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## The Role of Lean Leadership in Achieving Organizational Performance Through the Mediating Role of Strategic Agility: (An Analytical Exploratory Study of the Opinions of a Sample of Instructors at the University of Basra)

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**Abstract:** The aim of the current research is to understand the mediating role of the strategic agility variable in the relationship between lean leadership and organizational performance at the University of Basra. Through research questions, the study aims to explore the extent to which strategic agility mediates the relationship between lean leadership and organizational performance. The primary focus is on the mediating role of strategic agility in the relationship between the lean leadership variable and the organizational performance variable. To achieve the research objectives, a set of hypotheses was selected. The research sample consisted of 104 individuals from the University of Basra. The data were statistically processed using several statistical methods such as correlation and standard deviation analysis. The research concluded with several findings, the most notable of which is that strategic agility, in its entirety, plays a mediating role in the relationship between the lean leadership variable, in its entirety, and the organizational performance variable, in its entirety, at the University of Basra. Additionally, the lean leadership variable, in its entirety, positively affects both strategic agility and organizational performance, and strategic agility, in its entirety, influences the organizational performance of the universities under study. The research recommended investing in the dimensions of strategic leadership at the University of Basra to leverage its impact on achieving sustainable organizational performance and developing strategic agility.

**Keywords:** Lean Leadership, Organizational Performance, Strategic Agility.

دور القيادة الرشيدة في تحقيق الاداء التنظيمي من خلال الدور الوسيط للرشاقة الاستراتيجية  
(دراسة استطلاعية تحليلية لآراء عينة من الاساتذة في جامعة البصرة)

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**المستخلص:** الهدف من البحث الحالي هو معرفة الدور الوسيط لمتغير الرشاقة الاستراتيجية في العلاقة ما بين القيادة الرشيقة والاداء التنظيمي في جامعة البصرة، من خلال تساؤلات بحثية مفادها يوضح توجهات البحث لاستكشاف مدى توسط الرشاقة الاستراتيجية في العلاقة بين القيادة الرشيقة والاداء التنظيمي اهمها الدور الوسيط للرشاقة الاستراتيجية في العلاقة بين متغير القيادة الرشيقة ومتغير الاداء التنظيمي، ولغرض تحقيق اهداف البحث تم اختيار مجموعة من الفرضيات. وكانت عينة البحث مكونة من (١٠٤) فرداً ينتمون الى جامعة البصرة. وتم معالجة هذه البيانات احصائياً بالاعتماد على عدة وسائل احصائية، اذ توصل البحث الى مجموعة من النتائج أبرزها تلعب الرشاقة الاستراتيجية بأبعاده مجتمعة دوراً وسيطاً في العلاقة بين متغير القيادة الرشيقة بأبعاده مجتمعة ومتغير الاداء التنظيمي بأبعاد المجتمع في جامعة البصرة عينة البحث، إضافة إلى أن متغير القيادة الرشيقة بأبعاده يؤثر بشكل إيجابي على كل من الرشاقة الاستراتيجية والاداء التنظيمي، وأن الرشاقة الاستراتيجية بأبعاده تؤثر في الاداء التنظيمي للجامعات محل البحث. وقد أوصى البحث بضرورة الاستثمار في أبعاد القيادة الاستراتيجية في جامعة البصرة للاستفادة من انعكاساته في تحقيق الاداء التنظيمي المستدام وتطوير الرشاقة الاستراتيجية.

**الكلمات المفتاحية:** القيادة الرشيقة، الاداء التنظيمي، الرشاقة الاستراتيجية.

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## Introduction

Recent years have witnessed a tremendous development in management thought in general, and strategic business thinking in particular, which has led to a accumulation of knowledge and extensive work experience for business organizations. (Alayoubi, 2020 :1)

One of the key factors that help in disseminating these strategic goals is the integration, coherence, and harmony between the organization's departments and individuals, which achieves its vision and mission. These problems are based on an important paradigm which is known as agility (Perker et al., 2015). Agility is considered to be a critical basis for today's modern organizations and necessary for their survival (Sanatigar et al., 2017) Amid the challenges and conditions that our organizations face today, including rapid transformations, technological changes, and the growing interest of organizations in growth, attracting, and retaining talented individuals, as well as recognizing their importance in achieving excellence, new managerial concepts of significant importance to the future of organizations have emerged. Among these concepts is organizational performance, which focuses on how to achieve performance in markets from a long-term strategic management perspective, especially as these organizations always strive to reduce competitive pressure to reach a state of stability. Additionally, organizational performance gives the organization the ability to determine a unique strategy and competitive position through the establishment of rules and mechanisms. This involves examining the nature of the interplay between the threat's strength in the environment and the organization's weaknesses, as well as determining the organization's focus based on its weaknesses in key areas of its strengths to form the foundation for the chosen strategy. Strategic agility is considered a guide for this, as organizational performance is viewed as a high-level capability that the organization possesses in processing strategic knowledge acquired from creative research, serving the renewal of strategies. It is an integrated approach to building and developing strategic capabilities, providing the organization with the opportunity to produce new knowledge. To achieve the research objectives, it is divided into four sections: the first covers the research methodology, the second addresses the theoretical framework of the research, the third focuses on the practical aspect of the research, and the fourth concludes with the findings and recommendations.

## Section One: Research Methodology

### First: Research Problem

The research problem can be clarified through three aspects. The first aspect is the intellectual problem in interpreting the relationship between lean leadership and organizational performance and the mediating role of the strategic agility variable in that relationship. Additionally, the theoretical debate is still in the process of being shaped and theorized around the variables of the current research, prompting the researcher to delve into constructing the intellectual framework for

these variables. The second aspect arises from the researcher's observation of the level of interest in the research variables within the sampled population. Field observations revealed a weak interest in the research variables, considering strategic agility as a mediating variable in the relationship between lean leadership and organizational performance. Furthermore, there is limited adoption of these topics in Iraqi institutions, including the University of Basra. To avoid missing the opportunity to benefit from these insights and to embody them practically, this research aims to elucidate the mediating role of strategic agility in the relationship between lean leadership and organizational performance from the perspective of some administrative leaders at the University of Basra. The third aspect involves transforming the researcher's formed perceptions into questions. Based on the aforementioned points, the research problem was identified as follows:

1. Does strategic agility play a mediating role in the relationship between lean leadership and organizational performance at the University of Basra?
2. Does lean leadership will improve the organizational performance at the University of Basra?
3. Does strategic agility will affect Lean Leadership at the University of Basra?
4. What is the level of achieving organizational performance among Lean Leadership leaders at the University of Basra?
5. What is the level and direction of the influence and correlation relationships between the research variables?
6. What is the magnitude of the mediating variable (strategic agility) in the relationship between lean leadership and organizational performance?

### **Second: Importance of the Research**

The importance of the research pertains to three areas. The first area revolves around the intellectual and philosophical significance of the three research variables. The researcher has addressed these variables through investigation and analysis, and this interest continues, providing an incentive for other researchers to delve into studying these variables. The second area relates to the application environment, which is the core of all institutions (public and private) with skilled, intellectually, and psychologically qualified personnel. This necessitates providing an environment free from all negative impacts that affect the work in these institutions, thereby reflecting on the quality of outputs. The third area concerns the potential contribution of the current research in enriching the knowledge aspect of topics that the Arab and Iraqi libraries lack, such as lean leadership, strategic agility, and organizational performance. This enrichment extends beyond the intellectual aspects of the variables to include the nature of the potential relationships between them through logical analysis and the practical testing of several hypotheses. This research is also an addition to the knowledge extension of previous studies that addressed these variables by highlighting the nature of the obstacles that govern them. It is hoped that this research will benefit educational institutions in our dear country in general and the entities responsible in the research sample in particular by forming a comprehensive framework that can be relied upon to identify the strengths and weaknesses regarding lean leadership and strategic agility, as well as the importance of having capabilities for organizational performance, thus contributing to improvement and progress.

