

# The Impact of Digital Transformation on the Structure of Foreign Trade in Egypt for the Period (2004 – 2025)

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## Abstract

Digital transformation is a topic that has garnered significant attention from both developed and developing countries, particularly concerning its impact on exports and revenues within the scope of foreign trade. Our research aims to demonstrate the extent of digital transformation's impact on the structure of foreign trade, based on the hypothesis that digital transformation has a positive effect on the structure of foreign trade in Egypt. The research reached several conclusions, the most important of which is the confirmation of the research hypothesis that digital transformation has a positive impact on the structure of foreign trade in Egypt during the period (2004-2026). Furthermore, the research presented several recommendations, the most important of which is the necessity of creating a suitable infrastructure for this global phenomenon that Egypt is witnessing in the 21st century.

**Keywords:** *Digital transformation; trade structure; Egypt.*

## Introduction:

The world has witnessed numerous developments and significant transformations, particularly in the last two decades, encompassing all aspects of life, especially foreign trade. This sector is undergoing profound transformations thanks to the rapid advancement of digital technologies, leading to the emergence of new models for economic activities, particularly in e-commerce. This has contributed to reshaping the structure of foreign trade and the patterns of trade exchange between different countries, whether developed or developing. In this regard, foreign trade no longer relies solely on traditional methods but has become clearly dependent on digital technological development and electronic platforms. This has led to radical changes in global value chains and exchange. In this context, the Arab Republic of Egypt, as part of the international system, seeks to keep pace with these transformations by adopting a digital transformation strategy as part of Egypt's Vision 2030. Egypt, too, has witnessed a transformation in its foreign trade since 2018, following the Egyptian government's adoption of digital transformation in foreign trade operations, recognizing it as an effective tool that contributes up to 7% to growth. Despite the gross domestic product (GDP), there are challenges facing the digital transformation process in Egypt, including limited awareness and weak infrastructure. The research aims to demonstrate the extent of the impact of digital transformation on the structure of foreign trade in Egypt and to anticipate a future vision for this transformation.

**Research Problem:** The research problem lies in the limited potential of digital transformation to facilitate Egyptian foreign trade and the extent of this trade's contribution to the GDP. This is compounded by clear deficiencies in the infrastructure and a lack of digital awareness, which are among the challenges facing the digital transformation process in Egypt.

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**Research Significance:** The research's significance stems from its title, as well as its focus on supporting the diversification of Egyptian exports, particularly digital exports, which contribute to the added value of the Egyptian economy.

**Research Hypothesis:** The research is based on the hypothesis that digital transformation will have a positive impact on the structure of Egypt's foreign trade during the period 2004-2026.

**Research Objectives: The research aims to:**

- 1- Demonstrate the impact of digital transformation on the structure of Egypt's foreign trade.
- 2- Clarify the role of modern technologies in reshaping the map of Egyptian exports and imports from the world.
- 3- Strive to enhance the role of Egyptian exports within the structure of international trade.

**Research Methodology:** The research adopted the descriptive-analytical method as one of the methods used in writing scientific research, relying on a number of sources, publications, periodicals, and others in writing scientific research.

## **Section One : Theoretical and Conceptual Framework of Digital Transformation (Concept, Importance, Objectives, Features)**

### **1- The Concept of Digital Transformation**

The concept of digital transformation has witnessed remarkable development due to global advancements in science and technology. Digital transformation has been defined as the process by which various organizations acquire numerous digital innovations, which are then refined and developed through a global network. This involves changing various work standards and procedures, including the business model, customer interactions, and the tasks required to be performed within the organization (Shehata, 2020:203). Digital transformation has also been defined as a process of changing the infrastructure of institutions and companies, related to the use of technology and the facilitation of the digital environment for internal and external operations, and improving the Materials Code (Mohammadin, 2020:7)

The World Bank defines digital transformation as the integration of digital technology into all aspects of business and the financial sector to enhance efficiency and innovation, with a focus on enabling countries to capitalize on modern financial fluctuations to improve their revenues and public services (World Bank, 2019:20). Digital transformation is also defined as the process of adopting advanced digital technologies and processes to meet the demands of modern business (Al-Arishi, 2008:53). The researcher defines digital transformation as the process by which digital technologies are used in financial and commercial operations in order to enable institutions to respond quickly to technological changes and rapid marketing requirements with minimal effort and cost.

### **2- The Importance of Digital Transformation**

Digital transformation is undoubtedly of great importance to various institutions and companies. These institutions benefit from the latest scientific and technological advancements, particularly those related to digital technologies, to improve operations, develop products, streamline processes, and create more efficient workflows. The importance of digital transformation is justified by the following (Samra, 2019:23)

- 1- Digital transformation offers numerous benefits to institutions and companies. By integrating advanced technologies, companies can improve internal processes and reduce labor costs by minimizing machinery and equipment and relying more on computers and other electronic devices.
- 2- Completing processes, using digital programs, applications, and tools, and collecting data allows businesses to optimize employee utilization.

