

**Impact of Dynamic Capabilities on Economic Growth: As
one of Sustainable Development Goals
(A field Study on Oil and gas Companies)**

Submitted By:

Amira Nabil Abdel-Halim

Doctorate Degree in Business Administration (DBA)

Supervised By:

Prof. Dr/ Mona Kadry

**Dean of the Faculty of Graduate
Studies at the Maritime
Academy in Cairo**

Dr/ Raafat Yousef

**Professor of Strategic
Management at the Maritime
Academy**

Abstract:

Purpose: The study aims to assess the impact of dynamic capabilities on economic growth within the oil and gas companies in Egypt. To achieve this goal, the study employed a descriptive-analytical methodology. Additionally, the study utilized Questionnaire as a tool to gather responses from various hierarchical levels within the oil and gas companies in Egypt.

Results: The findings indicated that the studied oil and gas companies strongly emphasize dimensions of dynamic capabilities such as adaptability, absorptive capacity, and innovation. Similarly, these companies also show significant interest in economic growth, confirming the primary hypothesis

that suggests a statistically significant impact of dynamic capabilities on economic growth. Based on these results, several recommendations were provided for managers and leaders within the oil and gas companies in Egypt.

Keywords: Dynamic Capabilities, Economic Growth, Oil, and gas Companies in Egypt.

الملخص:

الهدف: تهدف الدراسة إلى تحديد مدى تأثير القدرات الديناميكية على النمو الاقتصادي في شركات النفط والغاز بمصر. ولتحقيق هذا الهدف اعتمدت الدراسة على المنهج الوصفي التحليلي. واستخدمت الدراسة أيضا الاستبيان كأداة للحصول على استجابات مجتمع الدراسة، والذي يتكون من العاملين بالمستويات الوظيفية المختلفة بشركات النفط والغاز في مصر.

النتائج: أشارت النتائج إلى أن شركات النفط والغاز محل الدراسة تركز بقوة على أبعاد القدرات الديناميكية مثل القدرة التكيفية، والقدرة الاستيعابية، والقدرة على الابتكار. وبالمثل، تولى هذه الشركات أيضا اهتمام كبير بالنمو الاقتصادي، حيث تم تأكيد الفرض الرئيسي، والذي يشير إلى وجود تأثير ذو دلالة إحصائية للقدرات الديناميكية على النمو الاقتصادي. وبناءً على هذه النتائج تم تقديم عدد من التوصيات للمديرين والقادة بشركات النفط والغاز بمصر.

الكلمات المفتاحية: القدرات الديناميكية، النمو الاقتصادي، شركات النفط والغاز في مصر.

1. Introduction

The current organizations face many pressures and challenges, mainly due to these rapid and successive fundamental changes - especially with the beginning of the twenty-first century - in the surrounding business environment, as it is now dominated by volatility and dynamic change, the emergence of the phenomenon of globalization has led to a failure of the entrance The traditional in the performance of individuals and organizations, the search for new and contemporary methods in line with the developments in the external environment of organizations to keep pace with modern administrative concepts such as total quality management, knowledge management, process re-engineering, which forced organizations to work to raise the level of performance of their workers to reach outstanding performance (Samsudin, et al, 2019).

Dynamic capabilities arise from creative entrepreneurial and managerial actions, for example, by exploring new markets, can sometimes arise from some routine change actions such as developing a product according to a known path or analyzing investment options. It reflects the company's ability to align activities, resources or assets within a system of global specialization and collaborative specialization, as well as the company's efforts to shape the market in a way that enables value creation and acquisition (Chien, & Tsai, 2012).

Dynamic capabilities theory is concerned with developing strategies for senior managers of successful companies to adapt to drastic, intermittent change, while maintaining minimum standards of ability to ensure competitive survival. For example, industries that have traditionally relied on a particular manufacturing process cannot always change that process at short notice when new technology arrives; When this happens, managers need to adapt their own actions to make the most of their current resources while simultaneously planning for future operations changes as the value of the resources depreciates. Likewise, the type of changes that the theory emphasizes are internal capabilities rather than looking only at external business forces (Chatterjee, et al, 2022).

Since rapid change is a requirement of business organizations at this time, dynamic capabilities are considered one of the vital methods for making transformations and changes in institutions, companies, as well as businesses, provided that they meet the needs of the present without compromising the ability of future generations to meet their needs and face the danger of environmental degradation that must be overcome (Gupta, & Gupta, 2020). It should not abandon the needs of economic development as well as equality and social justice, in order to achieve sustainable development in all sectors, whether in the state, in organizations, in public or private sector institutions or even individuals, where the process of improving the conditions

of reality, through studying the past and learning from experiences, understanding reality and changing it for the better, good planning for the future.

The sustainability movement today is trying to develop new methods that are able to meet the needs of the present and enjoy self-sustainability in the long term, especially after it became clear that the means currently used in environmental protection programs based on investing a large amount of money and effort are no longer feasible because the human community itself spends sums and efforts larger companies and projects that cause such damage. It is this contradiction that exists in modern society between the desire to protect and sustain the environment and at the same time finance companies and environmentally destructive programs that explains the urgent need to develop a new sustainable pattern that requires wide cultural changes as well as agricultural and economic reforms.

Therefore, it was important to find an effective way to motivate these organizations to embrace Dynamic Capabilities and Economic growth, as an important and influential basis for the effectiveness of performance, which in turn is reflected in increased productivity, for the importance of these topics, this study will attempt to examine the role of Dynamic Capabilities in Economic growth applied to oil and gas companies.

1.1 Egyptian Problem

Oil and gas companies face numerous challenges such as fluctuating demand, limited resources, rising costs, environmental concerns, and regulations. To overcome these challenges, companies must rethink their strategies, reduce costs, and adopt responsible practices. Traditional methods are no longer suitable, requiring companies to search for innovative solutions to improve efficiency and profitability. Integrating technological, political, environmental, and security factors enables companies to adapt to new conditions and integrate with existing systems. The focus on Dynamic Capabilities is crucial for promoting economic growth in the oil and gas sector. Despite previous research, there is a gap in understanding the relationship between Dynamic Capabilities and Economic Growth in these companies, making it essential to explore this relationship further.

