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Analytical study for the role of Agricultural policies on achieving the Sustainability of Cotton Production and industry in Egypt

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Abstract: Cotton is an agro-industrial crop, It serves as both, a cash crop as well as supplies raw materials to the Textile Industries more than half of fibers used in textile and clothing industries, and provides employment in rural and urban, The main objective of this research is to analyze the impact of the Egyptian agricultural policies on cotton and textile production, in terms of efficiency and comparative advantages, there for this research examines tow components of Egyptian Cotton sector, cotton production and textiles sector,. Egypt's government wants to diversify exports from agricultural product to strategic sectors like textile and garment manufacturing. Studying Possible causes for differences between strategic objective goals estimates of cotton and textiles sector, and reported, can be represented by The relationship between area under cotton crop " cotton lint yield" and textiles sector yield, The policy analysis matrix (PAM) was adopted as an analytical model to achieve research objectives, The finding showed that cotton crop doesn't enjoys there areal support by The country, Egypt has a comparative advantage in cotton production and efficiency in using local resources and its stores, and this production is socially profitable. The Egypt is receiving marginally benefits from its cotton and textile products export due to reduction in cotton cultivated area and cotton production, level growth and development of textile industry is directly depend the investment, and the quality and effectiveness of government policies. Sustainable agricultural development strategy 2030and industrial development strategy, planning incentives and policies to attract investment As indicated the textile industry in Egypt appeals to foreign investors mainly due to Low manpower cost, Raw materials and Low energy costs. It is recommended that increase area under cotton cultivation, Strengthening and facilitation the existing credit institutions such as Egyptian Agricultural Bank and facilitation of others, finally policy interventions required to increase the supply of cotton and increase cotton industries.

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Introduction:

The textile industry requires cotton in order to produce high quality goods to recover capital costs, to finance national development plans, because of its distinct spinning characteristics, which leads to its superiority to global cottons such as the American pima, and has been distinguished Egypt produced abundant cotton of high quality, which helped achieve a high competitive advantage in the global cotton markets since the thirties and forties of the twentieth century, but the situation has changed since the beginning of the nineties of the twentieth century, as a result of poor performance of public sector companies and achieving losses, in addition to Social and economic structural imbalances in the agricultural sector, which require an evaluation of the components of this sector with a view to its advancement, taking into account that all concerned official and private components include, so that the agricultural and industrial sector can provide agricultural products that meet internal demand, and have a competitive capacity (appropriate production costs and High quality) enables it to enter the internal and external markets in a way that does not conflict with the public interest, or sacrifice the interests of farmers but rather to promote them.

The importance of the research:

The present research is addressed to the farmers, marketing agencies, investors and policy makers to make them aware and extract some indicators and criteria to measure the impact of agricultural policies and to identify the comparative advantage of cotton production and textile industry in Egypt as guidance to plan production, import and export In order to help to achieve higher efficiencies of using the available resources.

The Problem of the study:

Despite the interest of the Egyptian government, non-governmental organizations and private companies have all responded to developing the textile industries in Egypt and increasing production and export through the strategies of developing Egyptian textile industries during (2020-2007) and the sustainable agricultural development strategy 2030, the cultivated areas and the quantities exported of Egyptian cotton dropped sharply in the late 1990s, and lost Many of the traditional foreign markets, which negatively affected the cotton cultivation and the textile industry, which is one of the largest industries in Egypt, which contribute to achieving a balanced spatial development, but cotton production in Egypt is much lower than the volume required in the textile and clothing industries, so manufacturers depend on import cheaper cottons, which are is less quality compared to the Egyptian cotton, so the research problem can be formulated in the following question: What is the role of Egyptian agricultural policies in achieving sustainability for the cotton crop, and decreased the causes of the deterioration of its cultivation, production, manufacture and exports despite the existence of appropriate conditions for its cultivation and its distinctive characteristics?

Objectives of the study:

The Egyptian government and the Egyptian textile-industrial organizations concerned with searching for ways to improve the cultivation, manufacture and exportation of cotton, in order to sustain the cotton profitable and competitive in global economic environment. Hence, the research aims mainly to study the role of Egyptian agricultural policies in developing the cotton crop through the following:

- Analyze the marketing, production, and support policies related to cotton & textile, production and trade in Egypt, including an assessment of the structure and levels of income of cotton farmers, the cost structure and flows in the cotton and processed cotton product markets, studying the cotton/textile trade, pricing and marketing policies.

- Determining the challenges that farmers and manufacturers suffer, internally and externally, and led to the deterioration of the cotton crop. To identify the most important variables affecting the decision to produce, manufacture and export cotton, to help define and planed productive, price and export policies for the cotton crop.

- Measuring the comparative advantage of cotton production in Egypt using the matrix of policy analysis, measuring the impact of the interventionist policy in the cotton sector and directing the continuation of local production and encouraging or refusing it based on its efficiency.

Analyses the export performance of the Egyptian cotton and textile industry, and analyze the effects of changes in structure of the textile industry on productivity, and using that to develop proposals that help restore the position of cotton locally and globally and enhance the competitiveness of Egyptian exports of Egyptian cotton, to achieve a positive return on farms and the trade balance.

Methodology and data sources: The research used the descriptive and quantitative method, to study the effect of agricultural policies on cotton production, industry and trade. The research relied on achieving its goals on the published and unpublished secondary data and reports of Ministry of Agriculture, the Central Agency for Public Mobilization and Statistics,…etc., in addition to in addition to websites, reports and studies issued by the authorities concerned with the subject of the research.

Results:

The implications of agricultural policies on cotton and textile industry in Egypt: this section provides Brief descriptions of cotton production and textile industry in Egypt, due to production of cotton is determined the size of the textile industries, the desire of farmers and manufacturers to expand, affect by Policies related to the cotton production especially in light of the different political and economic systems of in the countries which is competing Egyptian cotton, and taken into account when declaring the future production, marketing, exporting and consumption, and stocks policies, in addition to spinners and weavers internal and external, who tend to import the cotton as result lack of local stability of cotton. The history of cotton cultivation in Egypt back to 1820 during the era of Muhammad Ali, The cotton varieties were originally imported the finest types of cotton seeds and was of a long-staple type. The cotton quantity produced about 30 thousand qantar in the year 1823, Muhammad Ali established the spinning, weaving, dyeing and processing industry, about 12factories in Lower Egypt during the period (1824-1826), and 9 factories in Upper Egypt in the year 1828, cotton production in Egypt has been growing rapidly due to the area planted with cotton increased in Egypt as a result of the American war during the period (1861-1865), and cotton production decreased in America, which led To increase Egypt's exports from 596 thousand qentar metric in the year 1861, to2.51 million qentar metric in 1865, which led to The number of factories increased to 33 in 1933, and helped cotton export to compete with the British industry. There for Egypt cotton cultivation area expanding without manufacturing. The quantity of cotton production 2.644 million qentar metric during the average period (1880-1882), and the National

Spinning and Weaving Company was established In the year1898, during the period of the British occupation (1882-1920), Egypt became a cotton farm for the benefit of the British cotton industries, and production reached7.3 million qentar metric during the average period (1910-1914), before the Second World War production increased to9.2 million qentar metric. In the year 1927, Bank Misr created a group of companies starting from Misr Company for Spinning and weaving in the Great Mahalla. Talaat Harb and Bank Misr started industrialization, the consumption of the local cotton industry about 1.2 million qentar metric, during the period (1945-1949), during the calendar year1949, Egypt was transformed from a spinning importer to an exporter. Cotton was Egypt's leading export in the 19th and early 20th century, planted area of cotton 2 million feddan in year 1961, Cotton Technology Research Monitoring (CTRM) was established in 1963, aimed to raising cotton And maintain its varieties and physiology of cotton and cultivation, in the year 1973(CTRM) joined to the Cotton Research Institute of the Agricultural Research Center, researchers began to develop new, long-staple varieties, that were better suited to local conditions. Which succeeded in devising many which acceptance and popularity by various cotton spinners in the world, while the middle cotton has stopped relatively cultivation and production since the eighties and under the expansion of the Production and increase of feddan productivity. Marketing system for the Egyptian cotton, differs according to each stage, the free marketing system for cotton, until the year 1961, were completely dependent on the laws and decisions regulating it. The Egyptian government decided to stop dealing in both the stock exchanges and Minya Al-Basal Stock in year 1961, and in year1962 it issued the government is legally fully nationalizing export companies, as the government purchased cotton from producers through the Egyptian Cotton Committee. Figure No. 1 illustrates the development of Egypt's cotton during the period (1980-2017).

