3% and less than 26.6%	Very weak

16. VALIDITY OF THE STUDY TOOL

Measure of the study tool's validity and reliability: It was established that the validity and questionnaire's ability that it could accomplish the objectives was designed through apparent validity (honesty of the arbitrators), and the constructivist validity of the measure, which is assessed via the following standards:

First: Apparent validity (arbitrators' honesty)

The researcher submitted the study's preliminary questionnaire to (14) academic arbitrators who are experts in business administration, economics, and information technology, in order to gain from their experience in expressing opinions and observations regarding the questionnaire's items and axes, as well as to confirm the way each item fits into the scale, axes, and dimensions, and how all of this relates to the overall objective for which the questionnaire was constructed. The researcher made the required changes to the questionnaire based on the observations, including adding, eliminating, modifying, and reformulating some paragraphs to bring it to its finalized form.

Second: Internal consistency validity

Internal consistency is known as the degree to which each paragraph in the questionnaire aligns with the axis to which this paragraph belongs. The (Pearson) correlation coefficient among each paragraph on the questionnaire's axes and the axis's total score was utilized to determine the questionnaire's internal consistency.

This approach makes the assumption that the paragraph whose degree of correlation is to be determined as extremely low, has a negative value, or lacks statistical significance, is indicating that the paragraph reduces the axis-related results' explanatory power. However, if the level of correlation is positive and statistically significant, this means that the paragraph is appropriate to its axis and supports its explanatory ability. The researcher submitted the questionnaire to a number of (15) employees in (3) banks in the capital Sana'a to ensure respondents comprehended the questionnaire paragraphs. This is a statistical procedure, which verifies the coherence of each paragraph in the questionnaire according to the purpose for which the study's questionnaire was created. The researcher here computed the correlation of the scores of each paragraph and the final score in the questionnaire by using the statistical package for the social sciences (SPSS) application.

The researcher successfully managed to obtain a high correlation result among the scores of each questionnaire item through adopting a mechanism to measure the validity of the internal consistency of each axis independently, this is indicated by the following:

Table (8): Internal consistency validity of the questionnaire's axis items

Axis Strategic Management					
Environmental Analysis Dimension			Strategy Formulation Dimension		
Paragraph number	Correlation coefficient	Significance level	Paragraph number	Correlation coefficient	Significance level
1	0.567	0.000*	8	0.784	0.000*
2	0.797	0.000*	9	0.823	0.000*
3	0.769	0.000*	10	0.830	0.000*
4	0.809	0.000*	11	0.830	0.000*
5	0.815	0.000*	12	0.811	0.000*
6	0.803	0.000*	13	0.830	0.000*

7	0.677	0.000*	14	0.810	0.000*
Strategy Implementation Dimension			Supervising and Evaluation Dimension		
Paragraph number	Correlation coefficient	Significance level	Paragraph number	Correlation coefficient	Significance level
15	0.722	0.000*	22	0.795	0.000*
16	0.763	0.000*	23	0.837	0.000*
17	0.723	0.000*	24	0.820	0.000*
18	0.732	0.000*	25	0.824	0.000*
19	0.627	0.000*	26	0.845	0.000*
20	0.677	0.000*	27	0.740	0.000*
21	0.645	0.000*	28	0.724	0.000*
The Institutional Performance's Focus					
Efficiency dimension			Effectiveness Dimension		
Paragraph number	Correlation coefficient	Significance level	Paragraph number	Correlation coefficient	Significance level
29	0.707	0.000*	37	0.767	0.000*
30	0.720	0.000*	38	0.813	0.000*
31	0.733	0.000*	39	0.830	0.000*
32	0.745	0.000*	40	0.858	0.000*
33	0.743	0.000*	41	0.713	0.000*
34	0.745	0.000*	42	0.845	0.000*
35	0.722	0.000*	43	0.849	0.000*
36	0.677	0.000*	44	0.719	0.000*

Table (8) makes it evident that every questionnaire item was positively and strongly correlated with its axes, with a minimum correlation being (0.567) for Paragraph No. (1) and the highest limit correlation for Paragraph No. (40) being (0.858), which indicates that there aren't any issues that could compromise the scale's overall reliability.

Table (8) makes it obvious that, all of the paragraphs on the strategic management axis had a positive, strong, and statistically significant degree of correlation at the significance level of (0.05) with one another. The degree of correlation ranged from a minimum of (0.567) for Paragraph No. (1) to an upper limit of (0.845) for Paragraph No. (26), which indicates that there are no paragraphs that might weaken the validity of this axis.

Regarding the internal consistency validity of the strategic management axis's dimensions, the findings were as follows:

1) The internal consistency validity of the items in the (environmental analysis) of the strategic management axis's dimension:

   Table (8) shows the results of computing the correlation coefficient—that is, the correlation value with the sub-scale—for every item in the environmental analysis dimension with the sub-score for every item. the value ranged around (0.567) at a minimum for paragraph No. (1), and (0.815) for paragraph No. (5) at its upper limit. It is also apparent that all correlation coefficients are statistically significant at the significance level (0.05). As a result, every item has internal validity. As a result, each paragraph possesses internal validity, and is perfectly suited for measuring the study's goals relating to this dimension.

2) The internal consistency validity of the items in the (strategy formulations) of the strategic management axis's dimension:

   Table (8) presents the findings of the calculation of the correlation coefficient within each item and the sub-score for all items in the strategy formulation dimension—that is, the correlation value with the sub-scale. This indicates that the correlation value with the sub-scale varied with a minimal value (0.784) for paragraph No. (8), and the highest value (0.830) for paragraphs No. (10), (11) and (13). Likewise, it is evident that every correlation coefficient has statistical significance at the significance level of (0.05), indicating the internal validity of each paragraph. Thereby it is suitable and applicable to measure the study's objectives pertaining to this dimension.

3) The internal consistency validity of the items in the (strategy implementation) of the strategic management axis's dimension:

   Table (8) shows the results of computing the correlation coefficient—that is, the correlation value with the sub-scale—for every item in the strategy implementation dimension with the sub-score for every item. the value ranged around (0.627) at a minimum for paragraph No. (19), and (0.763) for paragraph No. (16) at its upper limit. It is also apparent that all correlation coefficients are statistically significant at the significance level (0.05). The validity of the questionnaire for the strategy implementation dimension is achieved by the absence of any paragraphs that could compromise the credibility of this dimension; therefore, each paragraph possesses internal validity, and suitable and applicable to assess the study's objectives concerning this dimension.