1.2 Research gap

the research gap is as follows:

- Deficiency in the study the Dynamic Capabilities in Oil and gas companies.
- Deficiency in the study of Economic Growth in Oil and gas companies.
- Deficiency in the study the Dynamic Capabilities and its impact on Economic Growth in Oil and gas companies.

Therefore, the current study will address this deficiency by addressing the issue of Dynamic Capabilities and its relationship to Economic Growth, specifically in Oil and gas companies.

1.3 Research Significance

- The importance of this study lies in an attempt to contribute to bridging the research gap of studies and research on the concept of Dynamic Capabilities, specifically with regard to organizational practices that contribute to achieving Economic Growth, the study is also a response to what many previous studies called for in conducting more studies and research on this Topics, because of their great importance in enriching the academic library and scientific research centers, especially those interested in administrative studies. This study can also provide a database to help researchers and scholars to conduct more research in this field.
- The importance of the study is related to the field of application, as the Oil and gas companies played a pivotal role in Egypt. The sector has played an important role in the economic reforms implemented by the government, which helped create an attractive environment for investors. The oil and gas sector contributed 24% of Egypt's GDP in 2020 and was one of the main sectors that helped rebuild the country's economy in the wake of Economic challenges since 2011.

- The importance of the study lies in the increasing role of companies' interest in Dynamic Capabilities, as a vital value necessary for the companies in facing challenges, achieving goals. The importance of the study also lies in the fact that it deals with a vital administrative topic that touches the core of the work of the Oil and gas companies, which operates in an environment characterized by development, change and renewal, where quality and efficiency are considered among its most important priorities. The main means that enable it to reach the stage of excellence in achieving its goals.

1.4 Research Objectives

The research aims to achieve the following objectives:

- **Determine the extent of the impact of Dynamic Capabilities on Economic Growth in Oil and gas companies.** Several Objectives emerge from this Objective:
 - Determine the extent of the impact of Adaptive Capability on Economic Growth in Oil and gas companies.
 - Determine the extent of the impact of Absorptive Capacity on Economic Growth in Oil and gas companies.
 - Determine the extent of the impact of Innovative Capability on Economic Growth in Oil and gas companies.

1.5 Research Questions

Based on the research objectives, the researcher formulates the following key questions:

- **What is the impact of dynamic capabilities on economic growth in oil and gas companies?** Several Questions emerge from this Question:
- What is the impact of Adaptive Capability on economic growth in oil and gas companies?
- What is the impact of Absorptive Capacity on economic growth in oil and gas companies?
- What is the impact of Innovative Capability on economic growth in oil and gas companies?

2. Literature Review

Dynamic Capabilities

2.1.1 Dynamic Capabilities Definitions

In the study by **Chatterjee and colleagues** (2022), dynamic capabilities refer to an organization's ability to sense, capture, and transfer capabilities effectively. These capabilities enable international marketing and technological innovation, providing adaptability and responsiveness crucial for global expansion efforts.

Dovbischuk (2022) delves into dynamic capabilities, emphasizing innovation-oriented adaptability and resilience during the COVID-19 pandemic. Dynamic capabilities involve the ability to distribute new knowledge, train employees, foster

collaboration, and establish long-term partnerships, crucial for organizational success.

Hermano and colleagues (2022) focus on dynamic capabilities within project management, emphasizing the actions of sensing, capturing, and transferring knowledge. These capabilities enhance project, program, and portfolio performance, indirectly impacting overall company performance.

Permatasari and team (2022) explore dynamic capabilities rooted in traditional knowledge management processes. These capabilities enable SMEs specializing in woven handicrafts to sense, capture, and transfer knowledge effectively, enhancing their adaptability and sustainability.

2.1.2 Dynamic Capabilities Benefits / Importance

Some writers and researchers have addressed the importance of Dynamic Capabilities as follows:

- **Chatterjee's** study underscores the pivotal role of dynamic capabilities. Enhanced sensing, capturing, and transfer abilities empower organizations to excel in international marketing and technological innovation. By adapting strategies to diverse cultures and markets, businesses can establish a strong global presence, fostering sustained growth and competitiveness.
- **Dovbischuk** highlights the significance of innovation-oriented dynamic capabilities. These capabilities indirectly

enhance overall company performance by improving specific areas like projects, programs, and portfolios. By fostering adaptability and learning, organizations can navigate uncertainties effectively, ensuring sustained growth and competitiveness.

- Dynamic capabilities in project management significantly improve specific areas like projects, programs, and portfolios. While not directly influencing overall company performance, these capabilities are instrumental in enhancing project outcomes, leading to improved organizational effectiveness and competitiveness.
- Traditional knowledge-based dynamic capabilities significantly impact sustainable performance in handwoven SMEs. These capabilities empower organizations to excel in specific areas like projects, programs, and portfolios, indirectly enhancing overall company performance and competitiveness.

2.1.3 Previous Studies / Theoretical Models (Critical Analysis):

Chatterjee et al.'s research presents a significant contribution to the theoretical landscape. The study's theoretical model, rooted in the theory of dynamic power supply and international business strategy literature, provides valuable insights. A critical analysis suggests potential areas for further exploration, such as contextual factors influencing dynamic capabilities' effectiveness in diverse global settings, enhancing practical implications for businesses.

Dovbischuk's research contributes to understanding dynamic capabilities at various organizational levels. The study's approach to distinguishing between project, program, and portfolio performance offers valuable insights. A critical analysis could explore nuances within these levels, providing deeper practical implications for organizations aiming to enhance dynamic capabilities and performance.