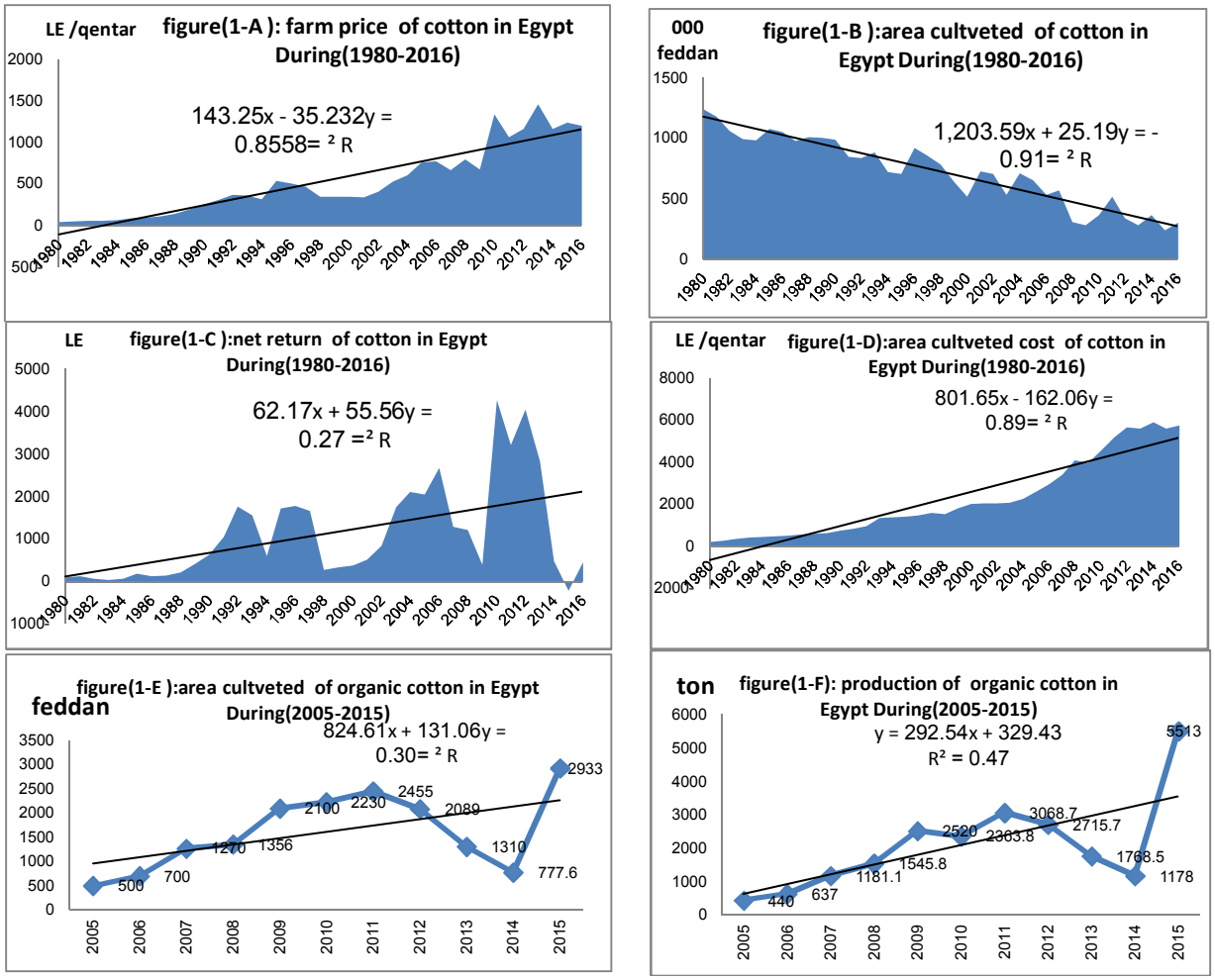

Figure (1) Economic indicators of cotton in Egypt

Production is divided between the exports and domestic consumption, production was liberalized by cooperative marketing of cotton was applied in year 1961/1962, and then expanded in general application at the Republic season 1965/1966. Reform policy in the cotton production and marketing restrictions by some measures beginning in the season (1988/1989). Cotton prices were gradually increased from year 1986 to year 1991, and reflect border prices and were deregulated in the year 1997, before the liberalization almost all the cotton production went into the domestic textile industry, this changed in year 1994. the beginning of the 21st century the freedom for the farmers to grow cotton or not, while maintaining the restrictions on defining the areas and varieties of the crop, and in 1994laws were issued to liberalize production, marketing and cotton trade, Law No. 141 year1994, regarding the establishment of a stock exchange of goods, in cotton as Minya Al-Basal Stock Exchange, Law No. 210 year 1994, regulating the local cotton trade, and Law No. 211 year 1994regarding the issuance of the Cotton Exporters Union Law, and that was followed by Ministerial Decree No. 388 During the calendar year 1994 issuing the executive regulations of the Law Establishing the Stock Exchange for Cotton (Minya Al-Basal Exchange), Ministerial Resolution No. 389 year1994, issue the executive regulations for the law regulating cotton trade, and Ministerial Resolution No. 507year 1994for issuing the internal regulations of the Cotton Exporters Union. The Cotton Exporters Union was established under Law No, 211year 1994, coordinate between exporters, importers, and other parties operating at domestically and abroad. until season (2001/2002), and with the exception of the provisions of Law 210 of 1994 in the matter of organizing cotton trade internally, the system of supplying cotton to collection centers for those who desire producers at the minimum prices for cotton delivered is excepted for an exceptional period determined by the Minister of Agriculture in agreement with the Minister The competent, and thus the production, marketing and trade of cotton were not fully liberalized, as the state continues to tighten its grip on the marketing of the crop, as the state at the beginning of each cotton season issues ministerial decisions that include determining the minimum prices for cotton from producers and cotton marketing, and this is done by the Supreme Committee Supervisor of cotton marketing. And the development of manufacturing until the consumption of the national industry in cotton reached about 6.5 million qentar metric in 1980/1981. Reform came in the shape of the Agricultural Adjustment Programme (1986 / 1987), During the period (1987-1989), price and marketing restrictions were removed The price and marketing restrictions and the supply quotas of some major crops were canceled, the subsidy on production requirements was reduced, but the Egyptian cotton exports increased after the Government formally liberalized the market to allow for competitive marketing and ginning in 1994, and the Egyptian government focused during the period (1994-1990) on adjusting policies, and set goals Measurable, such as increasing the purchase price of cotton to the equivalent world market price 66%, and the government has moved since 1995/96 to rely on policies to confront the fluctuations in cotton prices in global markets, the most important of which is direct support, financial derivatives "future or future contracts", in addition to Minimum prices policy "prices Guarantee Minimum floor prices minimum prices that have to be paid to the farmers "As an optional alternative, the guarantee price has been set between 500 -327 pounds for a qentar metric for excellent long staple cottons, and295 to329 pounds for a qentar metric for long-staple cottons in the middle, which was rewarding to the business sector and the private sector where global prices were throughout the season The yield of the crop in 1995is higher than the farm price. The private sector traders got the first opportunity to buy cast cotton in (1994/1995), where they bought a third of the crop, and the cotton market began to be very active in the season (1995/1996), and the farm prices increased due to the lack of the crop and the competition of public sector traders. And the private sector, even as they offered the producers more prices than the declared guarantee prices, and the share of the private sector increased to 60% of the cotton flower, and the international prices continued at their high level until early 1996, The government announces that the guarantee price was raised to500 pounds /qentar metric However, some negative effects of the cotton economic liberalization policy occurred in years This is the first, as a result of speculation on the crop and the behavior of some intruders and inexperienced people, which led to the inability to meet domestic and foreign demand, which prompted the Egyptian government to take some measures in September 1995 that led to the suspension of cotton liberalization. The Egyptian government has set the prices of Cotton lint, delayed exports until the needs of local spindles are covered, the purchase process has been frozen for a temporary period, and the cotton lint is not stored, and a decision has been issued stating that all Cotton lint in the possession of merchants must be delivered to spinning companies or exported within 30 days From the gin. The government announced the continuation of the guarantee prices for the season (1996/1997) at the rate of the previous season, and this hypothesis was built on the basis of keeping international prices at a high level, as a result of which the cultivated area

has increased by nearly200thousand feddan and increased production to reach about 6.8 million qentar metric The data on harvested area and yield for cotton are presented in figure (1), except That the international prices had collapsed sharply before the advent of the 1996 crop, which led to the private sector's reluctance to participate in the cotton domestic trade, at a time when the Egyptian government committed to the lowest declared price and was about 20% more than the international price, with the government bearing price differences through The banking system to complete the payment operations Pay and pay the full price to the farmers. At the beginning of 1997, the government announced its confirmation of guarantee rates for the third and last year of the season (1998/1997), with an attempt to reduce the real prices it receives to farmers by about 7% by raising the grade rate from good to good / completely good, and ginning clearance from 1.15 to 1.2 That is, 60 kg of Cotton lint per pound of cast cotton instead of 58.5 kg of Cotton lint of each pint of blossom cotton, on which the guarantee price is determined. Farmers are highly price responsive. Therefore, a stable cotton price policy holds the key for cotton production and productivity, As prices declined during 2000/2001, the government of Egypt provided 23 million dollar of support per year. In 2002/03, the government budgeted 33 million dollar to help finance the difference between market prices and prices paid to producers. there for The Egyptian government adopted a policy of guarantee prices for the Egyptian cotton crop for a period of only three years (95 /1996-97 / 1998), and as a result of its negative effects, "the guarantee prices are determined according to the cost of production, not providing sufficient incentives to farmers, which led to their instability." From the 1998/1999 season to market mechanisms until the present time, which led to farmers getting 103-104%of export prices in1999/2000 and the export prices were characterized by exaggeration in it, which neglected the support provided to competing cottons such as the American pima, and the export prices are linked to the value of the seed, Figure (2) depicts the most important effects of the cotton pricing policy in Egypt in terms of resistance costs and the costs of preparing the land for planting cotton when growing it in clusters of not less than10 feddan, Egypt provided direct and indirect support to cotton production about 70 million pounds 2014/2013, In light of the interest in the cotton crop as an important export crop, it was agreed between Egypt and a number of international companies working in the field of agriculture to implement a project to expand the production of crops produced with biotechnology away from the use of pesticides, and it was decided that the first cooperation in the production of new varieties of the Giza variety of ultra-long cotton According to the experiments that have been completed, the new varieties will be resistant to the cotton paper worm and the worms of almonds. With the generalization of the new varieties, the share of Egypt's of the long-staple cotton market worldwide will increase, and therefore it was agreed to establish a biotechnology network that includes in its membership (19) countries based in Egypt. The important production inputs that are subsidized by the government, cotton subsidies in Egypt are275 piasters / kilo yarn, and this is considered unpaid, especially with the increase in international prices.

