

Influence of Leadership Agility and Organizational Innovation on Organizational Performance

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Abstract

The purpose of this paper is to examine the impact of Leadership agility and organizational innovation on Organizational performance in petroleum sector in Egypt. Data were collected through a survey questionnaire of (34) statements, from a sample of 320 non-probability convenient sample of employees from different companies in the petroleum sector in Egypt to facilitate the collection of required data. Different statistical techniques were adopted to examine the data and the hypotheses. Study findings revealed that Leadership Agility is significantly related to Organizational performance at level of significance of ($P \leq 0.01$), as well as the significant relation between organizational innovation and organizational performance. Considering the findings of the research, the researcher suggests several recommendations, from which the importance of adopting leadership agility and organizational innovation in the Egyptian petroleum sector and taking advantage of their influencing factors and key drivers to boost the organizational performance in the Petroleum sector companies and consequently achieve the desired utmost performance.

Keywords: Leadership Agility (LA), Organizational Innovation (OI), Organizational Agility (OA), Organizational performance (OP), Egyptian petroleum sector.

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المستخلص :

الغرض من هو دراسة تأثير المرونة القيادية والابتكار المؤسسي على الأداء المؤسسي في قطاع البترول في مصر. ولتحقيق الهدف من الدراسة قام الباحث بتطوير استبيان شمل (34) فقرة لجمع البيانات الأولية من عينه الدراسة والمكونة من (320) موظف في قطاع البترول المصري تم اختيارهم عشوائيا لتسهيل تجميع البيانات المطلوبة، وفي ضوء ذلك تم تجميع البيانات وتحليلها واختبار الفرضيات، حيث تم استخدام العديد من الأساليب الإحصائية لتحقيق اهداف الدراسة.

وقد توصلت الدراسة الي وجود أثر ذو دلالة إحصائية عند مستوى معنوية $(P \leq 0.01)$ للمرونة القيادية على الأداء المؤسسي في قطاع البترول المصري، كما ان الابتكار المؤسسي له تأثير ذو دلالة على الأداء المؤسسية مع اختلاف تأثير كل بعد عن الاخر. تضمنت نتائج البحث عدة توصيات من أهمها أهمية اعتماد المرونة القيادية والابتكار المؤسسي في قطاع البترول المصري والاستفادة من العوامل المؤثرة والمحركات الرئيسية لتعزيز الأداء المؤسسي في شركات قطاع البترول وبالتالي تحقيق أقصى قدر من الأداء المطلوب.

الكلمات المفتاحية: المرونة القيادية، المرونة المؤسسية، الابتكار المؤسسي، الاداء المؤسسي، قطاع البترول المصري

1. Introduction

Change is a fact that occurs all the time in every part of the world where people live. Explicitly, the continuous changes in customers' requests and needs forces supervisors and managers of organizations to continually adjust to variations to keep their organizations in a highly competitive condition. They look for new arrangements and solutions to manage and endure their firms in challenging, dynamic, and changing business circumstances. For this reason, managers concentrated on adaptation, flexibility and on organizational agility, particularly after 2000's ultimately. The digital revolution has transformed people's lives in the way that people communicate with technology rather than with each other. This change forces managers to comprehend and adapt these improvements to their environment. For achievement that, they should have some characteristics, for example, vision, knowledge, courage, and trust (Kouzes & Posner, 2007). Today's changeable and competitive environment force companies to be more agile and successful (Christopher, 2000). Successful leading technology companies may sustain their high performance only if they keep being agile in that environment. Because of the competitive environment and strategies can improve company's performance (Anwar et al., 2019). Organizational agility offers companies the opportunity to be more flexible, to adapt and response rapidly to control market uncertainty and risk (Sherehiy et al., 2007). Agile companies can learn about the market alteration quickly, benefit from changes, and shape their firms' products according to those external changes converted into opportunity for them (Kumkale, 2016; Shin et al., 2015; Braunscheidel & Suresh, 2009). (Bulent Akkaya and Akif Tabak, 2020).

Leadership agility is the ability to effectively lead organizational change, build teams, and navigate challenging business conversations. The development and change in the environment, technological advances, and rapid economic and social changes as a result of globalization, have had a major influence on the industrial world.