3- Digital transformation provides a better customer experience by offering more options, thus contributing to customer satisfaction.

4- Digital transformation facilitates interaction between institutions, companies, and customers via the internet.

5- Digital transformation enables companies to gather data on future marketing and sales strategies, allowing them to monitor performance and make strategic decisions to address challenges and implement improvements **(Rinad, 2025:63)**

6- Digital transformation enhances innovation and competitiveness, enabling the development of products and services and the opening of new markets.

7-Digital transformation programs reshape operational processes within organizations, boosting efficiency and paving the way for faster adoption of modern technologies in the future **(Ali,2023:32)**.

8- Digital transformation enables companies to provide personalized and seamless customer experiences through the use of big data and customer behavior analysis **(Future University, 2024: <https://www.cormus.eduilq>)**.

9- It promotes transparency and combats corruption: Digital systems create an electronic record that facilitates tracking governmental and financial transactions, thereby reducing opportunities for financial and administrative corruption and tax evasion. Therefore, it can be said that the importance of digital transformation is clearly evident in its status as a sophisticated digital phenomenon that provides services to customers, companies, and institutions related to all financial and commercial operations.

### **3- The Objectives of Digital Transformation**

Digital transformation has many objectives, particularly those related to customer satisfaction, achieved by improving the quality of products and services and providing comprehensive support to customers. The objectives of digital transformation can be identified as follows **(Experts' Vision Consulting, 2025:3)**

1- Providing the best for customers: All digital transformation efforts aim to achieve customer satisfaction, which can be attained by ensuring a successful customer experience based on the application of digital transformation standards.

2- Improving production efficiency: Digital transformation enhances employee productivity and reduces human error, in addition to providing customers with superior quality products and services.

3- Increasing execution capacity: Digital transformation aims to increase execution capacity in the market and continuously adapt to changing customer expectations, keeping pace with the rapid technological advancements the world is witnessing today.

4- Streamlining work processes: Digital transformation facilitates work processes by simplifying tasks and responsibilities, leading to increased competitiveness among teams within the same organization.

5- Digital transformation contributes to cost reduction: Although implementing modern technological advancements is initially costly, it will ultimately lead to reduced costs and contribute to increased productivity in less time, thus improving revenue.

6- Digital transformation helps gain a competitive advantage: Implementing digital transformation and using modern technologies contributes to creating a competitive advantage that customers seek due to the company's good reputation.

7- Digital transformation contributes to improving employee performance: Digital transformation improves employee performance and facilitates work processes. It reduces administrative tasks and encourages employees to develop their skills, increasing their satisfaction and desire to remain in their jobs.

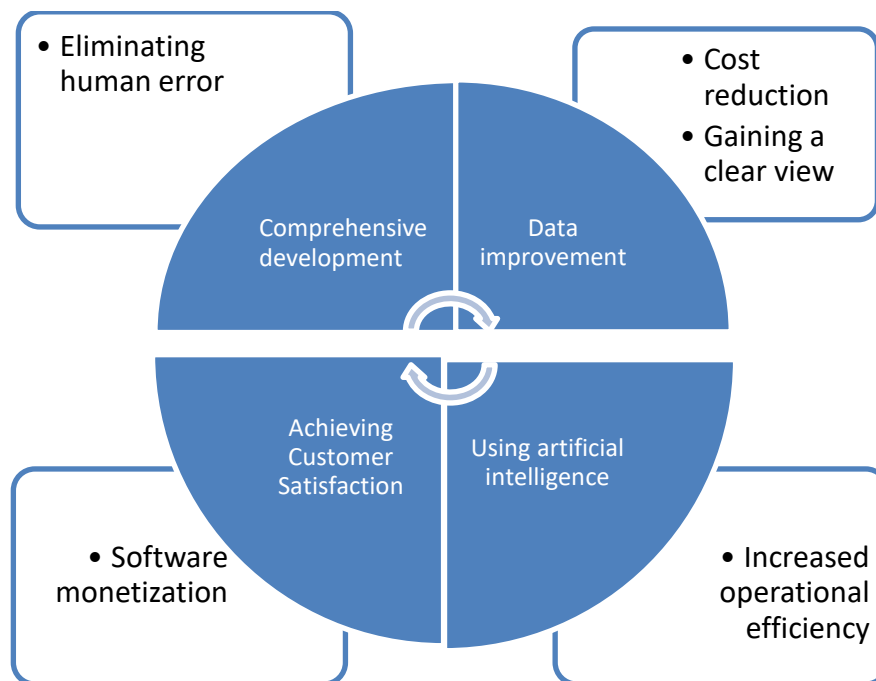
8- Enhanced governance and compliance: Digital transformation facilitates compliance with governance principles, regulations, and business information systems, and increases the ability to keep pace with them. This makes it easier to obtain the necessary information related to the compliance process.

9- Enhanced collaboration among company teams: The implementation of digital transformation increases the need for differentiation between teams within the same company and with customers.