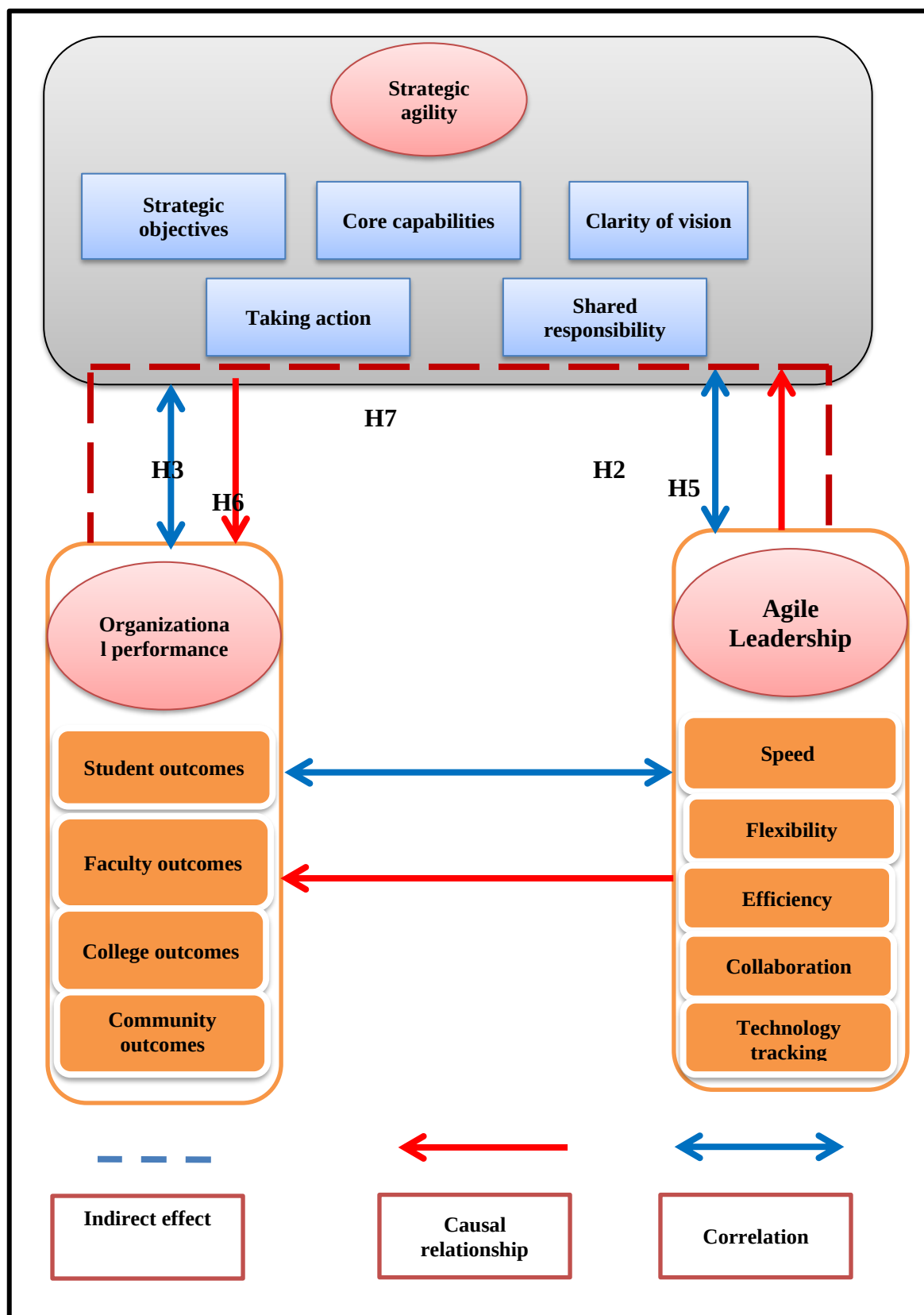
### **Third: Research Objectives**

1. To determine the level of lean leadership availability at the University of Basra.
2. To assess the extent of the prevalence of strategic agility at the University of Basra.
3. To identify the level of organizational performance at the University of Basra.
4. To elucidate the role of the strategic agility variable in the relationship between lean leadership and organizational performance at the University of Basra.

### **Fourth: Research Framework and Hypotheses**

Figure (1) illustrates the research framework, which shows a set of variables constituting the current research. This framework provides a preliminary development of a set of correlation and influence relationships between the current research variables, presented in a quantitative form. In line with

the research problem, questions, and framework, the research hypothesis was formulated based on the proof hypothesis.



**Figure (1):** The hypothetical framework

### **Fifth: Research Hypotheses**

1. There is a statistically significant effect between the lean leadership variable and the organizational performance variable.
2. There is a statistically significant effect between lean leadership dimensions and strategic agility.
3. There is a statistically significant effect between strategic agility dimensions and organizational performance.
4. Strategic agility mediates the relationship between lean leadership and organizational performance.
5. There is a significant correlation between lean leadership dimensions and organizational performance.
6. There is a significant correlation between lean leadership dimensions and strategic agility.
7. There is a significant correlation between strategic agility dimensions and organizational performance.

### **Sixth: Operational Definitions**

1. **Lean Leadership:** The ability of a leader to make wise and effective decisions in an environment characterized by high uncertainty. The survival, continuity, and sustainability of organizations depend on their agility.
2. **Strategic Agility:** The ability of an organization to cope with changes in the business environment by designing strategic systems characterized by high flexibility to respond quickly to changes occurring in the environment, helping the organization maintain its strategic superiority.
3. **Organizational Performance:** The ability of an organization to use its resources to achieve its goals, i.e., how effectively and efficiently it manages knowledge to gain competitive advantages that enable it to improve its performance.

### **Seventh: Research Boundaries**

- Spatial Boundaries: University of Basra.
- Human Boundaries: The human boundaries of this research include Instructors from various colleges at the University of Basra, totaling 104 faculty members.
- Scientific Boundaries: The researcher relied on the dimensions of lean leadership based on (Rozak et al., 2021 'Sahin & Aip, F, 2020). For measuring the dimensions of strategic agility, (khoshnood & Nematizedeh, 2017: 223) was referenced. Finally, for measuring the dimensions of organizational performance, (Sciarelli, 2020: 1356) was used.
- Temporal Boundaries: In line with the current research's content, the temporal boundaries include three periods:
  - The initial surveys of the University of Basra related to the research topic, extending from (1/12/2023) to (1/1/2024).
  - The second period associated with the theoretical framework and field research application, extending from (15/1/2024) to (15/3/2024).
  - The third and final period focused on statistical analysis and research results, extending from (20/3/2024) to (25/4/2024).

## **Section Two: Theoretical Framework**

### **First: The Concept of lean Leadership**

Agile leadership is one of the most important topics currently adopted by business organizations to deal with continuous developments in the internal and external environment. Lean leadership helps organizations maintain their competitive advantage and ability to stay in the competition arena (Hussein et al: 406). Researchers have varied in defining the concept of lean leadership. The first group considers lean leadership as an organized and effective way to achieve organizational goals.

According to **(Donbrowski & Mielke ,2014: 570)**, lean leadership is a method used by organizations to execute tasks through mutual respect and trust between the leader and individuals to achieve organizational goals, as lean leadership plays a significant role in achieving organizational success. **( Alj & Lohman , 2016)** defined it as a method used by organizations characterized by flexibility regarding employee development and by rigor and difficulty when it comes to following methods and techniques to improve work.