Organizational agility represents a new concept in the business field. Previously, organizations were confident and resistant to change. However, with the new emerging technologies and open markets and due to the era of globalization, organizations need to be more flexible, timely, effective, and able to change with the dynamics to survive. Organizational plays a major role together with other factors to boost the survival of businesses in the market. Currently, highly competitive business environment

Organizational agility is seen as the ability of organizations to rapidly adapt to changes in business environment (Shamma Essa Lootah et al., 2020)

Enterprise agility is a complex, multidimensional, and context-specific concept, comprised of the ability to sense environmental change and quickly respond to unpredicted change by flexibly assembling resources, processes, knowledge, and capabilities (Yang and Liu, 2012)

Organizational innovation can be defined as the introduction of something new (an idea, product, service, technology, process, and strategy) to an organization. (Lam, 2006) defines organizational innovation as “to the creation or adoption of an idea or behavior new to the organization.” Likewise, (Damanpour, 1991) defines innovation as “adoption of an internally generated or purchased device, system, policy, program, process, product, or service that is new to the adopting organization.”

Managers and leaders of companies nowadays have considered the rise in uncertainty facing organizations due to volatile prices, trade wars, pandemics, global political unrest, new sources and regulation of global competition and fickle consumers. This situation caused us to ask how easily and quickly companies can sense, respond, and configure changes (Tallon et al., 2019). This has become increasingly concerning organizational agility and the leaders who can achieve it.

2. Theoretical framework

2.1 Leadership Agility:

Leadership is an acquired authority, not an assigned position. It is easy to appoint a person to a manager job, to fulfill several tasks through his given formal powers and authorities. But to achieve a license of leadership, a person needs to gain people's trust and can influence them in order to voluntarily follow him. Accordingly, not all managers have the personal authority that allows them to strongly influence others (Ron Meyer & Ronald Meijers, (2017)).

Leadership Agility is the highest competency needed in order to guarantee a sustained performance in today's complex, fast-paced business environment (Joiner, W., & Josephs, S., 2010).

The definition of the Leadership Agility used in this study is "It is a continuous change in the mindset, actions and directions of the leader or manager to taking advantage from the met challenges and available organizational capabilities in order to accomplish the greatest possible benefit to his organization on the level of Employees, stake holders and clients".

2.2 Organizational Innovation:

In principle, organizational innovation is the process by which an organization develops new advanced products or services and its success in introducing those commodities or services to the market. From another perspective, it can be defined as an organization's ability to transform ideas and knowledge into new services, processes, or products regularly for the benefit of its stakeholders (Alharbi, I.B.A. et. al., 2019).

There are various existing definitions of organizational innovation in different studies. However, it is worth noting that all definitions refer to organizational innovation as a single systematic process which involves

both ideas and behaviors which can serve to change the organization positively (Damanpour, F. and Aravind, D. (2012)).

Ibrahim Bader A. Alharbi et. al., 2019 summarized different definitions of organizational innovation. Table 1 Below shows a summary of the definitions

Table 1: Definitions or Organizational Innovation

	Definitions	Reference
1	The implementation of a novel idea or develop an internal idea within the organization that is linked organizational actions including programs, policies, products, services, process, and systems that are innovative to the organization	Thompson, V.A., 1965
2	It is the activities related to the structure of the organization and internal process.	Daft, R.L., 1978
3	The enhancements that are applied to the structure of the organization, administrative processes, and human capitals.	Damanpour, F. and Evan, W.M., 1984
4	It is implementing a contemporary method to the organization in internal and external business practices or relations.	OECD, 2005
5	Updates in company methods, practices and policies of traditional management that leads to enhance management performance	Hamel, G., 2006

	Definitions	Reference
6	Involving new strategies, practices, and marketing techniques to the organizations.	Battisti, G. and Stoneman, P., 2010
7	Organizational innovations are changes in the procedures of organizations to improve productivity, creativity, flexibility, efficiency, and profits to the organizations.	Tavassoli, S. and Karlsson, C., 2016

In this study, Organizational Innovation adopted definition is “the company’s adoption of new policies, strategies, products and techniques in order to enhance the company’s creativity for products and/ or services and accordingly achieve a competitive position in the market and thus improve the organizational performance with regards to gained profits and stake holder’s benefits”.