10- Enhancing Sustainability: Digital transformation contributes to enhancing sustainability through its technologies and tools used in agriculture, transportation, production, and other sectors, as well as by developing procedures aimed at preserving the environment.

Therefore, it can be said that these and other objectives clearly demonstrate that digital transformation aims to improve customer satisfaction by adopting the comprehensive use of digital tools. This includes improving the quality of products or services and maximizing the benefits customers receive.

Figure (1) illustrates the objectives of digital transformation.



Source: Experts' Vision Consulting EVC, (2025), available at <http://evc.sa>

#### 4- The Benefits and Advantages of Digital Transformation

Digital transformation offers numerous benefits and advantages that have facilitated many financial, commercial, and other transactions, particularly in reducing costs through the use of modern technologies. Many companies and institutions have benefited from implementing this digital transformation. Some of these benefits and advantages are as follows (Bakkah, 2025:35)

1- Cost Reduction and Increased Production: Digital transformation has contributed to cost reduction while maintaining high levels of production. Companies and institutions prefer using modern technologies to avoid resource waste, increase production, and minimize costs.

2- Data Improvement: Just as digital transformation helps in the accurate collection of data, it also helps in making sound strategic decisions, thus contributing to cost reduction.

3- Comprehensive Development: The term "development" is not limited to the technical and technological aspects but encompasses all aspects. This highlights the importance of selecting appropriate tools for machinery and environments, ensuring a better future for managing various economic projects.

4- Measurable Results: Digital transformation helps in charting a roadmap for business management across various sectors.

5. Using Artificial Intelligence: The digital revolution is of great importance in many fields. The use of artificial intelligence tools in digital transformation has contributed to identifying and avoiding potential risks.

6- Digital Transformation Leads to Customer Satisfaction: Digital transformation has contributed to the advancement of customer needs by automating all processes without human interaction. This automating fulfills all their requirements and needs, thus saving time and effort and increasing customer and client satisfaction.

7- Gaining a Clear Vision: One of the most important advantages of digital transformation is that it facilitates data collection and increases the ability to transform it into a clear future vision, which simplifies the process of making appropriate decisions (Mimic, 2017:23)

8- Digital Transformation Contributes to Software Monetization: Companies should implement digital transformation strategies that rely on software monetization and not solely on the product. This ensures an increased return on investment and other benefits.

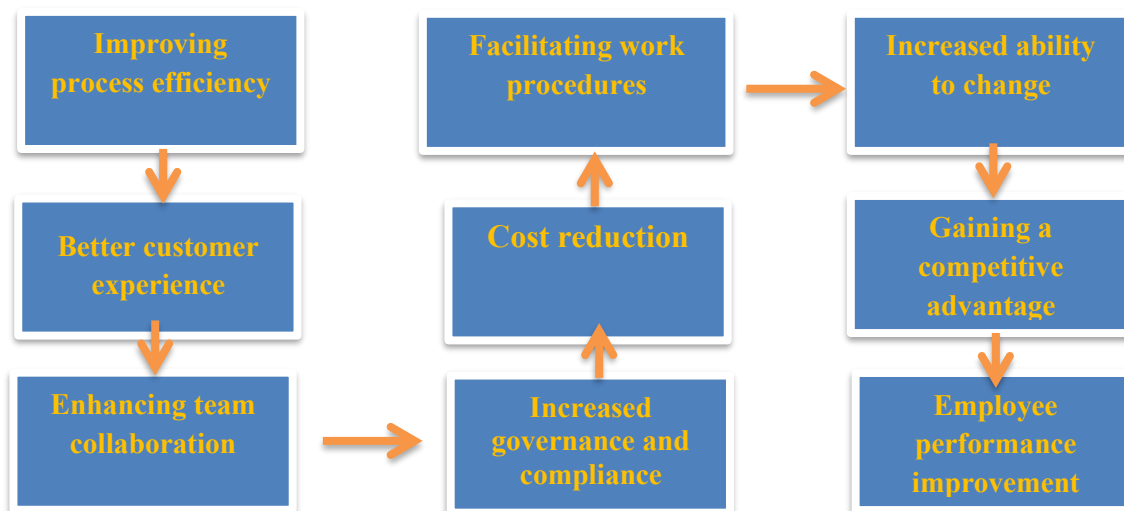
9- Eliminating (Human) Error: One of the most important advantages of digital transformation is eliminating human error that occurs as a result of manually recording data, in addition to reducing the time spent on this process.

10- Increased Operational Efficiency: Implementing digital transformation helps increase operational efficiency by integrating manual processes with back-office systems.

11- Ensuring Future Digital Growth: Digital transformation aims to accelerate business development and is the first step towards a better future.

Therefore, it can be said that these benefits and advantages of digital transformation provide a clear picture of this transformation as a major global phenomenon affecting all fields, whether economic, cultural, or otherwise.

Figure (2) illustrates those benefits and advantages of digital transformation.



**Source:** Rika, (2025), The Benefits, Advantages, Disadvantages, Importance, and Key Pros and Cons of Digital Transformation, available at <http://bakkath.com>, Saudi Arabia.