The second group views lean leadership as behaviors. **(Lingunblom , 2012: 59)** described lean leadership as behaviors that contribute to creating value for the organization and reducing waste related to unproductive ideas. **(Emiliani & Emiliani (2013: 409)** stated that lean leadership represents behaviors and beliefs focused on motivating and respecting human resources and optimizing resource utilization. Similarly, **(Rao, 2013: 144)** affirmed that lean leadership represents behaviors that set goals and influence human resources through persuasive and motivational methods and building a good team. Strategic leadership describes contemporary behaviors and orientations aimed at enhancing high-performance levels by developing relationships between all stakeholders involved in organizational processes **(Cruz & Wang, 2019: 12)**.

The third and final group views lean leadership as tools used by organizations to achieve their goals. **(Cardon ,2015: 45)** defined it as tools and techniques focused on continuous improvement, respecting individuals, and eliminating any kind of waste.

Based on the above, it is clear that definitions of lean leadership by authors and researchers fall into three directions. The first focuses on it as an organized method used by organizations to translate their organizational capabilities. The second, which is common among most researchers, sees lean leadership as a behavior used by organizations to cope with changes in the environment. The third and final direction considers lean leadership as a tool used by organizations to anticipate future events and movements of change.

Accordingly, the researcher concluded that lean leadership can be defined as "the ability of a leader to make wise and effective decisions in an environment characterized by high uncertainty. The survival, continuity, and sustainability of organizations depend on their agility."

## **Second: The Importance of lean Leadership**

Lean leadership holds significant importance, which can be explained according to **(Bushuyeva et al. ,2019, Sahin & Arp ,2020 ‘Attar & Abdul 2020: 183 ‘ Ingelsson et al. 2020: 16, and Testani & Ramakrishnan 2012: 5)**:

1. It plays a major role in fostering cooperation among individuals and teams.
2. It reduces or eliminates wastage of time, energy, and money.
3. It contributes to creating the right conditions for developing skills, knowledge, and expertise, encouraging individuals to innovate and develop new methods and techniques.
4. It enables organizations to remain competitive more effectively by leveraging available resources.
5. It helps create motivation among employees to perform their tasks in a way that ensures excellence.
6. It fosters a culture of agility, which helps the organization adapt and respond quickly to environmental changes.

## **Third: Dimensions of Lean Leadership**

Lean leadership is a topic of great importance in managerial literature, and it is linked to other subjects such as learning, innovation, decision quality, and changing organizational culture. Researchers have different views on the dimensions of lean leadership, and it has been approached through various classifications and perspectives. After reviewing relevant sources available to researchers, the dimensions identified by **(Rozak et al. 2021 ‘Sahin & Aip, F. 2020)** have been adopted. These dimensions are:

1. Speed
2. Flexibility



3. Efficiency
4. Collaboration
5. Technology

**These dimensions were chosen for several reasons:**

1. The novelty of the scale and its alignment with the realities of business organizations.
2. It represents a comprehensive and integrative perspective.
3. The scale aligns with the scientific importance emphasized by most researchers.
4. The practicality of the dimensions and their applicability in the field.

These dimensions can be explained as follows (Rozak et al. 2021; Sahin & Aip, F. 2020):

- A. Speed: This refers to an organization's ability to deliver products or services efficiently and on time. Speed is a prominent concept that grants the organization a competitive edge through its quick responsiveness.
- B. Flexibility: This means the ability to adapt to environmental changes and continuously respond to unexpected changes. Flexibility in organizations creates a sense of satisfaction among employees and contributes to achieving the desired goals.
- C. Efficiency: This refers to the characteristics possessed by an individual to perform a specific task well. Efficiency represents a set of abilities that provide productivity and effectiveness to the organization.
- D. Collaboration: Collaboration forms the cornerstone for gaining a competitive advantage by effectively utilizing available opportunities and managing talented individuals.
- E. Technology Adoption: Technology has become essential for organizations to achieve their goals. lean leader ship plays a crucial role in keeping up with rapid changes and acquiring technological advancements through necessary coordination for technology use.

**Fourth: Strategic Agility**

The concept of strategic agility has gained significant popularity and attention from organizations recently due to its impact on their distinctiveness and capabilities (Ojha, 2008:36). The term "agility" first appeared in 1991 by researchers at the Iacocca Institute at Lehigh University in the United States (Al-Romeedy, 2019:2). The concept of strategic agility has been discussed as a new model for dealing with environmental changes, increased competition, and rapid response to customer needs and desires, as agility is considered the cornerstone that helps an organization stay competitive (Tooranloo & Saghafi, 2019:4).

Strategic agility is seen as a method that uses strategic vision and insight to guide external and internal responses, human resource capabilities, and information technology to achieve sustainable organizational performance (Arokodare et al., 2019:4 ; Shams et al. 2021:2) describe strategic agility as the process of leveraging organizational knowledge by incorporating flexibility into operations without abandoning core values and current capabilities to remain in the business environment. Similarly, (Gerald et al, 2020:42) define strategic agility as the organization's ability to respond and adapt to environmental changes, helping ensure its survival by seizing opportunities and avoiding risks.

Strategic agility is also defined as the organization's ability to sense opportunities and risks in the environment and respond quickly to confront risks by reallocating resources, processes, and strategies to achieve objectives (Ogunleye et al., 2021:28). Additionally, (Cunha , 2020:4) states that strategic agility is the essential competency for an organization to manage and adapt to a highly dynamic environment. Strategic agility is considered one of the methods that help organizations overcome problems by adapting to unexpected environmental changes (Esazadeh et al., 2020:103). Based on the above, strategic agility can be defined as the ability of an organization to face changes in the business environment by designing highly flexible strategic systems to quickly respond to environmental changes, helping the organization maintain its strategic superiority.

### **Fifth: Importance of Strategic Agility**

Strategic agility is essential for ensuring the continuous success and development of organizations in a complex and highly uncertain environment. Its importance lies in the ability to seize opportunities and avoid threats, which depends on the organization's capacity for strategic analysis (**Soltaminezhad et al., 2021:179**). According to (**Elali, 2021:4** 'Ahammad et al, 2020:1-2) the importance of strategic agility includes:

1. It helps most organizations adopt unconventional strategies and philosophies to face challenges.
2. It is the true key to organizational success in a highly complex environment, enabling quick response and adaptation.
3. It helps organizations outperform their competitors by swiftly seizing opportunities and confronting challenges.
4. It enables organizations to achieve sustainable organizational performance and gain a competitive advantage, facilitating growth and survival.
5. It ensures that the organization continually updates itself to maintain its leadership.

From the above, it is clear that the importance of strategic agility revolves around being a modern and effective managerial tool that allows organizations to continue succeeding and outperforming competitors in a highly dynamic business environment.

### **Sixth. Dimensions of Strategic Agility**

As a result of the cognitive revolution, advancements in information technology, and other developments and challenges faced by organizations, it has become essential for organizations to adopt more modern management concepts to confront these challenges. One of the most important of these concepts is strategic agility, with its dimensions addressed by various classifications by researchers. According to (**Doz & Kosonen , 2008:87**), strategic agility consists of fundamental dimensions such as strategic sensitivity, collective commitment, and resource fluidity. Meanwhile, (**khoshnood & Nematizedeh ,2017:223**) describe the dimensions of strategic agility as including vision clarity, core capabilities, strategic goal setting, shared responsibility, and decisive action. Similarly, (**khoshnood & Keremanah , 2020:9**) and Millis suggest that strategic agility can be measured through flexibility and speed.