Hermano et al.'s research provides valuable insights into the relationship between dynamic capabilities and project performance. The study's focus on distinguishing between project, program, and portfolio levels offers practical implications. A critical analysis could delve deeper into specific project contexts, enriching the understanding of dynamic capabilities' impact on organizational outcomes.

Permatasari et al.'s research sheds light on the integration of traditional knowledge into dynamic capabilities. The study's emphasis on sustainable performance offers practical implications. A critical analysis could explore the intricacies of traditional knowledge application within different organizational contexts, enriching our understanding of its impact on dynamic capabilities and overall company performance.

2.2 Economic Growth: As one of Sustainable Development Goals:

2.2.1 Economic Growth: As one of Sustainable Development Goals Definition:

Gupta and Gupta (2020) examined the impact of environmental sustainability on company performance, focusing on its environmental dimension. They analyzed financial, customer, internal business, learning, and growth aspects.

Andersen and Gulbrandsen (2020) examined diversification processes in Norwegian offshore petroleum technology supplier companies. They developed an analytical framework focusing on transitions, phase-outs, technological innovation, and diversification.

Ike et al. (2019) explored the priorities of Japanese multinational companies expanding in developing countries. Through interviews in the Philippines, Indonesia, Thailand, and Vietnam, they found companies focus on specific SDGs, especially education and strong institutions, during expansion.

2.2.2 Economic Growth: As one of Sustainable Development Goals Benefits / Importance:

The study Gupta and Gupta (2020) showed a positive impact of environmental sustainability on all company performance dimensions, emphasizing the significance of integrating sustainability for robust performance. The research also explored stakeholder theory, signal theory, and institutional perspective.

The study Andersen and Gulbrandsen (2020) highlighted non-technological diversification challenges faced by these companies. It emphasized the need for supportive policies addressing these challenges and integrating them into sustainability transition theories to promote economic growth.

The study Ike et al. (2019) highlighted the crucial role of education and strong institutions in attracting multinational corporations. Policymakers were urged to align policies with these goals. Additionally, the influence of stakeholders, including NGOs and local communities, on companies' goal prioritization was emphasized.

2.2.3 Economic Growth: As one of Sustainable Development Goals Previous Studies / Theoretical Framework (Critical Analysis):

Gupta and Gupta (2020) contributed valuable insights into how environmental sustainability affects various company dimensions. Their analysis critiqued stakeholder theory, signal theory, and institutional perspective, emphasizing the need to integrate sustainability dimensions effectively for economic growth.

Andersen and Gulbrandsen's (2020) research underscored the importance of policy interventions to overcome non-technological diversification challenges. Their work advocates for a comprehensive approach in sustainability transition theories, considering these challenges to foster economic growth in offshore petroleum technology supplier companies.

Ike et al.'s (2019) work stressed the need for host countries to prioritize education and strong institutions to attract multinational corporations. It underscored the complex impact of stakeholders, advocating for comprehensive approaches to sustainable development planning.

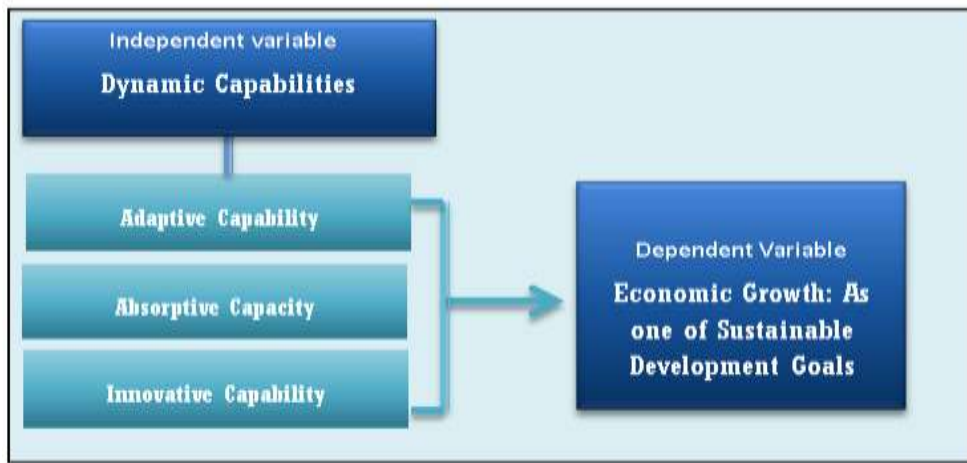


Figure (1): Conceptual framework of the study.

3. Research Methodology

3.1 Research Theoretical Model and Hypotheses

The model expressed Dynamic Capabilities four basic dimensions that include (Adaptive Capability- Absorptive Capacity- Innovative Capability).

The dependent variable was: Economic Growth: As one of Sustainable Development Goals.

3.2 Hypotheses

" There is a Statistically Significant impact of Dynamic Capabilities on Economic Growth in Oil and gas companies".

Several hypotheses emerge from this hypothesis:

- **H1:** There is a Statistically Significant impact of Adaptive Capability on Economic Growth in Oil and gas companies.
- **H2:** There is a Statistically Significant impact of Absorptive Capacity on Economic Growth in Oil and gas companies.
- **H3:** There is a Statistically Significant impact of Innovative Capability on Economic Growth in Oil and gas companies.

3.3 Population

Since the purpose of this study is to explore the impact of Dynamic Capabilities on the Economic Growth in the Oil and gas companies, the population of this study are the Employees, whose number in 2020 is about 3,460 individuals.

3.4 Sample Size

Sampling framework is an exhaustive list of all sampling units, from which a sample can be selected (Mugenda, 2012). The sampling framework in the study was configured from employees of oil and gas companies. A simple random sample of employees was selected, the sample size was determined using the following equation (Sekaran, Bougie, 2010):

$$n = \frac{NP(1 - P)x^2}{(N - 1)d^2 + P(1 - P)x^2}$$

whereas:

n: Sample size required.