**Section Two: The Structure of Foreign Trade in Egypt****First: The concept of the structure of foreign trade**

Foreign trade is a fundamental pillar supporting the economies of all countries, whether developed or developing. The concept of foreign trade structure has been defined in several ways, including: It explains how a country's foreign trade is organized. Foreign trade structure has also been defined as the structure that shows the goods and services traded between different countries (Sanaa, 2022: 65). Alternatively, foreign trade structure refers to the structure of foreign goods over a specific period, meaning the ratio of imports and exports to a country's total import and export trade over that period (Obaid, 2024: 120). Furthermore, foreign trade structure is defined as the structure that illustrates the trends in a country's trade transactions with the rest of the world over a specific period, reflecting the nature and productive services of that country's economy (Al-Haddad, 2022: 25).

Finally, the researcher defines foreign trade structure as the structure comprised of goods and services exchanged between different countries over a specific period.

**Second: Reasons for Egypt's move towards digital transformation in the field of foreign trade**

Digital transformation in Egypt has become a key strategic pillar for achieving sustainable development and building a modern Egyptian economy that keeps pace with global advancements. Egypt has established a policy of digitizing government services, and there are several reasons that have prompted Egypt to pursue digital transformation, particularly in foreign trade, to reduce processing time and keep up with developments in this field, especially regarding customs clearance. This also aims to expedite the movement of goods and services and attract more foreign investment into Egypt. Among the most important reasons for this shift are the following (Dahdouh, 2025:103)

- 1- The shift towards a more rational consumption pattern. Data indicates that the years 2020 and 2024 witnessed a fundamental shift in consumption patterns, with imports increasing by 72% in 2024.
- 2- Streamlining customs procedures. As part of this initiative, the Egyptian government has worked to eliminate bureaucratic procedures and red tape related to the entry of goods through its various ports, whether land or sea.
- 3- Attracting more foreign investment to Egypt in the trade sector, such as building factories and developing Egyptian ports to receive goods and services.
- 4- Keeping pace with technological advancements in international trade and utilizing advanced electronic means in trade transactions.
- 5- Enhancing the competitiveness of Egyptian exports by leveraging technological development and employing modern equipment in the production of goods and services destined for export.
- 6- Improving the infrastructure for digital transformation services and establishing big data centers in Egypt, positioning it as a regional hub for electronic information services, to support Egypt's foreign trade.

- 8- Supporting small and medium-sized Egyptian enterprises (SMEs) to develop their export-oriented production.

Therefore, it can be said that these reasons, among others, pave the way for the Egyptian government to move towards digital transformation and keep pace with the technological advancements the world is witnessing today.

**Third: The relationship between digital transformation and the structure of foreign trade**

Digital transformation is closely linked to the structure of foreign trade. Digital technology has become a fundamental characteristic of the modern era, reshaping all aspects of economic life, particularly foreign trade. It has become one of the foremost transformations imposed by the digital age. The spread of the internet and communication systems has led to the emergence of what is known as "e-commerce," which is now accessible to traders and companies in various countries around the world, including Egypt. Physical and other barriers have been eliminated, creating an open global market operating continuously, 24 hours a day. Digital transformation has played a significant role in



reshaping the structure of foreign trade, contributing to cost reduction, accelerating trade exchange processes, and expanding participation for global, small, and medium-sized enterprises (SMEs) (Al-Sheikh, 2022:181). The nature of this relationship is outlined below:

1- Digital Transformation and its Impact on the Structure of Foreign Trade: Digital transformation has transformed digital services, especially those delivered remotely such as education, into an active and essential element in the list of global exports of goods and services exchanged across international borders. In some cases, this process has even surpassed traditional physical goods that are globally recognized.

2- Digital Transformation and its Impact on Trade: The development of e-commerce, particularly that conducted through digital platforms, has enabled direct and rapid access to global markets with minimal obstacles. This has led to an increase in the flow of various business products to consumers, both within Egypt and abroad.

3- The Impact of Digital Transformation on Developing Countries: Digital transformation has provided numerous opportunities for developing countries, especially concerning small and medium-sized enterprises (SMEs), as well as integration into the global economy through the digital platforms owned by various countries worldwide.

Therefore, it can be said that digital transformation has significantly and effectively contributed to reducing the costs of participating in international trade and has reshaped the nature of goods and services traded through digital platforms, as well as how those wishing to participate in this process trade them.