For the purpose of determining the dimensions of strategic agility in this research, the researcher relied on the content of the scale (**Khoshnood & Nematizedeh, 2017: 223;**), which represents a comprehensive and integrated perspective. Additionally, it is aligned with the nature of the environments of the researched organizations, besides its modernity. The following is a brief explanation of these dimensions:

1. Vision Clarity: This refers to a future-oriented perspective of management and employees that helps in defining the future state that the organization aims to achieve. It fosters employees' sense of loyalty and belonging by relying on a thorough analysis of both internal and external environments, aiding the organization in decision-making and guiding behavior in its operations.
2. Core Capabilities: This is the organization's awareness of its capabilities and how they can be used to create customer value. It serves as a crucial organizational resource that, when utilized correctly, can lead to competitive advantage.
3. Strategic Objective Setting: Strategic objectives represent the strategic direction that holds long-term ambition and challenge to achieve excellence and leadership in a specific field. The organization strives to achieve these objectives, derived from its vision and mission, aligning with the opportunities and capabilities available in its internal and external environment.
4. Shared Responsibility: This involves the participation of all stakeholders in the value chain in organizational decision-making. In other words, it involves engaging employees and stakeholders in information sharing and responsibility for business outcomes, fostering high levels of trust in subordinates and their capabilities.



5. Taking Action: This is the organization's ability to use its capabilities and collaborate with relevant parties in the planning and implementation processes necessary to achieve its goals efficiently and effectively.

### **Seventh: Organizational Performance:**

Organizational performance has been a focus of recent attention, as it represents the outcomes of organizational efforts aimed at achieving desired goals (**Sciarelli, 2020: 1303**). Organizational performance is used to identify indicators reflecting an organization's ability to face changes and challenges in its environment, thereby reflecting its competitive position. Organizations capable of rapid response, adaptation, and maintaining operational stability and continuity through investment in accumulated knowledge exhibit high organizational performance, operating efficiently and effectively (**Al-Qudah, 2020: 222**).

According to (**Kurdi et al., 2020: 3983**), organizational performance results from attention to human resources within the organization, increasing their satisfaction and significantly contributing to building their capabilities through training and development to enhance efficiency and productivity. This is corroborated by (**Dastmalchian et al. , 2020: 11**), who emphasize that improving organizational performance comes from good human resource practices, building human resources genuinely within the organization, thereby increasing individual productivity under appropriate contexts, which subsequently reflects on the organization's performance.

(**Lee et al., 2022: 539**) consider customer satisfaction, input capability, capital, and the intellectual value possessed by the organization as key indicators to ensure high organizational performance. Similarly, (**Hanaysha et al., 2022: 499**) explain that the essence of organizational performance lies in creating value, which plays a crucial role in organizational performance standards for any organization. Furthermore, (**Hang, 2022: 5380** ; **Jamil, 2023: 22**) view organizational performance as a reflective mirror of the social responsibility adopted by the organization, enhancing organizational performance and building sustainable competitive advantage. Achieving better organizational performance can be attained through increasing market share, gaining customer satisfaction, and improving organizational resources (**Nyathi & Kekwaletswe, 2023: 124**).

(**Mikalef , 2023: 1**) asserts that organizational performance means improving knowledge about decision-making processes, thereby enhancing insight generation among key decision-makers in the organization.

Based on the preceding discussion, organizational performance can be defined as the organization's ability to effectively and efficiently utilize its resources to achieve its goals. This involves managing knowledge effectively to gain competitive advantages that enable the organization to improve its performance.

### **Eighth: Dimensions of Organizational Performance**

Organizational performance is a crucial input for an organization to achieve its goals and secure its future. This requires building diverse knowledge capabilities that help meet the requirements of high organizational performance. The current research focuses on highlighting the key dimensions that serve as fundamental pillars. Researchers differ in identifying these dimensions; some consider financial and non-financial performance, innovation, and quality as fundamental dimensions of measuring organizational performance (**Hung et al., 2010**).

On the other hand, (**Al-Qudah, 2020: 225**) views the dimensions of organizational performance as human resource planning, strategic planning, and strategic participation. Therefore, there are no specific measures for organizational performance, as researchers determine measures that align with the work environment. According to a review of literature specifically related to higher education

institutions (the studied sample), most studies measure organizational performance through outcomes (**Burli et al., 2012; Psomas & Antony, 2017**).

Thus, the current research will adopt the scale identified by (**Sciarelli , 2020: 1356**), consisting of four dimensions: student outcomes, faculty outcomes, college outcomes, and community outcomes. Here is a summary of these dimensions:

- 1 .Student Outcomes: This encompasses everything related to students, including attendance rates, class activities, and other indicators such as the number of distinguished students, admissions to the college, and the number of graduates over the past three years.
- 2 .Faculty Activity: Since faculty members are essential pillars of the college, it's crucial to assess their satisfaction, the student-to-faculty ratio, and measure their scholarly performance over the past three years.
- 3 .College Outcomes: This refers to the number of published research articles by both students and faculty, as well as the number of graduation projects that have significantly contributed to solving specific problems.
4. Community Outcomes: This measures the extent of community engagement in college activities, whether cultural, scientific, social, or athletic, and the college's reputation within the community. It also includes the college's involvement in environmentally friendly activities.

### Section Three: Practical Aspect

The descriptive-analytical method will be used to illustrate the role of lean leadership in achieving organizational performance through the mediating role of strategic agility. Statistical survey methods, focused on data provision and collection, will also be employed. The survey sample will consist of faculty members from various colleges at the University of Basrah. Data analysis will involve linear regression analysis. Subsequently, survey results may reveal positive effects.

#### First: Research Boundaries:

A. Spatial Boundaries: University of Basrah.

B. Human Boundaries: The human boundaries of this research involve the opinions of a sample of administrative leaders at the University of Basrah, totaling 104 faculty members.

#### Second: Research Tool Validity:

The credibility of the tool will be assessed based on its ability to comprehend matters related to the targeted issues. Internal credibility will also be estimated by studying the relationship between the posed question and the inferred results. Additionally, validity will be assessed by comparing the extracted and inferred values with those obtained from other studies. The foundational credibility of the tool will be estimated by using a diverse set of tools to measure understanding and verify result consistency.

**Table (1):** Research Tool Levels

| Category          | Response Scale    | Response Level |
|-------------------|-------------------|----------------|
| from 1 to 1.80    | Strongly Disagree | Very Poor      |
| from 1.81 to 2.60 | Disagree          | Poor           |
| from 2.61 to 3.40 | Neutral           | Average        |
| from 3.41 to 4.20 | Agree             | High           |
| from 4.21 to 5    | Strongly Agree    | Very High      |

**The source:** The researcher

### Third: Factor Analysis

**Table (2):** Results of Factor Analysis

| Factor Extraction Coefficient<br>for Factor Analysis | Variable                   |
|------------------------------------------------------|----------------------------|
| .981                                                 | Agile Leadership           |
| .950                                                 | Strategic Agility          |
| .975                                                 | Organizational Performance |

**The source:** The researcher using SPSS software.

Based on the factor analysis values above, it appears that all values exceeded 50%, indicating that each factor represents the questionnaire in the best possible manner and without any additional changes.

### Fourth: Cronbach's Alpha coefficient for questionnaire factors:

Cronbach's Alpha coefficient is used to measure the homogeneity of questions in a questionnaire or scale. This coefficient reflects the extent of consistency or uniformity among the questions within the same scale. If the questions are homogenous, the Alpha coefficient is high, indicating strong internal consistency of the questionnaire.

The optimal values for Cronbach's Alpha range between 0 and 1, where zero indicates no consistency and one indicates perfect consistency. A Cronbach's Alpha value closer to 1 suggests better consistency among the questions.

Generally, Cronbach's Alpha is used to assess whether questions in a questionnaire fit the same attribute or concept uniformly. A high Cronbach's Alpha value indicates good questionnaire quality in terms of internal consistency, but it does not provide information on content validity or the degree of correlation between the questions and the measured concept (Fadel et al., 2022, p. 71).