N: Size of the study population.

P: The ratio of the community is equal to.

d²The percentage of error that can be exceeded and the maximum value is 0.05.

x²: the value of the kai square with one degree of freedom = 3.841 at 95% confidence level or 5% significance level.

By applying the above equation to the collected data, the study sample size was (345) of Employees in Oil and gas companies.

3.5 Data Collection Procedure

Two types of data were used to achieve this approach from the following sources:

3.5.1 Secondary Data:

It is the data obtained to build the theoretical framework of the study, where it was relied on to identify the theoretical background of the study, on the various references of books and articles and previous studies of academic theses of the relevant and published research, which dealt with the topics of Dynamic Capabilities and the Economic Growth.

3.5.2 Primary Data:

These data were collected in the field through the survey list in the field study to test the validity of the assumptions on which the study was based. By obtaining this data from Employees in the field of Oil and gas companies.

3.6. Descriptive Statistics to Measure the Variables:

The researcher measured the availability of the study variables for Dynamic Capabilities and for Economic Growth: As one of Sustainable Development Goals from the point of view of the sample as follows:

3.6.1 Descriptive Statistics for Dynamic Capabilities.

Dynamic Capabilities in its dimensions is the independent variable, and it has four basic dimensions and includes 20 questions.

Availability of independent variable Dynamic Capabilities, point of view of the study sample was determined. The results were as follows:

Table (1): Descriptive Statistics for the Dynamic Capabilities Variable.

N	Statement	Mean	Standard Deviation	Importance Ranking
1	Our firm is constantly investing in research and development activities to identify new technologies and market opportunities.	3.29	1.23	3
2	Our firm is constantly seeking and exploring new technologies and markets both in the business we are currently in and in other businesses or sectors.	3.02	1.29	6
3	Our firm is constantly developing new processes to take advantage of new technological opportunities.	3.14	1.25	4
4	Our firm is able to quickly react to changes in oil and gas sector.	3.44	1.30	1
5	We very closely monitor the standards and best practices in our sector.	3.40	1.21	2
6	We know how to configure and reconfigure our resources and our organizational structure to adjust to changes and to the growth of our business.	3.08	1.15	5
Adaptive Capability		3.23	0.63	third
1	Our firm tends to deal very well with change and uncertainty.	3.20	1.23	8
2	Our firm has a great capacity to create, adjust and, when necessary, redesign our business plan.	3.12	1.14	11
3	Our business plan identifies which technologies are appropriate to our business and how they will be obtained.	3.19	1.15	9
4	Our firm always analyzes multiple alternatives before taking decisions.	3.17	1.28	10
5	Our firm adopts mechanisms to prevent errors and biases in relation to the information analyzed and the decisions are taken.	3.57	1.07	1
6	We seek external analyses or opinions on our information and decisions in order to avoid errors and biases.	3.51	1.13	2
7	Our firm takes very good advantage of the opportunities we identify and that we judge to be good for our business.	3.39	1.16	3
8	We constantly identify opportunities for partnerships with external organizations.	3.38	1.17	4
9	We find it easy to implement and manage partnerships with external organizations.	3.35	1.29	6
10	We find it easy to integrate into our business the benefits gained from external partnerships.	3.38	1.29	5
11	Our firm has a strong ability to integrate knowledge and know-how with external partners.	3.22	1.20	7
Absorptive Capacity		3.32	0.53	second
1	Our firm values the constant search for innovations originating outside of the firm.	2.97	1.15	6
2	The rewards and remuneration system at our firm encourages innovation and creativity.	3.22	1.22	4
3	Our employees develop a large number of new ideas	3.19	1.18	5
4	We pursue business opportunities and innovations that have been developed outside of our firm	3.44	1.11	3
5	in our firm are ready to accept greater risks for the development of radical innovations than for incremental improvements.	3.59	1.21	1
6	Innovation needs and opportunities are identified, including potential gaps and barriers.	3.53	1.14	2
Innovative Capability		3.32	0.61	first
Overall Indicators		3.29	0.46	

From the previous table No. (1), we find that the most available dimensions of D.C are respectively: The first (Innovative Capability (I.C)) the Mean is (3.32) the rate is (66.49%), the second (Absorptive Capacity (AB.C)) the Mean is (3.32) the rate is (66.31%)., The third (Adaptive Capability (A.C)) the Mean is (3.23) and a rate of (64.57%),

Therefore, there is a high availability of D.C dimensions, and opinions tend to agree, with the overall average of the dimensions being (3.29), with an agreement rate (65.79%).

3.6.2 Descriptive Statistics for Dynamic Capabilities.

Economic Growth: As one of Sustainable Development Goals in is the dependent variable and includes 15 questions.

Availability of dependent variable Economic Growth: As one of Sustainable Development Goals, point of view of the study sample was determined. The results were as follows:

Table (2): Descriptive Statistics for Economic Growth: As one of Sustainable Development Goals.

N	Statement	Mean	Std deviation	Arrang.
1-	Our main economic force is seen as our skilled workforce	3.12	1.28	13
2-	Our main economic strength is seen as our organizational culture.	3.22	1.21	12
3-	Strengthening local supply chains to ensure that the overall local economy is more resilient.	3.51	1.09	1
4-	Developing our skills base to match business need in oil and gas economics.	3.34	1.14	7
5-	Helping our larger businesses to become more resilient to changes in oil and gas economics.	3.39	1.24	3
6-	Improving our infrastructure to enable the economy to grow.	3.29	1.30	9

N	Statement	Mean	Std deviation	Arrang.
7-	Seeking a balance in quality of life and growth management	3.50	1.24	2
8-	The company's business contributed to the country's self-sufficiency and the resumption of export.	3.39	1.22	4
9-	The company succeeded in making new discoveries in oil and gas fields during the previous years.	3.35	1.23	6
10-	The company is interested in attracting investments in the field of research and production for the development and modernization of the petroleum sector.	3.27	1.24	8
11-	The company seeks to meet the needs of the local market of petroleum products.	3.39	1.22	5
	Total	3.33	0.52	

From the previous table No. (2), we find that the total average variable of (**Economic Growth(E.G)**) is (3.33) and with an agreement rate of (66.62%), and this indicates that the Economic Growth(E.G) was a neutral degree in Oil and gas Companies, and that opinions tend towards neutral on the expressions of this dimension, where It turned out that the most available Statements in measuring after (Economic Growth) came first in a response indicating agreement, Statement: (3) with Mean of (3.51), and that the least available statement came in last place with a response indicating agreement Statement: (1) With Mean of (3.12).