4) The internal consistency validity of the items in the (supervising and Evaluation) of the strategic management axis's dimension:

   Table (8) displays the correlation coefficient results for each item with the sub-score for all items in the supervising and evaluation dimension. In other words, the correlation value with the sub-scale ranged at a minimum of (0.724) for paragraph No. (28), and with a maximal limit of (0.845) value for paragraph No. (26). It is also distinct the statistical significance of each correlation coefficient at the significance level of (0.05), demonstrating the internal credibility of each paragraph. As a result, it is appropriate and useful for measuring the goals of the study with reference to this dimension.

Table (8) reveals evident that every item on the institutional performance axis had a positive, strong, and statistically significant degree of correlation with its axis at the significance level (0.05). The correlation degree ranges between the values (0.677) at the minimum for paragraph No. (36), and (0.858) at the upper limit for paragraph No. (40), indicating that no paragraphs exist that could undermine the axis' validity.

The institutional performance axis dimensions' internal consistency validity described as follow:

1) The internal consistency validity of the items in the (efficiency) of the strategic management axis's dimension:

   Table (8) shows the results of calculating the correlation coefficient for each item with the sub-score for all items of the efficiency dimension, the correlation value with the sub-scale ranged at a minimum of (0.677) for paragraph No. (36), and with

a maximal limit of (0.745) value for paragraph No. (32) and (34). It is also distinct the statistical significance of each correlation coefficient at the significance level (0.05), demonstrating the internal validity of each paragraph. Thus, each paragraph is appropriate and useful for measuring the goals of the study with reference to this dimension.

2) The internal consistency validity of the items in the (effectiveness) of the strategic management axis's dimension:

Table (8) shows the results of calculating the correlation coefficient for each item with the sub-score for all items of the effectiveness dimension, the correlation value with the sub-scale ranged at a minimum of (0.713) for paragraph No. (41), and with a maximal limit of (0.858) value for paragraph No. (40). It is also distinct the statistical significance of each correlation coefficient at the significance level (0.05), demonstrating the internal credibility of each paragraph, so it is appropriate and useful for measuring the goals of the study with reference to this dimension.

Third: Construct validity

Construct credibility is regarded as one of the validity criteria for the questionnaire, which assessing the degree to which the objectives of the measure are fulfilled, and displays the extent interrelationship of the questionnaire's field expressions or the questionnaire's total item score. To confirm that the study tool had a good construct for the topic it was intended to measure, the Pearson correlation coefficient was employed. Table (9) illustrates this:

Table (9): The questionnaire's results for structural validity

Questionnaire dimensions	Pearson correlation coefficient	Probability value
The strategic management's focus		
Environmental analysis	**0.714**	**0.000***
Strategy formulation	**0.812**	**0.000***
Strategy implementation	**0.836**	**0.000***
Supervising and evaluation	**0.672**	**0.000***
Total axis measurement	**0.914**	**0.000***
Institutional performance's axis		
Efficiency	**0.861**	**0.000***
Effectiveness	**0.871**	**0.000***
Total axis measurement	**0.836**	**0.000***

According to the results of table (9), all of the Pearson correlation coefficients for the questionnaire's axes and dimensions are statistically significant at a significant level ($\alpha \leq 0.05$). This illustrates how closely each axis relates to its dimensions and how accurate the questionnaire's paragraphs are in terms of how they were designed to measure.

Fourth: The questionnaire's consistency

Consistency is referred to the degree to which the questionnaire is capable of remaining stable throughout time, and the questionnaire yields the same results even if it is distributed to individuals multiple times over the course of certain time periods (Al-Ariqi, 2014: 100). The researcher computed the consistency and reliability coefficient of the questionnaire's items utilizing the Statistical Package for the Social Sciences application (SPSS).

Through the computation of the Cronbach's alpha coefficient, which measures the degree of coherence within paragraphs, the results were as shown in the following table:

Table (10): Study tool (questionnaire) consistency results

Dimensions of the questionnaire	Number of paragraphs	Cronbach alpha reliability coefficient	Degree of credibility $\sqrt{Alpha}$
The focus of strategic management			
Environmental analysis	**7**	**0.917**	**0.958**
Strategy formulation	**7**	**0.945**	**0.972**
Strategy implementation	**7**	**0.896**	**0.947**
Supervising and evaluation	**7**	**0.938**	**0.969**
Total axis measurement	**28**	**0.962**	**0.981**
The focus of institutional performance			
Efficiency	**8**	**0.915**	**0.957**
Effectiveness	**8**	**0.944**	**0.972**
Total axis measurement	**16**	**0.955**	**0.977**

Table (10)'s results demonstrate that the questionnaire's dimensions and axes had strong consistency coefficient values, ranging from (0.962) and (0.955), With a credibility degree ranging between (0.981) and (0.977), as the Cronbach alpha reliability coefficient has a range of zero to one; a consistency value exceeding (0.7) is typically regarded as high. This indicates that the study tool (the questionnaire) has a high degree of stability and is not impacted by the time factor when administered to individuals, which makes it suitable for distribution as an appropriate and effective measuring tool for this research.