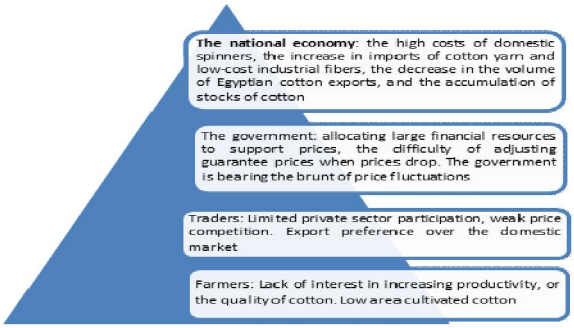

Figure (2): Suggested impacts of the cotton pricing policy in Egypt

Despite the cancellation of the guarantee price, the government has not stopped finance and subsidizing inputs for encouraging cotton farmers increasing cultivation of cotton crop The government paid100 pounds per feddan planted with cotton to purchase control needs, because Cotton crops are affected serious from pests and diseases, which cause 20% loss annually, This support is spent through the Egyptian Agricultural Bank and the Agricultural Budget Fund, in addition to providing cash liquidity to the Cotton Price Balance Fund about (250 million pounds). In addition a new trend to development characterize the cotton sector's is Organic cotton, act as opportunity for 'sustainable' cotton market, and Egypt has already introduced the concept of organically grown cotton; cultivation area and production are limited until now, 1n 2016 organic cotton in Egypt was planted on 280.7 feddan in the governorates Fayoum, Behera, Kafr-El Sheikh, and Damietta. In the future The production of organic will expand due to growing demand from consumers for sourced products, cultivation of Organic cottons require less cost on inputs, and premium payment above the standard cotton price to encourage farmers. in 2007 the farm price of the cotton crop about 671 pounds / qentar metric, increased to about 1250, 1100 pounds / Ardab in 2016 for the Lower Egypt and the Upper Egypt, respectively. The Republican Decree

was issued by Law No. 4 of 2015 excluding the propagating cottons from the Free Trade Law No. 210 of 1994 provided that they are circulated by the Ministry of Agriculture exclusively to prevent mixing of varieties. Also, Ministerial Decree No. 95 of 2015 issued executive procedures to purchase the multiplication cottons to preserve the genetic purity For varieties and cotton strains and improving their rank, as presidential decree was issued to provide direct financial support to cotton farmers, at 1400 pounds per acre. The value of the support for the cotton crop according to the financial statement for the 2016 /2017budget was about 362 million pounds, directed to the differences in cotton prices and pest resistance while it reached Support value f In 2016/2015 budget of about 885 million pounds, down 523 million pounds, as the state provides support for the resistance of cotton pests reached during the current budget of about 62 million pounds compared to the previous budget, amounting to about60 million pounds. The cancellation of subsidies may lead to the stopping of the cotton ginning companies, because the cotton is not provided in sufficient quantities, and it will lead to unemployment of about 10 thousand workers and their families working in the cotton ginning companies. As the cost of the Egyptian worker in this sector costs from $ 105-200 dollars per month, while the cost of the Turkish worker is $ 700 per month, the Egyptian government floated the Egyptian pound In November, 2016, leading to Egyptian pound decrease over 100 percent, but value of Cotton exporters, in Egyptian pound terms, double in 2016/2017. On the other hand the Sustainable Agricultural Development Strategy 2030 aims to increase the area planted with the cotton crop from 520.1 thousand feddans in2011 to about 750,000 Feddan in 2017 and about a million feddan in 2030).

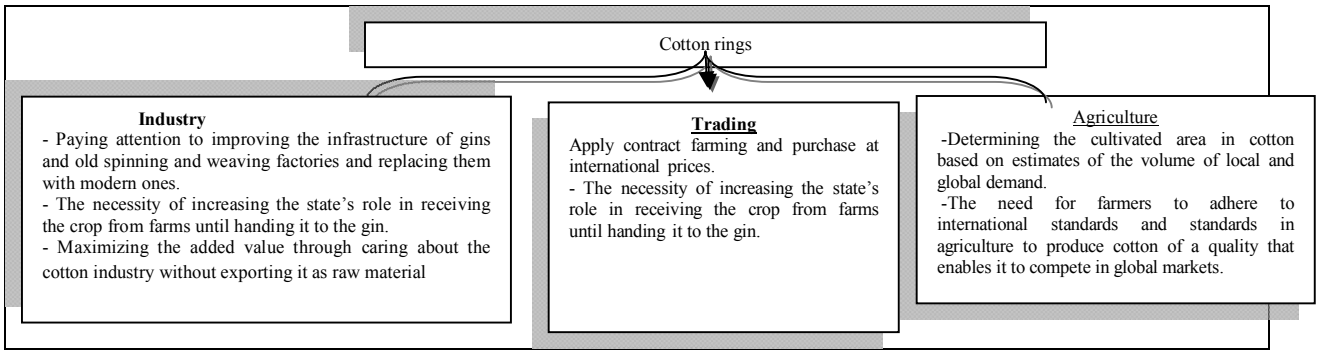

Figure (3): Cotton rings in Egypt

In spite of this, a decrease in the cultivated area to 131.000 Feddan in 2016/2017, and 321.000 Feddan in 2018/2019, cotton is cultivated in nine (9) Governorates, 89% produced from "Delta" Lower Egypt province. The produced and exported quantity of the cotton crop in Egypt, and an increased dependence on importing increasing quantities of foreign cotton since 1988, were observed due to the problems experienced by the sectors directly or indirectly related to the crop, agriculture, industry, and trade. The figure (2) of the cotton rings in Egypt, which led to the Egyptian government adopting a new policy in 2016 to eliminate the decline In cotton cultivation, Since 2017 the Egyptian Government has been taking steps to protect the cotton industry from decline, and The Egyptian Ministry of Agriculture and Land Reclamation (MALR) is now directly overseeing cottonseed quality and handling seed distribution, on February, 2017, Ministerial Decree Number 1340/2016 was published in Egypt's Gazette about cottonseed to be used next year, decree that seed cotton production is only permitted to farmers who signed contracts with the government based on the Ministerial Decree 277/2016, which stipulates areas eligible for growing cotton varieties. Under the decree, MALR's Central Administration for Seed Production will sign contracts with eligible farmers, and Prices will be announced two months before the harvest date. The Egyptian government increased their reported indicative price for cotton by over 400 L E over the previous season, and to increase the cultivated areas of cotton to at least 500 thousand feddan by 2019. In addition to growing cotton short staples to cover the needs of local factories, the Egyptian Government set 2700 L E per kantar as indicative price for the cotton produced in the Delta and 2500 L E per kantar for the medium and short staple varieties grown in Upper Egypt, staple varieties such as Giza 45, Giza 96, Giza 87, Giza 88 and Giza 92, and long staple varieties such as Giza 94 and Giza 86. Short and medium stable varieties (Giza 90 and 95) are grown in Upper Egypt, Provided the areas planted with long-staple cotton are not affected,. and it is clear that the decrease in the cotton area is due to the high cost of production inputs especially fertilizers and pesticides, high wages of workers, and marketing difficulties, taking into

account the presence of many local and international variables affecting the policies used in the field Cultivation, production and manufacture of cotton, there are a number of national and international challenge which is limiting the exploitation of agreements by Foreigner investors are in the interests of the Egyptian, and negative effect on domestic textile industry, like Turkish investors benefited from Egypt's signing of the partnership agreement with the European Union and the QIZ agreement, they exploited the name of Egyptian origin without paying customs and exporting textiles and ready-made clothes abroad in an unfair competition for the Egyptian product, which Explains the importance of reviewing government policies to maintain this important crop, putting it on top of priorities in the coming years, and formulating an appropriate agricultural policy to advance this strategic crop, and to straighten out its path, to achieve economic and social development For all parties concerned with the cultivation and manufacture of cotton. The internal constraints are more important. They include a mandate to sustain the small scale traditional handloom sector, export constraints on yarn, government fixing of cotton ginning and pressing fees, subsidization of raw cotton production, and an overvalued exchange rate, which held domestic producer prices below world prices.