2.3 Organizational performance:

Presently there are many definitions recognizing the concept of performance due to its subjective nature. The concept of performance appears in dictionaries French, English, and Romanian. It defines many ideas of outcome, achieved goal, quality, and less the economic aspects of efficiency and effectiveness. Romanian Language defines performance as “a result (most probably good) obtained in sports competition; a success in a field of activity; also, it is the ultimate outcome obtained by a technical system, an equipment, or a machine device, the term performance was originated from the mechanics and sports fields as it is clear from the definition. Accordingly, performance is not achieved by any result, but it is achieved by special, superior or ultimate results exceeding the clear set objectives and

exceeding competitors' performance (ION ELENA-IULIANA et. al., 2016).

According to Matei L. (2006), the performance concept can be achieved by the intersection of three concepts:

1. Implementation of the missions and Objectives followed by the organization backed by the tools of its own policy.
2. Focus on target groups - customers, users and other actors in the public services provided by the organization.
3. Effective use of organizational resources to achieve the desired results.

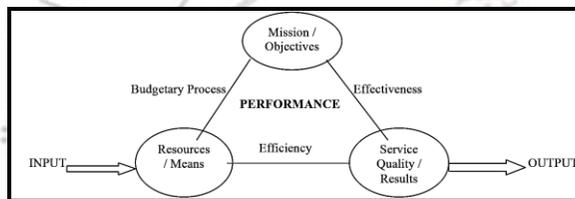


Figure 1: Definition of performance

In order to establish Organizational Performance measures, (Kaplan & Norton, 1992) developed the balanced scorecard tool. Using the scorecard helps managers challenge the temptation to possess financial measures only and instead monitor a set of various important measures. The idea behind the Balance scorecard is to provide a “balance” between financial measures and other measures essential to understand organizational activities that leads to sustainable performance. By using the balanced scorecard managers can overview of the organization’s performance by tracking four key measures that collectively reflect the organizational performance: (1) financial, (2) customer, (3) internal business process, and (4) learning and growth. These four dimensions are summarized in table 2 below.

Table 2: Scorecard measures of performance

Score card Measure	Example
Financial	such as return on assets and stock price—relate to effectiveness and profits.
Customer	such as number of new or repeat customers and percentage of repeat customers—relate to customer attraction and satisfaction
Internal business process	such as speed at serving a customer and time it takes to create a new product and get it to market—relate to organizational efficiency.
Learning and growth	such as the average number of new skills learned by each employee every year—relate to the future and emphasize that employee learning is often more important than formal training.

As illustrated from the above table, non-financial Organizational performance measures can give a wide perception of the firm performance as determined by Employee satisfaction, Employee retention, customer satisfaction, Growth & development opportunities, and Manager- employee relationships.

Due to the reason that this research depends on responses from online surveys. It is considered that access to the company's financial figures is available for a few number employees in every company as it is classified as confidential. Accordingly, financial data will not be available to most of the targeted survey audience. Thus, evaluating organizational performance in this study shall depend on non-financial performance measures related to Employee satisfaction, trust in leadership, work efficiency, Customer relations/ satisfaction, company reputation, Suppliers relation, competitors.

4. Research Problem

Scarce energy resources and increasing demand of energy due to increased population drives forces Oil and Gas Engineering, production, and construction Contractors in Egypt to resolve these challenges in today's continuously changing business environment. These challenges include trade wars, pandemics, energy price risks, unrest in oil and gas exporting countries.

In order to face these challenges managers should have high attributes of agility which is expected to result together with organizational innovation in an agile organization capable of rapid adaptation and overcoming of these challenges leading to organizational success and high performance.

Accordingly, the aim of the study is to examine the influence of the individual managers' abilities represented in *leadership agility* together with organizational capabilities represented in *organizational innovation* on *organizational performance* through the mediation of *organizational agility*. Organizational agility is foreseen to have an essential mediating role that connects leadership agility and organizational innovation from one side and the desired high-performance organization which is achieving.

4.1 Research Aim and Objectives

To examine the influence of the individual managers' abilities represented in leadership agility together with organizational capabilities represented in organizational innovation on organizational innovation and subsequent influence on organizational performance.