17. STATISTICAL METHODS APPLIED IN THE STUDY

Program (SPSS V.26) completed assessing the study's goals and testing its hypotheses while employing a variety of descriptive and inferential statistical techniques to produce the necessary data, it was as follows:

- **The study tool's credibility and consistency tests:**
  1) Testing internal consistency and construct credibility using Pearson's correlation coefficient
  2) Cronbach's alpha test to determine the study tool’s reliability.
- **Descriptive statistics methods:**
  1) Utilizing frequencies and percentages for calculating how respondents are distributed based on various demographic variables, including gender, age, qualification, years of service and job title.
  2) Arithmetic average.
  3) Utilizing the standard deviation to calculate sample answers' departure from the mean.
- **Inferential statistics methods:**
  1) Statistical analyzes using software (Smart PLS).
  2) Partial least squares PLS.
  3) Using the test T-test to reveal the significance of the differences of independent groups

18. THE STATISTICAL ANALYSIS'S RESULTS:

1. Results of the study sample's demographic characteristics' descriptive analysis:

The study sample's demographic variables were examined in order to assess the degree to which the responses were representative. Then presenting descriptive statistics for the individual data, and summarizing data in a table that displays each variable's values in order to make clear how many observations there are of a certain value within the variable using percentages and numbers. The following data regarding demographic traits were obtained by the researcher through transcribing the questionnaire forms:

Table (11): Distribution of samples based on demographic variables

Type	Repetition	The ratio%
male	140	63.6%
female	80	36.4%
Total	220	100%
Age	**Repetition**	**The ratio%**
Less than 30 years old	36	16.4%
From 30-40 years	129	58.6%
From 41-50 years old	43	19.5%
More than 50 years	12	5.5%
Total	220	100%
Qualification	**Repetition**	**The ratio%**
Intermediate diploma or less	42	19.1%
Bachelor's	146	66.4%
Master's	30	13.6%
PhD	2	0.9%
Total	220	100%
Years of service	**Repetition**	**The ratio%**
Less than 5 years	26	11.8%
5-10 years	58	26.4%
11-15 years old	57	25.9%
More than 15 years	79	35.9%
Total	220	100%
Years of service	**Repetition**	**The ratio%**
Specialists	84	38.2%
Department head	81	36.8%
Department director	53	24.1%
General director	2	0.9%
Total	220	100%

- **Type variable:**

Table (11) displays the results that the percentage of male employees reached (63.6%) of the study sample, while the percentage of female employees was (36.4%). Therefore, the low percentage of women employed in Yemeni banks can be attributed to the country's traditions and social structure, which limit the opportunities available to women.

- **Age variable:**

The table (11), which displays the results, demonstrates that individuals of the (40–30) age group, in general, have the largest percentage among all age groups, reaching (58.6%) of the study sample members, it indicates Yemeni banks' desire to hire

youthful employees. As well, the percentage of expert employees with ages ranging from (41to 50) years old was (19.5%), who have previous experience in finance and administration. Further, adults over 50 reached a proportion of (5.5%). Thus, the majority of the sample's members can be deemed to be young, that capable of working and contributing.

- **Qualification variable:**

Table (11) presents results indicating that (66.4%) of the sample members possess a bachelor's degree, confirming the presence of a well-educated workforce. Then, the group of people who possess an intermediate diploma certificate or less comes next, making up (19.1%) of the questionnaire's sample participants. While the owners of higher qualifications such a master's degree are represented (13.6%), and a PHD represents (0.9%), which is the lowest percentage among all.

- **Years of service variable:**

The table's findings (11) display the years of service variable revealed that the sample members at Yemeni banks varied widely in terms of the number of years they had worked there, with the highest percentage of the years of service for (15 years or more), as their percentage attained (35.9%). The percent of those with years of service ranging from (5 to 10) years was (26.4%) and those with years of service ranging from (11 to 15) years was (25.9%). Moreover, the sample's lowest percentage of individuals with (less than 5 years) of service was identified, with a percentage did not surpass (11.8%).

- **Job title variable:**

Table (11) indicates the results that due to the job title variable; there is practically equal between the category of specialists and department heads which have the highest percentage among the study sample. As specialists comprise the percentage of (38.2%), whilst department heads include a percentage of (36.8%) of the study sample members, as well as department directors represent a percentage of (24.1%), followed by general managers, who hold the lowest percentage of study sample members at (0.9%). This distribution might allude to a well-balanced organizational structure.

2. Descriptive statistics results for the strategic management axis statements:

Table (12): results of the strategic management dimensions' descriptive analysis

The dimension	Arithmetic mean	Standard deviation	Approval rate	Approval degree
Total average for the "Environmental Analysis" dimension	**5.944**	**0.715**	**84.91%**	**High**
Total average for the "strategy formulation" dimension	**5.891**	**0.740**	**84.16%**	**High**
Total average for the "Strategy Implementation" dimension	**5.864**	**0.667**	**83.77%**	**High**
Total average for the "Supervising and Evaluation" dimension	**5.778**	**0.749**	**82.54%**	**High**
Total average for the strategic management axis	**5.869**	**0.609**	**83.84%**	**High**

Table (12) clearly shows of the results of the strategic management axis are highly accepted with approval rate ranged (83.84%), arithmetic average (5.869), and the standard deviation was (0.609), demonstrating that Yemeni commercial banks extensive employ strategic management. The "environmental analysis" dimension ranked highest, with an arithmetic mean of (5.944), an approval rate of (84.91%), and a standard deviation of (0.715), to validate the study sample's strong agreement with Yemeni banks' dedication to operating in the capital with a comprehensive understanding of the internal and external environments. The high score aligns with participants' perceptions about Yemeni banks' capabilities in analyzing the environment, which ensure that banks execute extremely strong strategic decisions. Besides, the "supervising and evaluation" dimension was ranked lowest with an arithmetic average of (5.778), an approval rate of (82.54%), and a standard deviation of (0.749). The study's sample attests to the high degree of agreement on Yemeni banks' dedication to supervising and evaluating their strategic initiatives. While continuous monitoring and regular assessments are essential to guarantee that bank strategies are viable and aligned with its goals and to address any variances It might appear at any point. Additionally, the "strategy formulation" dimension attained the arithmetic average of (5.891), approval rate of (84.16%), and a standard deviation of (0.740). This indicates that the study sample has a high degree of agreement with the methodology that banks embrace to formulate strategic plans and draw strategic endeavors, starting with setting specific objectives and outlining the organization's mission and message to the general public, and ending with deliberating strategies for achieving objectives. Finally, " strategy execution's dimension" which is defined by an average arithmetic score of (5.864) and an approval rate of (83.77%), also reaches the standard deviation of (0.667), provides a clear picture of Yemeni banks operating in the capital. The dimension's results show that individuals in the study sample have a high level of affinity with Yemeni banks' strategy implementation practices, which are the practical actualization of the actions taken in pursuit of carrying out the strategic goals that the banks have articulated

3. Results from the institutional performance axis's descriptive statistics:

Table (13): Results of the institutional performance dimensions' descriptive analysis

The dimension	Arithmetic mean	Standard deviation	Approval rate	Approval degree
Total average for the “competence” dimension	**5.844**	**0.680**	**83.49%**	**High**
Total average for the “Effectiveness” dimension	**5.843**	**0.731**	**83.47%**	**High**
Total average for the institutional performance axis	**5.843**	**0.664**	**83.47%**	**High**

Table (13) show the institutional performance axis results were highly approved, the arithmetic average was (5.843), the approval rate was (83.47%), and the standard deviation was (0.664). Therefore, Yemeni commercial banks attain a high level of effectiveness and efficacy.