4. Test the Hypotheses of the Study:

This section deals with testing the hypotheses through some statistical methods used to study the validity or incorrectness of the hypotheses. Structural equation modeling was used to study the effect of an independent variable on the dependent variable, while evaluating the model through a number of criteria for judging the quality of the model and relying on it, which are

explained as follows before testing. Hypotheses. In light of the above description of the study sample and its variables, the validity of the hypotheses was tested statistically, with the results of the statistical analysis presented and interpreted as follows:

Structural Equation Modelling (SEM): has become one of the techniques of choice for researchers across disciplines and increasingly is a 'must' for researchers in the social sciences. However, the issue of how the model that best represents the data reflects underlying theory, known as model fit, is by no means agreed.

Normed Chi-Square: The relative chi-square is also called the normed chi-square. This value equals the chi-square index divided by the degrees of freedom. This index might be less sensitive to sample size, although there is no consensus regarding an acceptable ratio for this statistic, recommendations range from as high as 5.0 to as low as 2.0.

The Goodness-of-Fit statistic (GFI): test and calculates the proportion of variance that is accounted for by the estimated population covariance. By looking at the variances and covariances accounted for by the model it shows how closely the model comes to replicating the observed covariance matrix. This statistic ranges from 0 to 1 with larger samples increasing its value.

Adjusted Goodness of Fit Index (AGFI): tends to increase with sample size. As with the GFI, values for the AGFI also range between 0 and 1 and it is generally accepted that values of

0.90 or greater indicate well-fitting models. Given the often-detrimental effect of sample size on these two fit indices.

Normed Fit Index (NFI): This statistic assesses the model by comparing the χ^2 value of the model to the χ^2 of the null model. The null/independence model is the worst-case scenario as it specifies that all measured variables are uncorrelated. Values for this statistic range between 0 and 1 & values greater than 0.90 indicating a good fit. More recent suggestions state that the cut-off criteria should be $NFI \geq .95$.

The Comparative Fit Index (CFI): is a revised form of the NFI which considers sample size that performs well even when sample size is small Like the NFI, this statistic assumes that all latent variables are uncorrelated (null/independence model) and compares the sample covariance matrix with this null model. Values for this statistic range between 0.0 and 1.0 with values closer to 1.0 indicating good fit. From this, a value of $CFI \geq 0.95$ is presently recognized as indicative of good fit, this index is included in all SEM programs and is one of the most popularly reported fit indices due to being one of the measures least effected by sample size.

Incremental fit indices (IFI): also known as comparative or relative fit indices, are a group of indices that do not use the chi-square in its raw form but compare the chi-square value to a baseline model. For these models the null hypothesis is that all variables are uncorrelated, its value ranges between (0.1), and the

closer its value is to the correct one, the more this indicates the goodness of fit of the estimated model to the data of the study.

Root means square residual (RMR) and standardized root mean square residual (SRMR): The RMR and the SRMR are the square root of the difference between the residuals of the sample covariance matrix and the hypothesized covariance model. The range of the RMR is calculated based upon the scales of each indicator, therefore, if a questionnaire contains items with varying levels (some items may range from 1 – 5 while others range from 1 – 7).

RMSEA: in the range of 0.05 to 0.10 was considered an indication of fair fit and values above 0.10 indicated poor fit. It was then thought that an RMSEA of between 0.08 to 0.10 provides a mediocre fit and below 0.08 shows a good fit.

- **The First hypothesis: "There is a Statistically Significant impact of Adaptive Capability (A.C) on Economic Growth in Oil and gas Companies".**

To verify the quality of the model and determine the validity of the hypothesis, this was tested through a set of criteria for judging the quality of the model shown in the following table.

Table (3) Measurement Model Assessment (Adaptive Capability)

Indicator	Value	Acceptance level
Normed Chi-Square	2.555	between (2,5)
The Goodness-of-Fit statistic (GFI)	0.925	between (0,1)
Adjusted Goodness of Fit Index (AGFI)	0.963	between (0,1) ≥ 0.9
Normed Fit Index (NFI)	0.975	between (0,1) ≥ 0.95
The Comparative Fit Index (CFI)	0.966	between (0,1) ≥ 0.95
RMSEA	0.033	between (0.01,0.08)

In this structural model, the values are recorded as $X^2/df = 2.555$, $NFI=0.925$ & $CFI = 0.963$, and $RMSEA = 0.033$. Because there is adequate fit, as indicated by these indices, between the hypothesized model and the data collected. An examination of the path coefficients could proceed for the structural model.

The hypothesis of this study was tested using structural equation modeling via SMARTPLS4. The structural model assessment as shown in Table provides the indication of the hypothesis tests. Adaptive Capability (A.C) is significantly predicting Economic Growth, hence, H1 is accepted ($\beta = .470$, $p < 0.001$)

Table (4) Structural path analysis result (Adaptive Capability)

exogenous construct	Path	endogenous construct	Estimate B (path coefficient)	S.E	Z-Test	R ²	p-value
Adaptive Capability	\Rightarrow	Economic Growth	0.470	0.040	8.700	0.221	***

*** $p < .001$, ** $p < .01$, * $p < .05$

The R^2 value indicates the amount of variance of dependent variables which is explained by the independent variables. Hence, a larger R^2 value increases the predictive ability of the structural model. It is crucial to ensure that the R^2 values should be high enough for the model to achieve a minimum level of explanatory power. Table (4/8) shows the result of R^2 from the structural model and indicates that the R^2 (22.1%) value are high enough for the model to achieve an acceptable level of explanatory power.