The adopted research model to be tested is illustrated in figure (2) below.

4.2 Research Model

The hypotheses of the study can be illustrated by the following theoretical framework, as shown in figure 2.

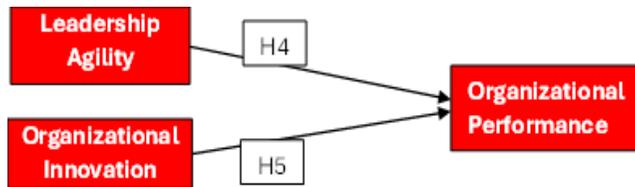


Figure 2: The Research Model

5. Research Hypotheses

Out of five Hypothesis of the complete research, two main Hypothesis were selected to be presented in this paper, namely H4 and H5 as follows:

H4 There is a positive relationship between Leadership agility and organizational performance.

H5 There is a positive relationship between organizational Innovation and organizational performance.

6. Research Methodology (Design)

Research Approach: Quantitative approach through questionnaire and sample calculation, data were collected and analyzed using the descriptive approach to test the hypotheses.

6.1 Sampling Technique

Non-probability convenient sample was adapted for the study. 320 questionnaire forms were distributed where 95.3 % forms were returned with a total number of 305. This proves the considerable interest of respondents and their seriousness in research variables.

Table 3: Questionnaire Reference

Variable	Measuring Method	Measuring reference
<i>Organizational Innovation</i> (Independent)	One dimensional Organizational Innovation based on <u>five-point Likert Scale</u> ,	Erdem et al. (2011)
<i>Organizational Performance</i> (Dependent)	One-dimensional Firm Performance Scale based on the <u>five-point Likert Scale</u>	Ravichandran et al. (2005) firm performance scale
<i>Leadership Agility</i> (Independent)	Multiple Leadership Questionnaire developed by Bass & Avolio (1995) based on the <u>five-point Likert Scale</u>	Bass & Avolio (1995), Mindgarden.com

7. Statistical Analysis and Discussion

7.1 Statistical Techniques

After the tabulation of respondents' replies, the replies coded, and data entered using a computer. Then, the data were processed using the Statistical Package for Social Sciences (SPSS 25). To achieve the study objectives and analysis of the data collected, various statistical methods were used as follows:

- i. Arithmetic Mean: to find out how high or low the study population responded to the study and their replies on the paragraphs of the questionnaire factors.
- ii. Standard Deviation: to know the extent of the deviation of the study sample responses on each paragraph of the questionnaire factors. It is noted that standard deviation shows the dispersion in the study sample responses on each adequacy, whenever its value becomes closer to zero, responses become concentrated, and their dispersion decreases in scale.
- iii. Spearman coefficient: to measure the degree of association between the variables since the data is on an ordinal scale.
- iv. Cronbach Alpha coefficient: to determine the reliability of the questionnaire.

7.2 Measurement Model Assessment

7.2.1 Reliability test

To test the reliability and stability of the questionnaire and to be sure of the reliability of respondents in answering questions, the Cronbach's alpha (α) is used to achieve the previous proposed objectives (DeVellis, 1991). The value for Cronbach's alpha is located between (0 - 1) and this value clarifies the extent of correlation between answers. The closer the Cronbach's Alpha coefficient is to one, the greater the internal consistency of the items on the scale. The accepted value of Cronbach's is between (0.7 - 0.8) values, substantially lower values indicate unreliable scale.

Table 4: Reliability Coefficients for the Studied Factors Using Cronbach's Alpha Coefficient Method

Variable	Statements	Cronbach Alpha
Leadership Agility	10	0.903
Organizational Innovation	12	0.915
Organizational Performance	12	0.913
Overall	46	0.967

Based on the above table, for the included dimension(s) of dependent, independent and mediator variables of study, the reliability coefficients of Cronbach' alpha are higher than the acceptable value of 0.70 which reflects that there is a high level of inter-correlations among the dimensions of study. In addition, the Cronbach Alpha' coefficient for all statements included in the questionnaire is 0.967 which means that the responses of the individuals (sample size 305) included in the sample of study are indicative and closely related to each other. In addition, their answers are reliable, and the results can be generalized.