The strategy of promoting cotton cultivation, production, processing and export in Egypt:

The Egyptian government purposed A lot of efforts, to reverse Egypt's cotton industry's decline and Encourage the local spinning industry to use Egyptian long-staple cotton and reduce imports, year 2017, there for adopted a new policy that covering items such as, establishment of contract farming, international and internal market facilitation, processing technologies, mechanization, improved cotton seeds variety breeding and control the production and distribution of cottonseed, to prevent seed mixing and cotton quality and increase yields and quality, due to seed inferior, mixed variety output, growing of cotton seeds based on contracts between certain farmers and government. Expand on using contract farming to solve marketing problems,. determine the production area needed, Identify the areas suitable for each cotton variety, also Enforce the ban on prohibited varieties and implement an awareness campaign to educate farmers on the specifications and requirements of each variety, Development of local spinning and weaving industries, Apply good agricultural practices (organic cotton), announced indicative price before the planting season to grow quantities demanded by the textile industry and traders, encourage scientific research for Develop new varieties to adopt climate change and increase yields, those are priorities of both private and public stakeholders. Despite of these government efforts, which made Egypt a recommended market for investment in cotton and textiles, there are many challenges facing Egyptian cotton production and the Textile Industry: Although, One of these challenges is Cotton production and marketing is a capital-intensive operation. the textile and garment factories efficiency due to underdeveloped processes and lack of education amongst manpower, table (1), Another challenge is the lack of available raw materials needed, textile factories depend on imported materials, The lack of marketing for the textile industry due to lack of efficient marketing systems using basic technology tools such as internet, access to credit etc., Challenges also include restrictions in technology specifically in the underdeveloped processing. Many factories machinery are not idle, Egyptian companies need to adopt a new marketing strategy, financing problem is the most important problem which producers suffering from as a result of banks 'reluctance to finance due to low prices, which led to an increase in inventory as the quantities of cotton received from producers to merchants have increased, imported.

Table (1) SOWT **analysis for cotton and textile industry in Egypt**

Weakness	**strength**
The limited use of quality cotton seeds, lack of farmers financing act as Greater uptake of certified seeds has been hampered and Weak technological integration in the production chain	The presence of local and international application and acceptance of the Egyptian cotton.
Outdated technology, lacking investment in technological improvement and low training	Governmental support, allocating a budget of 25 billion pounds to develop the sector, Participation in trade fairs abroad
ineffective supervision causes, failure to use best management practices, Weak marketing performance, and weak support structures,	Availability of raw materials (cotton)
The high costs of cotton production of raw cotton and textiles, most cultivated area are small, the private sector depend on manufacture products from imported cheap yarn, problems of	One of the most important factors is comparative advantage gained from its labour-abundant economy. Labour costs in Egypt are among the

smuggling clothes, and foreign fabrics to the Egyptian market, worn out and technological aging in the Egyptian textile sector	lowest in the world, five times less than Turkish labor, and three times that of Moroccan labor)
Non-competitive textile public sector, the debt of textile companies.	Proximity to global markets, application of the principle of competitiveness, and import substitution
lack of, knowledge of best farming practices, due to uncoordinated extension services.	Organizational and financial restructuring, with long staple cotton suitable for manufacturing exported T & C industries
A lot of taxes, such as sales tax, imported machinery, etc., which leads to increased production costs. And financial losses for government textile companies about one billion pounds per year.	The location of the country facilitates quick and easy exports to near the large markets of European, Middle Eastern, and African countries.
The deterioration of the quality of Egyptian cotton grades due to the lack of scientific research, and the decline and lack of acceptance by the farmers of the cotton, as a result of the low net yield achieved.	
Threats	**Opportunities**
Liberalizing the cotton trade and making the best use of the available production capacities	Restoring the reputation of Egyptian cotton, improving productivity and providing good quality, selected seeds.
Depriving the Egyptian economy of a competitive advantage that it enjoyed in the labor-intensive textile sector, which contributes to its deterioration through declining cotton production, increasing cotton imports and increasing unemployment.	Recycling unused assets of the Holding Company for Cotton, Spinning and Weaving, manufacturing locally produced cotton
Increase added value by Transforming raw cotton into a quality finished product	Egypt is a signatory to several multilateral trade agreements and operating conventions for facilitating trade
Unstable mechanisms for pricing raw materials "yarn"	The ability to absorb modern technology and manufacture machinery locally
The growing demand for imported cotton, and Synthetic fibers such as rayon and polyester are substitutes for cotton fibers the needs of the Egyptian industry to the cheap cotton that you find in the importer.	Attracting more investment in textile industries, to Increasing the competitiveness of the Egyptian product and entering new markets
Provide financing, Adjusting and rehabilitating the losing companies	Activating the role of scientific research and innovation and protecting property rights
The technological gap between domestic and global manufacturing meets export requirements and the use of environmentally friendly technology.	Egyptian textile industries inherent strength such as availability of raw materials" cotton", labor, integrated operations and design skills.

Source: Prepared by the researcher, according to the research references.

Foreign cotton from abroad is about two million qentar metric of foreign cotton from abroad at low prices than the Egyptian cotton prices, due to support them from their countries, old spinning characteristics of Egyptian textile industry, some countries have tended to produce biofuels from some agricultural crops such as corn and cane Sugar as an alternative to renewable energy, and this affects the cultivation of cotton, the multiplicity of natural and industrial alternatives as a result of scientific progress, which increases its competitiveness against natural fibers, "cotton", the entry of a number of countries "China, India... etc." in the production of excellent long cottons, so if its production Depends on four countries, technological development, which helped to replace quality varieties in addition to giving them an appearance that does not differ from those produced from luxury cotton, and the spread of cotton organic technology commercially.

Egypt had been export quotas on cotton waste, and then removed in 1993. Egypt imposes zero import tariffs on raw cotton or cotton lint (HS: 520100) and 5 percent import tariffs on carded or combed cotton (HS: 520300), Table (2).

Table (2). Egyptian Cotton Tariffs and imports, 2016

cotton	Final bound duties				MFN applied duties			Imports	
	Average in %	Duty-free in %	Max in %	Binding in %	Average in %	Duty-free in %	Max in %	Share in %	Duty-free in %
	5.0	0.0	5.0	100	4.0	20.0	5.0	0.2	99.2

Source: WTO 2016

The comparative and competitive advantage of Egyptian cotton production: It is important to examine comparative and competitive advantage of Egyptian cotton production.

Market Penetration Rate Index of Egyptian cotton exports: it's gives an indication of the degree to which a country is able to expand its exports to a given importing market, and access easier to the foreign market and increased its exports there are about 17 countries imported Egyptian cotton year 2017, which indicate opportunities for cotton exports, it is clear that Market penetration rate of Egyptian cotton exports has a competitive advantage to international markets, between a minimum of %0.6 in the Pakistan during the average period (2000-2017), and a higher %65 in the India, and it is clear from the value of the penetration rate index that Egypt has a competitive advantage for cotton export The comparative and competitive advantage of Egyptian cotton production: It is important to examine comparative and competitive advantage of Egyptian cotton production.

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Table (3) shows In the countries of India, Switzerland, Slovenia, Italy, Germany, Portugal, Japan, and Republic of South Korea respectively during the period (2017-2000), it is evident from this that there are opportunities for Egyptian cotton in those markets of cotton, and the requirements of those markets must be studied, and know the specifications It desires to increase the export quotas and increase the Egyptian cotton penetration rate for these markets.

Table (3): Average market penetration rate and average market share of Egyptian cotton exports in the most important international markets during the average period (2000-2017)

market	% Average market penetration index	% average market share of Egyptian cotton
Switzerland	20.83	19.61
Solvinia	10.14	9.14
Italy	8.27	7.75
Germany	2.3	13.65
Portugal	1.62	1.6
Japan	0.95	0.9
Republic of South Korea	0.82	0.8
Pakistan	0.6	3.1
India	65	20.9
USA	0.17	42.34

Source: Compiled and calculated from: the International Cotton Consultative Authority - The Annual Cotton Statistical Report - various issues. F.A.O - Trade e Year Book, Rome, various issues.

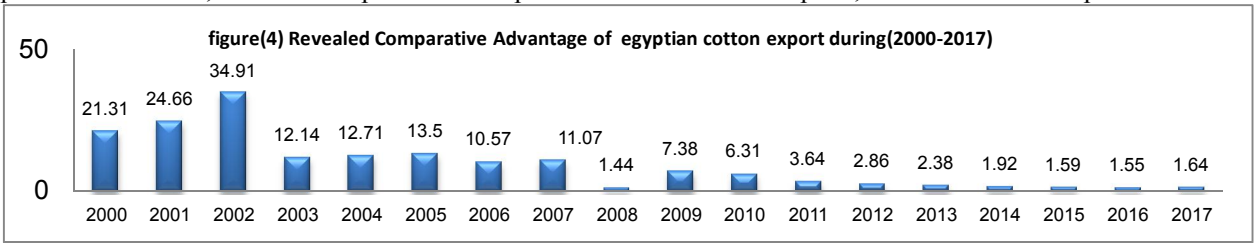
The market share during the average period (2000-2017): Market share index explains the relative importance of export quantities of a given country in the total imports of another country**,** table (3) depicts the low market share for Egyptian cotton in global cotton exports during the average period (2000 (2017-, in the markets of the United States of America, India, Switzerland, Germany, Slovenia, Italy, Pakistan are among the largest importing markets for Egyptian cotton as their average market share were 42.34%, 20.9%, 19.61%, 13.65%, 9.14%, 7.75 %, 3.1%, respectively during the average period (2000 (2017-, **Revealed Comparative Advantage** (**RCA**): It is clear from the figure (4) that the value of the Egypt's revealed comparative advantage coefficient of cotton production exceeds the correct one (**RCA** >1) during

the average period (2000-2017) The value of Egypt's Revealed comparative advantage in cotton production fluctuates between a minimum of 1.44 year 2008 and a maximum of 34.91 year 2003, with an average of about 10during the average of the period (2000-2017 (.