#### Fourth: The reality of digital transformation in Egypt

The technological and informational developments witnessed globally have enabled a rapid and significant increase in information and its availability to everyone. This has led to the proliferation of information sources and their availability in numerous types and forms. As part of this global community, Egypt has given considerable attention to this important development in order to advance the information and communication technology (ICT) sector, which represents one of the fundamental pillars for keeping pace with technological and informational advancements that have transformed the world into a "small village." The Egyptian government has worked to increase the role and effectiveness of ICT by expanding internet capacity and the number of subscribers to various communication services, especially given the growing awareness among the Egyptian population through the widespread use of these services. The overall growth rate of mobile phone subscribers reached 1.82%, with mobile subscribers per 100 inhabitants reaching 9.72%. Meanwhile, the total number of fixed-line telephone subscribers reached 10.96%, with fixed-line subscribers per 100 inhabitants representing 0.01%, and mobile internet users representing 11.13%. Table (1) illustrates this. The development of infrastructure indicators towards digital transformation in Egypt for the years (2018, 2019, 2025) according to the indicators of the Egyptian Ministry of Communications and Information Technology - As for the indicators of the establishment of communications and information technology companies, this sector has witnessed a clear development to become the highest growth and contribution to the Egyptian GDP, as this growth reached more than (16%) annually, while exports of digital services rose to reach a value of (6) billion dollars in (2025), and Table (2) shows the development of these indicators.

**Table (1) Development of indicators for the establishment of telecommunications and information technology companies as a cornerstone of digital transformation in Egypt for the years (2018, 2019, 2025)**

| Value of the Telecommunications Sector Index and the Egyptian Stock Exchange | Issued capital of newly established companies | Number of telecommunications and information technology companies | years |
|------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------|-------|
| 577                                                                          | 319.77                                        | 320                                                               | 2018  |
| 507                                                                          | 072.3                                         | 340                                                               | 2019  |
| 4054                                                                         | one billion ) 152.0 (Egyptian pounds          | 953                                                               | 2025  |

Source: Ministry of Communications and Information Technology, National Postal Authority, (2025).

With regard to post offices, the National Postal Authority in Egypt has witnessed a clear development in its infrastructure environment thanks to the mechanisms of digital transformation, as it has increased to more than (4651) outlets, in addition to the development of more than (85%) of those offices, which have turned into integrated service

centers that provide their postal services to the people of the Arab Republic of Egypt. Table (3) shows the development of the digital transformation infrastructure indicators.

**Table (2) The development of the number of post offices within the framework of activating digital transformation mechanisms in Egypt for the years (2018, 2019, 2025)**

| Value of salaries disbursed at government post offices | Those who benefit from salary disbursement at post offices | Beneficiaries of post offices (one thousand citizens) | Number of government post offices | years |
|--------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------|-----------------------------------|-------|
| 6.06                                                   | 6.59                                                       | 22.118                                                | 3958                              | 2018  |
| 6.21                                                   | 5.44                                                       | 24.876                                                | 3981                              | 2019  |
| 7.66                                                   | 5.60                                                       | (million) 5.17                                        | 4.722                             | 2025  |

Source: Ministry of Communications and Information Technology, National Postal Authority, (2025).

**Table (3) Development of infrastructure indicators towards digital transformation mechanisms in Egypt for the years 2018-2019 – 2025**

| 2025   | 2019  | 2018   | Unit of measurement   | Indicators                                         |
|--------|-------|--------|-----------------------|----------------------------------------------------|
| 123.06 | 93.99 | 95.73  | million 1 subscribers | Total mobile subscribers                           |
| 110.75 | 94.91 | 104.63 | %                     | Mobile subscribers per 100 inhabitants             |
| 14.16  | 8.21  | 7.40   | million 1 subscribers | Total landline subscribers                         |
| 14.2   | 7.61  | 7.62   | %                     | Landline telephone subscribers per 100 inhabitants |

Source: Ministry of Communications and Information Technology, National Postal Authority, (2025).

#### **(Fifth: The Structure of Egypt's Foreign Trade in Light of Digital Transformation (2004-2025)**

Egypt is one of the Arab countries located in Africa with a strong economy, ranking second among Arab countries after Saudi Arabia and 18th globally. Its foreign trade sector is characterized by the diversity of its exports of goods and services. The structure of Egypt's foreign trade sector is also distinguished by the diversity of its trading partners, both Arab and foreign. Exports from this sector have exceeded \$50 billion. Industrial products, such as engineering, textiles, and construction, are at the forefront of these industries, contributing (29%) to the GDP (World Bank, 2019:44). Food products are also significant. Conversely, Egypt's imports have witnessed a clear development, reaching a value of more than \$100 billion by 2025. This will result in a trade deficit of \$50 billion for Egypt in that year. Therefore, the development of Egypt's foreign trade structure for the period (2004-2025) can be analyzed. (2004 – 2025) as shown in the following table:

**Table (4) Development of the Commodity Structure of Egypt's Foreign Trade for the Period (2004-2025) (million dollars)**