7.2.2 Variables Correlation Analysis

To test the relationships between the dependent and independent variables, the multi linear regression analysis is used. The multi correlation coefficient to measure the correlation degree of independent variables with the dependent variable and the correlation between the variables, Organizational Innovation, Leadership Agility, Organizational Performance, and the mediator of Organizational Agility.

Table 5: Correlation coefficient analysis between the variables.

	OP	LA	OI	OA
OP	1			
LA	0.491 * (0.00 0)	1		
OI	0.723 * (0.00 0)	0.616* (0.000)	1	

*, **, *** refer to 1%, 5% and 10% level of significance respectively. P-values are in ()

Note: Null hypothesis: there is no linear correlation between the two values and the null hypothesis is rejected when p-value is less than or equal to level of significance.

7.2.2.1 Based on the table above, the correlation coefficient between independent variable of leadership agility and dependent variable of organizational performance is 0.491 which indicates that there is a weak positive (direct) linear relationship. In addition, this linear relationship is statistically significant and indicative at the level of significance of 1%. H4 is satisfied.

Note: since the p-value (0.000) is less than level of significance (0.01), therefore the null hypothesis is rejected which means that there is a linear relationship between both variables.

7.2.2.2 Based on the table above, the correlation coefficient between independent variable of organizational innovation and dependent variable of organizational performance is 0.723 which indicates that there is a strong positive (direct) linear relationship. In addition, this linear relationship is statistically significant and indicative at the level of significance of 1%. H5 is satisfied.

To measure the correlation between each dimension of the dependent and independent variables the multi-correlation coefficient is measured as shown in table 6 below.

Table 6: Correlations coefficient between the dimensions of the variables.

	Model	Coeff.	P-value	95% Confidence Interval		R-Square
				Lower bound	Upper bound	
Direct Effects						
1	(LA) → (OP) - (H4)	0.491*	0.000	0.389	0.521	0.241
2	(OI) → (OP) - (H5)	0.723*	0.000	0.695	0.763	0.523
Mediation Effect of leadership agility on organizational performance through organizational agility						
(multiple regression approach)						
3	(LA) → (OP)	0.098***	0.062	0.068	0.125	0.493
Mediation Effect of Organizational Innovation on organizational performance through organizational agility						
(multiple regression approach)						
4	(OI) → (OP)	0.468*	0.000	0.429	0.498	0.551

*, **, *** refer to 1%, 5% and 10% level of significance respectively

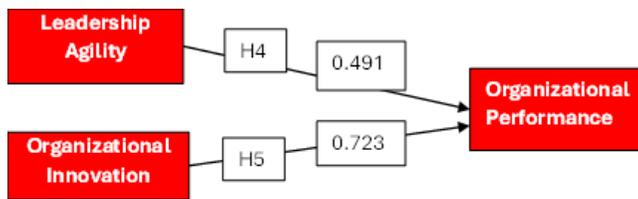


Figure 3: Research Model with correlation coefficient between dimensions of variables

Note: The below model numbers begin with number 4 to include variables only related to this study paper..

Model (4) – Effect of Leadership Agility (LA) on Organizational Performance (OP)

As indicated in item 1 of table 6 above, when LA increases by one unit, OP is expected to increase by 0.491 on average. And since the p-value (0.000) is less than level of significance of 1%, therefore this coefficient is statistically significance and LA has a real positive impact on OP. In addition, since the confidence interval lower and upper bounds don't include value of zero, therefore this coefficient is statistically significant. R-squared is 0.241 which means that LA is able to explain 24.1% of the variation in OP and the rest is due to error (i.e. **H4 is satisfied**).

H4: There is a positive relationship between Leadership agility and organizational performance.

Model (5) – Effect of Organizational Innovation (OI) on Organizational Performance (OP)

As indicated in item 2 of table 6 above, When OI increases by one unit, OP is expected to increase by 0.723 on average. And since the p-value (0.000) is less than level of significance of 1%, therefore this coefficient is statistically significance and OI has a real positive impact on OP. In addition, since the confidence interval lower and upper bounds don't include value of zero, therefore this coefficient is statistically significant. R-squared is 0.723 which means that OI is able to explain 52.3% of the variation in OP and the rest is due to error (i.e. **H5 is satisfied**).