**Table (3):** shows the results of Cronbach's Alpha coefficients for independent variable, dependent variable, and mediator variable factors.

| variables              | Number | Result |
|------------------------|--------|--------|
| Speed                  | 5      | 0.889  |
| Flexibility            | 5      | 0.847  |
| Efficiency             | 5      | 0.877  |
| Collaboration          | 5      | 0.907  |
| Technology Integration | 5      | 0.885  |
| Vision Clarity         | 5      | 0.908  |
| Core Competencies      | 5      | 0.888  |
| Strategic Goal Setting | 5      | 0.870  |
| Shared Responsibility  | 5      | 0.919  |
| Action Taking          | 5      | 0.915  |
| Student Outcomes       | 5      | 0.929  |
| Faculty Outcomes       | 5      | 0.889  |
| College Outcomes       | 5      | 0.847  |
| Community Outcomes     | 5      | 0.842  |

**Source:** SPSS

After examining the results in Table (3), where values range between 0.842 as the lowest and 0.929 as the highest, it is evident that the items presented in the questionnaire were homogeneous.

### Fifth: Descriptive Analysis of Questionnaire Factors:

In this study, the focus was on analyzing responses collected from experimental samples according to the research effects and its various aspects. The research is divided into three sections, where the first section deals with independent variable elements, the second section deals with dependent variable elements, and the third section deals with the mediator variable, each section including means and deviations.

The research is conducted to determine the level of response based on research criteria, collected digitally by determining the reliability of each category. Since the questionnaire was designed according to a Likert five-point scale, responses were described by levels of strong agreement and disagreement.

**Table (4):** presents the means, deviations, and T-test values.

| variables                     | Mean<br>(Arithmetic<br>Mean) | Standard<br>Deviation | T-test<br>Value |
|-------------------------------|------------------------------|-----------------------|-----------------|
| Speed                         | 3.5635                       | .81955                | 44.342          |
| Flexibility                   | 3.5846                       | .72121                | 50.687          |
| Efficiency                    | 3.6365                       | .72340                | 51.265          |
| Collaboration                 | 3.5154                       | .79106                | 45.319          |
| Technology Integration        | 3.6115                       | .73409                | 50.171          |
| Vision Clarity                | 3.6077                       | .74777                | 49.201          |
| Core Competencies             | 3.3558                       | .82719                | 41.372          |
| Choosing strategic objectives | 3.4750                       | .71986                | 49.229          |
| Shared Responsibility         | 3.4788                       | .80697                | 43.964          |
| Action Taking                 | 3.5077                       | .82152                | 43.543          |
| Student Outcomes              | 3.3904                       | .85281                | 40.543          |
| Faculty Outcomes              | 3.5635                       | .81955                | 44.342          |
| College Outcomes              | 3.5846                       | .72121                | 50.687          |
| Community Outcomes            | 3.5096                       | .77127                | 46.406          |

Based on the results from the table above, it is evident that the mean values were acceptable and high, and when compared to the levels of the research tool, they fell within acceptable limits. The standard deviation values in the previous table were close to each other, indicating that the sample was consistent in viewpoints as the dispersion was not high. All T-test values were statistically significant and acceptable, with a P-value less than 0.05, indicating that all questions were statistically significant and acceptable.

### Fifth, Analysis of the Relationship Between Research Variables:

Analyzing the social relationship between different research variables is a statistical procedure aimed at understanding the links and interactions among various indicators within a specific study framework. This analysis allows researchers to examine how changes in one variable affect another and helps identify the strength and direction of the relationship between these indicators.

In scientific research, correlation analysis is an essential part of available results and conclusions. It is used to examine potential patterns and trends in the data, enabling researchers to understand the relationships between the different variables under study.

Using techniques such as regression analysis and correlation analysis, researchers can study various relationships between quantitative variables, while logistic regression analysis is used for categorical variables. This type of analysis can provide insights into complex phenomena and interactions between variables, contributing to the development of explanatory concepts and theories.

Correlation analysis plays a crucial role in revealing the intricacies of correlations between study variables and deepens our overall comprehension of the phenomena under investigation. Using this information, we can assess the magnitude of the correlation between variables based on the following criteria:

1. Weak relationship: 0.10 or less
2. Moderate relationship: between 0.10 and 0.30
3. Strong relationship: greater than 0.30

**First Hypothesis:** There is a significant relationship between lean leadership dimensions and organizational performance.

**Table (5):** displays the correlation values between the factors.

|                           |                          | 1    | 2    | 3    | 4    | 5    |
|---------------------------|--------------------------|------|------|------|------|------|
| <b>Dependent Variable</b> | <b>Correlation Value</b> | .948 | .906 | .802 | .790 | .828 |
|                           | <b>Significance</b>      | .000 | .000 | .000 | .000 | .000 |
|                           | <b>N</b>                 | 104  | 104  | 104  | 104  | 104  |

The data from the table above confirms the first premise, indicating a substantial correlation between lean leadership characteristics and organizational success. The correlation coefficients exhibited a strong and satisfactory relationship, with values ranging from 0.802 to 0.948. Furthermore, all correlations were found to be statistically significant, as shown by p-values below 0.05.

**Second Hypothesis:** There is a significant relationship between lean leadership dimensions and strategic agility.

**Table (6):** displays the correlation values between the factors.

|                           |                          | 1    | 2    | 3    | 4    | 5    |
|---------------------------|--------------------------|------|------|------|------|------|
| <b>Mediating Variable</b> | <b>Correlation Value</b> | .765 | .736 | .783 | .830 | .853 |
|                           | <b>Significance</b>      | .000 | .000 | .000 | .000 | .000 |
|                           | <b>N</b>                 | 104  | 104  | 104  | 104  | 104  |

Based on the results from the table above, the second hypothesis is confirmed, showing a significant relationship between lean leadership dimensions and strategic agility. The correlation values were high and acceptable, ranging between 0.763 and 0.853, and all correlations were statistically significant with a p-value less than 0.05.

**Third Hypothesis:** There is a significant relationship between strategic agility dimensions and organizational performance.

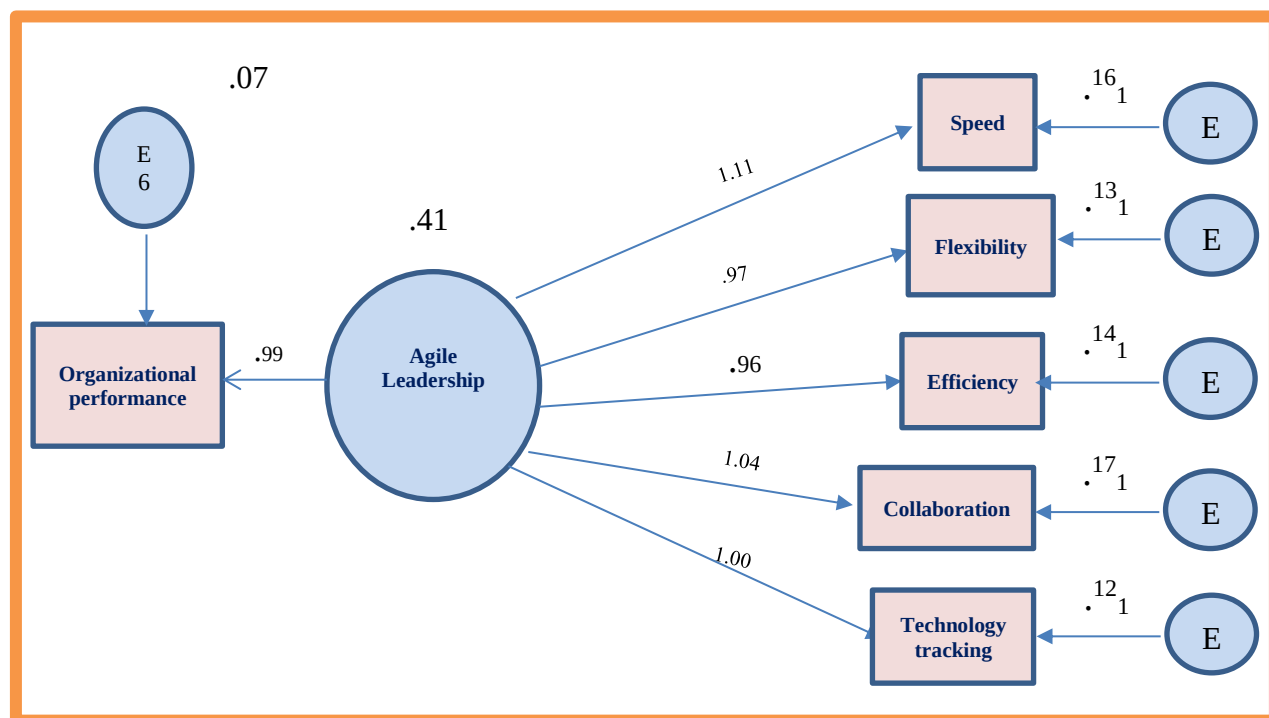
**Table (7):** displays the correlation values between the factors.