#### **First: Egyptian Exports:**

| Total value of exports | Finished goods | semi-finished goods | raw materials | raw cotton | fuel     | years |
|------------------------|----------------|---------------------|---------------|------------|----------|-------|
| 454.76                 | 2.096.30       | 1.088.06            | 494.51        | 482.94     | 3.078.06 | 2004  |
| 1.188.91               | 2.282.83       | 1.257.10            | 528.51        | 179.71     | 5.227.66 | 2005  |
| 1.657.3                | 2.638.19       | 1.418.41            | 535.92        | 132.81     | 7.423.23 | 2006  |
| 2.645.85               | 3.015.38       | 1.689.61            | 744.01        | 162.94     | 7.945.44 | 2007  |



|        |           |           |          |        |           |      |
|--------|-----------|-----------|----------|--------|-----------|------|
| 78.86  | 9.909.16  | 3.197.78  | 2.036.20 | 194.32 | 10.911.74 | 2008 |
| 107.93 | 11.351.44 | 3.731.35  | 2.819.50 | 87.79  | 6.227.57  | 2009 |
| 110.07 | 12.777.18 | 4.874.14  | 2.570.44 | 246.23 | 6.947.40  | 2010 |
| 309.28 | 13.964.64 | 5.992.29  | 2.752.36 | 265.71 | 8.463.04  | 2011 |
| 184.83 | 13.437.49 | 6.211.24  | 2.661.74 | 195.90 | 8.158.85  | 2012 |
| 62.51  | 13.573.74 | 5.295.13  | 2.742.70 | 135.62 | 6.968.23  | 2013 |
| 57.20  | 13.090.73 | 5.689.57  | 2.910.51 | 87.80  | 5.754.82  | 2014 |
| 49.84  | 10.650.43 | 4.219.25  | 2.643.54 | 86.72  | 3.575.99  | 2015 |
| 31.51  | 11.120.88 | 6.125.80  | 2.660.26 | 90.88  | 2.944.18  | 2016 |
| 36.45  | 12.178.33 | 6.593.28  | 2.751.03 | 92.78  | 4.785.79  | 2017 |
| 18.77  | 13.257.83 | 6.607.20  | 2.620.76 | 125.98 | 6.649.46  | 2018 |
| 52.53  | 13.192.83 | 7.045.28  | 2.598.36 | 164.02 | 7.454.23  | 2019 |
| 63.93  | 13.763.28 | 7.538.03  | 2.857.28 | 146.20 | 4.848.92  | 2020 |
| 71.38  | 19.408.96 | 8.135.26  | 3.017.89 | 220.96 | 12.782.40 | 2021 |
| 112.41 | 20.437.47 | 9.031.32  | 3.754.36 | 281.81 | 18.498.37 | 2022 |
| 125.55 | 21.674.14 | 8.449.80  | 4.489.20 | 211.45 | 7.603.11  | 2023 |
| 90.01  | 24.419.97 | 10.193.34 | 5.073.33 | 153.59 | 5.387.34  | 2024 |
| 26.09  | 27.803.43 | 3.596.49  | 5.388.21 | 128.97 | 5.066.34  | 2025 |

Source: Egyptian Ministry of Investment and Foreign Trade, Egypt, for the years (2004-2025)

As shown in Table (3), fuel, for example, witnessed a significant increase during the aforementioned period, reaching \$3,078,060 million in 2004. After six years, its value rose to \$6,947,400 in 2010. This increase was driven by the local and international markets for this important commodity, given its use in most petrochemical and other industries. However, this value subsequently decreased to \$3,575,990 million in 2015 due to the reduction in subsidies provided by the Egyptian government, as well as a decline in global market prices. It then rose again to \$7,451,230 million in 2019 due to increased global demand driven by digital transformation. However, it soon declined again to \$4,848,920 million in 2020 due to the global economic recession caused by the pandemic. Clearly, its value reached (13,782,40) million dollars in (2021), and after one year of this increase, it rose clearly to reach (18,498,37) million dollars in (2022), only to decrease again to reach (5,066,34) million dollars in (2025), due to the Egyptian government controlling inflation rates. This analysis applies to the rest of the goods that Egypt exports to global markets.

**Table (5) Development of the Commodity Structure of Egypt's Foreign Trade for the Period (2004 – 2025) (million dollars)**

**Second: Egyptian Imports**

| Other    | non-durable consumer goods | durable consumer goods | Investment goods | intermediate goods | raw cotton | Fuel      | years |
|----------|----------------------------|------------------------|------------------|--------------------|------------|-----------|-------|
| 1.466.68 | 1.827.12                   | 338.92                 | 1.494.78         | 5.063.67           | 1.645.69   | 1.028.40  | 2004  |
| 2.519.70 | 2.275.41                   | 667.21                 | 2.083.73         | 7.416.13           | 3.095.26   | 1.788.72  | 2005  |
| 2.923.92 | 2.350.06                   | 711.39                 | 2.024.31         | 7.241.18           | 3.163.00   | 2.252.44  | 2006  |
| 4.124.39 | 2.703.93                   | 861.23                 | 2.527.74         | 9.502.92           | 4.619.89   | 2.736.13  | 2007  |
| 4.32     | 6.940.80                   | 2.299.76               | 8.206.34         | 24.931.98          | 6.483.62   | 4.095.56  | 2008  |
| 2.47     | 6.481.42                   | 2.019.86               | 8.356.12         | 19.783.63          | 4.017.29   | 4.422.03  | 2009  |
| 8.59     | 8.462.64                   | 2.974.59               | 7.881.90         | 21.635.01          | 5.390.70   | 7.073.11  | 2010  |
| 2.78     | 9.164.52                   | 2.965.34               | 7.535.75         | 25.834.66          | 8.039.77   | 9.065.58  | 2011  |
| 2.60     | 11.816.04                  | 3.460.83               | 8.190.07         | 28.310.31          | 8.186.64   | 13.007.64 | 2012  |
| 1.75     | 11.914.90                  | 3.009.45               | 8.413.12         | 26.906.50          | 7.142.66   | 9.253.18  | 2013  |
| 3.93     | 14.098.68                  | 4.428.26               | 8.816.59         | 29.165.97          | 7.661.52   | 9.766.05  | 2014  |
| 0.27     | 15.071.63                  | 5.584.83               | 9.538.64         | 26.279.61          | 6.071.93   | 11.424.22 | 2015  |