The Cotton Analysis Matrix: The Policy Analysis Matrix is an arithmetic framework that helps in fragmenting the commodity system into its basic components, PAM is measured in two types of prices: private and social, which is represented in private profitability estimated at private prices, social profitability estimated at social or shadow prices, is the difference between revenues and costs, policy analysis matrix, the basis of the profit equation (Monke & Pearson, 1989, P P.23-24) the following: -

Profit = Revenue – Cost of tradable inputs – Costs of domestic factors

The variations of the previous equation are calculated at the price of the private market or the local market price, and in real or social price.



Profit = e (P q) Q – e (P t) It – (Pn) In

E = Exchange rate equilibrium	**Pt**=price of Tradable In puts	= **Q**uantity of outputs	**In**=quantity non
Pq=price of output	Pn=quantity of Domestic Resources	**It**= quantity of Tradable In puts	Tradable In puts.

The first row of the matrix represents the private market price (local prices) of the commodity system for both gross return (A) and tradable inputs (B), cost of local resources (C) and private profits (D). The second row represents social prices (shadow prices) for each return Total (E), cost of inputs tradable (F), cost of local resources (G), and social profits (H). Some criteria and metrics can be derived from the policy analysis matrix as follows: - Private or financial profit: (Financial Profitability) is the difference between the sum Total revenue (A) or per unit sold and production costs which include costs Inputs of stores with it (B) and local resource costs (C), **Private profit = Private revenue – Private cost of tradable inputs – Private cost of domestic factors**, can be obtained according to the following formula:

D = A - (B + C)

Table: (4) Policy Analysis Matrix

Description	Revenue	Costs		Profits
		Tradable In puts	Domestic Resources	
Private price	**A**	**B**	**C**	**D**
Social price	**E**	**F**	**G**	**H**
Divergences	**I**	**J**	**K**	**L**

Source: Monke, Eric, A. and Scott, r., Pearson, (1989), P.15

Social or economic profit (SP): is the difference between revenues and costs (tradable and domestic local) and evaluated at social prices, **Social profit= Social revenue – Social cost of tradable inputs – Social cost of domestic factors**, and can be obtained according to the following formula:

H = E - (F + G), if the value of (H) is greater than zero then the commodity has a comparative advantage.

Net transfers: shows the efficiency of the agricultural system and clarifies whether government intervention policies are positive or negative over the commodity system. Positive net transfers mean that the commodity system is subject to taxes and it is not supported and is calculated

L = D - H

Nominal Protection Coefficient of Outputs: divided revenue at local market prices (A) to revenue at social prices (E) and obtained according to the following formula: -

NPCO = A / E

Indicates the level of protection for the main product and if (NPCO >1), then the system benefits from protection and if it is less than 1 the system is subject to taxes**.**

Nominal Protection Coefficient of Inputs: It is the division of the cost of tradable inputs (B) at private prices to their cost (F) at social prices and is calculated according to the following formula:

NPCI = B / F

Profitability coefficient (PC): - It is the division of the private profits (D) of the commodity system into social profits (H) and it can be obtained according to the following formula:

PC = D / H = {(A - B - C) / (E - F – G)}

(PC) measures the policy reflection on system profitability. If it is greater than 1, the system will benefit from net transfers from the sector. If it is less than 1, the economy will benefit from net transfers from the system.

The social benefit cost ratio (SCB): It can be obtained according to the following formula

[(F + G) / E]

Another indication of the system's comparative advantage. It takes into account the total cost of production (F + G) in domestic resources only, and it is appropriate when the costs are different "tradable and non-tradable", while DRC is biased in tradable inputs.

Effective Protection Factor (EPC): - It represents the ratio of value added at the local market price to value added at the social price. The value added at the local market price is revenue (A) at the local market price minus the cost of tradable inputs (B) at the local market prices (Private price), and the value added at the social price is revenue (E) at the social price minus the cost of the inputs Traders (F) with social prices, calculated according to the following formula

EPC = (A - B) / (E – F)

Indicates the level of protection, taking into account the impact of policies on the private value of tradable products and tradable input.

Product Support Ratio: (PSR): it is an indicator for identifying the percentage of net transfers (L) from the value of the social revenue (E) of the commodity system, it shows the extent to which the returns of the commodity system increase or decrease due to government intervention policy and also shows the influence of the influence of the various factors in the system The commodity is like government intervention and the rest of the factors and is calculated according to the following formula:

PSR = E / L = (D - E) / H x 100

Policy reversal index / market distortion indicates an increase or decrease in total system revenue in social prices, i.e. the size of the difference from the reference situation in social prices to the current situation in market prices.

Product Support Equivalency (ESP): calculated according to the following formula:

ESR = [L / A]

That indication of policy reversal / market distortion on the increase or decrease of system revenue at market prices. It equals the equivalent support for the PSE product as defined by the OECD for trade negotiations. If it is positive, it supports the product, and if it is negative, it supports the consumer.

The ratio of the private costs: (PCR), which is an indicator that reflects the competitiveness of the commodity system, and represents the division of the costs of local resources (C) at private prices by the value added at private prices ((VA = A - B) and is calculated according to the following formula: -

PCR = C / (A – B (

The financial cost-benefit ratio FCB is an indication of system competitiveness if the value of FCB is less than 1 the system is competitive, if it is greater than 1 the system is not competitive and financial profitability is negative

The cost of the local resource: (DRC): it is an indicator of the relative advantage of the commodity system and the extent of its competition at the global level and represents the division of the costs of local resources (G) in social prices (Social price) by the added value in social prices (VA = E - F) and is calculated according to the following formula

DRC = G / (E – F)

System comparative index,. If (DRC <1), then the system has a comparative advantage which means that we use local resources with a lower value, than the added value (VA = E-F) and if the (DRC >1), then the system does not have the relative advantage and social profitability is negative.

Results of applying the policy analysis matrix:

Estimating Economic and Financial Profitability: The summary results on protection coefficients on cotton in Egypt are reported in Table (5)**,** It is clear from the results of estimating the policy analysis matrix (PAM), that the value of production transfers or the impact of the policy on production (I) is a negative value and its value were (3300) pounds, which indicates that local producers receive a lower return if the private prices are Sale prices compared to social returns, whereas the value of transfers of inputs tradable with (J) is positive, were 153 pounds, which indicates that the social prices of inputs tradable with (F) are lower than the private prices (B), which means that there is no real support for tradable inputs within the policy, and the value of local resource transfers (K) were 1140 pounds, and the positive signal indicates that there is no Support to local resources because their value in private prices is higher than their value in social prices, while the negative value of private profit (D) were (280) pounds, that cotton production does not achieve good private profits for local producers, and the value of social profitability (H) were (4312) (L E), and the positive indication indicates that the local product achieves profits if the social prices are selling prices, meaning that there is no government support for the output, while the value of net transfers (L) were (-4593) (EGP), the negative

signal indicates that the effect of the policy The Egyptian government does not favor the cotton yolk producers Yin in the short term, ie, with the opposite effect.

Table (5): policy analysis matrix for cotton crop in Egypt, an average period (2000-2017) (L E)

description	Revenue	Costs		Profits
		Tradable Costs	Domestic Resources	
Private price	**A** **4979**	**B** **1829**	**C** **3430**	**D** **-280**
Social price	**E** **8279**	**F** **1676**	**G** **2290**	**H** **4312**
Divergences	**I** **-3300**	**J** **153**	**K** **1140**	**L** **-4593**

*Difference between Market Prices And Economic Prices.

Measuring the impact of the interventionist policy (protection factors and comparative advantage Measures of Comparative Advantage & Measures of Protection:

Depending on the estimates of the policy analysis matrix shown in table (6), some indicators can be reached through which the effect of government intervention policy on prices can be measured, which includes protection factors and the comparative advantage as follows:

Table (6): Results of the cotton Matrix of Policy Analysis average period (2000-2017)

	VALUE
Nominal Protection Coefficient for Outputs	0.601
Nominal Protection Coefficient for Inputs	1.091
Effective Protection Coefficient	0.477
Profitability Coefficient	-0.065
Producer Subsidy Ratio	-55.478
Private Cost Ratio	1.089
Domestic Resource Cost Coefficient	0.347

Second: Economic Protection Indicators:

Nominal Protection Coefficient: Nominal Protection Coefficient measures the impact of policies on both the product price and the price of inputs. Distortions in the range of domestic prices relative to international prices are highlighted by direct and indirect taxes on the product or product support, if they are The average value of (NPC) is greater than the correct one means that the product is subsidized by the state, while if it is less than the correct one means that there are taxes imposed on the product by the state, while if it is equal to the correct one means that the price at which the product is treated equals the world price, There is no government intervention in the market, and it is clear M. Table (6) that the average value of the nominal protection coefficient of the outputs (NPCO) is positive and less than the correct one, its value were 0.601, which means that local producers receive lower prices for their products than international prices (social prices), that is, the protection is negative for the local product, and that the value of The nominal protection factor for the inputs (NPCI) is positive and greater than the correct one were 1.091, which indicates that the prices of tradable inputs are greater than the prices of its global counterpart, and the government policies are increasing input costs for cotton and this confirms that there is no real support provided to inputs.