- **The Second hypothesis: "There is a Statistically Significant impact of Absorptive Capacity on Economic Growth in Oil and gas Companies".**

To verify the quality of the model and determine the validity of the hypothesis, this was tested through a set of criteria for judging the quality of the model shown in the following table.

Table (5) Measurement Model Assessment (Absorptive Capacity)

Indicator	Value	Acceptance level
Normed Chi-Square	1.978	between (2,5)
The Goodness-of-Fit statistic (GFI)	0.968	between (0,1)
Adjusted Goodness of Fit Index (AGFI)	0.982	between (0,1) ≥ 0.9
Normed Fit Index (NFI)	0.940	between (0,1) ≥ 0.95
The Comparative Fit Index (CFI)	0.982	between (0,1) ≥ 0.95
RMSEA	0.054	between (0.01,0.08)

In this structural model, the values are recorded as $X^2/df = 1.978$, $NFI=0.940$ & $CFI = 0.968$, and $RMSEA = 0.054$. Because there is adequate fit, as indicated by these indices, between the hypothesized model and the data collected. An examination of the path coefficients could proceed for the structural model.

The hypothesis of this study was tested using structural equation modeling via SMARTPLS4. The structural model assessment as shown in Table provides the indication of the hypothesis tests. Absorptive Capacity is significantly predicting Economic Growth, hence, H2 is accepted ($\beta = .642$, $p < 0.001$)

Table (6) Structural path analysis result (Absorptive Capacity)

exogenous construct	Path	endogenous construct	Estimate B (path coefficient)	S.E	Z-Test	R ²	p-value
Absorptive Capacity	$\Rightarrow \Rightarrow$	Economic Growth	0.642	0.042	13.699	0.412	***

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table (4/10) shows the result of R^2 from the structural model and indicates the R^2 value (41.2%) are high enough for the model to achieve an acceptable level of explanatory power.

- **The Third hypothesis: "There is a Statistically Significant impact of Innovative Capability on Economic Growth in Oil and gas Companies".**

To verify the quality of the model and determine the validity of the hypothesis, this was tested through a set of criteria for judging the quality of the model shown in the following table.

Table (7) Measurement Model Assessment (Innovative Capability)

Indicator	Value	Acceptance level
Normed Chi-Square	4.115	between (2,5)
The Goodness-of-Fit statistic (GFI)	0.948	between (0,1)
Adjusted Goodness of Fit Index (AGFI)	0.936	between (0,1) ≥ 0.9
Normed Fit Index (NFI)	0.928	between (0,1) ≥ 0.95
The Comparative Fit Index (CFI)	0.980	between (0,1) ≥ 0.95
RMSEA	0.062	between (0.01,0.08)

In this structural model, the values are recorded as $X^2/df = 4.115$, $CFI = 0.948$, $NFI=0.936$ and $RMSEA = 0.062$. Because there is adequate fit, as indicated by these indices, between the hypothesized model and the data collected. An examination of the path coefficients could proceed for the structural model.

The hypothesis of this study was tested using structural equation modeling via SMARTPLS4. The structural model assessment as

shown in Table provides the indication of the hypothesis tests. Innovative Capability (A.C) is significantly predicting Economic Growth, hence, H3 is accepted ($\beta = .421$, $p < 0.001$)

Table (8) Structural path analysis result (Innovative Capability)

exogenous construct	Path	endogenous construct	Estimate B (path coefficient)	S.E	Z-Test	R ²	p-value
Innovative Capability	⇒⇒	Economic Growth	0.421	0.044	6.630	0.177	***

*** $p < .001$, ** $p < .01$ * $p < .05$

Table (4/12) shows the result of R² from the structural model and indicates the R² value (17.7%) are high enough for the model to achieve an acceptable level of explanatory power.

- **The main hypothesis: "There is a Statistically Significant impact of Dynamic Capabilities on Economic Growth in Oil and gas companies."**

To verify the quality of the model and determine the validity of the hypothesis, this was tested through a set of criteria for judging the quality of the model shown in the following table.

Table (9) Measurement Model Assessment (Dynamic Capabilities)

Indicator	Value	Acceptance level
Normed Chi-Square	2.586	between (2,5)
The Goodness-of-Fit statistic (GFI)	0.937	between (0,1)
Adjusted Goodness of Fit Index (AGFI)	0.940	between (0,1) ≥ 0.9
Normed Fit Index (NFI)	0.977	between (0,1) ≥ 0.95
The Comparative Fit Index (CFI)	0.969	between (0,1) ≥ 0.95
RMSEA	0.055	between (0.01,0.08)

In this structural model, the values are recorded as $X^2/df = 2.586$, $CFI = 0.937$, $NFI=0/977$ and $RMSEA = 0.055$. Because there is adequate fit, as indicated by these indices, between the hypothesized model and the data collected. An examination of the path coefficients could proceed for the structural model.

The hypothesis of this study was tested using structural equation modeling via SMARTPLS4. The structural model assessment as shown in Table provides the indication of the hypothesis test. Dynamic Capabilities (A.C) is significantly predicting Economic Growth, hence, main hypothesis is accepted ($\beta = .172$, $p < 0.001$)

Table (10) Structural path analysis result (Dynamic Capabilities)

exogenous construct	Path	endogenous construct	Estimate B (path coefficient)	S.E	Z-Test	R ²	p-value
Dynamic Capabilities	⇒⇒	Economic Growth	0.172	0.049	7.115	0.461	***
Adaptive Capability	⇒⇒	Economic Growth	0.116	0.041	3.313		***
Absorptive Capacity	⇒⇒	Economic Growth	0.457	0.05	9.106		***
Innovative Capability	⇒⇒	Economic Growth	0.074	0.041	1.388		0.166

*** $p < .001$, ** $p < .01$ * $p < .05$

Table (4/14) shows the result of R² from the structural model and indicates the R² value (46.1%) are high enough for the model to achieve an acceptable level of explanatory power.