The "efficiency" dimension ranked first with an arithmetic mean of (5.844), an approval rate of (83.49%), and a standard deviation of (0.680), the study sample attests to Yemeni banks' strong dedication to a variety of operational efficiency-related aspects, from training staff members and enhancing human resources to integrating technology

and providing better services. Additionally, the high scores of this dimension demonstrate the banks' strong commitment to operational excellence, which ensures fulfilling the senior management's expectations. furthermore, placing the "effectiveness" dimension in second position with having an arithmetic mean of (5.843), an approval rate of (83.47%), and a standard deviation of (0.731), to confirm the study sample the dedication of Yemeni banks' objectives on a high level in terms of controlling operating expenses proficient, clear-headed, and devoted to accomplish the goals. As bank managements also have ability to adapt to market requirements, and concentrating on risk management, which ensures taking action to attain the highest level of effectiveness.

Evaluation of the standard form (second-degree dimensions):

The social sciences employ reflective models to maximize the collinearity among indicators. Thus, indications linked to a specific construct have to be strongly related to one another. Also, each individual elements must be able to replace and remove without altering the structure's significance (Hair et al., 2017, 46).

The second degree's dimensions were analyzed with the following procedures:

Convergent credibility of second-degree indicators:

It was determined by calculating the indicator weights, as mentioned by (Andreev, Heart, Maoz, and Pliskin 2009), the indicator weight values must be statistically significant and above (0.1). Table (14) displays the second-degree indicators' (dimensions') convergent credibility test results:

Table (14): Convergent credibility of second-degree indicators(dimensions)

Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	Value (T) (|O/STDEV|)	Significance level
Strategic management -> environmental analysis	0.818	0.819	0.034	24.060	0.000
Strategic Management -> Strategy Formulation	0.896	0.895	0.016	57.406	0.000
Strategic Management -> Strategy Implementation	0.901	0.900	0.018	51.059	0.000
Strategic management -> supervising and evaluation	0.790	0.790	0.032	24.872	0.000
Institutional performance -> efficiency	0.935	0.935	0.014	68.445	0.000
Institutional performance -> effectiveness	0.948	0.948	0.010	90.406	0.000

Table (14) makes it abundantly evident that the strategic management dimensions of environmental analysis, strategy formulation, strategy implementation, supervising and evaluation all play a role in shaping the core of strategic management, considering that their weights are above (0.1) and statistically significant at a significance level less than (0.000), which confirms the cognitive model's hypotheses of the study that the strategic management comprise the four previously listed dimensions.

Furthermore, it is observed that institutional performance reflects its two dimensions, as it is apparent that all of their weights above (0.1) and that they are statistically significant at a significance level less than (0.000), and this reflects the study's

cognitive model's expectations that institutional performance has two dimensions: efficiency and effectiveness.

Collinearity among variables:

In this stage, the variance inflation factor (VIF: variance inflation factor) is used to test the correlation among the model's dimensions, which represents the rise in measuring error caused by a linear correlation among dimensions, also it was mentioned by (Hair et al., 2019, 10) that in order to determine there isn't a co-linear correlation among the dimensions and variables, the optimal values for the variance inflation factor (VIF) must be near (3) or less.

Table (15): Co-linear correlation among variables

Variables	Variance Inflation Factor VIF
Strategic management -> environmental analysis	**1.000**
Strategic Management -> Strategy Formulation	**1.000**
Strategic Management -> Strategy Implementation	**1.000**
Strategic management -> supervising and evaluation	**1.000**
Institutional performance -> efficiency	**1.000**
Institutional performance -> effectiveness	**1.000**

Table (15) illustrates how it's obvious that every value of the common linear correlation for each of the model's dimensions is less than (3), which proving optimal value. It indicates the dimensions that comprise the model are not associated with a strong linear association.

Evaluation of the structural model (second-degree dimensions):

The structural model is evaluated through the following procedures:

- Coefficient of determination evaluation (R^2).
- Determine the impact's quantify (F^2).
- Predictive accuracy (Q^2).
- Model's predictive ability (PLS $_{predict}$).

First: Coefficient of determination evaluation (R^2):

The coefficient of determination is one of the most used measures for assessing structural models, and it is a measurement of the model's predictive ability based on the squared correlation of the actual values and the predicted values for the internal structures, whereby (R^2) represents the proportion of variance in the endogenous constructions that can be adequately explained by all of the related exogenous constructs. Based on the information provided above, it can be noted that the coefficient of determination (R^2) considered as a measure of prediction within the research sample.

As mentioned by (Hair et al. 2019, 11), the permissible value must be above than (0.10), though (Chin, 1998) provided more precise values for assessing the coefficient of determination (R^2), which is defined at three different levels:

- The value that Less than (0.33) expresses low level of interpretative ability.
- The value between (0.33 and 0.67) expresses medium interpretive ability.
- The value above (0.67) expresses a high degree of interpretive ability.

Table (16): Determination coefficient values (R^2)

Dimensions and variables	The coefficient of determination (R^2)	Significance level (p-value)
Efficiency	**0.875**	**0.000**
Effectiveness	**0.899**	**0.000**
Institutional Performance	**0.735**	**0.000**

Table values (16) demonstrate that the coefficient of determination (R2) values are above (0.67), indicating the model's interpretive ability is strong. Besides, the coefficient of determination that explained by the efficiency dimension reached (0.875). Additionally, the effectiveness dimension's coefficient of determination approaches (0.899), indicating that they fulfill as an interpretive ability variable according to the criteria of (Chin, 1998), and the institutional performance axis' coefficient of determination amounted to (0.735). Conclusively, the model exhibits a strong interpretive ability.