H5: There is a positive relationship between organizational Innovation and organizational performance.

Model (6) – Effect of Leadership Agility and Organizational Agility on Organizational Performance – Multiple Regression Approach

As indicated in item 2 of table 6 above, when LA increases by one unit, OP is expected to increase by 0.098 on average and holding the other variable constant. And since the p-value (0.062) is less than the level of significance of 10%, therefore this coefficient is statistically significant, and LA has a real positive impact on OP. In addition, since the confidence interval lower and upper bounds don't include value of zero, therefore this coefficient is statistically significant.

Model (7) – Effect of organizational innovation and Organizational Agility on Organizational Performance – Multiple Regression Approach

As indicated in item 2 of table 6 above, when OI increases by one unit, OP is expected to increase by 0.468 on average and holding the other variable constant. And since the p-value (0.000) is less than level of significance of 1%, therefore this coefficient is statistically significant, and OI has a real positive impact on OP. In addition, since the confidence interval lower and upper bounds don't include value of zero, therefore this coefficient is statistically significant.

8. Discussion

The present study offers several interesting conclusions and findings that are coherent with earlier research.

First, this study confirms the significant connection between Agile Leadership and organizational agility in addition to further positive effect on organizational performance which is in line with (Stephanie Vonfintel, 2022) where he considered that leadership agility becomes an essential individual capability to insure successful and rational choices to face any challenges and elaborated that many leadership dimensions must be employed to control leadership agility traits effectively. These dimensions include innovative, proactive, cooperative, and strategic directional leaders. Moreover, this is

also in accordance with (Joiner and Josephs, 2007), where they contemplated that the three most powerful pillars that develop organizational agility are strategic agility, operational agility, and leadership agility. They further elaborated that to develop higher levels of agility, leaders need to develop themselves on three stages: Expert, Achiever, and Catalyst where Catalyst leaders represent only 10 per cent of current managers.

Additionally, the study is consistent with (Bulent Akkaya and Akif Tabak, 2020) concluding that transactional and transformational leadership styles positively affect organizational agility.

Second, the study empirically showed that leadership agility had a significant positive effect on organizational performance, which corresponds to (Lulu Setiawati, 2021) where it was concluded that Agile Leadership has effect on Employees' Performance. The study also illustrated that millennial employees working at VUCA environment expect to be led by agile leaders who can adapt to the changes. When employees see that the leaders have this ability, it will affect their performance and thus organizational performance.

Third, the positive effect of organizational innovation on organizational agility aligns in principle with the conclusion taken by (Thi Thuc Anh Phan, 2019) that Organizational change may not necessarily involve innovations unless otherwise a strategic decision of change of organizational structure is taken in order to pave the way to achieve required organizational change leading to innovation.

Fourth, it was concluded that organizational Agility has a positive boosting effect on firm performance where this is in the same direction as (Mohd Ahmad Abdel-Qader, 2021), that revealed that the organizational agility dimensions have a statistically significant association to organizational strategic agility represented in its dimensions (strategic sensitivity, partnership responsibility, clarity of vision, strategic objectives, business execution) and excellence in organizational performance.

On the other hand (Hyo Eun Cho and Insik Jeong et. Al, 2023) considered that organizational agility is a key driver to create superior performance in

international markets in the era fourth industrial revolution (Industry 4.0) represented in the rapid change to technology, industries, and societal patterns and processes and to which extent such impact is affected by the absorptive capacity of companies, which is also in line with this study but with an additional factor of absorptive capacity.

Fifth, the study found that organizational agility played an essential mediating role and boosted the effect of both leadership agility and organizational agility on organizational performance where this was aligned with the explanation of (Handed et al., 2014) that organizational innovation has a significant impact on company innovation and competitive advantages leading to higher organizational performance. This is also similar to what (Tayfun Yildiz and Zafer Aykanat, 2021) found that strategic agility has a positive impact on both firm performance and organizational innovation where organizational innovation plays a partial mediating role on this relationship.