|                           |                          | 1    | 2    | 3    | 4    | 5    |
|---------------------------|--------------------------|------|------|------|------|------|
| <b>Dependent Variable</b> | <b>Correlation Value</b> | .740 | .702 | .800 | .767 | .836 |
|                           | <b>Significance</b>      | .000 | .000 | .000 | .000 | .000 |
|                           | <b>N</b>                 | 104  | 104  | 104  | 104  | 104  |

Based on the results from the table above, the second hypothesis is confirmed, showing a significant relationship between strategic agility dimensions and organizational performance. The correlation values were high and acceptable, ranging between 0.702 and 0.836, and all correlations were statistically significant with a p-value less than 0.05.

**Fourth Hypothesis:** There is a statistically significant effect between lean leadership variable and organizational performance.





**Figure (2):** Relationship of the impact between lean leadership variable and organizational performance.

**Table (8):** Regression Estimates for the Relationship Impact between Lean Leadership Variable and Organizational Performance

|                                   |      |                 | Estimate | S.E. | C.R.   | P   |
|-----------------------------------|------|-----------------|----------|------|--------|-----|
| <b>Speed</b>                      | <--- | Lean Leadership | 1.000    |      |        |     |
| <b>Flexibility</b>                | <--- | Lean Leadership | 1.043    | .088 | 11.859 | *** |
| <b>Efficiency</b>                 | <--- | Lean Leadership | .964     | .080 | 12.097 | *** |
| <b>Collaboration</b>              | <--- | Lean Leadership | .966     | .079 | 12.225 | *** |
| <b>Technology Integration</b>     | <--- | Lean Leadership | 1.108    | .089 | 12.472 | *** |
| <b>Organizational Performance</b> | <--- | Lean Leadership | .985     | .070 | 13.997 | *** |

### Hypothesis Results:

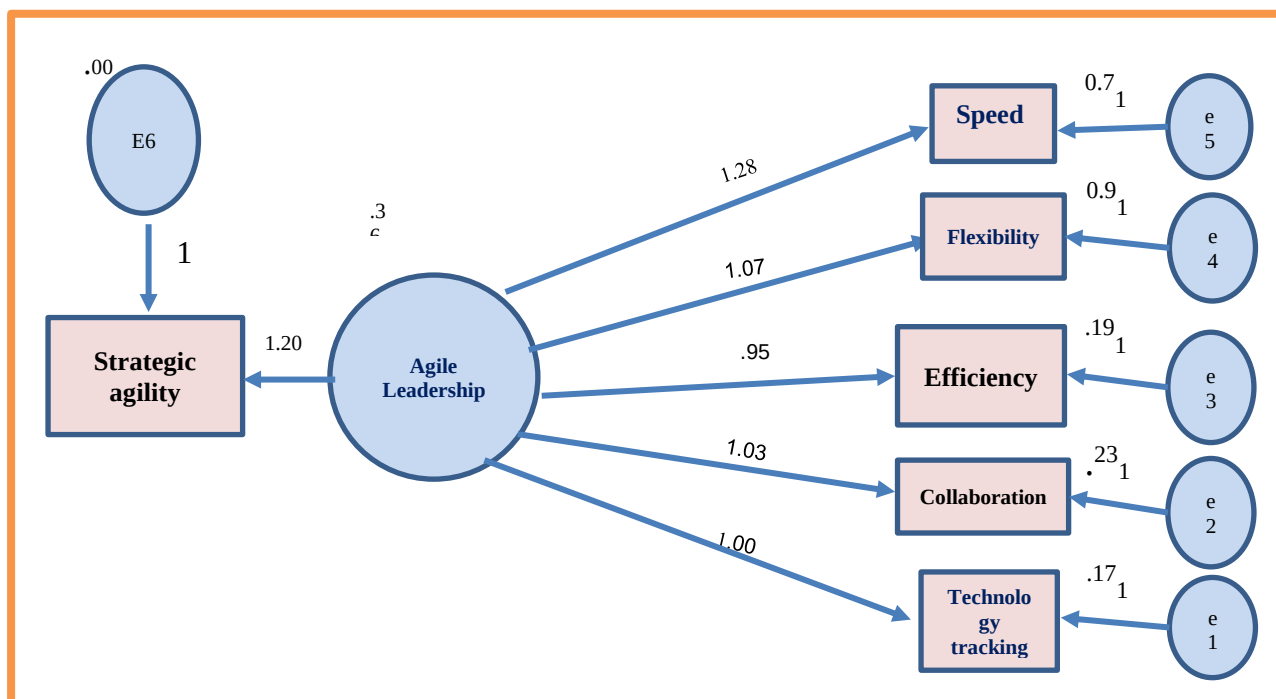
- Speed: Estimate = 1.000, indicating that lean leadership significantly and positively influences speed.
- Flexibility: Estimate = 1.043, with Critical Ratio (C.R.) = 11.859 and Probability (P) < 0.001, suggesting a strong positive and statistically significant effect on flexibility.
- Efficiency: Estimate = 0.964, with Critical Ratio (C.R.) = 12.097 and Probability (P) < 0.001, indicating a strong positive and statistically significant effect on efficiency.
- Collaboration: Estimate = 0.966, with Critical Ratio (C.R.) = 12.225 and Probability (P) < 0.001, showing a strong positive and statistically significant effect on collaboration.
- Technology Integration: Estimate = 1.108, with Critical Ratio (C.R.) = 12.472 and Probability (P) < 0.001, demonstrating a strong positive and statistically significant effect on technology integration.
- Organizational Performance: Estimate = 0.985, with Critical Ratio (C.R.) = 13.997 and Probability (P) < 0.001, indicating a strong positive and statistically significant effect on organizational performance.

### Conclusion:

The findings provide evidence in favor of the fourth hypothesis, indicating that lean leadership, characterized by its five characteristics (speed, flexibility, efficiency, collaboration, and technology

integration), has a statistically significant and favorable impact on organizational performance. The probability values (P) for each of the five dimensions are below 0.001, so enhancing the validity of the hypothesis and confirming a robust statistically significant influence of lean leadership on organizational performance.

**Fifth Hypothesis:** There is a statistically significant effect between lean leadership with its dimensions and strategic agility.