|      |           |           |           |           |           |           |      |
|------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| 0.00 | 13.615.99 | 5.095.59  | 15.095.66 | 25.366.01 | 5.894.65  | 10.581.56 | 2016 |
| 0.00 | 12.260.04 | -3.808.69 | 8.082.04  | 24.741.17 | 6.958.30  | 10.904.57 | 2017 |
| 0.00 | 13.788.26 | 5.967.50  | 9.970.47  | 29.939.18 | 8.082.02  | 12.725.26 | 2018 |
| 0.00 | 14.313.62 | 6.241.42  | 10.047.25 | 27.305.20 | 8.686.79  | 9.795.40  | 2019 |
| 0.00 | 13.463.71 | 6.271.30  | 9.732.05  | 24.398.11 | 9.076.39  | 6.482.95  | 2020 |
| 0.00 | 16.237.39 | 8.282.41  | 11.367.2  | 31.408.99 | 11.783.04 | 10.127.69 | 2021 |
| 0.00 | 16.897.69 | 4.222.50  | 11.663.10 | 36.532.46 | 12.801.90 | 14.071.29 | 2022 |
| 0.00 | 15.063.31 | 3.457.98  | 12.304.21 | 30.551.44 | 10.492.32 | 12.348.38 | 2023 |
| 0.00 | 15.272.17 | 4.070.52  | 13.926.21 | 33.889.56 | 11.393.57 | 16.781.77 | 2024 |
| 0.00 | 16.598.62 | 4.637.45  | 15.784.02 | 33.713.78 | 11.629.95 | 21.389.63 | 2025 |

Source: Egyptian Ministry of Investment and Foreign Trade, Egypt, for the years (2004-2025)

As for imports, Egypt's imports of non-durable consumer goods amounted to \$1,827,12 million in 2004, rising to \$8,462,64 million in 2010, then rising again to \$14,313,62 million in 2019 due to the elimination of energy subsidies and the rise in fuel and electricity prices, as well as the digital transformation in this direction, and continued to rise to \$16,598,62 million in 2025, due to the increase in import costs and the decline in the value of the Egyptian pound. This analysis applies to all goods included in the aforementioned table.

### Third: The Volume of Foreign Trade and the Trade Balance of Egypt for the Period (2004-2025)

We observe from Table (5), which pertains to foreign trade and the trade balance of Egypt for the period (2004-2025), that the volume of trade reached \$20,559,88 billion in 2004. It continued to rise until, after ten years, it reached \$94,355,01 billion in 2011. It continued in this manner until it reached \$100,702,70 billion in 2018. Then it rose again significantly to reach \$148,304,67 billion in 2022, and then increased two years later to reach \$155,762,97 billion in 2025. The reason behind this increase in the volume of trade, or foreign trade, is Egypt's signing of agreements with many countries around the world, in addition to reforms. The numerous projects it undertook included the energy, gold, agriculture and ports sectors, as well as the development of infrastructure for various economic sectors. It is noteworthy that Egypt's trade balance position indicated a deficit throughout the period (2004-2025) due to reliance on imports from abroad, despite the diversification of Egyptian exports.

**Table (6) The volume of foreign trade and the position of the trade balance of Egypt for the period 2004-2025 (million dollars)**

| Trade balance position:<br>surplus/deficit | Volume of foreign<br>trade | Total imports | Total exports | years |
|--------------------------------------------|----------------------------|---------------|---------------|-------|
| -0.170.62                                  | 20.559.88                  | 12.865.25     | 7.694.63      | 2004  |
| -9.183.43                                  | 30.508.87                  | 19.846.15     | 10.662.72     | 2005  |
| -6.910.56                                  | 34.422.02                  | 20.666.29     | 13.755.73     | 2006  |
| -15.883.00                                 | 43.296.47                  | 27.076.23     | 16.193.24     | 2007  |
| -26.634.42                                 | 79.290.36                  | 52.962.39     | 26.327.97     | 2008  |
| -20.757.23                                 | 69.408.39                  | 45.082.81     | 24.325.58     | 2009  |
| -25.883.09                                 | 80.970.01                  | 53.426.55     | 27.543.46     | 2010  |
| -30.861.08                                 | 94.355.71                  | 62.6.8.39     | 31.747.31     | 2011  |
| -42.134.07                                 | 103.814.17                 | 72.974.12     | 30.840.05     | 2012  |