Furthermore, this study illustrates related findings as (STEVEN S ZHOU et. al., 2017) found that innovation, especially technological innovation, serves as an important mediating mechanism between dynamic capabilities and firm performance where Dynamic capabilities are defined as the ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments.

9. Conclusions and recommendations

This study empirically examined the impact of Leadership Agility (LA) on Organizational Performance (OP) and that of Organizational Innovation (OI) on Organizational Performance (OP).

Carried out by different models of five Direct Effects, two Mediating Effects and two Indirect Effects, this study have chosen two empirically examined impacts on Organizational Performance (OP), namely Leadership Agility (LA) and Organizational Innovation (OI) on. The study also analyzed the direct influence of (LA) on (OP) and direct influence of (OI) in (OP). The study focused on the Petroleum sector in Egypt. The study concluded the following outcomes:

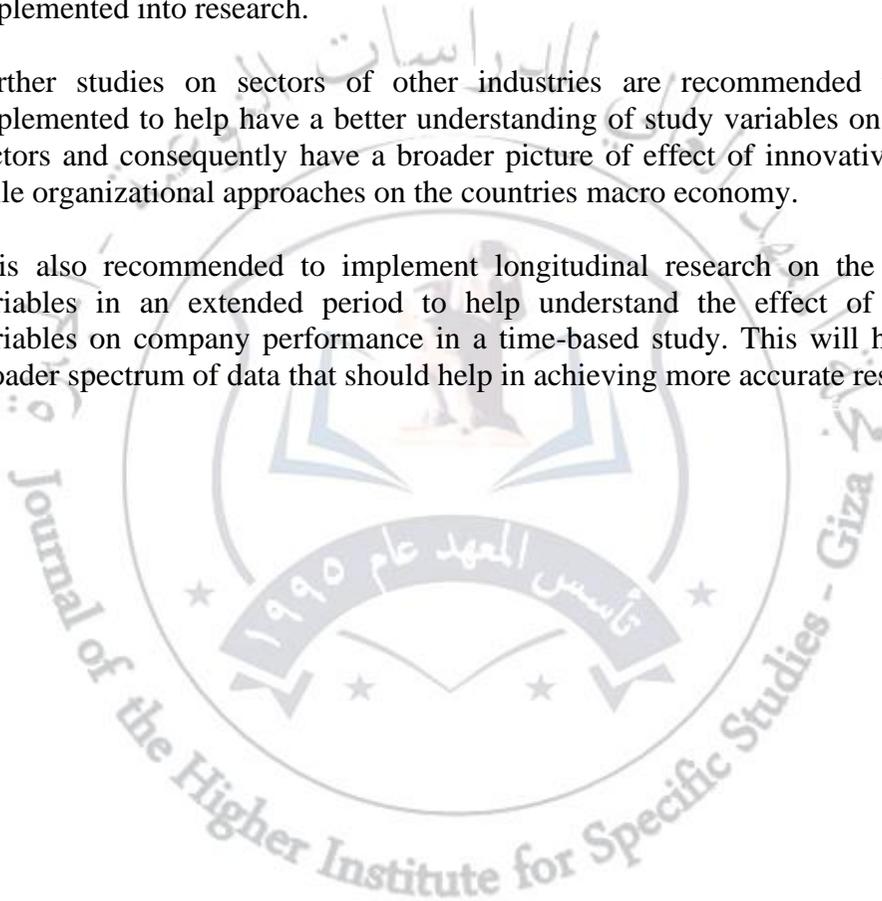
1. Leadership agility of employees of the Petroleum sector has a significant positive impact on organizational performance with 24.1 % ability to explain OP variations.
2. Egyptian Petroleum sector has a high level of Organizational Innovation which positively impacts the organizational performance with 52.3 % ability to explain OP variations.
3. The study confirms that OA has a positive and significant relationship with Organizational performance, where it can explain 48.6% of its variations of OP.
4. Organizational Agility as a Mediator variable has a highly significant impact on the effect of leadership agility (LA) on organizational performance (OP). Additionally, is has a high significant impact on effect of organizational innovation (OI) on organizational performance (OP)
5. It is highly recommended to implement Leadership agility and organizational innovation dimensions through mandating organizational mechanisms to create a value for the organization and achieve a high level of organizational agility which consequently impacts positively the organizational performance.
6. Due to the disciplined nature of the petroleum sector, it is highly recommended to take advantage of this sector to transfer concepts of innovative organizations, agile leaders, and agile organizations to other business sectors especially those related to local manufacturing of different products. This will ensure a competitive market product of Egyptian industry which is capable of penetrating foreign markets and reducing demand of foreign currency.
7. In today's aggressive business environment on the macro scale Implementing this study variables on different governmental organizations would be of great advantage to reduce the bureaucracy and encourage foreign direct investment in Egypt which is foreseen to boost the country's economy.