Second: Determine the impact's quantify (F^2):

The impact's quantify assessment (F^2) is applied to determine the amount of effect that caused by eliminating one of the study variables in the dependent variable's contrast ratio.

The values and the impact's quantify (F^2) were established using the following criteria by (Cohen, 1988):

- The value of (F^2) is higher than (0.35) indicates a significant impact's quantify.
- The value of (F^2) is less than (0.35) and higher than (0.15) indicates a medium impact's quantify.
- The value of (F^2) is less than (0.15) and higher than (0.02) indicates a weak impact's quantify.
- The value of (F^2) is less than (0.02) indicates no impact.

Table (17): Impact's Quantify

Track	F2
Strategic management -> institutional performance	**0.16**

According to the table (17) results, the value of (F2) for the track Strategic Management -> Institutional Performance is more than (0.15) and less than (0.35), which shows that strategic management has a medium effect on institutional performance.

Third: Predictive accuracy (Q^2):

for further confirmation, predictive accuracy (Q^2) was utilized as a criterion, which serving as an indicator for the model's capacity to predict outcomes outside of the study's sample. This is carried out taking statistics from each of the following sources (Geisser, 1974; Stone, 1974), and it is predicated on eliminating a collection of data values pertaining to the study's internal organizational structures (the dependent variable). Nevertheless, the averages and statistical estimates are measured in the same way as the averages and statistical estimates for the remaining values, and the deleted data are treated as missing values.

The (Q^2) is considered as a measure of prediction within as well as outside of the study sample. By contrasting the deleted values, which are presumed to be outside the sample, with the remaining values, which are also presumed to be within the sample. Regarding to (Hair et al., 2019), if there are minor discrepancies between the values that were eliminated and the values that remained, means that the model has a high degree of predictive accuracy.

As it was pointed out, the values can be compared as follows:

- Values that fall between (0) and less than (0.25) indicates low predictive power.
- Values in the range of (0.25) to (0.50) indicates medium predictive power.
- Values above (0.50) indicates strong predictive power.

Table (18): Predictive accuracy (Q^2)

Dimensions	Predictive valueQ2
Efficiency	**0.468**
Effectiveness	**0.380**
Institutional performance	**0.478**

It appears from the data in table (18) that institutional performance for its dimension (Efficiency -Effectiveness) has a medium predictive accuracy.

Fourth: Model's predictive ability (PLS $_{predict}$):

On top of that, based on (Hair, Howard, & Nitzl, 2020; Shmueli et al., 2019), the model's predictive ability (PLS $_{predict}$) is determined by randomly dividing the study's entire sample into equal-sized subgroups. The subsamples are merged into a single analytic sample, subsequently, one sample is excluded to be considered as a sample outside the model. Next, the root mean square error is compared to the least partial squares (RMSE), with using the error index of the root of the squares of the residuals for the linear regression model (LM).

Also, it may utilize the mean absolute error (MAE) or mean percentage error (MPAE), in cases where the values of flatness and skewness deviate from the normal distribution. Moreover, the error index is applied to the root of the squares of the residuals (RMSE) when the values in this case follow the normal distribution and range around (-1 and +1).

The following criteria values are used for estimating the model's predictive ability:

- When all values of the root mean square's error index (RMSE) for the partial least squares (PLS) exceeds the error index of (RMSE) for the model's linear regression (LM), the model is considered to be predictively incompetent, which has no predictive ability.
- When a few values of the root mean square's error index (RMSE) for the partial least squares (PLS) is less than the error index of (RMSE) for the model's linear regression (LM), The model is considered to have low predictive ability.
- When either most or half of the values of the root mean square's error index (RMSE) for the partial least squares (PLS) is less than the error index of (RMSE) for the model's linear regression (LM), The model is considered to have medium predictive ability.

- When all values of the root mean square's error index (RMSE) for the partial least squares (PLS) is less than the error index of (RMSE) for the model's linear regression (LM), The model is considered to have high predictive ability.

Table (19): the values of the root mean square error index (RMSE) of the partial least squares (PLS), the mean absolute error (MAE) and the error index of (RMSE) for the linear regression (LM)

Variables and dimensions	Root square error index (RMSE)of partial least squares (PLS)	Mean absolute error (MAE)	Error index for the root mean squares (RMSE) for linear regression (LM)
Institutional performance	**0.730**	**0.550**	**0.874**
Effectiveness	**0.796**	**0.596**	**0.963**
Efficiency	**0.740**	**0.536**	**0.861**

Referring to the table values (19) it turns out that all the error index's values for the root of the squares of the residuals (RMSE) for partial least squares (PLS) and the mean absolute error (MAE) is less than the error index of (RMSE) for the linear regression (LM); based on the criterion values and the values mentioned above, it is possible to conclude that the model has significant predictive ability.

19. TESTING THE STUDY HYPOTHESES

Tracks, and testing the primary and secondary hypotheses (Smart PLS)

To calculate the tracks, relation estimates are obtained for the structural model (path coefficients), which represent as the hypothesized connections among the study's variables (structures). Even more the relationship is considered statistically significant when the (p-value) is less than (0.05).

- **Testing the main hypothesis**

The primary hypothesis posits that there exists a statistically significant impact of strategic management, at the significance level (0.05), on developing the institutional performance of Yemeni commercial banks operating in the capital Sana'a.

For examining this hypothesis and the sub-hypotheses, structural modeling equations utilized the Partial least squares (PLS-SEM), and was statistically processed via (Smart PLS) program; table (20) provides an explanation:

Table (20): Testing the main hypothesis and its sub-hypotheses

Track	Original sample (O)	Sample mean (M)	standard deviation (STDEV)	The coefficient of determination (R^2)	value (T) (|O/STDEV|)	Significance level (p-value)
Strategic management -> institutional performance	**0.77**	**0.80**	**0.06**	**0.48**	**12.41**	**0.00**
Strategic management -> effectiveness	**0.66**	**0.66**	**0.04**	**0.48**	**15.28**	**0.00**
Strategic management -> efficiency	**0.65**	**0.65**	**0.04**	**0.38**	**14.60**	**0.00**

Table data (20) presents the results of the primary hypothesis test. The value of (T) was determined to be (12.41), with a significance level of (0.00), less than (0.05). This indicates that strategic management has a statistically significant effect at a significance level of (0.05) on improving the institutional performance of commercial Yemeni banks operating in the capital Sana'a. It is also clear that the value of the coefficient of determination reached (0.48), which indicates that the alter of institutional performance of Yemeni commercial banks operating in the capital Sana'a is due to the change in strategic management at a rate of (48%), along with presence of other significant variables at a rate of (52%). Hence the main hypothesis is consequently accepted. As can be noticed above, the goal of recognizing the strategic management's impact on developing the institutional performance of Yemeni commercial banks operating in the capital Sana'a has successfully achieved.