**Figure (3):** Relationship Impact between Lean Leadership Variable and strategic agility

**Table (9):** Regression Estimates for the Relationship Impact between Lean Leadership Variable and Strategic Agility

|                               |      |                 | Estimate | S.E. | C.R.   | P   |
|-------------------------------|------|-----------------|----------|------|--------|-----|
| <b>Speed</b>                  | <--- | Lean Leadership | 1.000    |      |        |     |
| <b>Flexibility</b>            | <--- | Lean Leadership | 1.029    | .105 | 9.812  | *** |
| <b>Efficiency</b>             | <--- | Lean Leadership | .951     | .095 | 9.976  | *** |
| <b>Collaboration</b>          | <--- | Lean Leadership | 1.075    | .088 | 12.240 | *** |
| <b>Technology Integration</b> | <--- | Lean Leadership | 1.279    | .096 | 13.326 | *** |
| <b>Strategic Agility</b>      | <--- | Lean Leadership | 1.198    | .081 | 14.848 | *** |

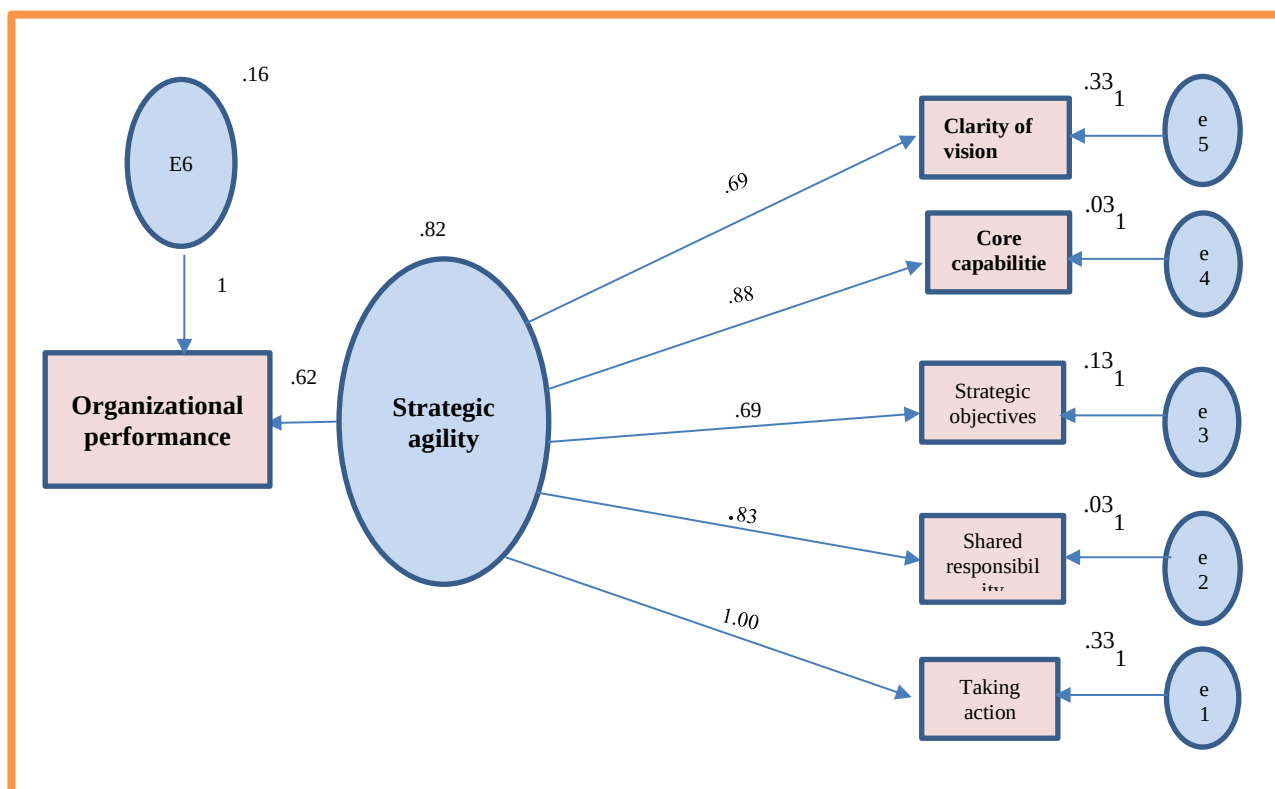
### Results of the hypothesis:

- Speed: Estimate = 1.000, indicating a strong positive effect of lean leadership on speed.
- Flexibility: Estimate = 1.029 with Critical Ratio (C.R.) = 9.812 and Probability (P) < 0.001, indicating a strong positive and statistically significant effect on flexibility.
- Efficiency: Estimate = 0.951 with Critical Ratio (C.R.) = 9.976 and Probability (P) < 0.001, indicating a strong positive and statistically significant effect on efficiency.
- Collaboration: Estimate = 1.075 with Critical Ratio (C.R.) = 12.240 and Probability (P) < 0.001, indicating a strong positive and statistically significant effect on collaboration.
- Technology Adoption: Estimate = 1.279 with Critical Ratio (C.R.) = 13.326 and Probability (P) < 0.001, indicating a strong positive and statistically significant effect on technology adoption.
- Strategic Agility: Estimate = 1.198 with Critical Ratio (C.R.) = 14.848 and Probability (P) < 0.001, indicating a strong positive and statistically significant effect on strategic agility.

### Conclusion:

The results support hypothesis five, showing that lean leadership dimensions (speed, flexibility, efficiency, collaboration, and technology adoption) have a strong positive and statistically significant effect on strategic agility. The probability values (P) for all five dimensions are less than 0.001, confirming the validity of the hypothesis and affirming a strong and statistically significant impact of lean leadership on strategic agility.

**Hypothesis 6: There is a statistically significant impact between strategic agility dimensions and organizational performance.**



**Figure (4):** Relationship between the variable of strategic agility and organizational performance.

**Table (10):** Regression estimates for the relationship between organizational performance and strategic agility.

|                                   |      |                   | Estimate | S.E. | C.R.   | P   | Label |
|-----------------------------------|------|-------------------|----------|------|--------|-----|-------|
| <b>Vision Clarity</b>             | <--- | Strategic agility | 1.000    |      |        |     |       |
| <b>Core Competencies</b>          | <--- | Strategic agility | .831     | .047 | 17.736 | *** |       |
| <b>Goal Setting</b>               | <--- | Strategic agility | .687     | .053 | 12.865 | *** |       |
| <b>Shared Responsibility</b>      | <--- | Strategic agility | .883     | .050 | 17.703 | *** |       |
| <b>Action Taking</b>              | <--- | Strategic agility | .692     | .073 | 9.517  | *** |       |
| <b>Organizational Performance</b> | <--- | Strategic agility | .617     | .055 | 11.264 | *** |       |