6. Discussion:

The study conducted by **Chatterjee et al. in 2022** investigated the influence of dynamic capacity (DC) within organizations on international expansion efforts. Through a survey of 324 participants from Indian organizations, the research found that enterprises' sensing, capturing, and transfer capabilities positively and significantly impact their international marketing abilities. Additionally, these capabilities also positively affect organizations' technological innovation, which in turn contributes to their international expansion. Moreover, the study highlighted a significant moderating effect of environmental dynamism on organizations' international expansion endeavors.

The study by **Dovbischuk (2022)** investigated the link between innovation-oriented dynamic capabilities, dynamic resilience, and company performance during the COVID-19 pandemic. The research focused on logistics service providers and in-house logistics departments of industrial companies. The study identified key capabilities, including knowledge distribution, effective employee training, cross-functional collaboration, long-term inter-company relationships, and learning from competitors. These capabilities were found to significantly impact logistics quality and overall company performance based on data collected from 83 logistics providers and 30 in-house logistics departments through an online survey.

The study conducted by **Hermano and colleagues** in 2022 explored how dynamic capabilities in project management impact company performance. The research, conducted with 63 international companies involved in global projects, found that dynamic capabilities indirectly affect company performance by enhancing project, program, and portfolio performance. Both project and portfolio performance act as mediators, with portfolio performance having the most significant influence. The study highlighted the critical role of sensing and transfer capture actions within dynamic capabilities.

The study by **Gupta and Gupta**. (2020) aimed to investigate the influence of environmental sustainability on various aspects of company performance. Focusing on the environmental dimension of corporate sustainability, the research examined financial, customer, internal business, and learning performance as key dimensions of company success. The study revealed a positive and significant impact of environmental sustainability on these performance dimensions. This research is noteworthy for establishing the connection between sustainability and company performance across essential functional dimensions, and it also tested propositions related to stakeholder theory, signal theory, and institutional perspective.

Andersen and Gulbrandsen (2020) study focused on diversification processes in supplier companies within the Norwegian offshore petroleum technology value chain. The

research aimed to create an analytical framework by integrating literature on transitions, phase-outs, technological innovation systems, and diversification. The study identified non-technological challenges faced by these companies during diversification efforts. The findings emphasized the need for policies to support diversification and suggested that theories of sustainability transitions should consider these non-technological challenges in their perspectives.

Ike et al (2019) examined the priorities of Japanese multinational companies expanding in developing countries like the Philippines, Indonesia, Thailand, and Vietnam. Through SDG-based analysis and interviews with 58 participants, the study revealed that these companies focus on specific sustainable development goals, especially education and strong institutions. The research emphasized the influence of stakeholders like NGOs and local communities on companies' objectives. Policymakers were urged to consider these goals to attract multinational corporations.

7. Conclusion:

- Results related to Dynamic Capabilities:

The current study concluded that there is a high availability of Dynamic Capabilities dimensions, and opinions tend to agree. It was found that the most available dimensions of Dynamic Capabilities are respectively: The first (Innovative Capability) the Mean is (3.32) the rate is (66.49%), the second (Absorptive

Capacity) the Mean is (3.32) the rate is (66.31%)., The third (Adaptive Capability) the Mean is (3.23) and a rate of (64.57%).

- Results related to Economic Growth: As one of Sustainable Development Goals:

The current study concluded that there is a neutral degree in Oil and gas Companies, and that opinions tend towards neutral on the expressions of this dimension. The results revealed that Local supply chains are strengthened to ensure a more resilient overall local economy, A balance in quality of life and growth management is sought. Assisting larger businesses to become more resilient to changes in oil and gas economics is our goal.

- Results related to Impact Dynamic Capabilities on Economic Growth: As one of Sustainable Development Goals:

The study confirmed the significant impact of Dynamic Capabilities and its dimensions (Adaptive Capability, Absorptive Capacity, Innovative Capability) on Economic Growth at Oil and gas Companies.

• Effect of Adaptive Capability on Economic Growth:

The study confirmed a statistically significant impact of Adaptive Capability on economic growth in oil and gas companies. This means that the ability of these companies to adapt plays a crucial and positive role in achieving economic growth, suggesting that Adaptive Capability can effectively predict changes in economic growth within these companies.

- **Effect of Absorptive Capacity on Economic Growth:**

The study confirmed the existence of a statistically significant effect of absorptive capacity on economic growth within oil and gas companies. This confirms the vital role of these companies' ability to absorb and apply external knowledge and technologies in promoting economic growth.

- **Effect of Innovative Capability on Economic Growth:**

The study confirmed a statistically significant impact of Innovative Capability on economic growth within oil and gas companies. The measurement model assessment, highlighting the crucial role of these companies' innovative abilities in fostering economic growth. Although this value is lower than in the previous hypotheses, it still signifies a meaningful level of explanatory power, indicating that Innovative Capability plays a substantial role in explaining changes in economic growth within these companies.