From this, it is inferred that the Yemeni commercial banks operating in the capital Sana'a are successfully managed, which enables them to supply the elements required by strategic management to enhance the institutional performance such as strategic analysis, and it also has a defined vision, mission, and goals, along with it strives to accomplish its objectives with all of its resources., while guaranteeing continuous assessment procedures by utilizing explicit control mechanisms that support the accomplishment of strategic management objectives to ensure the precision of implementing this strategy.

- **Testing the first sub-hypothesis:**

It indicates that strategic management has a statistically significant impact on improving the effectiveness of Yemeni commercial banks operating in the capital Sana’a at the significance level of (0.05). Based on the data in table (20), which clarifies the first sub-hypothesis' test. The(T) value turned out to be (15.28), with a significance level of (0.00) less than (0.05), this indicates that strategic management has a statistically significant impact on improving the effectiveness of Yemeni commercial banks operating in the capital at a significance level of (0.05). It is also clear that the value of the coefficient of determination reached (0.48), which indicates that the alter of institutional performance of Yemeni commercial banks operating in the capital Sana'a is due to the change in strategic management at a rate of (48%), along with presence of other significant variables at a rate of (52%); therefore, the first sub-hypothesis is accepted.

Based on this, it is deduced that the development of commercial banks' effectiveness is impacted by the implementation of strategic management, and underlining the Yemeni commercial banks' dedication to achieving its objectives and management of operational expenses since possessing a clear vision, flexibility in responding to market changes, a focus on risk management, and an operationally effective level.

- **Testing the second sub-hypothesis**

According to this, strategic management has a statistically significant impact on developing efficiency of Yemeni commercial banks operating in the capital Sana’a, at the significance level of (0.05). According to the table data (20), which describes the test of the second sub-hypothesis The value of (T) reached (14.60), with a significance level of (0.00), which is less than (0.05). This indicates that strategic management has a statistically significant impact on enhancing the efficiency of Yemeni commercial banks operating in the capital Sana’a at a significance level of (0.05). It is also evident

that the value of the coefficient of determination reached (0.38), this indicates that the change that occurs in the efficiency of Yemeni commercial banks operating in the capital Sana'a is due to the evolve in strategic management at a rate of (38%), with the presence of other influential variables at a rate of (62%). Therefore, the second sub-hypothesis is accepted. The findings conclude that the implementation of strategic management is directly impacted the improvement of operational efficiency in commercial banks, and verifying the dedication of the Yemeni commercial banks' departments operating in the capital Sana'a to several aspects of operational efficacy, initially with employee skill development and HR enhancement, progressing on to technology integration and service improvement.

20. RESULTS

Results from the questionnaire phrases' descriptive statistics:

1) Results related to strategic management

- The study's results revealed that, the arithmetic mean of all strategic management statement was (5.869) out of (7), indicating that this axis's relative weight is (83.84%), and the following order was established for this variable's dimensions based on the relative importance for each dimension determined by descriptive statistics:
    1) Environmental analysis with an arithmetic mean of (5.944), i.e. a percentage of (84.91%)
    2) Strategy formulation with an arithmetic mean of (5.891), i.e. a percentage of (84.16%)
    3) Strategy implementing with an arithmetic mean of (5.864), i.e. a percentage of (83.77%)
    4) Supervising and evaluation with an arithmetic average of (5.778), i.e. a percentage of (82.54%)

2) Results related to institutional performance

- The study's results revealed that the arithmetic mean of all institutional performance statements was (5.843) out of (7), indicating that this axis's relative weight is (83.47%), and the following order was established for this variable's dimensions based on the relative importance for each dimension determined by descriptive statistics:
    1) Efficiency with an arithmetic mean of (5.844), i.e. the ratio is (83.49%)
    2) Effectiveness with an arithmetic mean of (5.843), i.e. the ratio is (83.47%)

3) Hypothesis testing results

- It demonstrates that strategic management has a statistically significant impact on the institutional performance of Yemeni commercial banks operating in the capital Sana'a, at a significance level of (0.05); therefor, the main hypothesis is accepted.
- It demonstrates that strategic management has a statistically significant impact on developing effectiveness of Yemeni commercial banks operating in the capital Sana'a at the significance level (0.05); therefor, the first sub-hypothesis is accepted.

- It demonstrates that strategic management has a statistically significant impact on developing efficiency of Yemeni commercial banks operating in the capital secretariat, at the significance level of (0.05); therefor, the second sub-hypothesis is accepted.

Comparing the current study's findings and hypotheses to previous study:

On a dimensional level, the current study's results were compared with previous studies.

First: Discussing the results of the current study compared to previous studies:

Comparing the results of the strategic management axis with the results of previous studies:

The results of the study demonstrated that commercial banks operating in the capital Sana'a applied strategic management concepts at a high level, as the arithmetic average reached (5.869), standard deviation (0.609), and approval rate (83.84%). The results of the study demonstrated that, the application of the environmental analysis factor came in first with a high degree of agreement, as and the arithmetic average reached (5.944) and the standard deviation (0.715), and the approval rate (84.91%). This is aligned with the results of Al-Samawi's study (2021), which showed that the arithmetic average for analyzing the external environment was (3.71), the standard deviation was (0.706), and the approval rate was (74.2%), which considered as a high degree. Also, the arithmetic average for analyzing the internal environment reached (3.76), a standard deviation of (0.790), and approval rate (75.2%) which is a high degree. The results of the study demonstrated that the application of the strategy formulation dimension came in second place with a high degree of agreement, with an arithmetic average of (5.891), standard deviation (0.740), with a ratio of (84.16%), and this is consistent with the results of Al-Dirawi's study (2018). this study concluded that the arithmetic average of the strategy formulation dimension reached (3.98), and standard deviation (0.75), and a high approval rate of (79.63%). The results of the study demonstrated that the implementation of the strategy implementation dimension came in third place with a high degree of agreement, with an arithmetical average of (5.864), and standard deviation(0.667), with a ratio (83.77%). This is consistent with the results of Al-Samawi's study (2021) which found that the arithmetic average of the strategy implementation dimension reached (3.76), standard deviation of (0.784), with a high approval rate reached (75.2%). The results of the study demonstrated that the application of the supervising and evaluation dimension came in fourth place, with an arithmetical average of (5.778(and standard deviation)0.749), and his approval rate was high, reached (82.54%). This is consistent with the results of Al-Dirawi's study (2018), which concluded that the arithmetic average of the monitoring and evaluation dimension reached (3.72), standard deviation of (0.81), and a high approval rate of (74.30%).

Comparing the results of the institutional performance axis with the results of previous studies:

1) The results of the study showed that the level of application of institutional performance in commercial banks operating in the capital Sana'a was high, with an arithmetic average reached (5.843), standard deviation (0.664), and approval rate (83.47%).

2) The results of the study showed that applying the efficiency dimension came in first with a high agreement rate of (83.49%). The arithmetical average reached (5.844), and standard deviation of (0.680), This is consistent with the results of the Khurais study (2021), which concluded that the arithmetic average of the efficiency dimension reached (3.75), standard deviation (0.63), and a high approval rate of (75.02%).

3) The results of the study showed that the application of the effectiveness dimension came in second place with an arithmetic average of (5.843), standard deviation of (0.731), and a high approval rate reached (83.47%). This is consistent with the results of Hashem study (2019), which concluded that the arithmetic average of the effectiveness dimension reached (3.50), standard deviation of (0.72), and a high approval rate of (70.06%).

Recommendatıons

In light of the findings, the study produced a set of recommendations that Yemeni commercial banks operating in the capital Sana'a can benefit from. The following are recommendations that are most crucial:

1) The commitment of Yemeni commercial banks operating in the capital Sana’a to analyze how the internal and external environments reflect their reality, which will have a beneficial impact on their strategic decisions.

2) Adopting the commercial banks in the capital city of Sana'a, well-defined strategies which assist them to accomplish objectives.

3) Applying the Yemeni commercial banks operating in the capital Sana'a, strategies to concrete actions on the field, and training and qualifying employees in a way that promotes the strategic goals of the bank.

4) The necessity for administrative leaders to acquire the sufficient skills to make critical strategic decisions at the right moment and location, particularly in a setting with numerous challenges.

5) The management of Yemeni commercial banks operating in the capitals must make a commitment to a number of operational efficiency aspects, as well as to ensure that staff members receive skill development opportunities and stay up to date with the banking sector's ongoing technological advancements.

6) Putting strategies into action that assist the banks realize their future objectives and visions, that achieve operational performance and efficiency.

References and sources list

First: Arabic references:

a. Books

1) Al-Ariqi, Mansour Muhammad Ismail, (2018), Strategic Management, An Integrated Introduction, 2nd edition, Al-Amin Center for Publishing and Distribution, Sana’a, Republic of Yemen.

2) Al-Ariqi, Mansour Muhammad (2014), Research Methods - for researchers in administrative, marketing, financial and banking sciences (Fourth Edition), Al-Amin Publishing and Distribution, Sana’a, Republic of Yemen.

3) Hanafi, Abdel Ghaffar, and Abu Qahf, Abdel Salam, (2000), Bank Management and Its Applications, University Knowledge House, Alexandria, Egypt.

4) Yassin, Saad Ghaleb, (2010), Strategic Management, Al-Yazouri Scientific Publishing and Distribution House, Amman, Jordan.

b. Published journals, studies and periodicals:

1) Al-Mabrouk, Youssef Khalifa and Al-Amouri, Mustafa Ahmed, (2021), Strategic management applications and their impact on raising the level of organization effectiveness - an applied study on the Libyana mobile phone company - Tripoli, a research paper submitted to the Journal of the College of Arts, Al-Zawiya, Issue 34.

2) Saad, Abdel Baset Youssef Saad Bakhit, Muhammad Bahaa al-Din Muhammad and al-Musalmani, Rasha, (2021), The role of the administrative control system in improving institutional performance - a field study on the Sirte Oil and Gas Production and Manufacturing Company in Libya, a research paper submitted to the Scientific Journal of Commercial and Environmental Studies, Volume 12, Issue 3, Pages450-471.

3) Muhammad, Ahmed Youssef Al-Imam, Ahmed, Badr al-Din Farouk, and Mansour, Fath al-Rahman Hassan, (2015), The role of internal audit in improving the efficiency and effectiveness of investment funds, a research paper submitted to the Journal of Economic Sciences, Sudan University of Science and Technology, Volume 1, Issue 16, p. 289.

4) Muhammad, Abdel-Fattah Muhammad Hussein and Al-Mughrabi, Muhammad Al-Fateh Mahmoud Bashir, (2020), The Strategic Reality of Electronic Banking Services Provided by Yemeni Banks, a research paper submitted to Al-Bayda University Journal, Issue 2, (a special issue on the research of the First Scientific Conference of Al-Bayda University August 2020), pages 205-228.

c. University theses and dissertations:

1) Abu Samra, Hazem Khamis, (2017), The Role of Entrepreneurial Characteristics in Improving the Level of Institutional Performance - an applied study on private Palestinian universities, unpublished master's thesis, Academy of Management and Politics for Postgraduate Studies, Gaza, Palestine.

2) Ahmed, Musa Al-Kadhim Muhammad, (2017), Strategic Management and its Impact on Performance Effectiveness - a case study of Shikan Insurance and Reinsurance Company Limited, unpublished master's thesis, Africa International University, Khartoum, Sudan.

3) Ismail, Hassoun Ali Salem, (2021), Strategic Management and its Impact on Raising the Performance of Organizations - A Case Study of the Sudanese French Bank in the Period of 2019-2021, unpublished master's thesis, International University of Africa, Khartoum, Sudan.