Limitations and Future Research

The topic of Leadership agility and Organizational Innovation is still an interesting topic to be further elaborated and developed in future studies to study the effect of these variables on company performance. This could be done through testing other mediating variables which are still possible to be implemented into research.

Further studies on sectors of other industries are recommended to be implemented to help have a better understanding of study variables on these sectors and consequently have a broader picture of effect of innovative and agile organizational approaches on the countries macro economy.

It is also recommended to implement longitudinal research on the same variables in an extended period to help understand the effect of these variables on company performance in a time-based study. This will have a broader spectrum of data that should help in achieving more accurate results.



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Appendix (1): The questionnaire of the study

Variable Questionnaire	Source
<p>Leadership Agility (LA)</p> <p>LA1: Manager Has a long-term viewpoint with clear mission and strategies outlined.</p> <p>LA2: Sets realistic goals with clear objectives annually and review them intermittently.</p> <p>LA3: Is dynamic, focused and fast in responding to challenges.</p> <p>LA4: Views customer feedback as an important source to improve organizational performance.</p> <p>LA5: Focuses on enabling the best in employees rather than commanding it from them.</p> <p>LA6: Challenges the way things have always been done and looks for better ways to do them.</p> <p>LA7: Emphasizes lifelong learning for employees.</p> <p>LA8: Necessitates constant communication and collaboration across departments.</p> <p>LA9: Allows decisions to be made at the level where the best information is available.</p> <p>LA10: Emphasizes an ethical code that guides best employee behavior.</p>	<p>Erdem et al. (2011)</p>
<p>Organizational Innovation (OI)</p> <p>OI1: Top Management adopts research and development policy.</p>	<p>Ravichandran et al. (2005) firm performance scale</p>

Variable Questionnaire	Source
<p>OI2: Top management benefits from technical teams available to achieve greatest possible innovation.</p> <p>OI3: Top management group implements adaptations to existing services or refine the provision of existing services.</p> <p>OI4: Top management group introduce improvements to existing services for global market in addition to local market.</p> <p>OI5: Top management group increase economies of scales in existing markets.</p> <p>OI6: Top management group expands services for existing clients.</p> <p>OI7: Top management group accepts demands that go beyond existing scope and services.</p> <p>OI8: Top management group seeks new innovative products/ services.</p> <p>OI9: Top management group has trials with new services that are completely new to the firm.</p> <p>OI10: Top management group Sets marketing plans for services that are completely new to the firm.</p> <p>OI11: Top management group utilize new opportunities in new markets.</p> <p>OI12: Top management group in firm utilizes new distribution channels.</p>	
<p>Organizational Performance (OP)</p> <p>OP1: Relations with suppliers are</p>	<p>Bass & Avolio (1995), Mindgarden.com</p>

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Variable Questionnaire	Source
<p>quite good and stable.</p> <p>OP2: We strongly involve our suppliers in our research and development processes.</p> <p>OP3: There are no cases in our company of people leaving for internal reasons.</p> <p>OP4: Productivity of employees is much higher than industry average.</p> <p>OP5: Employees' trust into leadership is high. Work organization is efficient.</p> <p>OP7: Employees feel very committed to the organization.</p> <p>OP8: Operating cost per employee are well below the industry average.</p> <p>OP9: Risk-taking within the company is better than it is by our competitors.</p> <p>OP10: The number of customer complaints within the last period has decreased strongly.</p> <p>OP11: We deal with customer complaints faster than our competition.</p> <p>OP12: Reputation of our company in eyes of the customers has improved.</p>	

Appendix (2): 5-point Likert scale

Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