### Results Hypotheses:

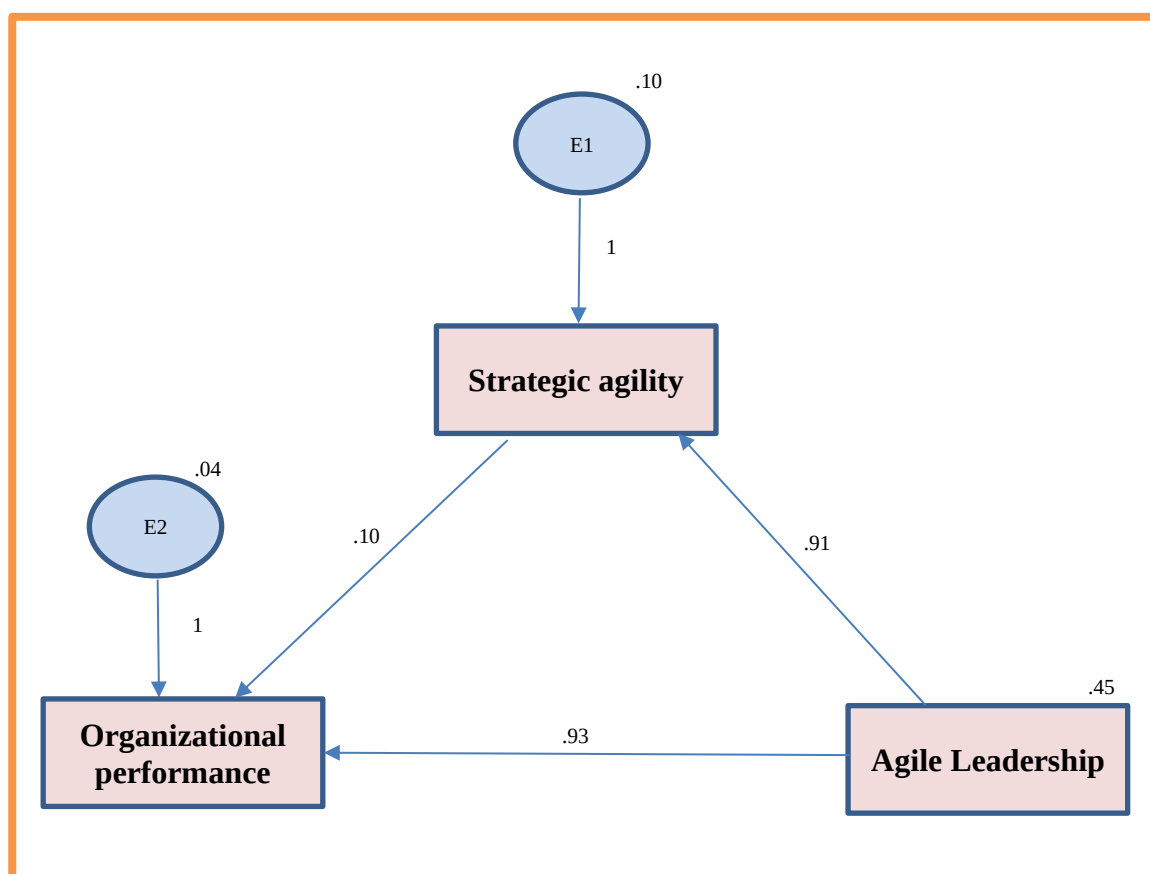
- Vision clarity: Estimate = 1.000, indicating a strong positive effect of strategic agility on vision clarity.
- Core capabilities: Estimate = 0.831, Critical Ratio (C.R.) = 17.736, and Probability (P) < 0.001, indicating a strong positive and statistically significant effect on core capabilities.
- Goal setting: Estimate = 0.687, C.R. = 12.865, P < 0.001, indicating a strong positive and statistically significant effect on goal setting.

- Shared responsibility: Estimate = 0.883, C.R. = 17.703,  $P < 0.001$ , indicating a strong positive and statistically significant effect on shared responsibility.
- Taking action: Estimate = 0.692, C.R. = 9.517,  $P < 0.001$ , indicating a strong positive and statistically significant effect on taking action.
- Organizational performance: Estimate = 0.617, C.R. = 11.264,  $P < 0.001$ , indicating a strong positive and statistically significant effect on organizational performance.

### Conclusion:

The findings provide evidence in favor of Hypothesis 6, demonstrating that the many components of strategic agility (such as having a clear vision, strong core competencies, effective goal setting, shared accountability, and taking decisive action) have a favorable and statistically significant impact on the performance of the company. The probability values (P) for each dimension are below 0.001, which strengthens the credibility of the hypothesis and confirms a robust and statistically significant influence of strategic agility on organizational performance.

**Hypothesis 7: Strategic agility mediates the relationship between lean leadership and organizational performance.**



**Figure (5):** The mediating effect of strategic agility on the relationship between lean leadership and organizational performance.

Table (11) illustrates the overall effects.

|                            | Agile Leadership | Strategic Agility |
|----------------------------|------------------|-------------------|
| Strategic Agility          | .908             | .000              |
| Organizational Performance | 1.027            | .102              |

**Table Number (12):** illustrates the direct effects.

|                                   | Agile Leadership | Strategic Agility |
|-----------------------------------|------------------|-------------------|
| <b>Strategic Agility</b>          | .908             | .000              |
| <b>Organizational Performance</b> | .935             | .102              |

**Table Number (13):** illustrates the indirect effects.

|                                   | Agile Leadership | Strategic Agility |
|-----------------------------------|------------------|-------------------|
| <b>Strategic Agility</b>          | .000             | .000              |
| <b>Organizational Performance</b> | .092             | .000              |

### Interpretation:

#### Overall Effects:

1. lean Leadership on Strategic Agility: The total effect is 0.908, indicating a strong and positive impact.
2. Strategic Agility on Organizational Performance: The total effect is 1.027, indicating a strong and positive influence.
3. lean Leadership on Organizational Performance: The total effect is 0.102, suggesting a positive effect but weaker than the total effect of strategic agility.

#### Direct Effects:

1. Lean Leadership on Strategic Agility: The direct effect is 0.908, confirming that lean leadership directly and positively influences strategic agility.
2. Strategic Agility on Organizational Performance: The direct effect is 0.935, indicating a strong positive impact.
3. Lean Leadership on Organizational Performance: The direct effect is 0.102, indicating a direct but weaker influence.

#### Indirect Effects:

1. Lean Leadership on Organizational Performance through Strategic Agility: The indirect effect is 0.092, suggesting that part of lean leadership's influence on organizational performance occurs through strategic agility.

### Conclusion:

The results support Hypothesis Seven, showing that strategic agility mediates the relationship between lean leadership and organizational performance. The total effect of lean leadership on organizational performance is 1.027, meaning that lean leadership significantly affects organizational performance, both directly and indirectly through strategic agility.

## Section Four: Findings and Recommendations

### First: Findings

Based on data analysis and research findings, the following conclusions can be drawn:

1. The Relationship between lean Leadership and Organizational Performance:
  - The correlation analysis results indicated a strong and significant relationship between lean leadership and organizational performance, with correlation values ranging from 0.802 to 0.948. This suggests that lean leadership plays a crucial role in improving organizational performance in the researched colleges.

2. The Relationship between lean Leadership and Strategic Agility:

- Analysis results revealed a strong and significant correlation between lean leadership and strategic agility, with correlation values ranging from 0.763 to 0.853. This indicates that applying lean leadership principles enhances strategic agility within the organization.

3. The Relationship between Strategic Agility and Organizational Performance:

- Results demonstrated a strong and significant relationship between strategic agility and organizational performance, with correlation values ranging from 0.702 to 0.836. This highlights that strategic agility plays a significant role in enhancing organizational performance.

4. Lean Leadership in its five dimensions (Speed, Flexibility, Efficiency, Collaboration, and Technology Adoption) has a positive and statistically significant impact on organizational performance. All dimensions show a strong positive effect, meaning that improving lean leadership contributes to enhancing organizational performance.

5. Lean Leadership in its five dimensions has a significant and positive impact on strategic agility. These effects are statistically significant, indicating that lean leadership plays a crucial role in promoting strategic agility.

6. Strategic agility in its dimensions (Vision Clarity, Core Capabilities, Goal Setting, Shared Responsibility, and Action Taking) significantly and positively influences organizational performance. These effects are statistically strong, meaning that strategic agility enhances organizational performance.

7. Strategic agility mediates the relationship between lean leadership and organizational performance. The overall effect of lean leadership on organizational performance shows a strong positive impact, both directly and indirectly through strategic agility.

## **Second: Recommendations**

1. Enhancing the Concept of lean Leadership in Organizations: Organizations should invest in developing lean leadership skills among their managers, given its positive impact on organizational performance and strategic agility.

2. Adopting Strategies to Enhance Strategic Agility: Organizations should work on enhancing strategic agility by improving their processes and procedures to be more adaptive and responsive to changes in the surrounding environment

3. Attention to Surveying and Development: Based on Cronbach's alpha coefficient results, it is recommended to continue using the current survey with periodic improvements to ensure consistency and internal coherence.



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