|            |            |            |           |      |
|------------|------------|------------|-----------|------|
| -37.863.65 | 95.419.48  | 66.641.55  | 28.777.91 | 2013 |
| -46.355.36 | 101.536.64 | 73.946.00  | 27.590.64 | 2014 |
| -52.745.36 | 95.196.90  | 73.971.13  | 21.225.77 | 2015 |
| -47.675.93 | 93.622.98  | 70.649.45  | 22.973.52 | 2016 |
| -40.317.15 | 93.192.54  | 66.754.80  | 26.437.65 | 2017 |
| -51.242.70 | 100.702.70 | 80.472.70  | 29.230.00 | 2018 |
| -45.884.43 | 106.894.93 | 76.389.68  | 30.505.25 | 2019 |
| -40.198.36 | 98.660.64  | 69.425.00  | 29.235.64 | 2020 |
| -45.569.70 | 132.843.40 | 89.206.55  | 43.636.85 | 2021 |
| -44.073.22 | 148.304.67 | 69.188.59  | 52.115.73 | 2022 |
| -41.646.39 | 126.770.87 | 84.217.63  | 42.553.24 | 2023 |
| -50.016.23 | 140.651.39 | 95.333.81  | 45.317.58 | 2024 |
| -51.743.92 | 155.762.97 | 103.753.44 | 52.009.53 | 2025 |

Source: Ministry of Investment and Foreign Trade, Egypt for the year (2026)

#### Sixth: A Future Outlook on Egyptian Foreign Trade Growth in Light of Digital Transformation

Many sources, particularly international institutions, indicate that the Egyptian economy will return to its former strength after overcoming the abnormal circumstances it has faced, especially following the COVID-19 pandemic in 2020 and its widespread structural impact on all major productive sectors. According to these sources, a 15% decrease in remittances from Egyptians working abroad and Suez Canal revenues was expected for 2020, which indeed occurred as a result of the crisis.

Furthermore, tourism revenues decreased by 35% of the expected revenues for the year in question (Dahdouh, 2025:122). Conversely, other sources indicated that the Egyptian economy would recover, or that Egyptian exports of goods and services would continue to enter the markets of countries with which Egypt has trade relations. Remittances from workers abroad are also expected to increase, and the current account deficit as a percentage of GDP is projected to decrease to 4.2% by 2026. This has led to an influx of direct and indirect foreign investments into Egypt, strengthening the Egyptian economy's position to achieve greater stability and attract more investments in the coming period. Additionally, trade with key partners, both Arab and foreign, is expected to be revitalized. Egyptian exports in 2026 reached \$3.66 billion, while imports of non-oil goods amounted to \$7.2 billion during the same year. On the other hand, economic forecasts for the period after 2026 indicate a structural transformation. In Egypt's foreign trade, the Egyptian government seeks to increase its exports by (20%) to reach a value of (115) billion dollars by the year (2030). In contrast, its imports will reach (105) billion dollars and it will have a surplus of around (10) billion dollars. This explains the continued trade deficit with the world at a value of approximately (3.5) billion dollars, with the Egyptian government's intention to reduce these imports from abroad as much as possible in the coming years.

#### Conclusions:

The research reached several conclusions, which are as follows:

1-There is a strong and positive relationship between digital transformation and the structure of foreign trade in Egypt, which aligns with the research hypothesis that was proven.

2- The information and communications technology (ICT) sector in Egypt has witnessed significant development, evidenced by increased internet capacity and a rise in the number of subscribers to various communication services. For example, mobile phone subscriptions reached 11.13% of the total population in 2025.

3- Regarding the development of Egypt's foreign trade structure, Egyptian exports have seen a marked increase, particularly fuel exports. Valued at \$3,078,060 million in 2004 reached \$18,498,340 million in 2022. Imports, on the other hand, increased from \$1,827,120 million in 2004 to \$16,598,620 million in 2025. This resulted in a trade deficit of -\$0.17062 million in 2004 and -\$1.74392 million in 2025.

4- The beginning The true beginning of modern digital transformation in Egypt dates back to 2018 and 2020, particularly with the spread of the Coronavirus pandemic, also known as COVID-19.

5- The inadequacy of Egypt's infrastructure at that time to cope with such a global event, due to the country's financial situation.

### Recommendations:

#### The research recommends the following:

- 1- Providing support and subsidies for essential commodities of global value, such as fuel, to generate substantial revenue from exporting these goods to global markets.
- 2- Developing the digital transformation infrastructure throughout Egypt to keep pace with global advancements in this field.
- 3- Providing the necessary support for digital payments to attract foreign investment to Egypt.
- 4- Streamlining customs and border crossing procedures and linking them to a single window system.
- 5- Simplifying legal procedures to support e-commerce in Egypt.

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