- In every case indicate that **(B) Effective Protection Coefficient:** It is used to measure whether there is protection or incentives for production or taxation, or in other words, it measures the overall impact of an outcome Policies on tradable goods and inputs. It is a value added to the product or to the resources used to produce the product. If the EPC value is greater than one means there is protection and incentives for production, or a subsidy for two products, and if it is less than the correct one means that there are taxes on the product. It is clear from the table (6) that The average value of the effective protection coefficient is positive and less than the one correct were 0.477, which shows that the return of local producers in the case of an interventionist price policy is less than their return in the case of non-interference, that is, the value added in private prices is less than the value added in prices, The average rate of social profit factor were 0.065 - less than the correct one and with a negative value, meaning that the commodity system loses its profits in favor of other

sectors due to the impact of the state's interventionist policy on the commodity system, and it can be explained Product and The average subsidy ratio were 55.478%- that is, there are disincentives and taxes facing the local product in addition to the lack of real support, and the percentage of private costs came with a value greater than the correct one, The average value were 1.089, which indicates that the net added value (VA = AB) obtained at prices The private sector is less than the production costs, meaning that investing in cotton does not achieve profitable private profits for local investors, meaning that this commodity system has no competitiveness, and this shows the negative indication of The average value of private profit (D) were, 280pounds.

- **Domestic Resource Cost (DRC):** The value of the local resource cost factor is an indication of the comparative and competitive advantage of the commodity system where the indicator reflects the efficiency of using local resources, and The average value of (DRC) were0.347 which is less than the correct one, which shows Egypt has a comparative advantage in cotton production and efficiency in using local resources and its stores, and this production is socially profitable.

Table (7): Results of Cotton Sensitivity Analysis average period ((2017-2000

description	actual	10% revenue increase	10% cost decrease	10% revenue increase & 10% cost decrease
Private price	**-280**	**217.9**	**-97.1**	**400.8**
Social price	**4312**	**4312**	**4312**	**4312**
Nominal Protection Coefficient for Outputs	**0.601**	**0.601**	**0.601**	**0.601**
Nominal Protection Coefficient for Inputs	**1.091**	**1.091**	**1.091**	**1.091**
Effective Protection Coefficient	**0.477**	**0.491**	**0.492**	**0.504**
Profitability Coefficient	**-0.065**	**0.042**	**-0.022**	**0.076**
Producer Subsidy Ratio	**-55.478**	**-54.058**	**-55.293**	**-53.890**
Private Cost Ratio	**1.089**	**0.940**	**1.029**	**0.895**
Domestic Resource Cost Coefficient	**0.347**	**0.308**	**0.338**	**0.301**

Source: Collected and calculated from data: - Ministry of Agriculture and Land Reclamation, Economic Affairs

Sensitivity analyses on profitability products and production costs and **comparative advantages:** sensitivity analyses are conducted to test whether the results would be substantially altered by changes in the underlying assumptions (Yao, 1997), In the first scenario, increasing revenues are increased by 10% a result Higher productivity. The results indicate that this change does not affect the comparative rankings. Similarly, rankings remain unchanged when costs reduced by10% as a result of efficient use of productive resources. Third scenario, revenue increases by 10% and costs decrease by 10%. Table (7) shows that the increase in revenue by 10%, the effective protection factor for production will increase to about 0.491 compared to the actual situation of 0.477, while in the case of a decrease, The costs of tradable inputs by 10%, as a result of efficient use of productive resources, the effective protection factor for production will increase to about 0.492 compared to the actual situation, and for an increase in revenue by (10%) and a decrease in the costs of tradable inputs by (10%), the effective protection factor for production will increase To about 0.504 compared to the actual situation, as the increase in revenues by 10%, the coefficient of the cost of local resources "comparative advantage" will decrease from about 0.347 to about 0.308, while in the case of lower costs of tradable inputs by 10%, the coefficient of cost of local resources will decrease To about 0.338, given To increase revenue (10%) and low tradable input costs (10%), the cost of domestic resources plants will be reduced to about 0.301, The costs of tradable inputs by 10%, as a result of efficient use of productive resources, the effective protection factor for production will increase to about 0.492 compared to the actual situation, and for an increase in revenue by (10%) and a decrease in the costs of tradable inputs by (10%), the effective protection factor for production will increase To about0.504 compared to the actual situation, as the increase in revenues by 10%, the coefficient of the cost of local resources "comparative advantage" will decrease from about 0.347 to about 0.308, while in the case of lower costs of tradable inputs by 10%, the coefficient of cost of local resources will decrease To about 0.338, given To increase revenue (10%) and low tradable input costs (10%), the cost of domestic resources plants will be reduced to about 0.301.

Textile sector in Egypt: Cotton is processed into yarn and then fabric, The Egyptian textile and clothing industry is one of the leading segments of the Egyptian economy, Egypt has a total of 2,525 textile companies, (25) companies are governmental with the Holding Company for Spinning, Weaving, and Textiles

(HCSWT), and (2.500) are private, It is one of the prominent sectors of Egyptian economy in terms of its contribution to output, contributes about %3 of the Egyptian national income employment and forex, about %30 of industrial employment, 2017, provides direct employment to over 1.2 million people, and textile exports represent %15of Egypt's non-oil exports, the textile industry contributes about %16 of the rate of industrial growth, textile and clothing industries are important in economic and social terms, it is providing incomes, jobs, especially for women, and foreign currency receipts, providing Egypt the opportunity for sustained economic development, Egyptian textile industry is characterized by its vertical integration, figure (5) starting from the stage of agriculture for cotton and then ginning, dyeing and processing until the production of yarn and ready-made clothes as a finished product, and therefore the added value of the textile sector is high, Supply Chain integration in the Egyptian Textile and Clothing Industry for the Export Markets, Egypt involves complete production process right from the cultivation of cotton, to the making of yarns, fabrics, and ready-made apparel, market and producer support policies in the textiles industry from the perspective of (1) the structural changes in the industry, especially in the cotton and synthetic textile supply and demand at various stages of production; (2) the emergence of retail marketing; and (3) the importance of human resource development for the future of the textiles and clothing sector.

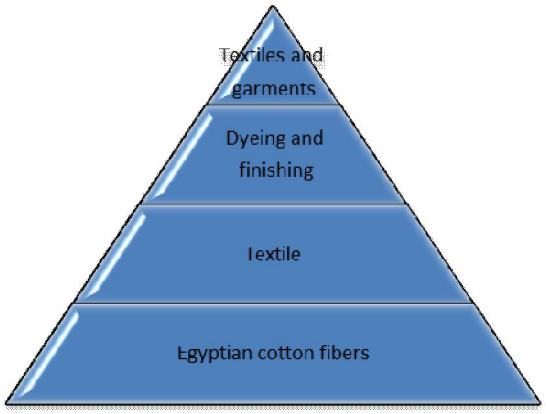


Figure (5) vertical integration in textile industry

The impact of textile and clothing industries on social and economic development:

- Cotton has maintained a significant place in the Egyptian economic and political history.
- Textile and clothing industries are a major contributor to incomes Egypt.
- Textile and clothing industries are the dominant source of exports and foreign exchange in Egypt.
- Textile and clothing industries have significant effects on Employment jobs, especially for women.
- Poverty reduction strategies shed light on the importance of textiles and clothing in achieving development goals.