7. Practical Implications:

From the results of the study, there is a degree of interest in Dynamic Capabilities and Economic Growth: As one of Sustainable Development Goals in Oil and gas Companies. Accordingly, the following recommendations related to supporting and strengthening strengths can be presented as follows:

- **Foster a Culture of Innovation and Exploration**, this could be achieved through dedicated research and development teams, collaboration with startups, or participation in industry-

- related events and conferences. By instilling a mindset of continuous exploration, your firm can stay ahead of the curve and identify new avenues for growth.
- **Strengthen Decision-Making Processes through Comprehensive Analysis**, this can be achieved through the implementation of robust decision-making frameworks, data-driven approaches, and fostering a culture that values evidence-based decision-making. By ensuring that decisions are well-informed and based on comprehensive analysis, your firm can enhance its absorptive capacity, enabling it to effectively evaluate and adopt new knowledge, technologies, or business strategies.
 - **Cultivate an Innovation-Friendly Environment**, establish channels for open communication where employees can freely share their ideas and suggestions. By creating a supportive atmosphere for innovation, your firm can tap into a wealth of creative ideas from both internal and external sources.
 - **Invest in Skills Development and Training Programs**, since your skilled workforce is recognized as the main economic force, it's crucial to invest in the continuous development and training of your employees. Establish comprehensive skills development programs that focus on enhancing the technical expertise and industry-specific knowledge of your workforce. Offer regular training sessions, workshops, and certifications to keep your employees updated

with the latest advancements in the oil and gas sector. Additionally, consider providing opportunities for employees to attend conferences, seminars, and specialized training courses. By continually investing in the skills of your workforce, you can ensure they are well-equipped to tackle industry challenges and contribute significantly to your economic growth.

- **Strengthen and Promote a Positive Organizational**, given that your organizational culture is considered a significant economic strength, it's essential to strengthen and promote this aspect further. Foster a positive work environment where employees feel valued, engaged, and motivated. Encourage open communication, collaboration, and teamwork. Recognize and reward employees for their contributions and achievements. Additionally, ensure that your organizational values align with employees' expectations and aspirations. Promote a culture of innovation and continuous improvement, where employees are encouraged to suggest new ideas and initiatives. By nurturing a positive and supportive organizational culture, you can enhance employee satisfaction, productivity, and loyalty, all of which contribute to sustained economic growth.

8. Limitations and Recommendation for Future Research:

The current study has been defined in some respects, so it is suggested that work be done to complete the scientific

application in this field with future studies for applicants for graduate studies programs in Egyptian universities, here are some suggested topics related to the current study topics:

- **Assessing the Role of Innovation in Enhancing Dynamic Capabilities:** A Comparative Study of Oil and Gas Companies This study could delve deeper into how innovation strategies within oil and gas companies contribute to the development of dynamic capabilities. It could explore successful case studies and analyze the specific innovations that have led to increased economic growth, thereby aligning with the Sustainable Development Goals.
- **Exploring the Influence of Knowledge Management on Dynamic Capabilities:** Lessons from the Oil and Gas Sector This research could focus on the knowledge management practices within oil and gas companies and how they impact the development of dynamic capabilities. By understanding how knowledge is acquired, stored, and utilized, the study could provide valuable insights into strategies that enhance economic growth while supporting sustainable development.
- **Sustainable Resource Management and Economic Growth:** A Longitudinal Study of Oil and Gas Companies This study could examine the relationship between sustainable resource management practices, dynamic capabilities, and economic growth. By analyzing long-term trends and practices within the industry, researchers could identify patterns and strategies that

lead to sustainable economic growth, aligning with the Sustainable Development Goals.

- **The Role of Corporate Social Responsibility (CSR) in Enhancing Economic Growth: A Case Study Approach in the Oil and Gas Industry** This research could explore how corporate social responsibility initiatives within oil and gas companies contribute to dynamic capabilities and, subsequently, economic growth. By analyzing specific CSR programs and their impact on the community, environment, and company performance, the study could provide valuable insights into the multifaceted relationship between social responsibility and economic development.

9. List of References:

1. Sekaran, U., & Bougie, R., (2010), "**Research Methods for Business: A Skill Building Approach**", 5th Edition, John Wiley, & Sons, USA.
2. Samsudin, Z. binti, & Ismail, M. D. (2019). The Concept of Theory of Dynamic Capabilities in Changing Environment. **International Journal of Academic Research in Business and Social Sciences**, 9(6),1071–1078.
3. Chien, S. & Tsai, C. (2012), "Dynamic capability, knowledge, learning, firm performance", **Journal of Organizational Change Management**, Vol. 25 No. 3, pp. 434-444 .
4. Chatterjee, S., Chaudhuri, R., Vrontis, D. & Thrassou, A. (2022), "Impact of organizational dynamic capability on international expansion and the moderating role of environmental dynamism", **International Journal of Organizational Analysis**, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/IJOA-10-2021-3003>

5. Gupta, A., & Gupta, N., (2020), "Effect of corporate environmental sustainability on dimensions of firm performance – Towards sustainable development: Evidence from India", **Journal of Cleaner Production**, Vol. 253, Article 119948.
6. Dovbischuk, I. (2022), "Innovation-oriented dynamic capabilities of logistics service providers, dynamic resilience and firm performance during the COVID-19 pandemic", **The International Journal of Logistics Management**, Vol. ahead-of-print No. ahead-of-print.
7. Hermanto, V., Martin-Cruz, N. & Pajares, J. (2022), "The effect of project management dynamic capabilities on firm performance", **Baltic Journal of Management**, Vol. 17 No. 2, pp. 266-284.
8. Permatasari, A., Dhewanto, W. & Dellyana, D. (2022), "The role of traditional knowledge-based dynamic capabilities to improve the sustainable performance of weaving craft in Indonesia", **Journal of Enterprising Communities: People and Places in the Global Economy**, Vol. ahead-of-print No. ahead-of-print.
9. Andersen, Allan Dahl, & Gulbrandsen, Magnus, (2020), "The innovation and industry dynamics of technology phase-out in sustainability transitions: Insights from diversifying petroleum technology suppliers in Norway", **Energy Research & Social Science**, Vol. 64, Article 101447.
10. Ike, M., Donovan, J., Topple, C., & Masli, Eryadi Kordi, (2019), "The process of selecting and prioritising corporate sustainability issues: Insights for achieving the Sustainable Development Goals", **Journal of Cleaner Production**, Vol. (236), Article 117661.