4) Al-Derawi, Ayman Hassan, (2018), The Impact of Strategic Management on the Performance of Organizations: Organizational leadership as a mediating variable - an applied study on civil society organizations operating in Gaza Strip, unpublished PHD, Sudan University of Science and Technology, Khartoum, Sudan.

5) Al-Saadi, Qaid Abdullah Abdul Rahman, (2021), The Impact of Strategic Flexibility in Achieving Organizational Performance through Creativity - a field study in community colleges in the Republic of Yemen, unpublished PHD, University of Science and Technology, Sana'a, Republic of Yemen.

6) Al-Samawi, Abdul-Hakim Ali Qayed, (2021), The Impact of Applying Strategic Management on Improving the Performance of Yemeni Private Universities in the capital Sana'a, unpublished master's thesis, Al-Andalus University of Science and Technology, Sana'a, Republic of Yemen.

7) Al-Ansi, Ahmed Muthanna Ahmed, (2016), Strategic Management Processes and their Impact on the Performance of Yemeni Microfinance Institutions - An Applied Study, Unpublished Master's Thesis, Dhamar University, Dhamar, Republic of Yemen.

8) Al-Mahbashi, Abdul Razzaq Abdullah, (2019), The Impact of Strategic Management in Developing Postgraduate Studies in Yemeni Universities, unpublished doctoral dissertation, International University of Africa, Khartoum, Sudan.

9) Ben Miri, Mustafa, (2021), Strategic Management of Human Resources and its Role in Improving Employee Performance - a case study of the Saidal Foundation, Antibiotics Branch in Medea, unpublished PHD, Yahya Fares University in Medea, Algeria.

10) Hamid, Hana Mohamed Adam (2020), Strategy Management and Impact on Performance Improvement - Case Study: Africa World University, Unpublished Master's Thesis, Africa World University, Khartoum, Sudan.

11) Hamyan, Moaz Hamyan Ahmed, (2019), The Role of Strategic Planning in Developing Institutional Performance - from the Perspective of the Balanced Scorecard - a case study of Kamran Industry and Investment Company, unpublished master's thesis, Future University, Sana'a, Republic of Yemen.

12) Khurais, Anwar Hizam Saad, (2021), The Extent of Comprehensive Quality Management's Application and its Impact on Developing Institutional Performance - a field study in the Al-Aman Association for the Care of Blind Women, unpublished master's thesis, Arab Academy for Banking and Financial Sciences, Sana'a, Republic of Yemen.

13) Saidi, Yasmine, and Saouli, Nasima, (2023), The Role of Comprehensive Quality Management in Achieving Organizational Effectiveness - a field study in the Algerian Electricity and Gas Distribution Company - Guelma, unpublished master's thesis, University 8May 1945 Guelma, Algeria.

14) Abdel Hadi, Maysoon, (2017), Intellectual Capital and its Role in the Quality of Institutional Performance: an applied study on the education program at UNRWA, the United Nations Relief and Works Agency for Refugees in Gaza Strip, unpublished master's thesis, Academy of Management and Policy for Postgraduate Studies, Gaza, Palestine.

15) Ali, Mustafa Muhammad Abdullah, (2019), The Impact of Strategic Management on Institutional Performance in the Cement Industry Sector - applied to the Nile River State Cement Company, unpublished PHD, Shendi University, Khartoum, Sudan.

16) Faqair, Faisal, (2018), The Impact of Applying the Integrated Management System on Improving the Total Performance in the Economic Institution - a field study, , unpublished PHD, University of Blida 2, Algeria.

17) Qazza, Hamida Abu Saa (2018), Requirements for Applying Strategic Management from the Faculty-field point of viwe study at Tripoli University, unpublished PHD, Maulana Malik Ibrahim Islamic University, Jakarta, Indonesia.

18) Hashem, Mufaddal Abdul Jalil Ahmed, (2019), Quality of work life and its Impact on Institutional Performance through Organizational Loyalty - a field study in banks operating in the Republic of Yemen, unpublished PHD, University of Science and Technology, Sana'a, Republic of Yemen.

Second: English references:

1) AlHarethi ,Abdulrahman Ali Mohsen & AlMaamari, Qais Ahmed, (2018). The Impact of Strategic Planning on Improving Institutional Performance at Limkokwing University of Creative Technology in Malaysia, International Journal of Psychology and Cognitive Science,4(3): 112-129.

2) Andreev, P., Heart, T., Maoz, H., & Pliskin, N. (2009). Validating Formative Partial Least Squares (PLS) Models: Methodological Review and Empirical Illustration. In the 30th International Conference on Information Systems, 15-18 December, Phoenix, Arizona.

3) Barnett, Vic, (2002). Sample Survey Principles and Methods, 3rd Edition, published by Wiley, 100.

4) Buckman, R. (2004). Building Knowledge in Organization Performance. McGraw-Hill, Boston Publishing Co, 14-21.

5) Chin, W. W. (1998). the partial least squares approach to structural equation modeling. Modern methods for business research, 295(2), 295-336.

6) Cohen, J. (1988), Statistical power Analysis for the behavioral sciences (2nd ed.). New York: Rout ledge.

7) Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24.

8) Hair, J.F., Hult,G.T.M, Ring,C.,& Sarsted, M.(2017). Aprimer on partial least squares structural equation modeling (PLS-SEM). Thousand Oaks, CA: SAGE Publications.

9) Hair Jr, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing easurement model quality in PLS-SEM using confirmatory composite analysis. Journal of Business Research, 109, 101-110.

10) Geisser, S. (1974). A predictive approach to the random effect model. Biometrika, 61(1), 101-107.

11) Johnson, Gery, Scholes, Kevan, (2002). Exploring Corporate Strategy, 6th edition, Prentice Hall International.

12) Philippe Lorino, (1998). Methodes et pratiques de la performance, Edition d'organisation, Paris, 18-20.

13) Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. Journal of the Royal Statistical Society: Series B (Methodological), 36(2), 111-133.

14) Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. European Journal of Marketing, 53(11), 2322-2347.

15) Thomas, Olajide, (2014). Change management and its effects on organizational performance of Nigerian telecoms industries: Empirical Insight from Airtel Nigeria. International Journal of Humanities Social Sciences and Education (IJHSSE), 1(11), 170-179.