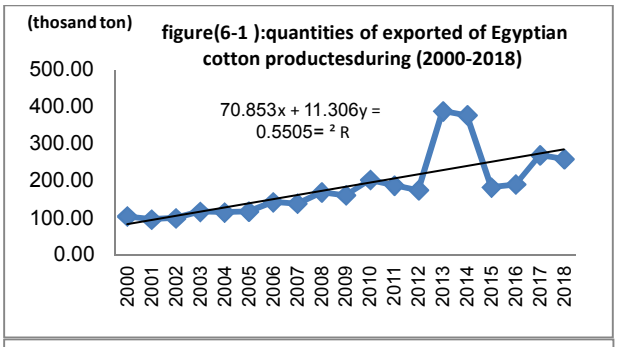
Table (8): geographical distribution of Egyptian cotton product export, year 2018

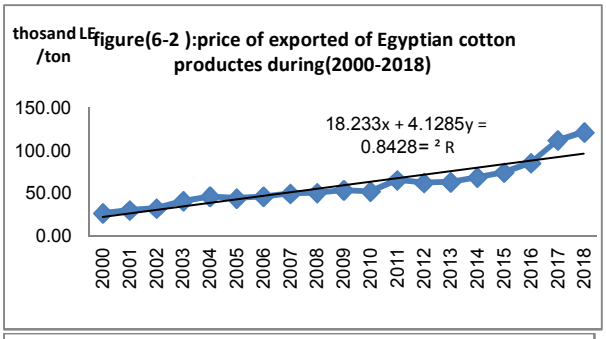
country	Ready – made garments		Spinning and weaving manufacturing		Tricot manufacturing	
	ton	Thousand pound	ton	Thousand pound	ton	Thousand pound
Asia	13101	1841560	19274	1308679	3226	429244
western Europe	34623	4843614	7173	505605	20618	2658365
Eastern Europe	1385	191658	70	4537	1048	130850
Arabic countries	3517	490689	8071	539121	2503	314884
Americas	42201	6487107	272	17695	37254	4745096
Africa	179	24914	138	9348	175	21695
Australia	258	36854	0	0	215	26869
free zone areas	0	0	216	24562	0	0
total	95264	13916396	34998	2384985	65039	8327003

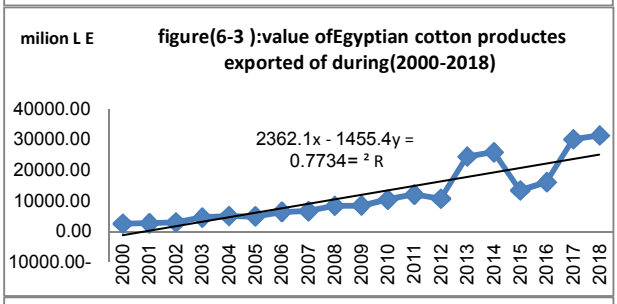
Source: textile consolidation fund, 2019.

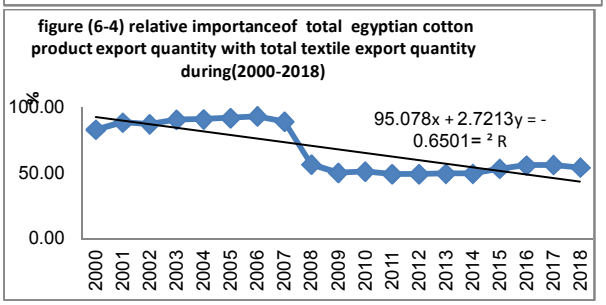
The current status and the future perception of Egyptian textile industries: The Arab Republic of Egypt exported L E 13916 million of cotton Ready – made garments, L E 2385 million of cotton Spinning and weaving manufacturing, L E 8327 million of cotton Tricot manufacturing, in 2018, importers of Egyptian textiles in 2018. Altogether, these top three accounted for 92.7% of Egyptian textile imports in 2018, including Americas 45.7%, western Europe and 14.5% for Asia, Table (8).

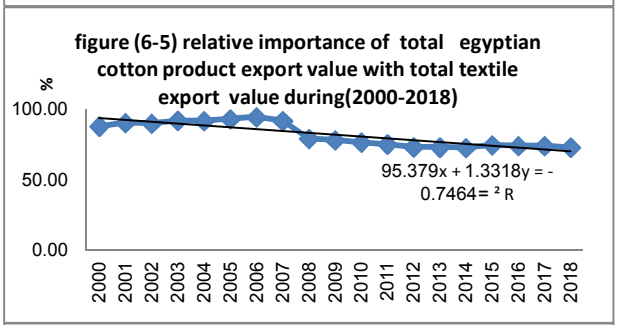
Egyptian exports of cotton products were valued at LE 31529.4 million in 2018**,** importers of Egyptian textiles in 2018, including Americas 45.7%, west Europe and 14.5% for Asia, these top three accounted for 92.7% of Egyptian textile imports in 2018.

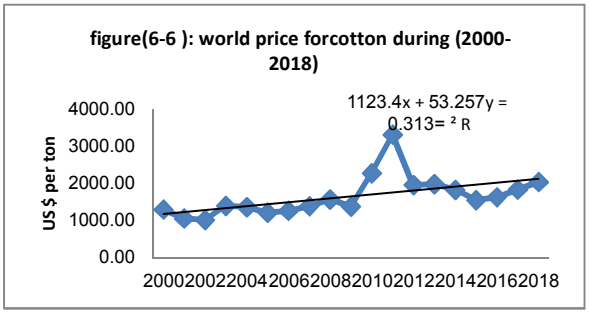


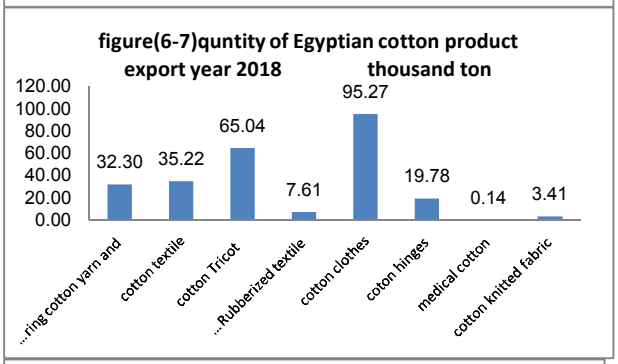


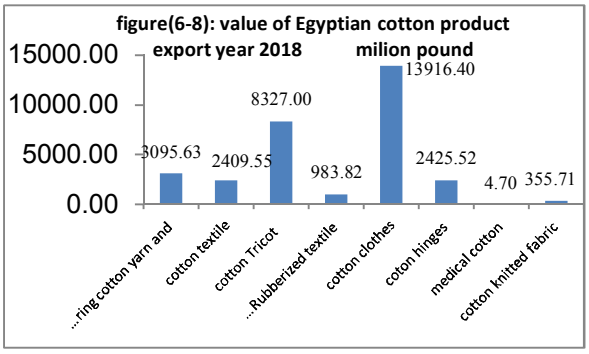


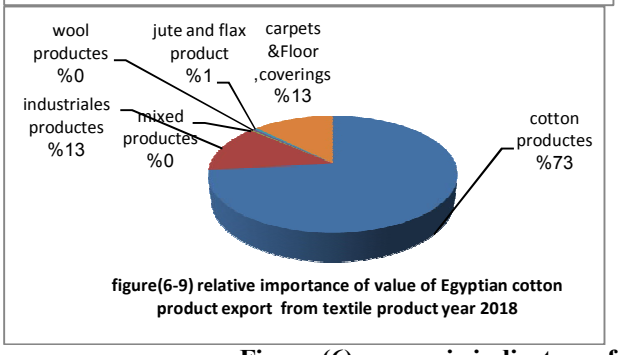












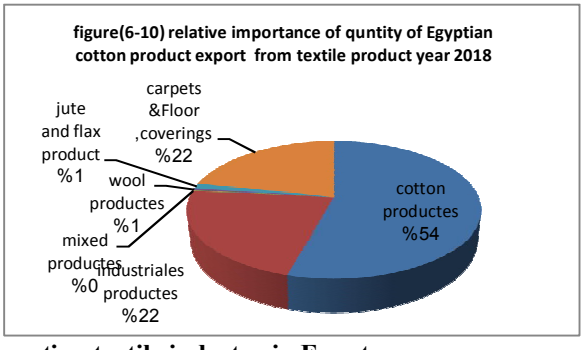


Figure (6) economic indicators of Egyptian textile industry in Egypt

Source: Textile Consolidation Fund, Alexandria, various issues.

The organized textile industry in Egypt with a capacity of 1.131 million yarn machines, representing the percentage of spinning machines that will be dispensed with (appraising) about 50.72 % of the total spinning machines, as has reached The number of weaving machines is about 2.68 thousand looms, which represents the percentage of looms that will be dispensed with (appraised) about 66.42 %of the total loom, and 215 dyeing, processing and printing machines, representing the percentage of dyeing, processing and printing machines that will be dispensed with (appraising) about 62.79%of the total dyeing Processing and printing machines, and then will buy new machinery to modernize the textile sector, table (9).

Table (9): Current situation and future perception of spinning, weaving, dyeing, finishing and printing machines in Egypt

Description	Current situation	The machines that will be dispensed with (speculation)	The machines that will be kept	New machines to be purchased	total
Spinning **Spindles** machines (marden)	1.131.44	573.82	557.61	803.08	1.360.69
weaving machinery (loom)	2.68	1.78	899	1.62	2.51
Dyeing, processing and printing machinery (machine)	215	135	80	118	198

Source: Prepared by the researcher based on the Egyptian Cotton Strategy, February 2019.

The effect of development of Egyptian textile industries machinery in Egypt: The results demonstrated in table (10) illustrated The current production capacities are about37 thousand tons of yarn per year, which will increase to188 thousand tons of yarn per year, an increase of about 151 thousand tons of yarn per year, representing 408 % of the current productivity, due to adopting modern production technologies in **textile industries** (10), in addition, the current production capacities of fabric 50million meters per year, will increase to 98 million meters per year, with an increase about48 million meters per year, representing about 96 % of the current productivity. Also, the current production capacities of made clothes and others are about 8 million pieces per year. Will increase to50 million pieces per year, an increase of about42 million pieces per year represent 525 % of the current production.

Table (10): The effect of development on spinning, weaving, dyeing, processing and printing machines on productivity in Egypt

Description	Spinning (000 tons per year)	weaving (million meter per year)	Ready-made Finishing clothe garment industries,…etc. (million pieces per year)
Current production capacities	37	50	8
Expected production capacities after development	188	98	50
Expected increase rate%	408%	96%	525%

Source: Prepared by the researcher based on the Egyptian Cotton Strategy, February 2019

Revealed Comparative Advantage index of textile products (RCA) during period (2016-2007): To analyze the export performance of the Egyptian textile industry, in the value of the revealed comparative advantage coefficient for Egyptian textile product exports exceeds the correct one during average period (2007-2016) and the value of the revealed comparative advantage of Egypt in cotton production fluctuates between a minimum of 1.67 years 2008, and a maximum of about 2.82 in 2015, table (11) with an average of about2.31 during average period (2007-2016).

Table (11) Evolution of the Revealed comparative advantage factor for Egyptian textile products exports during the period (2016-2007)

(RCA)	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
(Egypt RCA)	**0.89**	**1.67**	**2.26**	**2.58**	**2.60**	**2.44**	**2.53**	**2.55**	**2.82**	**2.80**

Source:. (www.Trademap.org)

Study of the most important economic variables affecting the value of Egyptian exports of cotton textiles during (2000-2016): Egypt's ability to increase the value of Egyptian exports of cotton textiles (y) in the world trade is affected by effect by some independent variables as follows:

$y= a\pm b_1x_1\pm {}_2x_2\pm b_3x_3\pm b_4x_{4+}\pm b_5x_5\pm b_6x_6\pm b_7x_7\pm b_8x_8+$

Where

x_1: the quantity of domestic production of cotton (thousand qentar metric)

x_2: exchange rate EGP / USD

x_3: The value of raw cotton exports in million pounds at constant prices

x_4: population: million

x_5: The value of spinning and weaving imports in million pounds at constant prices

x_6: The value of textile production in million pounds at constant prices

x_7: Ratio of the local price of cotton yarn to the international price (dollars / ton)

x_8: Average income per capita (pounds / year) at constant prices

: random error

The double logarithmic image is considered the best statistically from the function, and it is consistent with the economic logic as follows:

$$\underset{}{\mathbf{LnY= 0.401+ 0.25\ lnX_1 + 0.12ln\ X_2 - 0.22lnX_3 - 1.18\ ln\ X_4 + 0.34\ ln\ X5+ 1.45ln\ X_6 - 0.41\ ln\ X_7 - 0.41\ ln\ X_8 - 0.41\ ln\ X_9}}$$

$$\underset{}{(4.56)^{*}\quad (1.24)\quad (-2.45)^{*}\quad (3.50)^{*}\quad (4.88)^{*}\quad (5.53)^{*}\quad (-5.35)^{*}\quad (-4.42)\quad (-8.24)^{*}}$$

$$R^2=0.95 F=25^{**}$$

The value of (F) shows the statistical significance of the model, and it is clear from equation (1) that the variables of the model are responsible and explain about 95% of the changes in the value of Egyptian exports of cotton textiles "y", where there are independent factors that affect the value of Egyptian exports from Cotton textiles have proven significant, namely (x_1 (the quantity of domestic production of cotton (thousand qentar metric), (x_3) The value of raw cotton exports in million pounds at constant prices, (x_4) population, (x_5) The value of spinning and weaving imports in million pounds at constant prices (x6) The value of textile production in million pounds at constant prices, (x7) Ratio of the local price of cotton yarn to the international price (dollars / ton), (x8) Average income per capita (pounds / year) at constant prices, Because of consumers' purchasing power often measured by GDP per capita, and size of the population.

- The decline of world textile and apparel exports must also related to the ability of consumption from consumers.
- The impact of trade policy on trade flows, it would increase dollar value of world textiles and apparel exports because of a free flow of goods in the global economy.

Summary: From the whole above discussion it is absolutely clear that textile industry is mostly dependent upon cultivation area and cotton production in Egypt. The cotton crop is one of the main pillars of the national economy, and it is one of the most important industrial and export crops in the Egyptian economy. Despite the interest of the Egyptian government and foreign and local investors in developing the textile industries in Egypt and increasing production and export, the cultivated areas and the quantities exported of Egyptian cotton have declined, and many traditional foreign markets have been lost, The research problem is represented in studying the role of the Egyptian agricultural policies in achieving the sustainability of the cotton crop, and limiting the causes of the deterioration of its cultivation, production, manufacture and exports, despite the existence of appropriate conditions for its cultivation and its distinctive characteristics, and then the research aimed to extract the results and indicators that can guide decision makers and agricultural policy makers in planning future strategies to enhance Egyptian cotton production in line with local consumer needs and global changes, and the research used a matrix policy analysis method, to analyze agricultural policies to extract indicators and criteria used to determine the impact of governmental agricultural policies on cotton production in Egypt. the research showed that the cotton crop doesn't enjoys direct or indirect support by The country, whereas the value of transfers of inputs tradable with (J) is positive, which indicates that the social prices of inputs tradable with (F) are lower than the private prices (B), which means that there is no real support for tradable inputs within the policy, and the value of domestic resource "local" transfers (K) were 1140 pounds, and the positive signal indicates that there is no Support to local resources**,** The average value of (DRC) were 0.347 which is less than the correct one, which shows Egypt has a comparative advantage in cotton production and efficiency in using local resources and its stores, and this production is socially profitable.

Recommendations:

Based on the findings of the research, some recommendations can be proposed to contribute to planning the productive and industrial policies of cotton in line with global changes and available local resources. Perhaps the most important of them are: **support research on increasing productivity, reducing production costs, and** continuing to provide both direct and indirect support to cotton farmers, which is consistent with what is permitted in The framework of international trade agreements, given that the cotton crop is the main source of the textile industry in Egypt, and reducing dependence on international markets to manage part of the domestic needs of the textile factories and the conditions imposed by those markets and thus reducing the deficit in the balance of payments in addition Li reduce the risks associated with those markets, and the possibility of facing competition from cotton producing countries, which provide support to their producers.

References:

1. Abdel-Aziz, A.I. Comparative Advantage of Palestinian Agriculture (Policy Analysis Matrix Approach), FAO Policy Analysis Training Consultant, Jerusalem, (1996).
2. Aglan, S. 2003. "Industrial Development", in El-Ghonemy, M. R. (ed.) Egypt in the Twenty-First Century: Challenges for Development. London: Rout ledge Curzon.
3. Ahmed Salman et al. The optimum Properties of Treated Knitted Fabrics to Resist Growth of Bacteria (candida albicans). International Design Journal, Volume 8, Issue 1. January 2018.pp186:187.
4. Annual Bulletin of Income Estimates from the Agricultural Sector various issues, Central Agency for Public Mobilization and Statistics, various issues.
5. AQUASTAT - FAO's Global Information System on Water and Agriculture website: http://www.fao.org/aquastat
6. Central Agency for Public Mobilization and Statistics, Egypt Bulletin in Figures, Cairo, various issues.
7. Central Agency for Public Mobilization and Statistics, Annual Statistical Book - Population, Cairo, various issues.
8. Cotton World Statistics Cotton Advisory Committee, various issues. Cotton Textile Consolidation Fund, Alexandria, various issues.
9. FAO, "Agricultural Price and Marketing Policy: Government and the Market", Training Manual, 1992.
10. Isabelle Tsakok, "Agricultural Price Policy", Ithaca, Cornell University Press, 1990.
11. Khaled El-Sayed Abdel-Mawla Mohamed (Doctor) - An economic study of the organic cotton crop in Egypt - The Egyptian Journal of Agricultural Economics - Volume (28) - No. (2) - June 2018.
12. Kydd J, Pearce R, Stockbridge M.1997. The economic analysis of commodity systems: extending the policy analysis matrix to account for environmental effects and transaction costs. Agricultural Systems 55(2): 323–345.
13. Kubursi, Atif Abdallah, Lebanon's Agricultural Potential: A Policy Analysis Matrix Approach. McMaster University and Econometric Research limited, Lebanon, (2001).
14. Ministry of Agriculture and Land Reclamation (MALR), Agricultural Research and Development Council, Sustainable Agricultural Development Strategy 2030, January 2009.
15. Ministry of Agriculture and Land Reclamation, Economic Affairs Sector, Agricultural Statistics Bulletin, various issues.
16. Monke, E. A., and Pearson S. R. The Policy Analysis Matrix for Agricultural Development. Ithaca, NY, Cornell University Press, (1989).
17. National planning institute–challenges facing t & c industries – Egyptian magazine of planning and development, No. (18), volume (2), December, 2010, pp 2164-2265.
18. The Harvard Institute for international Development, "Economic Analysis of Agricultural Policies: a basic training manual with special reference to price analysis", 1992. (www.Trademap.org).
19. Rania Abd-Allah El-Saeed Tolba & Eman Abd-Allah Abd-Allah, Economic Impacts of Import Substitution Policy: A Case Study of Cotton Crop, Egyptian magazine of agricultural economics, No. (28), Volume (3), September 2018, pp1355-1364.
20. Yao, S. 1997. Comparative advantages and crop diversification: a policy analysis matrix for Thai agriculture. J. Agric. Econ. 48: 211-222.

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